JACKSON STATE UNIVERSITY

GRADUATE CATALOG

2023-2024

DIVISION OF GRADUATE STUDIES

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GRADUATE

2023-2024 Graduate Catalog

Jackson, Mississippi 39217

VOLUME XXIV

All statements in this catalog are announcements of present policies only and are subject to change at any time by proper authority without prior notice.

Jackson State University is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, national origin, disability status, protected veteran status, or any other characteristic protected by law.

Jackson State University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, specialists, and doctorate degrees. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Jackson State University.

The official mailing address for the University is as follows:

1400 John R. Lynch Street Jackson, Mississippi 39217

Telephone: (601) 979-2121

www.jsums.edu (http://www.jsums.edu/)

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College of Science, Engineering, and Technology

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Dr. Chali Nondo, Business Administration
Dr. Whitney Perkins, Communicative Disorders
Dr. Marinelle Payton, Public Health (Epidemiology)
Dr. Dion Porter, Counseling, Rehabilitation and Psychometric Services
Dr. Sheila Porterfield, Associate Dean, College of Business
Dr. Keith Riley, JSU Online
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Dr. April Tanner, Computer Science
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Graduate Student Success Coaches

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College of Business

Dr. Fidelis M. Ikem, Dean
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Mission

The College of Business provides an undergraduate and graduate management education to a student body that is growing in diversity, by serving students from the southern region, expanding our national presence, and with growing emphasis serving international students. We focus on students and families who value the HBCU educational experience and on educating those from historically disadvantaged backgrounds. Our faculty, serving at the only major urban university in the state of Mississippi, actively engage in research and value excellence in the classroom as they prepare our students to provide creative business-centered solutions that promote economic and social advancement in local and national economies. The College produces ethical, technologically advanced, and globally aware business leaders.

Vision

The College of Business seeks to be recognized for having a positive impact on the lives of our students, successful career progression of our faculty, and contributions to the prosperity of the local community, metro Jackson, and the State of Mississippi. We will achieve our vision through offering unique educational opportunities and rigorous academic standards in the classroom, providing a supportive environment for faculty to excel in teaching and service, promoting relevant, high quality and highly impactful scholarship, and contributing to the economic development of the region and the state through national and global partnerships with educators and business owners.

The College of Business offers, through the departments of Accounting, Finance, and Entrepreneurship; and Management, Marketing, and Economics, the Master of Business Administration (MBA) in a traditional classroom format and online (MBA Online), the Master of Professional Accountancy (MPA), and Doctor of Philosophy (Ph.D.) degrees.

Business Graduate Programs

- Master of Business Administration
- Master of Professional Accountancy

Program Director: Nizar M. Alsharari, Ph.D.
Associate Professor of Accounting

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- Department of Accounting, Finance & Entrepreneurship (p. 6)
- Department of Business Administration (p. 9)

Department of Accounting, Finance & Entrepreneurship

Dr. Bobbie Daniels, Associate Professor and Interim Chair
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Faculty

Dr. Nizar Alsharari, Associate Professor
Dr. Bobbie Daniels, Associate Professor
Dr. Lydia Didia, Assistant Professor
Richard L. Russell, JD, MBA, CPA, Associate Professor
Dr. Sharon Simmons, Associate Professor
Dr. Geungu Yu, Professor

Goals of the Master of Professional Accountancy Program

The MPA degree as structured is viewed as a terminal degree necessary for entry into professional accounting positions in public accounting, industry, government and health and social institutions.

The goals of the MPA program are:

- To instill in students a broad perspective of the accounting environment;
- To equip students with specific skills thereby enabling them to function productively;
- To provide students with a basic core of knowledge in business and management.

Admission Requirements

Admission to the MBA, MBA Online, and MPA programs is competitive. Students seeking admission to the MBA or MPA program must apply to the Graduate School online and submit the following admission portfolio materials.

1. Application to the Graduate School completed online;
2. Official undergraduate and graduate transcripts sent to the Graduate School; JSU alumni transcripts can be accessed electronically and do not need to be sent;
3. International applicants or those with degrees from international institutions must have their transcripts translated, if needed, and evaluated from a reputable international transcript evaluation agency;
4. Statement of Purpose uploaded to the application portal providing background information, motivation for pursuing graduate business education, and how the degree will help achieve professional goals;
5. Current professional resume uploaded to the application portal;
6. 3 Letters of recommendation from academic and/or professional references sent directly to the application portal;
7. Official GMAT score taken within the past five years;
8. An interview is optional;
9. Application fee of $25.00 for non-Mississippi residents;
10. Official TOEFL scores or IELTS (for international students only)

The GMAT may be waived under certain conditions such as:

- 3.0+ undergraduate GPA from a regionally accredited institution; **or**
- 3-5 years of professional work experience; **or**
- a professional certification in a business field such as CFA, PHR, CPA etc.; **or**
- an earned graduate degree such as MS, JD, MD, PhD.

A prospective student's overall application portfolio is evaluated to discern program fit and potential for success. A "cut-off" score for the GPA and GMAT are not used.

Regular Admissions

To be considered for Regular Admission into the MBA or the MPA program, an applicant must have at least a 3.0 cumulative undergraduate GPA from a regionally accredited institution.

Conditional Admissions

The College of Business may admit a limited number of students who meet with a cumulative undergraduate GPA of 2.5 - 2.99 whose application portfolio demonstrates strong potential for academic success. The number of students admitted in this category will not exceed 20% of the total number of students granted Regular Admission for the semester of application.

Scholastic Requirements

1. The College of Business requires all MBA and MPA students to maintain a minimum cumulative 3.00 grade point average.
2. A student who falls below 3.00 cumulative average (GPA) is placed on academic probation and will be requested to appear for counseling.
3. A student who falls below a 3.00 average for two consecutive semesters will be dismissed from the program.
4. No credit will be granted for any course with an assigned grade below "C" as applicable toward meeting the requirements for the MBA or MPA degree.
5. Any course to be taken outside the College of Business to be applied toward the degree requirements must receive prior approval in writing from the Director of Business Graduate Programs.
6. A minimum GPA of 3.00 is required overall and in required MBA and MPA courses for graduation.

Masters

- Accounting (M.P.A.) (p. 8)

Course Descriptions

ACC 501 FINANCIAL ACCTNG AND ANALYSIS (3 Hours)
A study of accounting transaction including the adjusting and closing process, financial statements preparation, and tools and techniques of financial statement analysis relative to financial position, results of operations, and cash flows as reported in corporate annual reports.

ACC 536 ADV & INTERNATIONAL ACCOUNTING (3 Hours)
Prerequisite: ACC 314, 315.
A study of advanced accounting issues concerning partnerships, consolidations, international operations, and International Financial Reporting Standards. Not open to those who completed ACC 436 at the undergraduate level.

ACC 540 ADV MANAGERIAL ACCOUNTNG (3 Hours)
Prerequisite: ACC 211, 212.
Study of managerial uses of accounting information and trends in internal accounting functions.

ACC 541 ADVANCED ACCOUNTING THRY (3 Hours)
Prerequisite: ACC 314.
A brief historical development of accounting thought followed by an intensive investigation of the theoretical framework on which accounting principles and procedures rest.

ACC 545 Financial Statement Analysis (3 Hours)
Prerequisite: ACC 211, 212.
This course offers a study of the tools and techniques utilized to analyze financial positions, results of operations, and cash flows s reported in corporate annual reports.

ACC 557 SEMINAR IN ATTESTATION (3 Hours)
Prerequisite: ACC 314, 315.
Study and refinement of generally accepted auditing standards, procedures and extension of auditing procedures; study of special investigations and audit reports; review of recent auditing trends, research, and pronouncements.

ACC 561 CPA REVIEW I (3 Hours)
Prerequisite: ACC 314.
A review of selected topics as tested on the Uniform CPA Examination.

ACC 565 SEM/N GVNMT & NOT FOR PRFT ACC (3 Hours)
Prerequisite: ACC 211, 212.
A study of generally accepted accounting principles of state and local governments and selected nonprofit entities with an emphasis on current developments in these areas.

ACC 573 ADV INCOME TAX ACCOUNTNG (3 Hours)
Prerequisite: ACC 423.
A study of federal and state income tax laws for fiduciaries, partnerships, and corporations utilizing modern research technology. Not open to those who completed ACC 473 at the undergraduate level.

ACC 575 RESEARCH IN TAXATION (3 Hours)
Prerequisite: ACC 423.
A study of selected tax issues and the application of tax research methodology. Topics include the tax research environment, primary and secondary sources of federal tax law, and implementing tax research tools.

ACC 592 ACCOUNTING INFORMATION SYSTEMS (3 Hours)
Prerequisite: ACC 314.
A study of theory and practice as applied to accounting information systems. The course examines the process for purchasing or designing accounting systems and a variety of topics dealing with the role of technology in building, implementing, controlling, and auditing accounting information systems. A secondary goal of the course is to help students become more comfortable using computer-based tools including e-mail, accounting software and the World Wide Web. Not open to those who completed ACC 492 at the undergraduate level.

ACC 790 SEMINAR IN ACCOUNTING RESEARCH (3 Hours)
This course introduces the students to contemporary issues in accounting education and accounting education research.

ACC 791 SEM IN ACCOUNTING RESEARCH I (3 Hours)
This course offers a study of the application of contemporary research methodology to selected subject areas in accounting including financial accounting and managerial accounting.

ACC 792 SEM IN ACCOUNTING RESEARCH II (3 Hours)
This course offers a continuation of ACC 791 with a focus of the application of contemporary research methodology to auditing and other accounting areas not covered in ACC 791.

ACC 799 DISSERTATION RESEARCH IN ACCOU (1-12 Hours)
Prerequisite: Consent of the chair of the Dissertation Committee.
Students will complete doctoral level research which must culminate in the successful development and defense of the dissertation in the field of Management. Students may register for more than one section in a given semester. A minimum of 21 credit hours of Ph.D. Dissertation is required.

Accounting (M.P.A.)

Master of Professional Accountancy Program

The MPA Program is open to anyone who has a baccalaureate degree from an accredited institution. The program consists of 30 semester hours of graduate course work. Generally, students with an undergraduate degree with a major in accounting will only have to take 30 semester hours of graduate work.

Students with an undergraduate degree with a major in a business discipline other than accounting must complete the undergraduate accounting prerequisite hours listed below before enrolling in graduate accounting courses.

Students with an undergraduate degree other than business or accounting must complete the undergraduate accounting and general business prerequisite hours listed below before enrolling in graduate courses.

Undergraduate Prerequisite Courses

Accounting

Code	Title	Hours
ACC 211	PRINCIPLES OF FINANCIAL ACCTNG	3
ACC 212	PRINCIPLES OF MANGERIAL ACCTNG	3
ACC 314	INTERMEDIATE ACCOUNTNG I	3
ACC 315	INTERMED ACCOUNTING II	3
ACC 423	INCOME TAX ACCOUNTING	3
ACC 455	AUDITING	3
Total Hours		**18**

General Business

Code	Title	Hours
GB 201	INTRO TO LEGAL ASPECTS OF BUSI	3
ECO 359	BUSINESS STATISTICS	3
ECO 211	PRINCIPLES OF MACROECONOMICS	3
ECO 212	PRINCIPLES OF MICROECONOMICS	3
MNGT 330	MANAGEMENT TO ORGANIZATIONS	3
MKT 351	MARKETING MANAGEMENT	3
Total Hours		**18**

Graduate MPA Courses

Code	Title	Hours
Accounting		
ACC 540	ADV MANAGERIAL ACCOUNTNG	3
ACC 541	ADVANCED ACCOUNTING THRY	3
ACC 557	SEMINAR IN ATTESTATION	3
ACC 565	SEM/N GVNMT & NOT FOR PRFT ACC	3
ACC 575	RESEARCH IN TAXATION	3
Electives: Accounting Courses		
Select two of the following:		6
ACC 536	ADV & INTERNATIONAL ACCOUNTING	
ACC 573	ADV INCOME TAX ACCOUNTNG	
ACC 592	ACCOUNTING INFORMATION SYSTEMS	
ACC 545	Financial Statement Analysis	
ACC 561	CPA REVIEW I	
Business Courses [1]		
MNGT 520	ADVANCED PRODUCTION MANAGEMENT	3
MNGT 516	STATISTICS BUSINESS DECS	3
FIN 515	MANAGERIAL FINANCE	3
Total Hours		**30**

[1] MPA students must complete 9 hours of graduate non- accounting business elective FIN 515 MANAGERIAL FINANCE; MNGT 516 STATISTICS BUSINESS DECS; and MNGT 520 ADVANCED PRODUCTION MANAGEMENT are required for students who have not recently completed similar courses in their undergraduate studies. Students who have recently completed similar undergraduate courses (e.g., production management or quantitative business analysis; six hours of statistics) may select other business electives, subject to the approval of the MPA advisor.

Selection of Accounting Electives Is Subject to the Following Constraints

1. Most accounting electives are split-level course offered to an individual student for either undergraduate or graduate credit but not both.
2. ACC 536 ADV & INTERNATIONAL ACCOUNTING is required for MPA students who did not complete an equivalent undergraduate course.
3. ACC 592 ACCOUNTING INFORMATION SYSTEMS is required for MPA students who did not complete an undergraduate accounting information systems course.

Department of Business Administration

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e-mail: chali.nondo@jsums.edu

Faculty

Dr. Okechukwu Anyamele, Professor
Dr. Jean-Claude Assad, Associate Professor
Dr. Young Rhee, Assistant Professor
Dr. Hyonsong Chong, Associate Professor
Dr. Edith Davidson, Associate Professor
Dr. Dal Didia, Professor
Dr. Sadia Khan, Associate Professor
Dr. Maury Granger, Professor
Dr. Fidel Ezeala-Harrison, Professor
Dr. Hyunseob Kim, Assistant Professor
Dr. Palaniappan Thiagarajan, Associate Professor

Goals of the Master of Business Administration Program

The MBA degree is designed to prepare working professionals for managerial and professional leadership responsibility in business, industry, and government.

The goals of the MBA program are:

- To develop advanced knowledge of business strategies and their application
- To apply global and ethical perspectives to business decision-making
- To build critical thinking, problem solving, and innovation skills
- To develop communication, leadership, and project management skills

Admission Requirements

Admission to the MBA, MBA Online, and MPA programs is competitive. Students seeking admission to the MBA or MPA program must apply to the Graduate School online and submit the following admission portfolio materials.

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Masters

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Doctoral

- Business (Ph.D.) (p. 13)

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Prerequisite: Consent of the chair of the Dissertation Committee.
Students will complete doctoral level research which must culminate in the successful development and defense of the dissertation in the field of Management. Students may register for more than one section in a given semester. A minimum of 21 credit hours of Ph.D. Dissertation is required.

ECO 511 MACROECONOMICS THEORY (3 Hours)
Macroeconomic concepts relating to the theory of income and employment. analysis of changes in the level of econoimc activity, economic growth and inflation.

ECO 512 MICROECONOMICS THEORY (3 Hours)
Detailed analysis of traditional microeconomic theory, including consumer behavior theories, theories of production, cost curves, market structure and factor price determination.

ECO 530 MANAGERIAL ECONOMICS (3 Hours)
Economic tools of analysis in the operation of a business; applied microeconomic, to solve selected business problems and to aid decision making in business firms and other organizations.

ECO 570 ECONOMICS SEMINAR (3 Hours)
Guided individual research in current economic problems, including research methodology.

ECO 711 ADVANCED MACROECONOMIC THEORY (3 Hours)
This course offers an analysis of static and dynamic theories of income, employment, and the price level. Other topics include analysis of real and monetary influences on economic growth, theories of investment and consumption, money demand, and stabilization theory and policy.

ECO 712 ADVANCED MICROECONOMIC THEORY (3 Hours)
This course offers an advanced analysis of microeconomic theory. Topics include consumer and producer behavior and determination of market prices, resource markets analysis, analysis of game theory, theories of uncertainty, general equilibrium, and welfare economics.

ECO 713 ADVANCED MONETARY & FISCAL ANA (3 Hours)
This course offers a comprehensive study of various aspects of monetary theory and fiscal economics, as well as the development and implementation of monetary and fiscal policies and their implications for economic growth and stability.

ECO 716 HISTORY OF ECONOMIC THOUGHT (3 Hours)
This course offers a review and analysis of major theories and current econoimc philosophy. Topics of coverage include the study of the contributions of the classical school, the marginalists, the neo-classicists, the institutionalist, the keynesians, the neo-keynesians, the modern school, and the new classical school.

ECO 725 METHODS OF URBN & REGIONL ANAL (3 Hours)
This course offers an analysis of the theory of urban and regional development and growth; economic analysis of urban problems and their solutions, analysis of land use, transportation, industrial development and urban planning models.

ECO 730 MANAGERIAL ECONOMICS (3 Hours)
This course offers an analsis of microeconomic theory as it applies to business operations. Topics include demand theory and estimation; production and cost theories and estimations, capital budgeting theory and analysis, pricing policies, and production under uncertainty.

ECO 735 SEM IN ECO HOUSING & URBAN TRA (3 Hours)
This course offers an analysis of selected problems of contemporary cities in housing, transportation and industrial development. Topics include analysis of costs and benefits of housing programs, distribution and use of transportation facilities and services, and analysis of economic implication of public policy initiatives pertaining to urban transportation.

ECO 746 SEMINAR IN INT'L TRADE & FINAN (3 Hours)
This course offers an analysis of theory and practice of international trade and finance. Topics of discussion include advantages and disadvantages of foreign trade, analysis of effects of tariffs and other restrictions on the flow of trade, and analysis of international commercial and monetary policies between countries.

ECO 760 ECONOMETRICS I (3 Hours)
This course offers exposure to the fundamental elements of economic modeling, construction, estimation and testing. It will cover; simple and multiple regression analysis, use of dummy variables, testing for multicollinearity, autocorrelation, heteroscedasticity, etc. Extensive use of statistical software is required.

ECO 762 ADVANCED ECONOMETRICS (3 Hours)
This course offers a continuation of Econometrics (ECO 760). Topics of discussion include multicollinearity, autoregressive and distributive lag models, autocorrelation problems and their correction, measurement errors problems, simultaneous equations models, identification problems, etc. Extensive use of statistical software is required.

ECO 799 DISSERTATION (1-12 Hours)
Prerequisite: Consent of the chair of the Dissertation Committee.
Sutdents will complete doctoral level research which must culminate in the successful development and defense of the dissertation in the field of Economics. Students may register for more than one section in a given semester. A minimum of 21 credit hours of Ph.D. Dissertation is required.

FIN 515 MANAGERIAL FINANCE (3 Hours)
Prerequisite: GB 320 or equivalent.
A study of capital budgeting techniques, methods of determining a firm's cost of capital, valuing stocks and bonds, and international finance.

FIN 547 INVESTMENTS (3 Hours)

FIN 561 SEM N BUS ADMN & RESEARCH PROJ (3 Hours)
Prerequsite: 24 hours of MBA course work. Requirement: Supervised individual research relative to the student's research project required for completion of the degree program.

MNGT 502 HUMAN RELATIONS & ORGAN BEHAVI (3 Hours)
Prerequisite: MNGT 330 or equivalent.
A study of organizational theory, group behavior, motivation, and systems applications to organizational management.

MNGT 516 STATISTICS BUSINESS DECS (3 Hours)
Prerequisite: MATH 231 and/or MNGT 510, ECO 357, 358 or equivalent.
A study o data collection, presentation, and analysis including interval estimation, hypothesis testing, Bayesian analysis, regression, and correction techniques.

MNGT 520 ADVANCED PRODUCTION MANAGEMENT (3 Hours)
Planning, organizing, and controlling production with emphasis upon contemporary quantitative techniques and their applications.

MNGT 555 BUSINESS & ETHICS (3 Hours)
The task of business ethics is the systematic study of ethical values that ought to guide human conduct; the study of what constitutes the obligations and responsibilities of agents and institutions; the examination of predictable outcomes in human costs and benefits; the study of character traits or dispositions--all in the interest of promoting human welfare.

MNGT 560 BUSINESS POLICY (3 Hours)
Requirement: This course is to be taken after the student has completed at least 27 hours in the MBA Program. Business policy is an interdisciplinary capstone course which focuses on all aspects of business.

MNGT 710 ADVANCED STATISTICAL METHODS I (3 Hours)
Prerequisite: MNGT 516 or equivalent.
This course offers a thorough coverage of univariate statistical inference. Topics include simple regression, analysis of variance, multiple regression and correlation, and moving average time-series models.

MNGT 711 ADVNCD STATISTICAL METHODS II (3 Hours)
Prerequisite: MNGT 710 or equivalent.
This course offers a continuation of MNGT 710. Topics to be covered include concepts and techniques of non-parametric statistics, advanced topics in regression, time series analysis, autocorrelation, auto-regressive moving average models, identification, fitting and forecasting.

MNGT 712 APPLIED MULTIVARIATE ANALYSIS (3 Hours)
Prerequisite: MNGT 710 or equivalent.
This course offers the doctoral students a thorough analysis of the theory and applications of multivariate methods. Topics to be covered include matrix algebra, factor analysis, canonical correlation, discriminant analysis and multivariate analysis of variance.

MNGT 714 RESEARCH METHODS (3 Hours)
This course focuses on social and behavioral research methods to explore business and organizational problems. The course provides the student with theory, research, and techniques associated with the investigation of specific research problems in functional areas of business.

MNGT 721 ADVANCED ORGANIZATION BEHAVIOR (3 Hours)
This course offers alternative theoretical approaches useful for analyzing organizational environment and intra-organizational relations. The course emphasizes understanding of macro-organizational behavior concepts and empirical research related to design, structure, and functioning of organizations.

MNGT 722 SEM IN DECIS. SUPPORT SYSTEMS (3 Hours)
This course offers an analysis of techniques involved in the development of computer-based systems designed to help managers in decision making and problem solving processes. Topics include assessment of technology available, discussion of the design and implementation of such systems.

MNGT 723 SEMINAR IN STRATEGIC MANAGEMEN (3 Hours)
This course offers special topics dealing with important isses in strategic management. The course emphasizes global and technological perspectives of strategic management issues.

MNGT 724 ADV. INTERNATIONAL MANAGEMENT (3 Hours)
This course offers an in-depth study of problems of operating across multiple political and cultural boundaries. Topics include theory and practice of the international business, global competition, organizing for global operations, market entry, innovations, and comparative management.

MNGT 725 SEM IN ORGANIZATIONAL CHANGE (3 Hours)
This course focuses on the human aspects of problems arising in technical, social, and organizational arenas faced with the need to change. The course includes detailed analyses of organizations as systems, organizational leadership and change.

MNGT 726 SEM IN ORGNZATNL STRAT DEC MKG (3 Hours)
This course offers an overview of the theory and research in strategic management with a scholarly research orientation on issues of both strategic content and process. The empirical study of these issues is emphasized.

MNGT 727 SEMINAR IN SPECIAL TOPICS (3 Hours)
This course offers discussions of special topics dealing with important issues pertaining to efficient management of organizations. Issues dealing with production and inventory management, and the development of leadership skills are to be addressed. Specific topics are to be selected by the instructor and may vary each semester.

MNGT 799 DISSERTATION RESEARCH IN MANGM (1-12 Hours)
Prerequisite: Consent of the chair of the Dissertation Committee. Students will complete doctoral level research which must culminate in the successful development and defense of the dissertation in the field of Management. Students may register for more than one section in a given semester. A minimum of 21 credit hours of Ph.D. Dissertation is required.

Business (M.B.A.)

Admission to the MBA Program is open to all students who have satisfactorily completed a baccalaureate degree from an accredited four-year institution. Students with a baccalaureate degree in business generally have met the undergraduate prerequisites necessary prior to enrollment in the MBA curriculum. Students with undergraduate degree outside the business discipline must satisfy undergraduate prerequisites in the functional areas of business, (accounting, economics, finance, management, marketing, and statistics) before enrolling in the MBA curriculum. Please consult the Graduate Program Director for additional details.

The MBA curriculum consists of a total of 30 credit hours of graduate business courses in the areas of accounting, economics, finance, management, marketing and statistics. Of the 30 credit- hours, 24 hours constitute the program core requirements and must be completed by all MBA students. The remaining 6 hours are restricted business electives.

To encourage timely completion of program requirements and to avoid course-scheduling conflict, students are advised by the Business Graduate Programs Office concerning sequential course offering and additional scheduling details.

Prerequisite for the MBA

Students with a baccalaureate degree in business generally have met the undergraduate pre-requisites necessary prior to enrollment in the MBA curriculum. The MBA curriculum consists of a total of 30 credit hours of graduate business courses in the areas of accounting, economics, finance, management, marketing and statistics. Students with undergraduate (and/or graduate degrees) outside business are required to complete a 3 credit hour pre-requisite course: GB 500 Business Principles.

MBA Curriculum (30 Credit-hours)

Code	Title	Hours
Core Requirements		
MNGT 502	HUMAN RELATIONS & ORGAN BEHAVI	3
MNGT 516	STATISTICS BUSINESS DECS	3
MKT 530	MANAGERIAL MARKETING	3
ACC 540	ADV MANAGERIAL ACCOUNTNG	3
MNGT 520	ADVANCED PRODUCTION MANAGEMENT	3
ECO 530	MANAGERIAL ECONOMICS	3
FIN 515	MANAGERIAL FINANCE	3
MNGT 560	BUSINESS POLICY	3
Restricted Electives		
Select any two of the following:		6
FIN 561	SEM N BUS ADMN & RESEARCH PROJ	
ECO 511	MACROECONOMICS THEORY	
ACC 545	Financial Statement Analysis	
ENTR 580	ENTREPRENEURSHIP	
MKT 566	INTERNATIONAL MARKETING	
ACC, MNGT, MKT, ECO, or ENTR Elective		
Total Hours		**30**

To encourage timely completion of program requirements and to avoid course-scheduling conflict, students are advised to consult the Business Graduate Programs Office for information about sequential course offering and additional scheduling details.

Recommendations for a Second Degree

MBA: First Degree; MPA Second Degree

After completing the MBA, a student wishing to complete the MPA must submit:

1. An Application to the Division of Graduate Studies for the MPA program.
2. An official MBA transcript to the Division of Graduate Studies.

3. Three letters of recommendation from MBA professors to the Office of Graduate Business Programs.

If admitted for the second degree, the student must complete all undergraduate accounting prerequisite before completing the following 18 graduate credits hours in Accounting.

Code	Title	Hours
ACC 541	ADVANCED ACCOUNTING THRY	3
ACC 565	SEM/N GVNMT & NOT FOR PRFT ACC	3
ACC 575	RESEARCH IN TAXATION	3
ACC 557	SEMINAR IN ATTESTATION	3
ACC Elective		3
ACC Elective		3
Total Hours		**18**

MPA: First Degree; MBA Second Degree

After completing the MPA, a student wishing to complete the MBA must submit:

1. An Application to the Division of Graduate Studies for the MBA program.
2. An official MPA transcript to the Division of Graduate Studies.
3. Three letters of recommendation from MPA professors to the Office of Graduate Business Programs.

If admitted for the second degree, the student must complete all undergraduate accounting prerequisite before completing the following 18 graduate credit hours.

Code	Title	Hours
MNGT 502	HUMAN RELATIONS & ORGAN BEHAVI	3
MNGT 560	BUSINESS POLICY	3
MKT 530	MANAGERIAL MARKETING	3
ECO 530	MANAGERIAL ECONOMICS	3
MBA Elective: ENTR, MKT, ECO, MNGT or FNGB		3
MBA Elective: ENTR, MKT, ECO, MNGT or FNGB		3
Total Hours		**18**

Note: Students wishing to pursue the second degree must contact the MBA academic advisor, the MPA academic advisor, or the graduate program director to develop the appropriate plan of study to ensure timely completion of requirements.

Business (M.B.A.) Online Program

The MBA Online program is designed to enable working adults to obtain a JSU quality education while still maintaining their commitments to family and work.

Admission to the MBA Program is open to all students who have satisfactorily completed a baccalaureate degree from an accredited four-year institution. Students with a baccalaureate degree in business generally have met the undergraduate prerequisites necessary prior to enrollment in the MBA curriculum. Students with undergraduate degree outside the business discipline must satisfy undergraduate prerequisites in the functional areas of business, (accounting, economics, finance, management, marketing, and statistics) before enrolling in the MBA curriculum. Please consult the Graduate Program Director for additional details.

The MBA curriculum consists of a total of 30 credit hours of graduate business courses in the areas of accounting, economics, finance, management, marketing and statistics. Of the 30 credit- hours, 24 hours constitute the program core requirements and must be completed by all MBA students. The remaining 6 hours are restricted business electives.

To encourage timely completion of program requirements and to avoid course-scheduling conflict, students are advised by the Business Graduate Programs Office concerning sequential course offering and additional scheduling details.

MBA Online Curriculum

Students with a baccalaureate degree in business generally have met the undergraduate pre-requisites necessary prior to enrollment in the MBA curriculum. The MBA on-line curriculum consists of a total of 30 credit hours of graduate business courses in the areas of accounting, economics, finance, management, marketing and statistics. The 30-hour curriculum will be delivered over 5 eight-week terms during a period of 12 calendar months. Students may complete the program in one or two years by taking either one or two courses during each eight-week term. Students with undergraduate (and/or graduate degrees) outside business are required to complete a 3 credit hour pre-requisite course: GB 500 Business Principles offered each fall during the first eight-week term.

Code	Title	Hours
MNGT 502	HUMAN RELATIONS & ORGAN BEHAVI	3
ACC 501	FINANCIAL ACCTNG AND ANALYSIS	3
MKT 530	MANAGERIAL MARKETING	3
ACC 540	ADV MANAGERIAL ACCOUNTNG	3
FIN 547	INVESTMENTS	3
FIN 515	MANAGERIAL FINANCE	3
ECO 530	MANAGERIAL ECONOMICS	3
MNGT 516	STATISTICS BUSINESS DECS	3
MNGT 520	ADVANCED PRODUCTION MANAGEMENT	3
MNGT 560	BUSINESS POLICY	3
Total Hours		**30**

Business (Ph.D.)

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Program Objectives

The Doctor of Philosophy in Business program is designed to add to the theoretical knowledge base and other skills acquired at the master's level and to develop outstanding scholars in their respective fields of study.

The specific objectives of the program are:

1. To provide the students with advanced theoretical, analytical and research training in their given fields of study. At the onset, training leading to the doctor of philosophy degree will be provided in the areas of accounting, economics and management;
2. To expose the students to the classical as well as the most current methodologies in their fields;
3. To develop academic scholars who will use their knowledge and skills to investigate issues and problems facing their communities and to develop appropriate solutions to those problems; and
4. To prepare students for careers in university teaching and research.

Admissions

Jackson State University offers admission to the doctoral program in the College of Business to students who have the potential to become excellent teachers and researchers, and who will provide service to the business community and the general population. The criteria for admission are:

1. Master's degree from an accredited college or university;
2. Satisfactory Graduate Management Admission Test (GMAT) score(s). Only scores on tests taken within the last five (5) years will be accepted. Scores should be sent directly from the Educational Testing Service (ETS);
3. Satisfactory TOEFL score (international students only);
4. Three (3) completed recommendation forms;
5. Satisfactory previous academic record. Please submit an official transcript from every college and university attended;
6. Statement of career plan and objective.

Admission to the doctoral program in the College of Business is during the fall semester only. The deadline for submitting the application package is March 15 of each academic year. Applicants will receive a written admission decision by April 15. Completed admission applications, transcripts, letters of recommendation, financial aid forms, statement of purpose, and other requested information should be submitted via the online admissions portal.

Transfer of Credit

Graduate courses taken at another institution accredited by the American Assembly of Collegiate Schools of Business (AACSB) may be accepted toward satisfying degree requirements at Jackson State University provided a grade of at least "B" was earned in the course. The Department Chair of the respective major, the Director of the Doctoral Program, and the Dean of the College of Business must evaluate all transfer courses during the initial semester of enrollment.

Advising

Each doctoral student in the College of Business will be assigned an academic advisor by the chair of the student's major during the first semester of enrollment. The advisor will provide guidance to the student in course selection and other academic matters pertaining to the program of study. After satisfactory completion of the required coursework, the comprehensive examinations, and the selection of the Dissertation Committee, the chair of the Dissertation Committee will serve as the student's primary academic advisor.

Areas of Concentration

The Doctor of Philosophy in Business will be offered in three areas: Accounting, Economics, and Management.

Residence Requirement

The doctoral degree in business is a full-time day program. Students entering the program should be able to meet all requirements for the Ph. D. degree within a four-year period. Therefore, students should take an average of nine (9) credit hours per semester during the four-year period.

Time Limit for Degree

A student has seven (7) years from the initial semester of enrollment to complete all requirements for the Ph.D. degree. Failure to satisfy all requirements during this time period may result in academic suspension. A suspended student may file an appeal for readmission to the Dean of the College of Business within one semester from the suspension decision. The appeal may be granted only under well-documented and extenuating circumstances.

Graduation Requirements

To graduate with a Ph.D. degree in the College of Business, the student must satisfy all requirements listed below:

1. A grade point average of at least 3.0 in all courses taken at the doctoral level at Jackson State;
2. A passing score on all written and oral comprehensive examinations;
3. Successful completion and defense of a dissertation approved by the Dissertation Committee; and
4. Submission of three (3) copies of the final draft of the dissertation to the Office of the Doctoral Program Director.

Language Requirement

Jackson State University does not require doctoral students of the College of Business to satisfy a language requirement. Students are strongly encouraged to acquire a level of proficiency in a foreign language. Also, students are expected to have a level of proficiency with the use of computers.

Academic Responsibility of the Student

Students are required to observe all university guidelines and regulations contained in the University Graduate Catalog. Those regulations apply to the doctoral program and all doctoral students. The Department Chair and the Director of the Doctoral Program will review the academic record of each student enrolled in the doctoral program at the end of each semester. Students must maintain a cumulative 3.0 average to remain in the program in good standing. Students with a cumulative grade point average below 3.0 will be given two semesters to remove the deficiencies. Failure to do so may result in dismissal from the program. No doctoral level course with a grade less than "B" will be accepted toward satisfying the requirements for graduation.

A Special Note to Applicants Without an MBA

Doctoral applicants with a master's degree other than the MBA must complete the graduate business core courses listed earlier and earn an average grade of at least "B". Students whose master's degree and undergraduate degree are in a non-business related area must satisfy a list of undergraduate prerequisites following consultation with the academic advisor. A grade of at least "B" must be earned in those

undergraduate prerequisites to meet the admission requirements of the program. Students with an undergraduate degree in business but with a non-business related graduate degree will be required to complete the graduate business core and show evidence of having satisfied the undergraduate prerequisites.

Suggested Undergraduate Prerequisites

Code	Title	Hours
Principles of Financial Accounting		3
Principles of Macroeconomics		3
Principles of Microeconimcs		3
Business Finance		3
Management to Organizations		3
Business Statistics I		3
Business Statistics II		3
Marketing Management		3
Business Calculus		3

After satisfactorily completing all prerequisite requirements and the graduate business core, students without the MBA will follow the actual doctoral program of study.

Program Requirements

The curriculum leading to a Ph.D. in Business is developed under the assumption that the typical student has already completed a master's degree in business administration or a related field. Typically, a doctoral student, who has satisfied the necessary prerequisites (undergraduate prerequisites and the graduate business core), will complete twelve (12) credit hours of a research core, eighteen (18) to twenty-four (24) credit hours of coursework in the major field, six (6) to nine (9) credit hours in a supporting field, and twenty-one (21) hours of dissertation research to meet the requirements for the Ph.D. degree in Business.

Following admission into the doctoral program, all students must complete four phases of study which include:

1. **Phase I:** Development and approval of an individual program of study with the assistance of the faculty advisor and completion and/or satisfaction of the graduate business core and all curriculum;
2. **Phase II:** Doctoral level coursework;
3. **Phase III:** Satisfactory completion of relevant field examinations;
4. **Phase IV:** Satisfactory completion of the dissertation process

Phase I: The Plan of Study and the Graduate Business Core

Each student will be assigned a faculty advisor when admitted to the doctoral program. The faculty advisor will assist the student in the development of a plan of study to be followed throughout the completion of the program. The plan of study, co-signed by the student, the faculty advisor, the department chair and the director of the doctoral program, will be part of the student's permanent record.

Graduate Business Core

Prior to engaging in the pursuit and completion of the actual doctoral curriculum, the student must show evidence of having satisfactorily completed the graduate business core composed of 27 hours of coursework in accounting, economics, finance, management, and marketing. Satisfactory completion requires that the student earns at least a "B" in every course included in the core. The majority of those courses are usually included in a typical MBA curriculum.

To the extent that some of those courses were not completed prior to admission, the student will be advised to complete the coursework before matriculating in the doctoral curriculum. The following courses constitute the graduate business core:

Code	Title	Hours
ACC 540	ADV MANAGERIAL ACCOUNTNG	3
ACC 545	Financial Statement Analysis	3
ECO 511	MACROECONOMICS THEORY	3
ECO 512	MICROECONOMICS THEORY	3
FIN 515	MANAGERIAL FINANCE	3
MNGT 516	STATISTICS BUSINESS DECS	3
MNGT 560	BUSINESS POLICY	3
MKT 530	MANAGERIAL MARKETING	3
MNGT 520	ADVANCED PRODUCTION MANAGEMENT	3
Total Hours		**27**

Phase II: Doctoral Coursework Requirements

Phase II constitutes the actual doctoral level coursework. It consists of forty-two (42) credit hours of coursework organized under four basic categories: the research core, a course in teaching methodologies, the courses in the major concentration, and the courses in a supporting field:

1. The "research core" contains 12 credit hours of courses in statistics and research methodologies;
2. A course (three credit hours) in teaching methodologies;
3. The "major concentration" component contains 18 to 24 credit hours in the student field of interest. As part of the 18 to 24 credit hours in the field of specialization, the student will complete at least six hours of seminar-type courses aimed at exploring and analyzing the classical and current theoretical and empirical issues in the field; and
4. The "supporting field" component contains six (6) to nine (9) credit hours in the student's minor field.

Research Core

All students, except those majoring in Economics, must satisfactorily complete the following 12 hours that constitute the research core:

Code	Title	Hours
MNGT 710	ADVANCED STATISTICAL METHODS I	3
MNGT 711	ADVNCD STATISTICAL METHODS II	3
MNGT 712	APPLIED MULTIVARIATE ANALYSIS	3
MNGT 714	RESEARCH METHODS	3
Total Hours		**12**

Students majoring in Economics will complete two courses in Econometrics in lieu of MNGT 711 ADVNCD STATISTICAL METHODS II and MNGT 712 APPLIED MULTIVARIATE ANALYSIS. For those students, the research core will include the following:

Code	Title	Hours
MNGT 710	ADVANCED STATISTICAL METHODS I	3
ECO 760	ECONOMETRICS I	3

ECO 762	ADVANCED ECONOMETRICS	3
MNGT 714	RESEARCH METHODS	3
Total Hours		**12**

Teaching Methodology Requirement

As teaching remains an important component of the school's and the university's mission, and a specific goal of the program is the development of outstanding scholars with the potential to become college professors, all doctoral students will be required to complete a course in teaching methodologies and will be assigned at some point some degree of classroom instruction.

Code	Title	Hours
BPD 790	TEACHING METHODS OF BUSINESS	3
Total Hours		**3**

Courses in Major Field: Accounting

The 21 semester hours of accounting courses listed below are required of all accounting majors. The 500-level accounting courses may be transferred into the program if there is evidence they or their equivalents have been completed satisfactorily. The 700-level courses may not be transferred into the Ph.D. program.

The student's faculty advisor will determine the specific courses assigned to an individual student at the beginning of the first semester of enrollment. Students will be awarded the Ph.D. degree after successful completion of the doctoral curriculum and all other university requirements. Additionally, students with a non-business-related master's degree must follow the special note for applicants without an MBA.

Code	Title	Hours
ACC 536	ADV & INTERNATIONAL ACCOUNTING	3
ACC 541	ADVANCED ACCOUNTING THRY	3
ACC 565	SEM/N GVNMT & NOT FOR PRFT ACC	3
ACC 575	RESEARCH IN TAXATION	3
ACC 790	SEMINAR IN ACCOUNTING RESEARCH	3
ACC 791	SEM IN ACCOUNTING RESEARCH I	3
ACC 792	SEM IN ACCOUNTING RESEARCH II	3
Total Hours		**21**

Dissertation Requirement

Code	Title	Hours
ACC 799	DISSERTATION RESEARCH IN ACCOU	3

(Course may be repeated; a minimum of 21 credit hours is required)

Note- The following courses are considered prerequisites for Ph.D. level accounting courses. Most must be completed prior to enrollment in 500-level graduate courses and all must be completed prior to enrollment in 700-level Ph.D. seminar courses. Consult your faculty advisor for additional details.

Code	Title	Hours
ACC 314	INTERMEDIATE ACCOUNTNG I	3
ACC 315	INTERMED ACCOUNTING II	3
ACC 423	INCOME TAX ACCOUNTING	3
ACC 455	AUDITING	3
ACC 557	SEMINAR IN ATTESTATION	3
ACC 473/573	ADV INCOME TAX ACCOUNTNG	3
ACC 492/592	ACCOUNTING INFORM SYSTEM	3
Total Hours		**21**

Courses in Major Field: Management

The courses listed below are required of all management majors. Students with a master's degree in a business-related area, but not an MBA degree, must successfully complete the graduate business core or its equivalent before starting the doctoral curriculum. The student's faculty advisor will determine the number and name of the courses to be completed during the first semester of enrollment. Students will be awarded the Ph.D. degree after successful completion of the doctoral curriculum and all other University requirements. Additionally, students with a non-business-related master's degree must follow the special note for applicants without an MBA.

Code	Title	Hours
MNGT 721	ADVANCED ORGANIZATION BEHAVIOR	3
MNGT 722	SEM IN DECIS. SUPPORT SYSTEMS	3
MNGT 723	SEMINAR IN STRATEGIC MANAGEMEN	3
MNGT 724	ADV. INTERNATIONAL MANAGEMENT	3
MNGT 725	SEM IN ORGANIZATIONAL CHANGE	3
MNGT 726	SEM IN ORGNZATNL STRAT DEC MKG	3
MNGT 727	SEMINAR IN SPECIAL TOPICS	3
Total Hours		**21**

Dissertation Requirement

Code	Title	Hours
MNGT 799	DISSERTATION RESEARCH IN MANGM	3

(Course may be repeated; a minimum of 21 credit hours is required)

Note- The following courses are considered prerequisites for Ph.D. level management courses. Most must be completed prior to enrollment in 500-level graduate courses and all must be completed prior to enrollment in 700-level Ph.D. courses. Consult your faculty advisor for additional details.

Code	Title	Hours
MNGT 330	MANAGEMENT TO ORGANIZATIONS	3
MNGT 333	QUANTITATIVE BUSINESS ANALYSIS	3
MNGT 416	ORGANIZATIONAL BEHAVIOR	3
MNGT 460	DATA COMMUNICATONS	3
MNGT 462	INTERNATNL BUS AND ENTREPNSHIP	3
MNGT 502	HUMAN RELATIONS & ORGAN BEHAVI	3
Total Hours		**18**

Courses in Major Field: Economics

The courses listed below are required of all economics majors. Students with a master's degree in a business-related subject, but not an MBA degree, must successfully complete the graduate business core or its equivalent before starting the doctoral curriculum. The student's advisor will determine the number and name of the courses to be completed during the first semester of enrollment. Students will be awarded the Ph.D. degree after successful completion of the doctoral curriculum and all other University requirements. Additionally, students with a non-business-related master's degree must follow the special note for applicants without an MBA.

Code	Title	Hours
ECO 711	ADVANCED MACROECONOMIC THEORY	3
ECO 712	ADVANCED MICROECONOMIC THEORY	3
ECO 716	HISTORY OF ECONOMIC THOUGHT	3
ECO 730	MANAGERIAL ECONOMICS	3
ECO 746	SEMINAR IN INT'L TRADE & FINAN	3
ECO 725	METHODS OF URBN & REGIONL ANAL	3
ECO 735	SEM IN ECO HOUSING & URBAN TRA	3
ECO 713	ADVANCED MONETARY & FISCAL ANA	3
Total Hours		**24**

Dissertation Requirement

Code	Title	Hours
ECO 799	DISSERTATION	3

(Course may be repeated; a minimum of 21 credit hours is required)

Note The following courses are considered prerequisites for Ph.D. level economics courses. Most must be completed prior to enrollment in 500-level graduate courses and all must be completed prior to enrollment in 700-level courses. Consult your faculty advisor for additional details.

Code	Title	Hours
ECO 211	PRINCIPLES OF MACROECONOMICS	3
ECO 212	PRINCIPLES OF MICROECONOMICS	3
ECO 311	INTERMEDIATE MACROECONOMICS	3
ECO 312	INTERMED MICROECONOMIC THEORY	3
ECO 442	MONEY AND BANKING	3
ECO 416	HIST OF ECONOMIC THOUGHT	3
Total Hours		**18**

Supporting Field Requirement

All students are required to select a supporting area, preferably in the School of Business, and complete six (6) to nine (9) "doctoral-level" credit hours in that area. The selection and the design of the supporting curriculum must be done in consultation with the faculty advisor, as part of the development of the student's comprehensive plan of study.

Phase III: Comprehensive Examinations

Each doctoral student is required to take written comprehensive examinations in the major field. The exams will be given to test the student's competency in the field of interest. A student who wishes to sit for the comprehensive examinations must complete the necessary application by the application deadline with the office of the program director. The application must be submitted to the Graduate Dean for approval. Once the application is approved, the student is expected to report on the date of the examination. A student who wishes to withdraw from the examination must submit a formal petition of withdrawal one week prior to the first exam day. Failure to report for the examinations, or any part thereof, without A documented excuse, will constitute a forfeit of the examination and will result in a failing grade.

Student Eligibility

A student must be enrolled, and in good standing, at the time of application for the examinations, and during the semester in which the exams are taken. The examinations will be given after the student completes all coursework in the major. Specifically, to be eligible for the examinations, a student must earn a cumulative grade point average of 3.0 on a four-point scale, and must earn at least a "B" in every doctoral course completed. In addition, students with outstanding incomplete ("I") grades will not be eligible to take the examinations.

Schedule of the Examinations and Role of the Faculty

The examinations will be scheduled in the fall, spring semester, and in the summer (if departmental resources permit). The office of the director of the Ph.D. program will publish the specific examination dates in Business. The exams will be prepared, administered, and graded by members of the graduate faculty from the student's major. The examinations will be graded using the pass-fail method. Students will be notified of the results, in writing, within three weeks of the last examination day.

Student's Right to Repeat the Examinations

In case of failure, a student is given one additional opportunity to sit for the examinations. The second attempt must take place within a year of the first examination. Students who do not attempt to repeat the examinations, or any failed part, within one year will forfeit their opportunity. Students who fail the comprehensive examination, or any portion thereof, two times normally will be dismissed from the program.

Students Right to Petition for a Third Examination

After two failures of the entire examination, or any part thereof, a student may petition in writing for a third attempt. The third attempt will be extended at the discretion of the graduate faculty of the student's area of specialization and the Dean of the College of Business. That is, the exam committee of the student's department must first approve the appeal. Following the approval of the departmental committee, an appeal will be presented to the dean on behalf of the student. If granted an approval, the student will be extended the privilege of a third examination. Students failing the comprehensive examinations, or any portion thereof, three times will be dismissed from the program.

Candidacy Status

Students will be certified by the Dean of the College of Business for admission to candidacy for the Ph. D. degree upon the recommendation of the Director of the Doctoral Program after satisfactory completion of the following:

1. All course requirements in major and supporting areas;
2. Earning a passing score on written and oral examinations;
3. Approval of a dissertation proposal by the Dissertation Committee.

Phase IV: The Dissertation Process

An important requirement of the Ph.D. degree is the successful completion of the doctoral dissertation. The dissertation research component requires the completion of 21 credit hours aimed at implementing the skills and knowledge base acquired during the completion of the research core and the courses in the field of specialization. The dissertation must be a definite scholarly contribution related to the field of business, and must demonstrate the candidate's ability to conduct effective independent research. Students are expected to demonstrate extensive skills in model building, collecting and analyzing data, and developing a quality manuscript as required for the degree. The student, in consultation with the dissertation advisor, determines the number of dissertation hours taken each semester. After successful defense of the dissertation, a final grade will be assigned for the dissertation hours.

The dissertation process includes the following steps:

1. Selection of a dissertation topic;
2. Selection of a dissertation committee;
3. Development and defense of the dissertation proposal;
4. Certification of the proposal; and
5. Development and defense of the completed dissertation.

After completion of steps 1, 2 and 3 above, a student is eligible for admission to candidacy.

Dissertation Committee

After satisfactory completion of the comprehensive examinations, the doctoral student must immediately initiate the process of forming a dissertation committee to advise him/her during the process of conducting the dissertation research and developing the dissertation manuscript. The student is advised to select a faculty member from his/her area of concentration to serve as mentor or chair of the committee. With the assistance of the committee chair and in coordination with the department chair, the committee will be formed. The committee should be in place within sixty (60) days of the announcement of the results of the comprehensive examinations.

The Committee shall consist of five members:

1. Three members from the student's department, one of which will serve as committee chair one of which will serve as committee chair.
2. One member with a proven quantitative background,
3. One at-large member to be selected by the student in consultation with the chair of the committee.

The primary role of the committee is to advise the student through the dissertation process and to evaluate the proposal and the actual dissertation for quality assurance. Upon satisfactory completion of the dissertation requirement, the committee chair will assign the final grades for the dissertation credit hours.

Note: All faculty members with membership on the Graduate Faculty are eligible to serve on dissertation committees. The names of those individuals are usually listed in the university's graduate catalogue.

Development and Defense of the Dissertation Proposal

After completion of the required coursework in the major and supporting areas, the student must select a dissertation topic and develop a dissertation proposal with the assistance of the Dissertation Committee. The proposal must be presented to the Dissertation Committee and defended through an oral examination, open to the faculty and to other graduate students. The student must successfully defend the dissertation proposal within one year after completing the comprehensive examinations.

Certification of the Dissertation Proposal

Following a successful defense of the dissertation proposal, doctoral degree candidates must submit, within sixty (60) days, a corrected copy of the proposal to the Dissertation Committee for final approval of the project. The proposal will be submitted to the department chair, the director of the doctoral program, and the Dean. The University's Institutional Review Board (IRB) must approve the proposal whenever human subjects are proposed to be used in the dissertation research.

Defense of the Completed Dissertation

Each student is required to take an oral defense of the completed dissertation. The Dissertation Committee, led by the student's dissertation advisor, administers the examination. The dissertation defense must be held by the first Monday in March for prospective May graduates and by the first Monday in June for prospective summer graduates. The examination will be graded using the pass-fail method.

A candidate who fails the oral defense of the dissertation will be given an opportunity to make the necessary corrections and reschedule the defense during the next academic semester. Candidates who fail the dissertation defense two times normally will be dismissed from the program. After two failures, a candidate may petition in writing for a third attempt. The third attempt will be at the discretion of the graduate faculty of the student's area of specialization. Candidates failing the defense of the dissertation three times will be dismissed from the program.

Awarding a Masters' Degree (MBA or MPA) to Doctoral Candidates

Periodically, the program admits students with a masters' degree outside of the field of business. Those students, upon matriculation, must complete the graduate business core requirements before enrolling in the typical doctoral curriculum. An option is hereby extended to those students to apply for an MBA following the completion of an additional six credit hours beyond the graduate business core (24 credit hours). The MBA advisor, to ensure completion of the typical MBA requirements, must evaluate the transcripts of the students. During the semester of application for the MBA degree, the student must enroll as a Master student to be processed for the MBA degree. Following completion and award of the MBA, the student will be permitted to re-enlist in the doctoral program to complete the requirements for the Ph.D. degree. Doctoral students who wish to apply for an MPA must satisfy the MPA core in addition to the graduate business core.

Second Doctoral Concentration

Students may exercise the option of pursuing a second concentration after completion of the original plan of study. A student who wishes to pursue a second concentration must satisfy the following:

1. Submit an application for admissions to the Division of Graduate Studies and Business Doctoral Program for the second concentration;
2. Submit three letters of recommendation from program professors to the Business Doctoral Program;
3. Submit a personal statement explaining the added value of the second concentration to his/her professional and intellectual development.

If admitted, the student shall be permitted to transfer all relevant courses completed during the first concentration. Additionally, the student must successfully:

1. Complete the research core requirements for the second concentration, if applicable;
2. Complete all relevant departmental coursework in the second concentration;
3. Complete the comprehensive examinations and the dissertation requirement of the second concentration (21 hours).

Suggested Curriculum Sequence

Major Concentration: Accounting

Course	Title	Hours
First Year		
Fall		
Accounting or Bus. Elective		3
Accounting or Bus. Elective		3
MNGT 710	ADVANCED STATISTICAL METHODS I	3
	Hours	**9**
Spring		
ACC 583		3
MNGT 711	ADVNCD STATISTICAL METHODS II	3
Supporting Field Elective		3
BPD 790	TEACHING METHODS OF BUSINESS	3
	Hours	**12**
Second Year		
Fall		
ACC 790	SEMINAR IN ACCOUNTING RESEARCH	3
ACC 791	SEM IN ACCOUNTING RESEARCH I	3
MNGT 712	APPLIED MULTIVARIATE ANALYSIS	3
	Hours	**9**
Spring		
ACC 792	SEM IN ACCOUNTING RESEARCH II	3
Supporting Field Elective		3
MNGT 714	RESEARCH METHODS	3
	Hours	**9**
	Total Hours	**39**

After satisfactory completion of the aforementioned coursework and the required doctoral comprehensive examinations, the student is required to complete twenty-one (21) hours of dissertation research (ACC 799 DISSERTATION RESEARCH IN ACCOU).

Major Concentration: Management

Course	Title	Hours
First Year		
Fall		
MNGT 721	ADVANCED ORGANIZATION BEHAVIOR	3
MNGT 722	SEM IN DECIS. SUPPORT SYSTEMS	3
MNGT 710	ADVANCED STATISTICAL METHODS I	3
	Hours	**9**
Spring		
MNGT 711	ADVNCD STATISTICAL METHODS II	3
MNGT 723	SEMINAR IN STRATEGIC MANAGEMEN	3
MNGT 724	ADV. INTERNATIONAL MANAGEMENT	3
BPD 790	TEACHING METHODS OF BUSINESS	3
	Hours	**12**
Second Year		
Fall		
MNGT 712	APPLIED MULTIVARIATE ANALYSIS	3
MNGT 725	SEM IN ORGANIZATIONAL CHANGE	3
Supporting Field Elective		3
	Hours	**9**
Spring		
MNGT 726	SEM IN ORGNZATNL STRAT DEC MKG	3
Supporting Field Service Elective		3
MNGT 714	RESEARCH METHODS	3
MNGT 727	SEMINAR IN SPECIAL TOPICS	3
	Hours	**12**
	Total Hours	**42**

After satisfactory completion of the aforementioned coursework and the required doctoral comprehensive examinations, the student is required to complete twenty-one (21) hours of dissertation research (MNGT 799 DISSERTATION RESEARCH IN MANGM).

Major Concentration: Economics

Course	Title	Hours
Second Year		
Fall		
ECO 762	ADVANCED ECONOMETRICS	3
ECO 725	METHODS OF URBN & REGIONL ANAL	3
ECO 730	MANAGERIAL ECONOMICS	3
Elective		3
	Hours	**12**
Spring		
ECO 735	SEM IN ECO HOUSING & URBAN TRA	3
ECO 746	SEMINAR IN INT'L TRADE & FINAN	3
MNGT 714	RESEARCH METHODS	3
ECO 713	ADVANCED MONETARY & FISCAL ANA	3
	Hours	**12**
	Total Hours	**24**

After satisfactory completion of the aforementioned coursework and the required doctoral comprehensive examinations, the student is required to complete twenty-one (21) hours of dissertation research (ECO 799 DISSERTATION).

College of Education and Human Development

Dr. Tony Latiker, Interim Dean

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The College of Education and Human Development/ School of Lifelong Learning has as its primary purpose and responsibility the development, administration, supervision and evaluation of programs in teacher education and other related human services which support the teaching profession and the mission of the University. It offers programs of professional training in non-teaching areas such as counseling, rehabilitative services and recreation leadership. More specifically, the College of Education and Human Development is responsible for developing and administering quality, comprehensive, career-oriented programs which attract culturally and economically diverse students into the fields of early childhood education, elementary education, secondary education health and physical education, recreation, special education, educational administration and supervision and guidance and counseling. Further, the College of Education and Human Development:

1. emphasizes inquiry, research, and publication;
2. promotes faculty, staff, and student development programs;
3. provides ongoing programs for the education community, and promotes cooperation and collaboration between the College of Education and Human Development and other education/ human service agencies at the local, state, national and international levels; and
4. searches for outside assistance to aid in the support of its program offerings.

Mission

The Mission of the College of Education and Human Development at Jackson State University is to provide academic and professional training in the areas of teacher preparation, health/recreation-physical education, counseling/psychometry, Pre-K to 12 leadership and higher education. We accomplish this through the utilization of research, problem-solving and collaboration in the internal and external environments of the university community.

Vision

The College of Education and Human Development at Jackson State University aspires to be one of the top five educational programs in the country. As responsive educators with adaptive expertise, the college will provide exceptional leadership in research and professional practice that will have a global impact on the lives of diverse students from pre to post graduate education.

Conceptual Framework

The College of Education and Human Development (COEHD) provides learning opportunities designed to produce the "Responsive Educator," a completer who demonstrates excellence in learning and leadership. To this end, the COEHD is guided by the Responsive Educator Framework (REF), a conceptual framework that embodies four outcomes that are applicable to all of its faculty, candidates (students), schools, departments, and programs. With reference to its candidates and completers, a "Responsive Educator" is one who provides and embodies the following:

- A Committed Response
- A Knowledgeable Response
- A Skillful Response
- A Professional Response.

The **Knowledgeable Response** means demonstrating well-informed, discerning acquaintance with the critically important information and understanding of the teaching profession, field(s) of study, and pedagogy that is necessary to act with decisive and effective purposefulness in the best interests of all students.

The **Skillful Response** means demonstrating the teaching-related abilities, pedagogical and diversity proficiencies that are required to support positive outcomes for all students in educational settings.

The **Committed Response** means being ethically and professionally obligated, pledged and disposed to uphold both a professional and personal affirmation of equity pedagogy - the belief in fairness as fundamental to the educational enterprise, and the conviction that all students can learn.

The **Professional Response** means showing oneself to be a skilled education practitioner who is knowledgeable about schooling and education, well-versed in the standards, ethics, policies, and responsibilities incumbent upon the teaching profession, and both skilled and committed to advocacy that strengthens both the profession and the learning environment is serves.

The overall educational goal of the COEHD is to ensure that its candidates and completers are eminently qualified to:

- *Demonstrate leadership*
- *Foster learning*
- *Facilitate collaboration*
- *Nurture diversity*
- *Integrate technology*
- *Implement accountability systems*
- *Develop instruction*
- *Advocate wellness*

Accreditation

The College of Education and Human Development is CAEP (Council for the Accreditation of Educator Preparation) accredited. All professional education programs are approved by the Mississippi State Department of Education. The College also holds membership in the American Association of Colleges for Teacher Education. The professional education curriculum reflects the requirements of the Mississippi Commission on Educational Licensure.

Professional Education Council

The professional education programs at Jackson State University are organized, unified, and coordinated by the Professional Education Council which consists of graduate and undergraduate student representatives, university faculty both within and external to the College of Education, representatives from the University's Graduate Council, Curriculum Committee and Undergraduate Studies/Cyber Learning, practicing professionals, the Director of Teacher Education, and the Dean of the College of Education. The Professional Education Council forms the governance system for the unit. Its major functions are to:

1. define the professional education program consistent with the overall mission of the University;
2. establish and approve policies governing the design, development, implementation, and evaluation of initial and advanced programs in professional education;
3. approve the admission process for students applying to professional education programs;
4. identify and recommend instructional and laboratory experiences in relationship to the teacher-preparation model, state licensure standards, and the recommendations of specialized professional associations; and
5. serve as a monitoring unit for the quality of program activities, operations, and student outcomes.

The Dean and Associate Deans of the College of Education serve as Chairperson and Co-Chairpersons, respectively. As an instructional committee, the Professional Education Council reports to the Vice President for Academic Affairs.

Lottie W. Thornton Early Childhood Center

The Early Childhood Center provides childcare services for faculty, students, and the general community and serves a multipurpose in the area of teacher education. It offers diversified clinical experiences for graduate and undergraduate students in cognitive, psychomotor and the social development of young children. It supports the curriculum and research efforts of university students and faculty.

Professional Test Preparation Clinic

The Professional Test Preparation Clinic, a computerized facility, is designed to facilitate the College of Education's efforts to improve the performance of undergraduate and graduate students on standardized tests. General testing strategies, thinking, reading and listening skills are emphasized.

Cleopatra D. Thompson Curriculum Center

The Center provides a variety of multimedia resources to support the objectives of the College of Education and houses the Professional Educators Production Center that also aids graduates during their induction year as well as a wealth of professional and instructional materials and related equipment for faculty and students. The Center serves the objectives of programs in the College by locating, collecting, organizing, promoting, and distributing learning resources for use by faculty and students as individuals and groups. It provides leadership in the utilization, experimentation, and evaluation of the best possible arrangements of materials for teaching and learning; makes facilities, services, and equipment necessary for the selection and utilization of learning resources available; and provides facilities for assistance in the production of instructional materials, displays and demonstrations.

The Center for Teaching Quality

Telephone: (601) 979-2335

The Center for Teacher Quality provides supportive services in teacher education. The program is a structured, real-world praxis in the delivery of required clinical and field-based experiences at both the initial and advanced levels. Thus, all internships, field, clinical and student teaching experiences are under the auspices of this office.

The office is also responsible for the evaluation of transcripts of applicants seeking educator licensure. Supervised student teaching is required for teacher certification by the state of Mississippi and most other states. Requirements for licensure may be obtained through this office.

School of Administrative Leadership

- Education Administration, Foundations, and Research
- Counseling, Rehabilitation and Psychometric Services
- Executive Ph.D. Program

School of Instructional Leadership

- Elementary and Early Childhood Education
- Health, Physical Education, and Recreation
- Educational, Multicultural, and Exceptional Studies

Organization

The College of Education and Human Development consists of the following departments:

- Counseling, Rehabilitation and Psychometric Services;
- Elementary and Early Childhood Education;
- Educational Leadership;
- Lifelong Learning;
- Health, Physical Education and Recreation;
- Educational, Multicultural, and Exceptional Studies; and
- the Office of Professional and Field-Based Services.

School of Administrative Leadership

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Departments

- Education Administration, Foundations, and Research
- Counseling, Rehabilitation and Psychometric Services
- Executive Ph.D. Program

Masters

- Counseling (M.S.) Concentration in Clinical Mental Health (p. 24)
- Counseling (M.S.) Concentration in Rehabilitation Counseling (p. 25)
- Counseling (M.S.Ed.) Concentration in School Counseling (p. 26)
- Educational Administration and Supervision (M.S.) (p. 35)
- Educational Administration and Supervision (M.S.) Online Program (p. 35)

Specialist

- Counseling (Ed.S.) Concentration in School Counseling (p. 22)
- Counseling (Ed.S.) Psychometry Concentration (p. 23)
- Education (Ed.S.) Concentration in K-12 Administration (p. 28)
- Education (Ed.S.) Concentration in K-12 Administration without Certificate (https://jsums-public.courseleaf.com/graduate/college-education-human-development/school-administrative-leadership/k-12-educational-administration-eds-concentration-without-administration-certificate+/)

Doctoral

- Educational Administration (Ph.D.) (p. 30)
- Educational Administration (Ph.D.) Concentration in Higher Education (p. 32)
- Urban Higher Education (EPh.D.) (p. 36)

Graduate Certificate

No results were found.

Counseling (Ed.S.) Concentration in School Counseling

Department of Counseling, Rehabilitation and Psychometric Services

Dr. Dion Porter, Associate Professor and Chair
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Telephone: (601) 979-2361
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E-mail: dion.porter@jsums.edu

Faculty

Dr. R. Arnold, Associate Professor
Dr. G. Dansby-Giles, Professor
Dr. R. Fults-McMurtery, Professor
Dr. F. Giles, Professor
Dr. L. Johnson, Associate Professor
Dr. K. Linstrum, Assistant Professor
Dr. A. Nelson, Assistant Professor
Dr. D. Porter, Associate Professor
Dr. N. Yazdani, Visiting Professor

Accreditation

Counseling, Rehabilitation and Psychometric Services programs are housed within the College of Education and Human Development, which is accredited by the Council on the Accreditation Educational Programs (CAEP). The Clinical Mental Health, School Counseling and Rehabilitation Counseling programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Program Objectives

In support of its mission, the department prepares masters and specialist level students for careers in professional counseling. The specific objectives of the department are to prepare students to:

- Acquire the professional skills necessary to become professional counselors,
- Obtain certification in school counseling or school psychometry, and
- Upgrade their certification and/or skill level in counseling.

Specialist in Education School Counseling Concentration

(Requires AA Teacher Certification)

Students applying for admission to the Specialist program must obtain general admission to the Division of Graduate Studies; however, this does not guarantee admission to the College of Education Specialist program in the specific area of concentration. Students must also complete an application to the specific department.

Admission Requirements

- A master's degree from an accredited college or university
- An overall GPA of 3.0 or above (on a 4.0 scale) on the master's degree
- A completed Specialist program application
- Three letters of recommendation
- Acceptable evidence of the applicant's writing ability as determined by a writing sample completed under the supervision of the screening committee
- A successful interview with the program screening committee
- A recommendation for admission by the screening committee
- Student must hold a valid teaching license
- Deadline for applications for summer/fall admissions is March 15th

Degree Requirements

Students are required to complete 42 semester hours, and obtain a passing score on the Graduate Comprehensive Examination.

Code	Title	Hours
Educational Core Requirements		
EDFL 601	ADV RESRCH & STATISTICS	3
EDFL 602	COMPARATIVE EDUCATION	3
or EDFL 610	SCHOOL&COMMUNITY RELATNS	
Counseling Core Requirements		
COUN 506	INTRO TO PROFSNL COUNSELING	3
COUN 510	ORGAN & ADM OF GUIDANCE PROGS	3
COUN 514	ANALYSIS OF THE INDIVIDUAL	3
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	3
COUN 520	PRINCIPLES & TECHNQ OF CNSLNG	3
COUN 526	DYNAMICS OF GROUP PROCESSING	3
COUN 561	PSYCHOLOGICAL ASPECTS HUM DEV	3
COUN 571	SUPERVISED LAB IN COUNSELING	3
COUN 631	SOCIAL & CULTRL FNDTN OF CNSLG	3
COUN 671	PRACTICUM IN SUPRVSD EXP & CNS	3

COUN 691	SEM ON ETHCL & LGL ISS IN CNSL	3
Internship Requirement		
COUN 675	INTRNSHP IN SCHOOL COUNSELING	6
Total Hours		**45**

(For Students holding AA certification in Counseling)

Code	Title	Hours
Educational Core Requirements		
Select one of the following:		3
EDFL 601	ADV RESRCH & STATISTICS	
EDFL 602	COMPARATIVE EDUCATION	
EDFL 610	SCHOOL&COMMUNITY RELATNS	
Counseling Core Requirements		
COUN 522	COUNSELING CHILDREN	3
COUN 675	INTRNSHP IN SCHOOL COUNSELING	3
COUN 676	COUNSELOR SUPERVISION AND THEO	3
Concentration Core		
Approved Counseling Electives		18
Total Hours		**30**

Requires a AA Teacher Certificate[1]

Note: Students are required to complete the following courses before enrolling in internship:

Code	Title	Hours
COUN 506	INTRO TO PROFSNL COUNSELING	3
COUN 510	ORGAN & ADM OF GUIDANCE PROGS	3
COUN 514	ANALYSIS OF THE INDIVIDUAL	3
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	3
COUN 520	PRINCIPLES & TECHNQ OF CNSLNG	3
COUN 526	DYNAMICS OF GROUP PROCESSING	3
COUN 561	PSYCHOLOGICAL ASPECTS HUM DEV	3
COUN 631	SOCIAL & CULTRL FNDTN OF CNSLG	3
COUN 671	PRACTICUM IN SUPRVSD EXP & CNS	3
COUN 691	SEM ON ETHCL & LGL ISS IN CNSL	3

Students should apply for internship at the beginning of the semester prior to the intended enrollment semester.

[1] For Licensure Requirements (see https://www.mdek12.org/OEL https://www.mdek12.org/OEL (https://www.mdek12.org/OEL/)for more information).

Counseling (Ed.S.) Psychometry Concentration

Department of Counseling, Rehabilitation and Psychometric Services

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Faculty

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Dr. F. Giles, Professor
Dr. L. Johnson, Associate Professor
Dr. K. Linstrum, Assistant Professor
Dr. A. Nelson, Assistant Professor
Dr. D. Porter, Associate Professor
Dr. N. Yazdani, Visiting Professor

Accreditation

Counseling, Rehabilitation and Psychometric Services programs are housed within the College of Education and Human Development, which is accredited by the Council on the Accreditation Educational Programs (CAEP). The Clinical Mental Health, School Counseling and Rehabilitation Counseling programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Program Objectives

In support of its mission, the department prepares masters and specialist level students for careers in professional counseling. The specific objectives of the department are to prepare students to:

- Acquire the professional skills necessary to become professional counselors,
- Obtain certification in school counseling or school psychometry, and
- Upgrade their certification and/or skill level in counseling.

Specialist in Education Psychometry Concentration

Students applying for admission to the Specialist program must obtain general admission to the Division of Graduate Studies; however, this does not guarantee admission to the College of Education Specialist program in the specific area of concentration. Students must also complete an application to the specific department.

Admission Requirements

- A master's degree from an accredited college or university
- An overall GPA of 3.0 or above (on a 4.0 scale) on the master's degree
- A completed Specialist program application
- Three letters of recommendation
- Acceptable evidence of the applicant's writing ability as determined by a writing sample completed under the supervision of the screening committee
- A successful interview with the program screening committee
- A recommendation for admission by the screening committee
- Student must hold a valid teaching license
- Deadline for applications for summer/fall admissions is March 15th

Degree Requirements

Students are required to complete 36 credit hours beyond the master's degree write a thesis, and obtain a passing score on the Graduate Comprehensive Examination.

Code	Title	Hours
Educational Core Requirements		
EDFL 601	ADV RESRCH & STATISTICS	3

EDFL 602	COMPARATIVE EDUCATION	3
or EDFL 610	SCHOOL&COMMUNITY RELATNS	
Counseling Core Course		
COUN 514	ANALYSIS OF THE INDIVIDUAL	3
or RHAB 523	VOCATIONAL APPRAISAL	
RHAB 560	PSYCH ASPECTS OF DISABLY	3
or COUN 517	LIFESTYLES & CAREER DEVELOPMNT	
COUN 527	INDIVIDUAL TESTING	3
COUN 627	INDIVIDUAL TESTING II	3
COUN 606	BEHAVIORAL ASSESSMENT	3
COUN 660	Individual Testing III	3
COUN 611	PSYCHODIAGNOSIS AND TREATMENT	3
Clinical Experience		
COUN 528	COUNSELING GIFTED	3
COUN 530	FOUNDATIONS OF TEST DEVELOPMEN	3
COUN 673	PRACTICUM IN SCHOOL PSYCHOLOGY	3
Total Hours		**36**

The Specialist in Education Program in Psychometry graduate will be eligible to earn the License for Psychometry from the Mississippi Department of Education.

Counseling (M.S.) Concentration in Clinical Mental Health

Department of Counseling, Rehabilitation and Psychometric Services

Dr. Dion Porter, Associate Professor and Chair
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Faculty

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Dr. D. Porter, Associate Professor
Dr. N. Yazdani, Assistant Professor

Accreditation

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Program Objectives

In support of its mission, the department prepares masters and specialist level students for careers in professional counseling. The specific objectives of the department are to prepare students to:

- Acquire the professional skills necessary to become professional counselors,
- Obtain certification in school counseling or school psychometry, and
- Upgrade their certification and/or skill level in counseling.

Admission Requirements

Applicants must be admitted to both the Division of Graduate Studies and the Counseling Program. The Counseling Program has the following admission requirements in addition to the Division of Graduate Studies requirements.

1. A minimum cumulative GPA of 3.00 for regular admission and 2.80 for conditional admission, at the undergraduate level.
2. Interview and a writing sample.
3. Three letters of recommendation sent directly to the department.
4. Applications will only be accepted for Fall or Summer enrollment.

Degree Requirements

To qualify for a Masters' degree in the department, a student must complete 60 semester hours with a cumulative GPA of 3.00 or above and obtain a passing score on the Graduate Comprehensive Examination (GACE).

Code	Title	Hours
Core		
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
or COUN 585	RESEARCH IN GUID & COUNSELING	
Required Concentration		
COUN 504	CLINICAL MENTAL HEALTH COUNCLG	3
COUN 506	INTRO TO PROFSNL COUNSELING	3
COUN 514	ANALYSIS OF THE INDIVIDUAL	3
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	3
COUN 520	PRINCIPLES & TECHNQ OF CNSLNG	3
COUN 526	DYNAMICS OF GROUP PROCESSING	3
COUN 561	PSYCHOLOGICAL ASPECTS HUM DEV	3
COUN 571	SUPERVISED LAB IN COUNSELING	3
COUN 611	PSYCHODIAGNOSIS AND TREATMENT	3
COUN 631	SOCIAL & CULTRL FNDTN OF CNSLG	3
COUN 658	MARRIAGE & FAMILY COUNSELING	3
COUN 671	PRACTICUM IN SUPRVSD EXP & CNS	3
COUN 691	SEM ON ETHCL & LGL ISS IN CNSL	3
Internship		
COUN 578	INTERNSHIP IN COUNSELING (600 clock hours)	9
Electives		
Select six credits of electives		6
Total Hours		**60**

Note: Students are required to complete the following courses before enrolling in internship:

Code	Title	Hours
COUN 504	CLINICAL MENTAL HEALTH COUNCLG	3
COUN 506	INTRO TO PROFSNL COUNSELING	3
COUN 514	ANALYSIS OF THE INDIVIDUAL	3
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	3
COUN 520	PRINCIPLES & TECHNQ OF CNSLNG	3
COUN 526	DYNAMICS OF GROUP PROCESSING	3
COUN 561	PSYCHOLOGICAL ASPECTS HUM DEV	3
COUN 571	SUPERVISED LAB IN COUNSELING	3
COUN 611	PSYCHODIAGNOSIS AND TREATMENT	3
COUN 631	SOCIAL & CULTRL FNDTN OF CNSLG	3
COUN 658	MARRIAGE & FAMILY COUNSELING	3
COUN 671	PRACTICUM IN SUPRVSD EXP & CNS	3
COUN 691	SEM ON ETHCL & LGL ISS IN CNSL	3

Students should apply for internship at the beginning of the semester prior to the intended enrollment semester.

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Counseling (M.S.) Concentration in Rehabilitation Counseling

Department of Counseling, Rehabilitation and Psychometric Services

Dr. Dion Porter, Associate Professor and Chair
P. O. Box 17122
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Faculty

Dr. R. Arnold, Associate Professor
Dr. G. Dansby-Giles, Professor
Dr. R. Fults-McMurtery, Professor
Dr. F. Giles, Professor
Dr. L. Johnson, Associate Professor
Dr. K. Linstrum, Assistant Professor
Dr. A. Nelson, Assistant Professor
Dr. D. Porter, Associate Professor
Dr. N. Yazdani, Assistant Professor

Master of Science Rehabilitation Counseling Concentration

The Rehabilitation Counseling Degree is a masters level program designed to prepare rehabilitation counselors. Rehabilitation counselors assist individuals with disabilities to adjust to their life circumstances. People with disabilities, regardless of their type, duration, or severity, may experience significant difficulties in social, psychological, vocational and familial aspects of their lives. Employment opportunities for program graduates include rehabilitation facilities, mental health agencies and human service agencies. The program works closely with the Mississippi Department of Rehabilitation Services in providing field based experiences. Typically, federally funded RSA traineeships are available to full time students.

Accreditation

The program is accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP).

Admission Requirements

Applicants are required to have a minimum GPA of 3.00 (based on a 4.00 scale) at the undergraduate level. Applicants with a GPA of 2.80 to 2.99 may be admitted on a conditional basis. A GRE score is not required. Applications for admission are considered for the fall session. Applicants should submit an application along with two copies of official transcripts to the Division of Graduate Studies and program application, three letters of recommendation and a writing sample submitted directly to the department. Successful candidates for admission must be interviewed by the rehabilitation faculty.

Degree Requirements

The Rehabilitation Counseling Degree is 57 semester hour program. Students seeking a masters' degree in Rehabilitation Counseling must:

1. Complete the 57-hour program.
2. Complete Field based experiences.
3. Pass the Graduate Area Comprehensive Examination.

Course Requirements

Code	Title	Hours
Core Foundations		
RHAB 509	INTRO TO REHAB COUNSELNG	3
RHAB 516	MEDICAL INFORMATION	3
RHAB 533	PLACEMENT LABORATORY	3
RHAB 560	PSYCH ASPECTS OF DISABLY	3
RHAB 585		3
RHAB 678	SEM N INTNL ISSU & TNDS N RHAB	3
RHAB 540		3
RHAB 594	SEMINAR IN REHABILITATION	3
Skills and Techniques		
Select 21 credits from the following:		21
COUN 526	DYNAMICS OF GROUP PROCESSING	
RHAB 523	VOCATIONAL APPRAISAL	
RHAB 524	VOCATIONAL EVALUATION	
RHAB 531	CASE MANAGEMENT	
RHAB 532	VOCAT PLCMT ANAL ADJ DIS	
RHAB 535	TECHNIQUES OF COUNSELING	
RHAB 519	COMMUNITY RESOURCES	
COUN 611	PSYCHODIAGNOSIS AND TREATMENT	
Clinical Experience		
RHAB 577	PRAC IN REHABILITATION I (100 clock hours)	3
RHAB 579	INTERNSHIP IN REHABILITATION (300 clock hours)	3
RHAB 579	INTERNSHIP IN REHABILITATION (300 clock hours)	3
Electives		
COUN 504	CLINICAL MENTAL HEALTH COUNCLG	3
COUN 658	MARRIAGE & FAMILY COUNSELING	3

RHAB 691	SEMINAR IN SUBSTANCE ABUSE	3
Total Hours		**63**

Counseling (M.S.Ed.) Concentration in School Counseling

Department of Counseling, Rehabilitation and Psychometric Services

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Dr. L. Johnson, Associate Professor
Dr. K. Linstrum, Assistant Professor
Dr. A. Nelson, Assistant Professor
Dr. D. Porter, Associate Professor
Dr. N. Yazdani, Assistant Professor

Accreditation

Counseling, Rehabilitation and Psychometric Services programs are housed within the College of Education and Human Development, which is accredited by the Council on the Accreditation Educational Programs (CAEP). The Clinical Mental Health, School Counseling and Rehabilitation Counseling programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Program Objectives

In support of its mission, the department prepares masters and specialist level students for careers in professional counseling. The specific objectives of the department are to prepare students to:

1. Acquire the professional skills necessary to become professional counselors,
2. Obtain certification in school counseling or school psychometry, and
3. Upgrade their certification and/or skill level in counseling.

Admission Requirements

Applicants must be admitted to both the Division of Graduate Studies and the Counseling Program. The Counseling Program has the following admission requirements in addition to the Division of Graduate Studies requirements.

1. A minimum cumulative GPA of 3.00 for regular admission and 2.80 for conditional admission, at the undergraduate level.
2. Interview and a writing sample.
3. Three letters of recommendation sent directly to the department.
4. Applications will only be accepted for Fall or Summer enrollment.

Degree Requirements

To qualify for a Masters' degree in the department, a student must complete 60 semester hours with a cumulative GPA of 3.00 or above and obtain a passing score on the Graduate Comprehensive Examination (GACE).

Degree Requirements

To qualify for a Masters' degree in the department, a student must complete 60 semester hours with a cumulative GPA of 3.00 or above and obtain a passing score on the Graduate Comprehensive Examination (GACE).

Code	Title	Hours
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDFL 568	CURRICULUM METHODS	3
COUN 506	INTRO TO PROFSNL COUNSELING	3
COUN 510	ORGAN & ADM OF GUIDANCE PROGS	3
COUN 514	ANALYSIS OF THE INDIVIDUAL	3
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	3
COUN 520	PRINCIPLES & TECHNQ OF CNSLNG	3
COUN 522	COUNSELING CHILDREN	3
COUN 526	DYNAMICS OF GROUP PROCESSING	3
COUN 561	PSYCHOLOGICAL ASPECTS HUM DEV	3
COUN 571	SUPERVISED LAB IN COUNSELING	3
COUN 631	SOCIAL & CULTRL FNDTN OF CNSLG	3
COUN 611	PSYCHODIAGNOSIS AND TREATMENT	3
COUN 658	MARRIAGE & FAMILY COUNSELING	3
COUN 671	PRACTICUM IN SUPRVSD EXP & CNS	3
COUN 691	SEM ON ETHCL & LGL ISS IN CNSL (Two Semesters)	6
COUN 678	INTERNSHIP IN COUNSELING (600 clock hours)	3
Total Hours		**57**

Note: Students are required to complete the following courses before enrolling in internship:

Code	Title	Hours
COUN 506	INTRO TO PROFSNL COUNSELING	3
COUN 510	ORGAN & ADM OF GUIDANCE PROGS	3
COUN 514	ANALYSIS OF THE INDIVIDUAL	3
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	3
COUN 520	PRINCIPLES & TECHNQ OF CNSLNG	3
COUN 526	DYNAMICS OF GROUP PROCESSING	3
COUN 561	PSYCHOLOGICAL ASPECTS HUM DEV	3
COUN 571	SUPERVISED LAB IN COUNSELING	3
COUN 578	INTERNSHIP IN COUNSELING	1-9
COUN 631	SOCIAL & CULTRL FNDTN OF CNSLG	3
COUN 691	SEM ON ETHCL & LGL ISS IN CNSL	3
COUN 671	PRACTICUM IN SUPRVSD EXP & CNS	3

Students should apply for Internship at the beginning of the semester prior to the intended enrollment semester.

Please see Curriculum Sheet for Recommended Electives.

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Education (Ed.S.) Concentration in Higher Education Administration On Campus Program

Department of Educational Administration, Foundations, and Research

Dr. Albert W. Carter, Interim Chair and Assistant Professor
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Faculty

Dr. Albert Carter, Assistant Professor
Dr. Chandar Lewis, Associate Professor
Dr. Jeton McClinton, Professor
Dr. Sidney McLaurin, Associate Professor
Dr. Benjamin Ngwudike, Professor
Dr. Dorris Robinson-Gardner, Professor
Dr. Adrianne Swinney, Assistant Professor
Dr. Ronald Walker, Associate Professor
Dr. Jennifer Wallace, Associate Professor

Department Objectives

The mission of the Department of Educational Administration, Foundations, and Research is to support, integrate, and implement the mission of the University and the College of Education and Human Development in the pursuit of excellence as responsive educators through teaching, research, service, and all phases of university life. More specifically, the department is responsible for preparing personnel for leadership roles in traditional and non- traditional settings, including the P-16 schools (building level and district central office level). A major emphasis is the preparation of leaders capable of managing and motivating people, conducting research, analyzing data, presenting findings, initiating, organizing, and facilitating action plans and establishing programs and strategies geared toward solving broad-based urban and metropolitan problems. The department is responsible for providing and directing programs in foundations (research, statistics, social, cultural, historical, and philosophical); K-12 certification, in higher education administration, in teaching and learning assistance in various areas of social life. Guided by the motto "Involvement is the Cornerstone of Excellence," the department and its programs exist to prepare professional instructional personnel at levels appropriate to the degrees offered and to meet certification requirements at the AA, AAA, and AAAA levels for the State of Mississippi in the various fields.The department also offers the Ph.D. concentration in Higher Education Administration which prepares faculty and mid/entry level executive personnel for career advancement in institutions of higher education.

The department's objectives are to prepare candidates who can proactively and confidently accomplish the following:

1. Locate, interpret and apply research pertinent to educational problems;
2. Exhibit competency in doing independent original research;
3. Derive the greatest benefits from classroom and online experience as prepared prospective teachers skilled in the techniques of instruction;
4. Develop competencies and professional leadership skills through the advancement of knowledge and research that enables him/her to assume major leadership roles in diverse communities;
5. Develop an understanding of the basic logical processes and resources useful in information retrieval;
6. Pursue advanced study in the Gestalt of education with emphasis in specialty areas, thus increasing skills and competencies to broaden his/her teaching and administrative efficiency;
7. Exhibit techniques and a desire for inquiry;
8. Demonstrate through multidisciplinary and interdisciplinary comprehensive examinations knowledge at a level expected of a doctoral candidate of new findings and trends in urban education;
9. Demonstrate knowledge of how to utilize knowledge of the Social Sciences and Social Studies in planning and implementing effective leadership.

Independent Study: Process and Procedures

A student may enroll in independent study for 1-6 semester hours. The study will be supervised by a graduate faculty member with expertise in the student's area of interest. At the beginning of the semester in which a student enrolls for an independent study, he/ she must confer with the instructor of record to develop a study plan. The plan shall include goals and objectives, activities required for achieving the objectives, a timetable for reporting progress and the criteria to be used in evaluating the course. Once the plan is fully developed, it becomes a contract and is signed by the student and the professor. The professor serves as a facilitator of learning, but also as a resource to the student. Please see College of Education and Human Development academic regulations for additional information.

Program in Responsive Education with Clinical

Experiences and Professional Training (PRECEPT) In keeping with the Responsive Educator Model (REM), the Professional Education Program includes a systematic five- stage strategy for the delivery of required, clinical, and field- based experiences. At Jackson State, the PRECEPT Program is sequenced to begin in the first or second semester of freshman studies and extend through doctoral level studies. Initially, at the basic level, campus-based classroom and clinical activities are most dominant, but over time clinical and field-based activities increase with an equivalent reduction in academic, seminar-type activities.

- PRECEPT III Master’s Degree Level
- PRECEPT IV Specialist Degree Level
- PRECEPT V Doctoral Degree Level

The level of difficulty of the sequential experiences moves from the simple to the complex. In essence, PRECEPT stages are both inter and intra dependent while at the same time they are self-contained units of preparation. PRECEPT courses are identified in course syllabi.

Specialist in Education: Higher Education Administration Concentration On Campus Program

The Specialist program in higher education administration is designed for individuals who are planning a career or seeking career advancement in the area of higher education. The curriculum will provide the candidate with the appropriate knowledge, skills, and current trends of higher education administration in the administrative process of higher education institutions. Additionally, this program provides College and University employees graduates opportunities to enhance their research skills, higher education knowledge, and professional best practices. With the consolidation of programs at four-year institutions and the growing student population in community colleges, this program prepares candidates to confidently assume teaching and/or administrative positions in higher education.

Purpose

The purpose of this specialist program with a concentration in higher education administration is to provide college administrators and staff the opportunity to study the history, culture, and organizations of higher education through a graduate program under the guidance and supervision of experienced department graduate faculty.

Enrollment

Enrollment will be limited. Degrees will be awarded upon the candidate successfully completing all of the program requirements. Students applying for admission to the Specialist program must obtain general admission to the Division of Graduate Studies; however, this does not guarantee admission to the College of Education Specialist program in the specific area of concentration. Students must also complete specific departmental admission requirements.

Admission Requirements

- A master's degree from an accredited college or university
- An overall GPA of 3.0 or above (on a 4.0 scale) on the master's degree
- A completed Specialist program application
- Three letters of recommendation
- Acceptable evidence of the applicant's writing ability as determined by a writing assessment completed under the supervision of the program/department screening committee
- A successful interview with the program/department screening committee
- A recommendation for admission by the screening committee
- A satisfactory GRE score
- A minimum of 6 years of successful employment in a community college or a four year institution
- Deadline for applications for summer/fall admission is March 1.

Requirements

A specialist with a concentration in higher education administration requires the completion of 18 credit hours, 9 hours of core courses and 9 credit hours of electives. All candidates must receive a grade of B or above in each course to receive this degree. Candidates receiving a grade below B will have to retake the course before credits will be awarded. All courses are 3 credit hours and are generally offered once each semester depending upon the availability of the faculty. A total of thirty-six graduate credit hours are required to earn a specialist with a concentration in Higher Education Administration.

Program of Study

Code	Title	Hours
Core Course		
EDAD 625	ORGAN. ADMIN. OF HIGH EDUCATIO	3
EDAD 698	LAW AND HIGHER EDUCATION	3
EDFL 668	HISTORICAL FNDTNS OF HIGHER ED	3
Concentration Courses		
EDAD 602	COMPARATIVE EDUCATION	3
EDAD 603	Leadership in Organizational Change and Human Resources	3
EDAD 630	COLLEGE TEACHING	3
EDAD 634	COMPUTERS IN EDUCATION	3
EDAD 638	THE COMMUNITY COLLEGE	3
EDAD 688	CURRENT ISSUES/N HIGHER EDUCTN	3
EDFL 601	ADV RESRCH & STATISTICS	3
Total Hours		**30**

Education (Ed.S.) Concentration in K-12 Administration

Department of Educational Administration, Foundations, and Research

Dr. Albert W. Carter, Interim Chair and Assistant Professor
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Department Objectives

The mission of the Department of Educational Administration, Foundations, and Research is to support, integrate, and implement the mission of the University and the College of Education and Human Development in the pursuit of excellence as responsive educators through teaching, research, service, and all phases of university life. More specifically, the department is responsible for preparing personnel for leadership roles in traditional and non- traditional settings, including the P-16 schools (building level and district central office level). A major emphasis is the preparation of leaders capable of managing and motivating people, conducting research, analyzing data,

presenting findings, initiating, organizing, and facilitating action plans and establishing programs and strategies geared toward solving broad-based urban and metropolitan problems. The department is responsible for providing and directing programs in foundations (research, statistics, social, cultural, historical, and philosophical); K-12 certification, in higher education administration, in teaching and learning assistance in various areas of social life. Guided by the motto "Involvement is the Cornerstone of Excellence," the department and its programs exist to prepare professional instructional personnel at levels appropriate to the degrees offered and to meet certification requirements at the AA, AAA, and AAAA levels for the State of Mississippi in the various fields.The department also offers the Ph.D. concentration in Higher Education Administration which prepares faculty and mid/entry level executive personnel for career advancement in institutions of higher education.

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1. Locate, interpret and apply research pertinent to educational problems;
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4. Develop competencies and professional leadership skills through the advancement of knowledge and research that enables him/her to assume major leadership roles in diverse communities;
5. Develop an understanding of the basic logical processes and resources useful in information retrieval;
6. Pursue advanced study in the Gestalt of education with emphasis in specialty areas, thus increasing skills and competencies to broaden his/her teaching and administrative efficiency;
7. Exhibit techniques and a desire for inquiry;
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Independent Study: Process and Procedures

A student may enroll in independent study for 1-6 semester hours. The study will be supervised by a graduate faculty member with expertise in the student's area of interest. At the beginning of the semester in which a student enrolls for an independent study, he/ she must confer with the instructor of record to develop a study plan. The plan shall include goals and objectives, activities required for achieving the objectives, a timetable for reporting progress and the criteria to be used in evaluating the course. Once the plan is fully developed, it becomes a contract and is signed by the student and the professor. The professor serves as a facilitator of learning, but also as a resource to the student. Please see College of Education and Human Development academic regulations for additional information.

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- PRECEPT III Master's Degree Level
- PRECEPT IV Specialist Degree Level
- PRECEPT V Doctoral Degree Level

The level of difficulty of the sequential experiences moves from the simple to the complex. In essence, PRECEPT stages are both inter and intra dependent while at the same time they are self-contained units of preparation. PRECEPT courses are identified in course syllabi.

Admission Requirements

Students applying for admission to the Specialist in Education program must obtain general admission to and submit required documents to the Division of Graduate Studies; however, this does not guarantee admission to the Department of Educational Administration, Foundations, and Research Specialist degree program in the specific area of concentration.

Admission Requirements:

- A master's degree from an accredited college or university
- An overall GPA of 3.0 or above (on a 4.0 scale) on the master's degree
- A completed Specialist program application
- Three letters of recommendation
- Acceptable evidence of the applicant's writing ability as determined by a writing assessment completed under the supervision of the screening committee
- A successful interview with the program screening committee
- A recommendation for admission by the screening committee/
- A satisfactory GRE score
- A valid teaching license
- Deadline for applications for summer/fall admissions is March 1.

Retention Requirements

A minimum grade point average of 3.00 (on a 4.00 scale) on all graduate work earned in the Specialist in Education degree program is required.

Program Requirements

Code	Title	Hours
Core		
EDFL 601	ADV RESRCH & STATISTICS [1]	3
Concentration Courses		
SPED 603	PSY EDUC EVAL OF EXC CHD	3
EDAD 603	Leadership in Organizational Change and Human Resources	3
EDAD 604	Organization of Effective Professional Development	3
EDAD 609	ADMN OF SCH FINANCE	3
EDAD 611	THEORIES OF ADMINISTRATN	3
EDAD 615	LEGAL ISSUES IN EDUCATIONAL AD	3
EDAD 626	SCHOOL SUPERINTENDENCY	3
EDAD 689	Strengthening Literacy for School and District Leaders	3

EDAD 697	INTERNSHIP IN EDUCATIONAL ADMINISTRATION	3
EDAD 699	RESEARCH IN INSTRUCTIONAL LEADERSHIP AND CURRICULUM	3
Total Hours		**33**

[1] EDFL 601 ADV RESRCH & STATISTICS has required prerequisites (EDFL 514 ELEMENTARY STATISTICS and EDFL 515 METHODS OF EDUCATIONAL RESEARC), the candidate's program total may increase to 30 or 42 hours for candidates who have not had these courses or their approved equivalents.

Educational Administration (Ph.D.)

Department of Educational Administration, Foundations, and Research

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Dr. Adrianne Swinney, Assistant Professor
Dr. Ronald Walker, Associate Professor
Dr. Jennifer Wallace, Associate Professor

Department Objectives

The mission of the Department of Educational Administration, Foundations, and Research is to support, integrate, and implement the mission of the University and the College of Education and Human Development in the pursuit of excellence as responsive educators through teaching, research, service, and all phases of university life. More specifically, the department is responsible for preparing personnel for leadership roles in traditional and non- traditional settings, including the P-16 schools (building level and district central office level). A major emphasis is the preparation of leaders capable of managing and motivating people, conducting research, analyzing data, presenting findings, initiating, organizing, and facilitating action plans and establishing programs and strategies geared toward solving broad-based urban and metropolitan problems. The department is responsible for providing and directing programs in foundations (research, statistics, social, cultural, historical, and philosophical); K-12 certification, in higher education administration, in teaching and learning assistance in various areas of social life. Guided by the motto "Involvement is the Cornerstone of Excellence," the department and its programs exist to prepare professional instructional personnel at levels appropriate to the degrees offered and to meet certification requirements at the AA, AAA, and AAAA levels for the State of Mississippi in the various fields.The department also offers the Ph.D. concentration in Higher Education Administration which prepares faculty and mid/entry level executive personnel for career advancement in institutions of higher education.

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5. Develop an understanding of the basic logical processes and resources useful in information retrieval;
6. Pursue advanced study in the Gestalt of education with emphasis in specialty areas, thus increasing skills and competencies to broaden his/her teaching and administrative efficiency;
7. Exhibit techniques and a desire for inquiry;
8. Demonstrate through multidisciplinary and interdisciplinary comprehensive examinations knowledge at a level expected of a doctoral candidate of new findings and trends in urban education;
9. Demonstrate knowledge of how to utilize knowledge of the Social Sciences and Social Studies in planning and implementing effective leadership.

Independent Study: Process and Procedures

A student may enroll in independent study for 1-6 semester hours. The study will be supervised by a graduate faculty member with expertise in the student's area of interest. At the beginning of the semester in which a student enrolls for an independent study, he/ she must confer with the instructor of record to develop a study plan. The plan shall include goals and objectives, activities required for achieving the objectives, a timetable for reporting progress and the criteria to be used in evaluating the course. Once the plan is fully developed, it becomes a contract and is signed by the student and the professor. The professor serves as a facilitator of learning, but also as a resource to the student. Please see College of Education and Human Development academic regulations for additional information.

Program in Responsive Education with Clinical

Experiences and Professional Training (PRECEPT) In keeping with the Responsive Educator Model (REM), the Professional Education Program includes a systematic five- stage strategy for the delivery of required, clinical, and field- based experiences. At Jackson State, the PRECEPT Program is sequenced to begin in the first or second semester of freshman studies and extend through doctoral level studies. Initially, at the basic level, campus-based classroom and clinical activities are most dominant, but over time clinical and field-based activities increase with an equivalent reduction in academic, seminar-type activities.

- PRECEPT III Master's Degree Level
- PRECEPT IV Specialist Degree Level
- PRECEPT V Doctoral Degree Level

The level of difficulty of the sequential experiences moves from the simple to the complex. In essence, PRECEPT stages are both inter and intra dependent while at the same time they are self-contained units of preparation. PRECEPT courses are identified in course syllabi.

Program Objectives

The Ph.D. degree prepares graduates for educational careers both executive and administrative in which they can effectively demonstrate abilities in motivating and leading all stakeholders with unified collaborations and data-driven solutions when faced with broad-based educational challenges, especially those which emerge in response to the dynamic social order of urban communities. The Program consists of three specific concentrations: K-12 administration with an administrative license, K-12 administration without an administrative license and higher education concentration. This goal is supported by the following program objectives:

1. To provide a terminal degree consistent with the highest level of leadership, educational practice, and scholarly research in either K-12 administration or higher education.
2. To provide an increased number of qualified leaders who can provide and demonstrate effective leadership in traditional and nontraditional educational settings.
3. To strengthen the capacity of leaders to conduct educational research and evaluation and to translate findings into creative solutions for urban and rural problems.
4. To promote research and development activities which enhance and expand the body of professional scholarly research in the field of urban education management for the twenty-first century and beyond.
5. To support the educational reform goal of the improved educational administration.

This advanced program of scholarly study and training experiences prepare graduates to assume leadership responsibilities in the areas of school and general management and administration, curriculum and instructional development, research and evaluation, staff development and training, student affairs, educational media and technology or a combination thereof.

Program Admission

Students applying for admission to the Ph.D. program must first obtain general admission through the Division of Graduate Studies; however, this admission does not mean automatic admission to the Ph.D. Program. Applications are accepted year round for admission each fall. **Applications must be submitted prior to March 1.** All students seeking admission to the Ph.D. Program must meet the following criteria:

1. A Master's degree from an accredited university.
2. A completed Ph.D. program application.
3. An overall GPA of 3.5 or above (on a 4.0 scale) on the highest earned degree.
4. Transcripts for all post-secondary, graduate work attempted prior to submitting a program application.
5. A satisfactory score on the GRE or on the Miller Analogies Test (MAT) taken in the past 5 years.
6. Recommendations from three (3) persons knowledgeable of the applicant's professional academic ability, job experiences, and leadership potential.
7. Acceptable evidence of a student's writing ability as determined by a writing assessment completed under the supervision of the department admissions committee.
8. A successful interview with the program committee.
9. Recommendation for admission by the admissions committee.
10. Concentration in K-12 administration requires evidence of the past three years of successful classroom teaching documentation.
11. At least three years of full-time teaching experience.
12. A minimum of 5 years of successful employment in a public, private, or proprietary community college, college, or university, municipal, state or federal government agency.

Conditional Program Admission

Conditional admission may be granted to individuals who have obtained general admission to the Division of Graduate Studies but who do not meet regular program admission requirements. All students admitted via the conditional program admission will be required to take a common core of nine (9) semester hours of regular graduate courses during their first semester of enrollment. During this specified period, conditional students must earn a minimum 3.0 GPA in the program of study taken at Jackson State University (transfer hours will not apply) in order to achieve regular status. Once the nine hours are completed, conditionally admitted students will be interviewed a second time by the program screening committee before they are allowed to continue to matriculate in the Ph.D. program. The department screening committee will notify the chair of the department of the results of the second interview. The chair of the department will notify the student by certified mail or university email and a conference with the student will occur before further enrollment. All conditionally admitted students will follow the "Time Limits" policy as stated in this Catalog. If a 3.0 GPA is not attained in the first nine (9) hours attempted, the student will be discontinued from the program. Conditional route admission is based on the following criteria:

1. A Master's degree from an accredited university.
2. A completed program application
3. Results of the GRE or MAT examination taken within the last five years.
4. A cumulative grade point average of 3.0 or above on all graduate work (4.0 scale)
5. Outstanding compensating strengths measured by the following criteria:
   a. Earned Master's degree from an accredited institution.
   b. Earned GPA on all graduate courses completed.
   c. Writing ability
   d. Success in current employment
   e. Administrative experience and/or potential for administrative experience.
   f. Teaching/work experience
   g. Communication skills.
6. Transcripts of all post-secondary graduate work attempted prior to program application
7. Recommendations from three (3) persons knowledgeable of applicant's professional academic ability, job experiences and leadership potential such as previous college professors and supervisors

8. Acceptable evidence of student's writing ability as determined by writing a sample under the supervision of the screening committee member.
9. A successful interview with the program screening committee.
10. Concentration in K-12 administration requires evidence of the past three years of successful classroom teaching documentation.
11. Higher Education Concentration requires a minimum of (5) years of successful employment in a community college, education institution or with a state and federal government program.

Program of Study

The initiative in planning the program of study must be assumed by the student. After notification of acceptance, the student should prepare a definition of his or her professional goals and the rationale for desiring the doctoral degree. The statement will be used by the doctoral committee in assisting with the planning of the student's program of study.

The student and major professor, using the statement of professional goals, transcripts of previous graduate work, results of the preliminary exam (if taken), and minimum course requirements, will prepare a tentative program of study which sets forth proposed coursework, independent studies, practicum, and other experiences deemed important. The student's proposed program of study should then be presented to the full committee for review and approval or revision, if necessary.

Since a program of study is individualized based upon a student's need, career goals, academic background, and present level of competence, the planned program of study is always subject to future additions, deletions and substitutions depending upon the needs of the student. These changes may be prescribed throughout the student's program of study by the student's doctoral committee. Proposed changes must be agreed upon the doctoral committee and approved by the Department Chair, and the Dean of the College of Education and Human Development.

Degree Requirements

All programs of study must include a minimum of 60 semester hours of coursework beyond the master's degree, excluding the dissertation. At least one-half of this coursework must be at the 600 and 700 levels of study. At least 45 semester hours of coursework and the dissertation must be completed at Jackson State. Subjects covered comprehensively in the student's previous education and in which the student maintains an acceptable level of competence need not be repeated. The typical student may expect to devote three years of full-time graduate study to earning the Ph.D. degree. All students accepted into the program will be required to pass the Graduate Area Comprehensive Examination following the successful completion of at least 80% of coursework.

The doctoral program consists of five areas of study. These areas and the minimum semester hours required are as follows:

Code	Title	Hours
Educational Administration Core		18
Professional Specialization		18
Evaluation, Research and Statistics		15
Cognate or Electives		9
Dissertation		12-15
Total Hours		**72-75**

Students with a master's or specialist degree in educational administration or leadership, who have been admitted to the Ph.D. program; **and**, who have completed the prerequisite requirements are expected to complete, at a minimum, the program specified below, as well as other courses the doctoral committee may prescribe.

Educational Administration (Ph.D.) Concentration in Higher Education

Department of Educational Administration, Foundations, and Research

Dr. Albert W. Carter, Interim Chair and Assistant Professor
P. O. Box 17175
Telephone: (601) 979-1140
Fax: (601) 979-3360
E-mail: albert.w.carter@jsums.edu

Faculty

Dr. Albert Carter, Assistant Professor
Dr. Chandar Lewis, Associate Professor
Dr. Jeton McClinton, Professor
Dr. Sidney McLaurin, Associate Professor
Dr. Benjamin Ngwudike, Professor
Dr. Dorris Robinson-Gardner, Professor
Dr. Adrianne Swinney, Assistant Professor
Dr. Ronald Walker, Associate Professor
Dr. Jennifer Wallace, Associate Professor

Department Objectives

The mission of the Department of Educational Administration, Foundations, and Research is to support, integrate, and implement the mission of the University and the College of Education and Human Development in the pursuit of excellence as responsive educators through teaching, research, service, and all phases of university life. More specifically, the department is responsible for preparing personnel for leadership roles in traditional and non- traditional settings, including the P-16 schools (building level and district central office level). A major emphasis is the preparation of leaders capable of managing and motivating people, conducting research, analyzing data, presenting findings, initiating, organizing, and facilitating action plans and establishing programs and strategies geared toward solving broad-based urban and metropolitan problems. The department is responsible for providing and directing programs in foundations (research, statistics, social, cultural, historical, and philosophical); K-12 certification, in higher education administration, in teaching and learning assistance in various areas of social life. Guided by the motto "Involvement is the Cornerstone of Excellence," the department and its programs exist to prepare professional instructional personnel at levels appropriate to the degrees offered and to meet certification requirements at the AA, AAA, and AAAA levels for the State of Mississippi in the various fields.The department also offers the Ph.D. concentration in Higher Education Administration which prepares faculty and mid/entry level executive personnel for career advancement in institutions of higher education.

The department's objectives are to prepare candidates who can proactively and confidently accomplish the following:

1. Locate, interpret and apply research pertinent to educational problems;
2. Exhibit competency in doing independent original research;
3. Derive the greatest benefits from classroom and online experience as prepared prospective teachers skilled in the techniques of instruction;
4. Develop competencies and professional leadership skills through the advancement of knowledge and research that enables him/her to assume major leadership roles in diverse communities;
5. Develop an understanding of the basic logical processes and resources useful in information retrieval;
6. Pursue advanced study in the Gestalt of education with emphasis in specialty areas, thus increasing skills and competencies to broaden his/her teaching and administrative efficiency;
7. Exhibit techniques and a desire for inquiry;
8. Demonstrate through multidisciplinary and interdisciplinary comprehensive examinations knowledge at a level expected of a doctoral candidate of new findings and trends in urban education;
9. Demonstrate knowledge of how to utilize knowledge of the Social Sciences and Social Studies in planning and implementing effective leadership.

Independent Study: Process and Procedures

A student may enroll in independent study for 1-6 semester hours. The study will be supervised by a graduate faculty member with expertise in the student's area of interest. At the beginning of the semester in which a student enrolls for an independent study, he/ she must confer with the instructor of record to develop a study plan. The plan shall include goals and objectives, activities required for achieving the objectives, a timetable for reporting progress and the criteria to be used in evaluating the course. Once the plan is fully developed, it becomes a contract and is signed by the student and the professor. The professor serves as a facilitator of learning, but also as a resource to the student. Please see College of Education and Human Development academic regulations for additional information.

Program in Responsive Education with Clinical

Experiences and Professional Training (PRECEPT) In keeping with the Responsive Educator Model (REM), the Professional Education Program includes a systematic five- stage strategy for the delivery of required, clinical, and field- based experiences. At Jackson State, the PRECEPT Program is sequenced to begin in the first or second semester of freshman studies and extend through doctoral level studies. Initially, at the basic level, campus-based classroom and clinical activities are most dominant, but over time clinical and field-based activities increase with an equivalent reduction in academic, seminar-type activities.

- PRECEPT III Master's Degree Level
- PRECEPT IV Specialist Degree Level
- PRECEPT V Doctoral Degree Level

The level of difficulty of the sequential experiences moves from the simple to the complex. In essence, PRECEPT stages are both inter and intra dependent while at the same time they are self-contained units of preparation. PRECEPT courses are identified in course syllabi.

Code	Title	Hours
I. Educational Administration Core		
EDAD 700	Research Writing for Educational Leaders [1]	3
EDAD 701	Implementation of Organizational Change [1]	3
EDAD 702	Equity and Culturally Responsive Leadership [1]	3
EDAD 703	EDU POL ANAL&RES URBAN EDUCATI [1]	3
EDAD 704	EDU FUTURES PLAN & DEVELOPMENT [1]	3
EDAD 705	Educational Government & Corporate Partnerships [1]	3
II. Professional Specialization		
EDAD 625	ORGAN. ADMIN. OF HIGH EDUCATIO [1]	3
EDAD 668 [1]		3
EDAD 698	LAW AND HIGHER EDUCATION [1]	3
Approved Electives		9
III. Evaluation, Research, and Statistics		
EDAD 710	ADV STAT CONCPT& COMP AN [1]	3
EDAD 712	QUAL RES DESGN&METH-EDUC [1]	3
EDAD 714	EXPERIMENTAL DESIGNS EDU [1]	3
IV. Cognate		
Nine credit hours of cognate courses [2]		9
V. Dissertation		
EDAD 799	DISSERTATION	12-15
Total Hours		**66-69**

[1] Certain courses are restricted in this program.

[2] The cognate should represent a cohesive plan of courses related to and supportive of the student's specialization. These courses are normally taken outside of the Department of Educational Leadership. Although the cognate must show unity, it can be Interdisciplinary in nature and consist of courses offered by several different departments. Only courses taken within the past 10 years will be accepted as cognate courses.

All students must demonstrate competence in using the computer or complete at least one computer course beyond the minimum electives requirement. The Higher Education Concentration does not result in K-12 licensure/certification.

Educational Administration (Ph.D.) Concentration in K-12 Administration and Supervision

Department of Educational Administration, Foundations, and Research

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4. Develop competencies and professional leadership skills through the advancement of knowledge and research that enables him/her to assume major leadership roles in diverse communities;
5. Develop an understanding of the basic logical processes and resources useful in information retrieval;
6. Pursue advanced study in the Gestalt of education with emphasis in specialty areas, thus increasing skills and competencies to broaden his/her teaching and administrative efficiency;
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8. Demonstrate through multidisciplinary and interdisciplinary comprehensive examinations knowledge at a level expected of a doctoral candidate of new findings and trends in urban education;
9. Demonstrate knowledge of how to utilize knowledge of the Social Sciences and Social Studies in planning and implementing effective leadership.

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- PRECEPT III Master's Degree Level
- PRECEPT IV Specialist Degree Level
- PRECEPT V Doctoral Degree Level

The level of difficulty of the sequential experiences moves from the simple to the complex. In essence, PRECEPT stages are both inter and intra dependent while at the same time they are self-contained units of preparation. PRECEPT courses are identified in course syllabi.

Code	Title	Hours
I. Educational Administration Core		
EDAD 700	Research Writing for Educational Leaders [1]	3
EDAD 701	Implementation of Organizational Change [1]	3
EDAD 702	Equity and Culturally Responsive Leadership [1]	3
EDAD 703	EDU POL ANAL&RES URBAN EDUCATI [1]	3
EDAD 704	EDU FUTURES PLAN & DEVELOPMENT [1]	3
EDAD 705	Educational Government & Corporate Partnerships [1]	3
II. Professional Specialization		
EDAD 715	LEGAL ISSUES IN EDUCATIONAL ADMINISTRATION [1]	3
EDAD 720	Leadership and Professional Development [1]	3
EDAD 721	MNGT OF ORG CHNG&HUM REL [1]	3
EDAD 786	STRENGTHENING LITERACY FOR SCHOOL AND DISTRICT LEADERS	3
EDAD 798	INTERNSHP/MENTORSHP EXPERIENCE [1]	3

III. Evaluation, Research and Statistics		
EDAD 710	ADV STAT CONCPT& COMP AN [1]	3
EDAD 712	QUAL RES DESGN&METH-EDUC [1]	3
EDAD 714	EXPERIMENTAL DESIGNS EDU [1]	3
IV. Cognate		
Nine semester hours of Cognate courses [2]		9
V. Dissertation		
EDAD 799	DISSERTATION	12-15
Total Hours		**63-66**

[1] Certain courses are restricted in this program.

[2] The cognate should represent a cohesive plan of courses related to and supportive of the student's specialization. These courses are normally taken outside of the Department of Educational Leadership. Although the cognate must show unity, it can be Interdisciplinary in nature and consist of courses offered by several different departments. Only courses taken within the past 10 years will be accepted as cognate courses.

All students must demonstrate competence in using the computer or complete at least one computer course beyond the minimum electives requirement.

Educational Administration and Supervision (M.S.)

The Master of Science in Educational Administration and Supervision is a **33**-hour degree program designed for students seeking careers in administration and supervision. A Bachelor of Science degree in Education is recommended for the student pursuing graduate study leading to this degree.

Admission Requirements

Students applying for admission to the Master of Science program must obtain general admission to the Division of Graduate Studies; however, this does not guarantee admission to the Master of Science program. Applications are accepted prior to March 1 of each year for summer and fall admission. Applications are accepted prior to October 15 of each year for spring admission.

Departmental Admission requirements for the program are as follows:

1. A bachelor's degree from an accredited college or university.
2. An overall GPA of 3.0 or above (on a 4.0 scale) on the bachelor's degree.
3. A completed Master of Science program application.
4. Recommendations from three persons, one of whom must be the applicant's supervising principal, or school district superintendent or assistant superintendent.
5. Acceptable evidence of the applicant's writing ability as determined by a writing assessment completed under the supervision of the screening committee.
6. A successful interview with the program screening committee.
7. A recommendation for admission by the screening committee.
8. Valid teaching certificate.
9. At least 3 years of full-time teaching experience.

Degree Requirements

Code	Title	Hours
Phase I: An Introduction to Urban Education		
EDAD 512	INTRO TO SCH LDRSHP THEO & PRA	3
EDAD 513	SCHOOL-BASED PRGM EVAL & IMPRO	3
EDAD 514	LEADING CHNGE TO SUP SCH IMPRO	3
EDAD 515	LEGAL ISSUES FOR SCHOOL LEADRS	3
Phase II: Case Problems in Urban Education		
EDAD 516	LEADING & MANAGING HUMAN RESOU	3
EDAD 517	RES & ACCT FOR SCHOOL FINANCE	3
Phase III: Exemplary Approaches to Urban Issues		
EDAD 519	Instructional Leadership and Professional Development	3
Phase IV: Effective Leadership in Urban Context		
EDAD 522	Equity and Culturally Responsive Leadership	3
EDAD 523	Building Community Partnerships	3
EDAD 586	STRENGTHENING LIT FOR ED LEADE	3
EDAD 524	INTERNSHIP	3
Total Hours		**33**

Note: All students seeking Mississippi Class AA certificates must obtain the Mississippi minimum score on the School Leaders Licensure Exam (SLLA) in order to be recommended for certification.

Educational Administration and Supervision (M.S.) Online Program

The Master of Science in Educational Administration and Supervision is a 33-hour degree program designed for students seeking careers in administration and supervision. A Bachelor of Science degree in Education is recommended for the student pursuing graduate study leading to this degree.

Admission Requirements

Students applying for admission to the Master of Science program must obtain general admission to the Division of Graduate Studies; however, this does not guarantee admission to the Master of Science program. Applications are accepted prior to March 1 of each year for summer and fall admission. Applications are accepted prior to October 15 of each year for spring admission.

Admission requirements for the program:

1. A bachelor's degree from an accredited college or university.
2. An overall GPA of 3.0 or above (on a 4.0 scale) on the bachelor's degree.
3. A completed Master of Science program application.
4. Recommendations from three persons, one of whom must be the applicant's supervising principal or school district superintendent or assistant superintendent.
5. Acceptable evidence of the applicant's writing ability as determined by a writing assessment completed under the supervision of the screening committee.
6. A successful interview with the program screening committee.
7. A recommendation for admission by the screening committee.

8. Valid teaching certificate.
9. At least 3 years of full-time teaching experience.

Degree Requirements

Code	Title	Hours
Phase I: An Introduction to Urban Education		
EDAD 512	INTRO TO SCH LDRSHP THEO & PRA	3
EDAD 513	SCHOOL-BASED PRGM EVAL & IMPRO	3
EDAD 514	LEADING CHNGE TO SUP SCH IMPRO	3
EDAD 515	LEGAL ISSUES FOR SCHOOL LEADRS	3
Phase II: Case Problems in Urban Education		
EDAD 516	LEADING & MANAGING HUMAN RESOU	3
EDAD 517	RES & ACCT FOR SCHOOL FINANCE	3
Phase III: Exemplary Approaches to Urban Issues		
EDAD 519	Instructional Leadership and Professional Development	3
Phase IV: Effective Leadership in Urban Context		
EDAD 522	Equity and Culturally Responsive Leadership	3
EDAD 523	Building Community Partnerships	3
EDAD 586	STRENGTHENING LIT FOR ED LEADE	3
EDAD 524	INTERNSHIP	3
Total Hours		**33**

Note: All students seeking Mississippi Class AA certificates must obtain the Mississippi minimum score on the School Leaders Licensure Exam (SLLA) in order to be recommended for certification.

Urban Higher Education (EPh.D.)

Dr. Walter A. Brown, Professor and Executive Director
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Faculty

Professor
Dr. Walter Brown
Dr. Alma Thornton
Dr. Felix Okojie

Associate Professors
Dr. Walter Crockett

Mission

The Executive Ph. D. Program (EPhD) in Urban Higher Education is intended to prepare executives, middle/senior managers and other institutional leaders in higher education and related human services agencies to respond effectively to the challenges posed by urban and metropolitan communities in a pluralistic society undergoing sustained social, economic and political change.

The EPhD Cohort Model

This program is designed on the cohort model which requires all admitted students to complete the same courses from beginning to end or a 24-month period. Although culminating dissertation development is finalized in the latter stages of doctoral studies, the preparation, planning and refining of the dissertation is interwoven throughout the 24 months. Students will be required to develop a two-year plan which identifies a balance between their coursework and professional work duties at their home/host institution or agency. It is imperative that this plan is developed to facilitate high performance and sustainable productivity in the student's life during enrollment in this program.

The EPhD cohort model represents a cadre of committed colleagues who enroll in, and graduate from, an accelerated research-based doctoral program collectively-- matriculating in a rigorously planned and intensely prescribed academic program of study according to a signed agreement and a related pledge agreed upon by each student in the cohort.

The EPhD cohort model requires students to carefully and diligently plan ahead. The model promotes collegiality, interdependence, networking and camaraderie among students for a lifetime. The Cohort model is designed for adult learners who are working professionals and can persevere as well as endure the rigors of the program toward personal and professional growth.

Accreditation

The EPhD program is offered in the College of Education and Human Development which is accredited by the Council for the Accreditation of Educator Preparation (CAEP). Both the College of Education and Human Development, and Jackson State University are accredited by the Southern Association for Schools and Colleges (SACSCOC). To date, there is no agency or organization for accrediting programs in higher education at the doctoral level. Students who successful complete the EPhD program will meet the standards and requirements set by CAEP and SACSCOC.

Program Admission

Students applying for admission to the EPhD Program must first obtain general admission to the Division of Graduate Studies; however, this admission does not mean automatic admission to the Program. Applications are accepted year round for admission each fall. **Applications must be submitted prior to March 1.** Admission will be limited to a cohort of typically 15-25 participants from higher education faculty, experienced, and mid/entry level executive personnel in higher education and other related sectors. Admission to the EPhD Program will be guided by the following criteria:

1. A Master's degree from an accredited university.
2. A completed EPhD program application.
3. Transcripts for all post secondary work attempted prior to submitting a program application.
4. A satisfactory score on the GMAT, GRE or MAT.
5. References from three (3) professional persons who are knowledgeable of the applicant's professional academic ability, job experiences, leadership potential and availability to participate in the program. A reference from the President or Chief Executive Officer will strengthen the application.
6. Acceptable evidence of a student's writing ability as determined by an on-site writing sample completed under the supervision of the screening committee member.

7. Clear statement on how previous graduate work relates to urban higher education and the proposed dissertation topic.
8. A successful interview with the program screening committee.
9. Recommendation for admission by the screening committee. Note: Students accepted in this program will transfer twelve (12) hours from previous graduate work to complement the core areas. Approval is required by the program faculty, before being admitted formally and officially to the program.

Dissertation Pre-Planning

As part of the admissions process for the EPhD program, students are required to complete a dissertation framework for their anticipated research, which covers the following:

1. The proposed research topic and problem statement
2. The preliminary results from a review of related literature

Time Limits

No student admitted to the Executive PhD program will be granted the doctoral degree unless all program and academic requirements are completed. The time frame allotted for coursework completion is 24 months (2 years).

Financial Aid

Students admitted to the Executive PhD program are strongly encouraged to seek financial support from their home institution/agency. This is also reinforced in the Executive PhD degree agreement signed by the admitted student and his/her supervisor. Under special circumstances, and provided resources are available, graduate research and teaching assistantships or fellowships may be available and awarded on a competitive basis to highly qualified admitted students. Students admitted to the program are eligible to apply for the Stafford Loan.

Retention

Students admitted to the EPhD program will be required to successfully complete all academic classes, program requirements and evidence toward dissertation to demonstrate student points of progress concerning enrollment to retention, and retention to graduation.

Residence Requirements

Students admitted to the Executive PhD Program will be required to spend approximately one weekend a month, defined as Thursday through Saturday to actively participate in all required program classes, activities, modules, and other related field work. Wednesday is considered a travel transition day in preparation for this required residence and Sunday a departure day. Lodging and food expenses are incorporated into the tuition and participatory fees for this program.

Candidacy Requirements

To be successfully admitted to doctoral candidacy in the Executive PhD program, all students must successfully prepare for the comprehensive examinations, complete the comprehensive examinations, and present evidence of successful progress toward the development of the dissertation. In this regard, students must:

1. Successfully complete formal coursework and all instructionally related activities with a GPA of 3.0 or better following the completion of at least 2 semesters.
2. Successfully pass the comprehensive examination.
3. Appropriately, and in a timely manner file with the Dean of the Division of Graduate Studies, the dissertation proposal approved by the student's advisor, Department Chair, EPHD Executive Director, and College Dean.

Cognate Component (12 Hours).

Students accepted in the EPhD must be able to transfer 12 hours of approved previous graduate work before admission is granted to enhance the cognate area of interest and to complement the cores.

Degree Requirements

This executive program requires approximately 24 months or two years of coursework and related activities, resulting in a minimum of 72 hours, including a minimum of 12 hours toward dissertation. Additional requirements of this program include:

1. completion of the EPhD agreement,
2. satisfactory performance and completion of the comprehensive examinations, following the completion of required course work and
3. successful preparation and defense of the dissertation.

The final basis for granting this degree shall be the candidate's evidence of gained knowledge, skills, and dispositions from the collective course work, mastery of theoretical, conceptual and research perspectives and completion of the dissertation.

Course Requirements

The Program offers courses on a cohort basis.

Code	Title	Hours
Professional Specialization Core		
EDHE 814	LEADERSHIP IN HIGHER EDUCATION	3
EDHE 824	STUDENT AFFAIRS ADMINISTRATION	3
EDHE 825	MTHDS OF URBN & REG ANL & PLAN	3
EDHE 877	PUBLIC POLICY FORMULATION	3
EDHE 882	SEM IN PROG DVLPMNT, IMP & EVA	3
Higher Education Core		
EDHE 800	PHIL & HIST OF URBAN HIGHER ED	3
EDHE 802	HIGHER ED LDSHP & ORG IN CC EN	3
EDHE 804	EDUCTNL FUTURES:PLANG & DVLPMT	3
EDHE 805	GLOBALIZATION OF HIGHER EDUCAT	3
EDHE 829	SEM IN LEGAL ASPS OF HIGHER ED	3
EDHE 865	HIGHER EDUCATION FINANCE	3
Statistics and Research Methods Component		
EDHE 812	QUANTITATIVE RESEARCH METHODS	3
EDHE 813	QUALITATIVE RESEARCH METHODS	3
EDHE 820	ADVANCED STATISTICAL METHODS	3
EDHE 830	ADVD QUALITATIVE RESEARCH METH	3
EDHE 833	RESEARCH DESIGN	3
EDHE 899	DISSERTATION	7
EDHE 899	DISSERTATION	5
Cognate Transfer Component		
12 hours of previous graduate work [1]		12
Total Hours		**72**

[1] 12 hours of previous graduate work must be approved for transfer before admission is granted to enhance the cognate area of interest and to complement the cores.

School of Instructional Leadership

Dr. Tony Latiker, Interim Dean
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Departments

- Elementary and Early Childhood Education
- Health, Physical Education and Recreation
- Special Education

Masters

- Early Childhood Education (M.S.) (p. 41)
- Elementary Education (M.S.Ed.) (p. 44)
- https://jsums-next.courseleaf.com/graduate/college-education-human-development/school-instructional-leadership/teaching-mat/
- Physical Education (M.S.Ed.) (p. 47)
- Reading Education (M.S.) (p. 46)
- Special Education (M.S.Ed.) Concentration in Visual Impairment (p. 51)
- Sport Science (M.S.) Concentration in Sport Management (p. 52)
- Sport Science (M.S.) Concentration in Strength and Conditioning (p. 52)

Specialist

- Education (Ed.S.) Concentration in Elementary Education (p. 43)
- Special Education (Ed.S.) (p. 48)
- Special Education (M.S.Ed.) Concentration in Mild/Moderate Disabilities (p. 49)

Doctoral

- Early Childhood Education (Ed.D.) (p. 40)
- Educational Administration (Ph.D.) Concentration in K-12 Administration and Supervision (p. 33)

Course Descriptions

PE 505 PRACTICUM IN LIFETIME SPORTS (3 Hours)
Designed to study lifetime sports such as tennis, archery, golf, swimming, badminton, and many others in which one may participate throughout life.

PE 522 MOTOR LEARNING & HUMAN (3 Hours)

PE 540 ORG & ADM OF 2 & 4 YR CO (3 Hours)
Study of the organizational structure of physical education in two and four year colleges. The course will cover theory, professional preparation and practices and administration. The course will show how administrative theories are developed. It will dwell on the broad process of administration that might be designed as decision making, communicating, activating, planning and evaluating.

PE 550 RESEARCH IN PHYSICAL EDU (3 Hours)
Study and application of research techniques to selected problems in health, physical education, and recreation.

PE 552 BIOMECHANICS (3 Hours)
In-depth study of the application of mechanical principles to athletic performance. The study will make application of laws of balance, motion, force, work and energy, to track and field, baseball, football, swimming, diving, gymnastics, basketball, golf, and tennis.

PE 553 ADV PHYSIOLOGY OF MUS AC (3 Hours)
Prerequisite: Human Physiology and/or Introductory Course in Exercise Physiology.
Lectures, discussions and experiments dealing with the structure, function and metabolism of skeletal and cardiac muscles Emphasis on correlating muscle function with metabolic events. The biochemical basis of adaptation of muscle function is considered.

PE 587 INDEPENDENT STUDY IN P E (1 Hour)
Implementation of individual student research project under the guidance of an advisor.

PE 589 INDEPENDENT STUDY IN P E (1-3 Hours)
Opportunity for students to undertake independent study and research under the direction of a faculty member. The student will submit a written report and may be asked to stand a comprehensive examination of his work.

SC 501 STRENGTH & CONDITIONING (3 Hours)

SC 513 Sport Nutrition (3 Hours)
This Course is intended to develop knowledge of current concepts and trends in sport and exercise nutrition, as well as the ability to plan and implement a nutrition program designed to meet the unique needs of all individuals.

SC 545 SPORT PSYCHOLOGY AND SOCIOLOGY (3 Hours)

SC 550 INTERNSHIP (3-6 Hours)

SC 600 THESIS (3-6 Hours)

SCL 501 STRENGTH & CONDITIONING LAB (1 Hour)

SPED 500 SUR OF EXCEP CHILD & YTH (3 Hours)
Prerequisite: SPED 503)
A study of definitions, characteristics, educational programs and problems of exceptional individuals. (

SPED 504 ADMIN & ORG PROC FOR SPE (3 Hours)
Prerequisite: SPED 500, 530, 532, 550, 599, 528, 507, and 586.
A study of administrative and organizational structures, programmatic procedures, policies, resources, and guidelines essential to the delivery of educational services for exceptional learners. ()

SPED 507 Advanced Methods in Behavioral Management (3 Hours)
Observational methodology in behavioral assessment, behavioral management and a review of principles and procedures of behavior change from social learning and applied behavior analysis perspectives. Particular attention will be given to the design, implementation, and evaluation of behavioral interventions with children and families. Emphasis will be placed on effective school-based interventions to include current techniques and tools for understanding and handling behaviors in the classroom.

SPED 520 ASSISTIVE TECHNOLOGY FOR DIS (3 Hours)
Prerequisite: SPED 500)
A survey of assistive technology/devices, legislation and issues related to assistive technology. Hands-on demonstration experiences of technology and software that facilitate new ways of teaching individuals with disabilities is provided. (

SPED 522 ASS TECH FOR I W VISUAL IMPAIR (3 Hours)
This course gives an overview of assistive technology, devices, services, legislation, computer literacy and other issues related to assistive technology specifically for individuals who are visually impaired. Participants will also learn how to: (a) identify resources, (b) funding sources, and (c) the fundamentals of assessing and adapting the latest technology appropriate for students with visual impairments.

SPED 528 AD ED ASSM PRE PLN SPE E (3 Hours)
Prerequisite: SPED 500, 530, 532, 550, and 599)
Special diagnostic procedures with exceptional learners with implications for prescriptive planning. (

SPED 529 ASSESSMENT PROCEDURES FOR THE (3 Hours)
Prerequisite: SPED 543, 540, 542)
Introduction to the concepts, issues, instruments and procedures involved in assessment of visually impaired children and adolescents. (

SPED 540 INTRO CHILDREN W VISUAL IMPAIR (3 Hours)
Introduction to Children with Visual Impairments. (3) An introductory course providing a comprehensive, life-span overview of the field of visual impairments. Examines the legal, demographic, historical, and psychosocial perspectives, as well as the various services and programs available. Through demonstration, simulation, and practical experiences, students will be exposed to a variety of adaptive skills, techniques, and devices used by persons with visual impairments.

SPED 541 METH & MAT TCH VIS HNDCP (3 Hours)
Prerequisite: SPED 543, 540, 542, 529)
The students will design appropriate educational environments, plan instructional programs for low vision students, which will include: functional vision assessment, Braille literacy, learning media assessments, instructional strategies for activities of daily living, concept development, social skills, and subject content. (

SPED 542 STRUC & FUNCT OF THE EYE (3 Hours)
Prerequisite: SPED 543, 540)
This course provides an overview of normal and abnormal development of the human eye. Included are topics of ocular anatomy and physiology; pathological conditions affecting the human eye, and clinical and functional vision assessments. A strong component of low vision is provided within this course, which includes functional vision assessments, environmental vision assessments, optics, the use of optical devices, and the principles of optimizing visual efficiency. (

SPED 543 INTRODUCTION TO BRAILLE (3 Hours)
Emphasis will be placed on reading and writing Unified English Braille, educational strategies, and tools that will aid the teacher in learning to read embossed Braille visually; and write Unified English Braille using a Perkins Braille Writer, computer keyboard for six-key entry, a and slate and stylus. Understanding and addressing: (1) behavior related problems of students visual and multiple disabilities, and (2) issues related to the influence of additonal disabilities of students who have visual impairments will also be addressed.

SPED 544 INTRO TO ORIENTATION & MOBILIT (3 Hours)
Prerequisite: SPED 543, 540, 542, 529, 541, 508)
This course is designed to give practical applications of orientation and mobility techniques to be used by teachers of students that are blind and visually impaired. This class will offer instruction and experiences through supervised blindfold activities in indoor and commercial environments; includes special travel situations, shopping malls, and in store travel. (

SPED 545 ADVANCED BRAILLE (3 Hours)
Course is designed to amplify basic knowledge and proficiency of Braille. An in depth study of tools and teaching strategies used in mathematics to include the Nemeth Code, Sciientific Notebook software and the abacus will be taught to include a review of te Unified English Braille code.

SPED 569 ADV. STRA. FOR MANAGING AGGRE (3 Hours)
Prerequisite: SPED 550, 530, and 532).
Emphasizes prevention and crisis management models, verbal intervention and personal safety skills applicable with verbal aggressive and physically violent behavior. (

SPED 586 PRACTICUM IN SPECIAL EDUCATION (3 Hours)
Prerequisite: SPED 500, 530, 532, 550, 599, 528, and 507)
Supervised practicum; application of methods and techniques appropriate to various exceptionalities. SPED 587 Practicum: Mildly Moderately Handicapped, SPED 588: Practicum: Visually Handicapped, SPED 589 Practicum: Behavior Disorders, Practicum: Gifted and Talented. (

SPED 599 SEMINAR IN SPECIAL EDUCA (3 Hours)
Prerequisite: SPED 500, 530, 532, and 550)
Currents problems, issues, and trends in the field of special education. (Assignments are made according to area(s) of specialization - SPED 521 Seminar: Mildly/Moderately Handicapped, SPED 523 Seminar: Visually Impaired, SPED 524 Seminar: Behavior Disorders, SPED 526 Seminar: Gifted and Talented. (

SPED 600 GUID EXCE CHILDREN YOUTH (3 Hours)
Study of the problems of personal, social, educational, and vocational adjustment of exceptional children and youth.

SPED 601 BEHV MGNT W/EXC CLDR YTH (3 Hours)
Prerequisite: SPED 600, 607, 605, 699, and 606)
Classroom application of strategies for managing behavioral problems in the school, emphasis on research in classroom behavior modification. (

SPED 602 COGNITIVE PROC & EX CHLD (3 Hours)
Study of cognitive development of exceptional children with emphasis on the impact of exceptionality on cognition.

SPED 603 PSY EDUC EVAL OF EXC CHD (3 Hours)
Procedures in assessing exceptional children and youth with special attention given to interpretation and application of diagnostic instruments for the purpose of planning prescriptive programs.

SPED 604 ADM & SUPERV IN SPEC EDU (3 Hours)
Prerequisite: SPED 600, 607, 605, 686, and 679)
Analysis of organizational and administrative principles and practices for diverse programs in special education. (

SPED 606 CONSUL ITIN & RESOURSE T (3 Hours)
Prerequisite: SPED 600, 607, 605, 699)
Role responsibilities, and problems of consulting, itinerant, and resource teachers in special education. (

SPED 679 INDIVIDUAL RESEARCH (1-3 Hours)
Prerequisite: Permission of Advisor, Pass English Competency, Pass Area Comprehensive Examination; SPED 600, 607, 605, and 686)
Special attention given to design, application, and evaluation of student research projects (to be conducted under the supervision of an adviser). (

SPED 686 PRACTICUM SPECIAL EDUCATION (3 Hours)
Prerequisite: SPED 605)
Supervised practicum; application of methods and techniques appropriate to various exceptionalities. (Assignments are made according to area (s) of specialization SPED 670 Practicum: Mildly/ Moderately Handicapped, SPED 671 Practicum: Visually Handicapped, SPED 672 Practicum SPED 674 Practicum: Gifted and Talented. (

SPED 699 SEMINAR IN SPECIAL EDUCATION (3 Hours)
Prerequisite: SPED 600, 607, and 605)
Intensive study and analysis of contemporary issues and trends in the area of special education with implications for curriculum planning and teaching methodology. (Assignments are made according to area (s) of specialization SPED 608 Seminar: Mildly Moderately Handicapped, SPED 609 Visually Handicapped, SPED 610 Seminar, SPED 612 Seminar: Gifted and Talented. (

SPM 510 SPORT MARKETING (3 Hours)

SPM 512 FACILITY DESIGN & MAINTENANCE (3 Hours)

SPM 513 Sport Nutrition (3 Hours)
This Course is intended to develop knowledge of current concepts and trends in sport and exercise nutrition, as well as the ability to plan and implement a nutrition program designed to meet the unique needs of all individuals.

SPM 515 GOVERNING BODIES & THE LAW (3 Hours)

SPM 516 Sport Statistics and Analytics (3 Hours)
This course is intended to introduce a study of measurement theory, instruments used to collect data, and procedures for data analysis specific to athletic performance. The use of statistical software (Excel, SPSS, R) for data analysis is involved.

SPM 530 SPORTS FINANCE (3 Hours)

SPM 543 SPORT ADMINISTRATION AND ORGN (3 Hours)

SPM 560 ETHICS OF SPORT (3 Hours)

SPM 590 INTERNSHIP (3-6 Hours)

SPM 600 THESIS (3-6 Hours)

Early Childhood Education (Ed.D.)

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The Department of Elementary and Early Childhood Education offers graduate programs leading to the Master of Science in Education Degree in Early Childhood Education, Literacy and Elementary Education; the Specialist in Education Degree in Elementary Education; and the Doctor of Education Degree in Early Childhood Education.

Departmental Objectives

The department and its programs exist to prepare professional instructional personnel at levels appropriate to the degrees offered, and to meet certification requirements at AA, AAA, and AAAA levels for the State of Mississippi in the various fields. The department's intention is to prepare candidates who:

1. Demonstrate sensitivity to the emerging knowledge bases and understand how they impact education and the need for change;
2. Adjust methods, curriculum and service approaches to meet the needs of diverse learners;
3. Demonstrate a repertoire of educational related strategies and skills which enable them to share knowledge effectively;
4. Demonstrate critical thinking competence and effective communication skills in various forms and media;
5. Ensure that established standards for successful learner outcomes are met;
6. Possess the ability to work successfully with learners, teachers, college faculty, and others;
7. Demonstrate knowledge of and skill in applying basic principles undergirding the selection and utilization of methods, techniques and devices which facilitate effective program development using various educational models;
8. Can locate, interpret and apply research pertinent to educational problems;
9. Exhibit competency in doing independent, original research;
10. Are able to identify, interpret and promote the functions of education in a democracy;
11. Are skilled in the techniques of instruction and ensure that pupils will derive the greatest benefits from classroom experiences;
12. Serve as facilitators for the total process of growth and learning;
13. Develop competencies and professional leadership skills through the advancement of knowledge and research that will enable them to assume major leadership roles in diverse communities.

Accreditation

The required concentration curriculum is based on the NASDTEC (National Association of State Directors of Teacher Education and Certification) standards and professional accreditation recommendations of the Council for the Accreditation of Educator Preparation (CAEP), Southern Accreditation Colleges and Schools Commission on Colleges (SACSCOC), the National Association for Education of Young Children (NAEYC), and Association for Childhood Education International (ACEI).

Students complete the following course of study in consultation with their faculty advisors.

Program Objectives

The focus of the doctoral program is on the study of early childhood education and its practice, including aspects of child development, pedagogy, curriculum, policy analysis, history and philosophy, and basic and applied research. The primary outcome for the doctoral candidate is to become a leader for the field who influences the practice of early childhood education through the generation of knowledge; the education of early childhood professionals; the conduct of research on young children's development and learning; the development implementation, and evaluation of curriculum; administration of early childhood programs and services at the local, state, and national levels; and the analysis and generation of public policy related to early childhood education.

Doctoral candidates are expected to demonstrate the following competencies:

1. Knowledge and understanding of the dominant theories of human and sociocultural development and learning through the life span; knowledge of research on social, emotional, cognitive, language, aesthetic, motor, and perceptual development and learning in children from birth through age eight (8) including children with special developmental and learning needs and their families; and an understanding of the child in the family and cultural context.
2. Knowledge and understanding of theories and content of curriculum and instruction and alternative models and methodologies.
3. Knowledge of the alternative perspectives regarding central issues in the field (for example, child development, programs for young children and their families, research priorities, or implications for teacher education and staff development).
4. Knowledge and ability to use and develop a variety of procedures for assessment of child development and learning, child care and early education environments, and early childhood education curricula; and understanding of types, purposes and appropriateness of various assessment procedures and instruments.
5. Knowledge of developing and evaluating programs for children from a variety of diverse cultural and language backgrounds, as well as children of different age and developmental levels, including children with disabilities, children with developmental delays, children who are at risk for developmental delays, and children with special abilities.
6. Apply interdisciplinary knowledge from such fields as sociology, psychology, health services, special education, history, philosophy, and to practice in early childhood.
7. Knowledge in reflective inquiry and demonstrate professional self-knowledge, for example by collecting data about one's own practice and articulating a personal code of professional ethics.
8. Knowledge of the ability to work collaboratively as a member of a team with colleagues and other professionals to achieve goals for children and families.
9. Knowledge and skills required to serve as a mentor to others and a model of professional behavior for volunteers and other staff members.
10. Knowledge of understanding the socio-cultural, historical, and political forces that influence the diverse delivery systems through which programs are offered for young children and their families (for example, social service agencies, public schools, private enterprise).
11. Collection of and interpretation of research, translate research findings into practice, demonstrate personal research skills, and implement applied research.
12. Knowledge of deeper understanding of a particular area of specialization related to an intended career role (for example, administration and supervision of early childhood programs; family support programs; primary grade teaching or administration; early childhood special education/early intervention; or infant/toddler programming).
13. Knowledge of applying theoretical and research knowledge to practice in early childhood settings (their own classroom or other field assignments). For example, applications of theory to practice may be demonstrated during field study projects, action research, curriculum projects, or observed clinical practice.
14. Knowledge to enable reflective professionals to take leadership roles in schools or programs, mentor novice teachers, and act as advocates for children at local, state, and national levels.
15. Knowledge of the diversity of delivery systems through which programs are offered for young children and their families (for example, social service agencies, public schools, private enterprise) and become advocates for providing families with coordinated, quality services that are accessible and affordable. Doctoral candidates demonstrate understanding of the implications of contrasting missions, mores, resources, constraints and potential of each system for preparing personnel to work in those settings.
16. Knowledge of research methods and findings, and the ability to translate research findings into practice, demonstrate personal research skills and the ability to develop and implement applied research, and the disposition to create and disseminate new knowledge.
17. Deeper knowledge and exemplary practice in at least one area of specialization (for example, Teacher education, assessment and evaluation, early childhood special education/ early intervention literacy, bilingual education, or curriculum theory and development).
18. Experience in several types of leadership roles depending on their prior presentation and experience and career objectives. Leadership capabilities may be demonstrated in the areas of: observation and supervision of student teachers and interns; teaching of undergraduate college students; administration of early childhood programs; advocacy and public policy activity; and/or basic or applied research in early childhood education.
19. Theoretical knowledge in education and allied disciplines.
20. Knowledge to interpret and expand the knowledge base by completing a dissertation that involves basic or applied research and study.

Early Childhood Education (M.S.)

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Early Childhood and Elementary Education Objectives

The major objectives are to produce educators who:

1. Are competent teachers in the fields of Early Childhood Education and Elementary Education;
2. Are prepared for careers in preschools, kindergartens, and elementary schools;
3. View the profession of education as being influential in the advancement of humankind;
4. Are compassionate and understanding and have as their primary goal to help children and youth develop into citizens who will promote human advancement.

Master of Science Program Objectives

The master level programs in Elementary and Early Childhood Education, and Reading allow students to develop a mastery of structure, skills, concepts, ideas, values, facts, and methods of inquiry in their field of specialization. Based upon the guidelines and standards of specialized professional association, the specialty studies objectives chart the courses and experiences that include academic, methodological, and clinical knowledge necessary for professional competence in the field. Through the program, the student will develop competencies in the following:

1. Research the literature on child development from birth to early adolescence with emphasis upon the implications of the reading and learning processes for these ages.
2. Research the literature on the psychological and sociological concepts and generalizations dealing with the development of self-concept, group responsibility and relationships and reading ability.
3. Conduct action research projects designed to develop skills in observing, recording, and assessing children's behavior in order to plan an appropriate instructional program and learning environment.
4. Design, implement, and evaluate curricula in the disciplines, which provide content knowledge needed to teach listening, speaking, writing, and reading with an emphasis on language development.
5. Design, implement, and evaluate curricula in the disciplines, which provide content knowledge needed to teach mathematics.
6. Design, implement, and evaluate curricula in the disciplines, which provide content knowledge needed to teach physical sciences and health.
7. Design, implement, and evaluate curricula in disciplines, which provide content knowledge needed to teach social studies areas.
8. Design, implement, and evaluate curricula in the disciplines, which provide content knowledge needed to teach fine arts.
9. Evaluate instructional methodologies for organizing, planning, and implementing physical education activities and safety practices.
10. Research and evaluate current instructional approaches for enabling children to express themselves creatively in a variety of ways including the Arts and communication skills.
11. Research and evaluate current instructional approaches for enhancing the critical thinking/reading ability of the learning in any content area.
12. Research and evaluate current instructional approaches for developing competence in facilitating independent learning and decision-making skills in young children and early adolescence.
13. Conduct ethnological studies to examine characteristics of different learning environments appropriate for children from infancy through early adolescence.
14. Demonstrate skills in the use of state and local resources and appropriate referral strategies.
15. Design, implement, and evaluate appropriate curricula experiences working with parents and other adults in the home, school and community.
16. Develop and evaluate administrative plans for the organization and administration of the pre-kindergarten program.
17. Conduct diagnostic-prescriptive teaching.

Admission Requirements

Applicants must hold a baccalaureate degree from an accredited college or university.

Degree Requirements

In addition to the specific degree requirements of the Division of Graduate Studies; students must successfully complete a minimum of 36 semester hours. Note: A student may transfer up to twelve (12) quarter or nine (9) semester hours, not to exceed 8 years, earned at an accredited college or university.

Code	Title	Hours
Core		
EDFL 511	HISTORY & PHILOSOPHY OF EDUC	3
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDCI 569	THE DEVEL APPRO EARLY CHILDHOO	3
Concentration Courses in Early Childhood Education		
EDCI 501	PARENTNG ROLES N ERLY CHDHD ED	3
EDCI 502	LITERACY DEVLOPMENT AND THE YC	3
EDCI 503	PRN OF CHLD DEV IN EARLY YEARS	3
EDCI 504	METHODS & MTRLS IN ELYCH	3
EDCI 505	ASSESSING THE YOUNG CHILD	3
EDCI 507	ORGANIZATION& ADM OF ECE	3
EDCI 508	CHILDREN'S LITERATURE	3
EDCI 591		3
Total Hours		**36**

Education (Ed.S.) Concentration in Elementary Education

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4. Demonstrate critical thinking competence and effective communication skills in various forms and media;
5. Ensure that established standards for successful learner outcomes are met;
6. Possess the ability to work successfully with learners, teachers, college faculty, and others;
7. Demonstrate knowledge of and skill in applying basic principles undergirding the selection and utilization of methods, techniques and devices which facilitate effective program development using various educational models;
8. Can locate, interpret and apply research pertinent to educational problems;
9. Exhibit competency in doing independent, original research;
10. Are able to identify, interpret and promote the functions of education in a democracy;
11. Are skilled in the techniques of instruction and ensure that pupils will derive the greatest benefits from classroom experiences;
12. Serve as facilitators for the total process of growth and learning;
13. Develop competencies and professional leadership skills through the advancement of knowledge and research that will enable them to assume major leadership roles in diverse communities.

Program Objectives

The program illustrates advanced knowledge about pedagogical skills and earning theory, educational goals and objectives, cultural influences on learning, curriculum planning and design, instructional techniques, design and use of evaluation and measurement methods, classroom and behavior management, instructional strategies for exceptionalities, classroom and schools as social systems, school law, instructional technology and collaborative and consultative skills. Program objectives embrace experiences which incorporate multicultural and global perspectives that help education students understand and apply appropriate strategies for individual learning needs, especially for culturally diverse and exceptional populations.

Admission Requirements

Students applying for admission to the Specialist program must obtain general admission to the Division of Graduate Studies; however, this does not guarantee admission to the College of Education Specialist program in the specific area of concentration. Students must also complete an application to the specific department.

- A master's degree from an accredited college or university
- An overall GPA of 3.0 or above (on a 4.0 scale) on the master's degree
- Student must hold a valid teaching license: Proof of Class "AA" Educator License.
- A completed Specialist program application
- Three letters of recommendation

- Acceptable evidence of the applicant's writing ability as determined by a writing sample completed under the supervision of the screening committee
- A successful interview with the program screening committee
- A recommendation for admission by the screening committee
- A satisfactory GRE score
- Deadline for applications for summer/fall admissions is January 15th

Degree Requirements

In addition to the specific degree requirements by the Division of Graduate Studies, students must successfully complete:

1. A minimum of 30 semester hours and a thesis or a minimum of 33 semester hours and a scholarly research project.
2. Required core courses, EDFL 601 ADV RESRCH & STATISTICS, EDFL 602 COMPARATIVE EDUCATION, or EDFL 610 SCHOOL&COMMUNITY RELATNS, as prerequisites for specialization requirements and/or equivalent courses.
3. Elective courses selected in consultation with advisor.

Note: A student may transfer up to 12 quarter or 9 semester hours earned at an accredited college or university.

Code	Title	Hours
Core Courses		
EDFL 601	ADV RESRCH & STATISTICS	3
EDFL 602	COMPARATIVE EDUCATION	3
or EDFL 610	SCHOOL&COMMUNITY RELATNS	
Specialization Requirements		
EDCI 508	CHILDREN'S LITERATURE [1]	3
RE 558		3
EDCI 689		3
EDCI 621		3
EDCI 603	EDUCATION FOR PARENTING	3
Suggested Electives		
EDCI 600		3
EDCI 601		3
EDCI 602		3
EDCI 687	ADV RES & INDEPENDENT STUDY	3
Total Hours		**33**

[1] Required if not taken on the Master's Degree level.

Outcomes

Through the program, students will develop competencies that will enable them to:

1. Demonstrate knowledge of and skill in applying basic principles undergirding the selections and utilization of methods, techniques and devices which facilitate effective program development in various educational models;
2. Locate, interpret and apply research pertinent to education problems;
3. Conduct independent, original research;
4. Become skilled in techniques that ensure pupils will derive the greatest benefits from classroom experiences;
5. Serve as facilitators for the total process of growth and learning;
6. Provide professional leadership to advance knowledge and research in ways that enable them to assume major leadership roles in diverse communities;
7. Become competent teachers in the field of Elementary Education.

Elementary Education (M.S.Ed.)

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The master level programs in Elementary and Early Childhood Education, and Reading allow students to develop a mastery of structure, skills, concepts, ideas, values, facts, and methods of inquiry in their field of specialization. Based upon the guidelines and standards of specialized professional association, the specialty studies objectives chart the courses and experiences that include academic, methodological, and clinical knowledge necessary for professional competence in the field. Through the program, the student will develop competencies in the following:

1. Research the literature on child development from birth to early adolescence with emphasis upon the implications of the reading and learning processes for these ages.
2. Research the literature on the psychological and sociological concepts and generalizations dealing with the development of self-concept, group responsibility and relationships and reading ability.
3. Conduct action research projects designed to develop skills in observing, recording, and assessing children's behavior in order to plan an appropriate instructional program and learning environment.
4. Design, implement, and evaluate curricula in the disciplines, which provide content knowledge needed to teach listening, speaking, writing, and reading with an emphasis on language development.
5. Design, implement, and evaluate curricula in the disciplines, which provide content knowledge needed to teach mathematics.
6. Design, implement, and evaluate curricula in the disciplines, which provide content knowledge needed to teach physical sciences and health.
7. Design, implement, and evaluate curricula in disciplines, which provide content knowledge needed to teach social studies areas.
8. Design, implement, and evaluate curricula in the disciplines, which provide content knowledge needed to teach fine arts.
9. Evaluate instructional methodologies for organizing, planning, and implementing physical education activities and safety practices.
10. Research and evaluate current instructional approaches for enabling children to express themselves creatively in a variety of ways including the Arts and communication skills.
11. Research and evaluate current instructional approaches for enhancing the critical thinking/reading ability of the learning in any content area.
12. Research and evaluate current instructional approaches for developing competence in facilitating independent learning and decision-making skills in young children and early adolescence.
13. Conduct ethnological studies to examine characteristics of different learning environments appropriate for children from infancy through early adolescence.
14. Demonstrate skills in the use of state and local resources and appropriate referral strategies.
15. Design, implement, and evaluate appropriate curricula experiences working with parents and other adults in the home, school and community.
16. Develop and evaluate administrative plans for the organization and administration of the pre-kindergarten program.
17. Conduct diagnostic-prescriptive teaching.

Admission Requirements

- Applicants must hold a baccalaureate degree from an accredited college or university.
- Proof that the candidate holds a current class 'A' Educator's License or is seeking renewal of the license through attaining college credit hours as deemed necessary by the Mississippi State Department of Education (Copy of class 'A' Educator's License)

Degree Requirements

In addition to the specific degree requirements of the Division of Graduate Studies; the student must successfully complete a minimum of 36 semester hours.

Note: A student may transfer up to twelve (12) quarter or nine (9) semester hours earned at an accredited college or university.

Code	Title	Hours
Core Requirement		
EDFL 511	HISTORY & PHILOSOPHY OF EDUC	3
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDFL 568	CURRICULUM METHODS	3
EDCI 568	SEM IN ELE CURR: MOD TRDS & RE	3
Specialization Courses		
RE 552	MTHDS/MTRLS FOR TEACH ELEM LIT	3
EDCI 564	CURRENT TRENDS IN MATH	3
Suggested Electives		
EDCI 503	PRN OF CHLD DEV IN EARLY YEARS	3
EDCI 504	METHODS & MTRLS IN ELYCH	3
EDCI 508	CHILDREN'S LITERATURE	3
EDCI 590	THESIS	3
EDCI 590	THESIS	3
Total Hours		**36**

Elementary and Special Education (M.S.)

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Faculty

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Dr. K. Bryant, Associate Professor
Dr. S. Davidson-Herndon, Associate Professor
Dr. T. Dixon, Assistant Professor
Dr. T. Latiker, Associate Professor
Dr. L. Opara-Nadi, Assistant Professor
Dr. J. Yin, Professor

The Department of Elementary and Early Childhood Education offers graduate programs leading to the Master of Science in Education Degree in Early Childhood Education, Literacy and Elementary Education; the Specialist in Education Degree in Elementary Education; and the Doctor of Education Degree in Early Childhood Education.

Program Description

The College of Education & Human Development has been awarded a Mississippi Teacher Residency grant from the Mississippi Department of Education through which the Jackson Public Schools, Choctaw County Schools, and Canton Public Schools Districts in collaboration with Jackson State University will strengthen and expand current teacher pathways to complete their graduate degree and achieve Mississippi Teacher Certification. Through the JSU ESED Program model (which combines coursework and job-embedded training) we will prepare diverse and effective teachers in critical shortage areas that serve low-income children, racial/ethnic minorities, and children with disabilities disproportionately impacted by COVID-19. Through partnerships, the program will address the critical shortage of graduate level certified elementary and special education teachers; and diversify the teacher pipeline so that all students have well-prepared and appropriately licensed teachers.

The ESED program is housed in the Department of Elementary and Early Childhood Education and delivered in collaboration with the Special Education program. Graduate students participating in the ESED program will be engaged in a concentrated Master's degree program in Elementary Education and Special Education.

The objectives of this degree program are to: 1) increase the number of day one ready teachers in Mississippi; 2) diversify the pool of teachers in Mississippi; and 3) increase the number of teachers who stay in the teaching profession for a minimum of 3 to 5 years post-graduation.

The expected outcomes of this degree program are to increase K-12 student achievement by improving the preparation of teachers and to foster the creation of a culture of collaborative professionalism that will improve student performance, enhance school leadership, increase teacher retention, and strengthen school-community engagement. The Master's in ESED Degree Program will seek accreditation through the Council for the Accreditation of Educator Preparation (CAEP).
The ESED degree will provide a path to teaching for individuals who hold a bachelor's degree but have not previously earned certification to teach. Applicants may be either a recent college graduate or "a mid-career professional from outside the field of education possessing strong content knowledge or a record of professional accomplishment. Applicants may also be teacher assistants or other school personnel who hold bachelor's degrees who do not have teacher certification. Program graduates will exit with a commitment to teach in a geographical critical shortage school or district serving low-income children, racial/ethnic minorities and children with disabilities disproportionately impacted by COVID-19. ESED will provide a solid preparation for teaching, in elementary and special education, alongside a highly qualified mentor for at least a year. Admission to the program occurs annually and begins each summer. Applications are due by March 1st.

The integrated curriculum for the ESPED Program consists of both Elementary Education and Special Education content organized so that students can matriculate through program requirements in a theory & practice-based year-long, thirty-six (36) credit hour, internship-apprentice based manner in the classroom of an experienced mentor teacher.

Code	Title	Hours
Core Requirement		
SPED 500	SUR OF EXCEP CHILD & YTH	3
SPED 504	ADMIN & ORG PROC FOR SPE	3
SPED 507	Advanced Methods in Behavioral Management	3
Specialization Courses		
EDCI 500	INTRO TO TEACHING INTERNSHIP	3
SPED 528	AD ED ASSM PRE PLN SPE E	3
ESED 505	Early Literacy I	3
ESED 507	Early Literacy II	3
ESED 508	Math, Social Studies & Science Methods	3
SPED 586	PRACTICUM IN SPECIAL EDUCATION	3
RE 600	Diagnosis and Correction of Reading Difficulties I	3
ESED 511	High Leverage Practice (HLPs)	3
RE 601	DIAGNOSIS & COR OF RE II	3
Total Hours		**36**

Pre-licensure courses are denoted with an asterisk. There is also a Graduate Area Comprehensive Examination (GACE) Requirement. Students may register after successful completion of 24 credit hours. The GACE for this program will be completed during the spring semester.

Reading Education (M.S.)

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Faculty

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Dr. K. Bryant, Associate Professor
Dr. S. Davidson-Herndon, Associate Professor
Dr. T. Dixon, Assistant Professor
Dr. T. Latiker, Associate Professor
Dr. L. Opara-Nadi, Assistant Professor
Dr. J. Yin, Professor

The Department of Elementary and Early Childhood Education offers graduate programs leading to the Master of Science in Education Degree in Early Childhood Education, Reading and Elementary Education; the Specialist in Education Degree in Elementary Education; and the Doctor of Education Degree in Early Childhood Education.

Departmental Objectives

The department and its programs exist to prepare professional instructional personnel at levels appropriate to the degrees offered, and

to meet certification requirements at AA, AAA, and AAAA levels for the State of Mississippi in the various fields. The department's intention is to prepare candidates who:

1. Demonstrate sensitivity to the emerging knowledge bases and understand how they impact education and the need for change;
2. Adjust methods, curriculum and service approaches to meet the needs of diverse learners;
3. Demonstrate a repertoire of educational related strategies and skills which enable them to share knowledge effectively;
4. Demonstrate critical thinking competence and effective communication skills in various forms and media;
5. Ensure that established standards for successful learner outcomes are met;
6. Possess the ability to work successfully with learners, teachers, college faculty, and others;
7. Demonstrate knowledge of and skill in applying basic principles undergirding the selection and utilization of methods, techniques and devices which facilitate effective program development using various educational models;
8. Can locate, interpret and apply research pertinent to educational problems;
9. Exhibit competency in doing independent, original research;
10. Are able to identify, interpret and promote the functions of education in a democracy;
11. Are skilled in the techniques of instruction and ensure that pupils will derive the greatest benefits from classroom experiences;
12. Serve as facilitators for the total process of growth and learning;
13. Develop competencies and professional leadership skills through the advancement of knowledge and research that will enable them to assume major leadership roles in diverse communities.

Program Objectives

- To develop candidates who understand the research bases for implementing evidence-based practices in reading instruction
- To prepare candidates to utilize diagnostic-prescriptive strategies of intervention for struggling readers and writers
- To instruct candidates to disseminate research and information concerning reading to guide their research endeavors
- To guide candidates as they integrate Internet technologies into classroom lessons to insure students will be prepared for the technology and reading futures they deserve
- To instruct candidates in how to use reading to celebrate the diverse cultures that increasingly defines our population
- To equip candidates with leadership in reading skills

Admission Requirements

Each candidate must also complete an admission packet from the Department of Elementary and Early Childhood Education. The admission packet includes, but is not limited to the following requirements:

- Proof of a Baccalaureate degree of Education from an accredited university or college with a minimum undergraduate cumulative GPA of 2.5 for conditional admission.
- Proof from ETS showing passing scores on both parts of PRAXIS II (Curriculum and Instruction and also the PLT) Any candidate scoring below 157 on the PRAXIS II Reading Specialist (5301) is required to complete **EDCI 565** the following semester. The PRAXIS Reading Specialist Exam must be passed before the degree may be conferred.
- Proof that the candidate holds a current class 'A' Educator's License or is seeking renewal of the license through attaining college credit hours as deemed necessary by the Mississippi State Department of Education (Copy of class 'A' Educator's License)
- Complete an acceptable writing sample and interview process with departmental faculty

Degree Requirements

The Master of Literacy Education course work includes the following requirements:

- Nine (9) semester hours of core coursework in statistics and curriculum methods
- Twenty-four (24) semester hours of specialized content
- Six (6) hours of clinical and practical experiences
- Coursework must be attempted in the required sequence of prerequisites
- Throughout the course of study, eight (8) major assessments must be successfully completed according to the International Reading Association's established criteria.

Core Requirements

Code	Title	Hours
Literacy Research and Foundations		
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
RE 506	FOUNDATIONS OF LITERACY	3
Specialization Courses		
RE 502	WKSHP.CURR PRBLMS IN ISS N LIT	3
RE 503	THEORY & RESEARCH N LITERAC ED	3
RE 510	TCHING LIT SKILS N CONTNT AREA	3
RE 512	USG LIT TO TEACH LITERACY SKIL	3
RE 550	PSYCH OF LITERACY INSTRUCTION	3
RE 552	MTHDS/MTRLS FOR TEACH ELEM LIT	3
RE 556	SUPERVISED PRACTICUM IN LIT I	3
RE 557	SUPERVSD PRACTICUM N LITRCY II	3
RE 559	LEADERSHIP IN LITERACY	3
Total Hours		**36**

Physical Education (M.S.Ed.)

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Faculty

Dr. Gwendolyn Dawkins, Assistant Professor
Dr. Brieah Hudson, Assistant Professor
Dr. Joon Young Lee, Assistant Professor
Dr. Picasso Nelson, Instructor
Ms. Michelle Houston, Instructor

The Department of Health, Physical Education and Recreation offers the Master of Science in Physical Education and the Master of Science in

Sport Science with two concentrations: Sport Management and Strength and Conditioning.

Accreditation

The Master of Science in Education Physical Education curriculum is designed to meet the Council for the Accreditation of Educator Preparation (CAEP).

Program Objectives

The Master of Science Education Physical Education program objectives are to provide students with advanced specialization in the areas of educational research and statistics, human physiology and movement as well as diverse offerings of specialty courses to broaden the graduate students understanding of modern physical education.

Admission Requirements

Applicants must be admitted to the Division of Graduate Studies and the Department of Health, Physical Education and Recreation (HPER). The HPER Department has the following admission requirements in addition to the Division of Graduate Studies requirements.

1. A minimum cumulative G.P.A. of 3.00 for regular admission and 2.50 for conditional admission, at the undergraduate level.
2. An applicant must hold a bachelor's degree from an accredited college or university.
3. A completed program application.
4. Academic writing sample.
5. Three letters of recommendation
6. A strong statement of purpose including the candidate's strengths and specifically how this degree will advance their professional career.

Degree Requirements

To qualify for the master's degree the student must complete 36 semester hours of graduate work.

Code	Title	Hours
Degree Requirements		
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDFL 568	CURRICULUM METHODS	3
PE 522	MOTOR LEARNING & HUMAN	3
PE 540	ORG & ADM OF 2 & 4 YR CO	3
PE 550	RESEARCH IN PHYSICAL EDU	3
PE 552	BIOMECHANICS	3
PE 553	ADV PHYSIOLOGY OF MUS AC	3
SC 513	Sport Nutrition	3
SPM 516	Sport Statistics and Analytics	3
Electives		
Other coursework is selected in consultation with an academic advisor to complete specific areas of concentration.		6
Total Hours		**36**

Special Education (Ed.S.)

Dr. Dennis Williams, Interim Department Chair and Assistant Professor
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Faculty

Dr. Doreen N. Myrie, Assistant Professor, Graduate Program Coordinator
Dr. Dennis Williams, MAT Program Coordinator

Mission

Special Education is located in the College of Education and Human Development (CEHD) in the Department of Educational, Multicultural, and Exceptional Studies. The Special Education program offers the Master of Science in Education Degree (M.S.Ed.) in Mild/Moderate Disabilities and a Concentration in Visual Impairment. The Specialist in Education Degree (Ed.S.) with a concentration in Mild/Moderate Disabilities is offered. Special Education also offers courses for add-on endorsements in Mild/Moderate K-12, Visually Impaired K-12, Gifted K-12 and Emotional Disabilities K-12. These programs are designed to prepare personnel to work with individuals eligible for special education services, professionals in school settings and other service provider agencies. Typically, graduates of these programs select careers as special education teachers, administrators, and practitioners at alternate placement agencies that serve individuals with special needs.

Accreditation

The Special Education Master's and Specialist's Programs at Jackson State University are accredited by the Council for the Accreditation of Educator Preparation (CAEP) and the Southern Association of Colleges and Schools (SACS). Additionally, the program's standards are in compliance with the Council for Exceptional Children (CEC).

Department of Special Education Goals and Objectives

The mission of Special Education supports the broad mission of the University and the College of Education and Human Development. The mission of the College of Education and Human Development is to employ teaching, research and service within an urban learning community, and to the preparation of practitioners from diverse backgrounds for outstanding professional service through the development of solutions to potential or existing challenges facing urban institutions.

The Special Education program seeks to encourage and facilitate the efforts of candidates to acquire knowledge, skills, understandings, appreciations and attitudes necessary for effective interaction and instruction of individuals with disabilities. The instructional curriculum and learning experiences provide opportunities for candidates to develop competencies and attitudes that promote and actualize excellence in teaching and outcomes.

The objectives of the Special Education program are as follows:

1. To prepare personnel for staffing special education positions in schools and other related human resource agencies.
2. To offer candidates a comprehensive curriculum that incorporates a variety of experiences including: campus-based experiences (i.e. microteaching clinics, case studies, computer-assisted instruction) as well as field-based experiences (i.e. internships and tutoring).
3. To facilitate candidates' professional development by broadening the knowledge base as set forth in the curriculum by attending conferences, workshops, seminars and participating in collaborative

activities with other community agencies (e.g. public schools, human resource agencies, and so forth).

4. To enhance candidates' ability to work with culturally, linguistically, and exceptionally distinctive populations through selected research, teaching, and field-based experiences.
5. To accommodate candidates from various ethnic backgrounds and exceptionalities through an open, multicultural approach to special education personnel preparation.

Specialist Degree in Education

Students applying for admission to the Specialist program must obtain general admission to the Division of Graduate Studies; however, this does not guarantee admission to the College of Education Specialist program in the specific area of concentration. Students must also complete an application to the specific department.

Admission Requirements

- A master's degree from an accredited college or university
- An overall GPA of 3.0 or above (on a 4.0 scale) on the master's degree
- A completed Specialist program application
- Three letters of recommendation
- Acceptable evidence of the applicant's writing ability as determined by a writing sample completed under the supervision of the screening committee
- A successful interview with the program screening committee
- A recommendation for admission by the screening committee
- Student must hold a valid teaching license
- Deadline for applications for summer/fall admission is January 15th

The Special Education Specialist Program is a 36-semester hour program, which includes the development of a thesis or project. All candidates for this degree must have an AA certificate from an accredited institution of higher learning. Approval for a thesis or a project must be granted by a Department Thesis Advisor or a Project Advisor. The Specialist Program is accredited by the Council for the Accreditation of Educator Preparation (CAEP). This degree program qualifies a graduate to receive Mississippi AAA Certification (Graduates are capable of leadership roles in school and non-school settings for exceptional learners K-12).

Course Requirements

The curriculum offerings in the current catalog meet the new standards required by our accrediting agencies.

Code	Title	Hours
Core Courses		
EDFL 601	ADV RESRCH & STATISTICS	3
EDFL 602	COMPARATIVE EDUCATION	3
EDFL 610	SCHOOL&COMMUNITY RELATNS	3
Specialization		
SPED 600	GUID EXCE CHILDREN YOUTH	3
SPED 601	BEHV MGNT W/EXC CLDR YTH	3
SPED 602	COGNITIVE PROC & EX CHLD	3
SPED 603	PSY EDUC EVAL OF EXC CHD	3
SPED 604	ADM & SUPERV IN SPEC EDU	3
SPED 606	CONSUL ITIN & RESOURSE T	3
SPED 679	INDIVIDUAL RESEARCH	3
SPED 686	PRACTICUM SPECIAL EDUCATION	3
SPED 699	SEMINAR IN SPECIAL EDUCATION	3
Total Hours		**36**

Notes

1. Required forms must be developed in consultation with the designated department advisor.
2. All students must be approved by the departmental advisor to take the Graduate English Competency Examination and Graduate Area Comprehensive Examination.

Special Education (M.S.Ed.) Concentration in Mild/Moderate Disabilities

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Faculty
Dr. Doreen N. Myrie, Assistant Professor, Graduate Program Coordinator
Dr. Gwendolyn J. Williams, Associate Professor
Dr. Glenda Windfield, Assistant Professor
Dr. Dennis Williams, MAT Program Coordinator

Mission

Special Education is located in the College of Education and Human Development (CEHD) in the Department of Educational, Multicultural, and Exceptional Studies. The Special Education program offers the Master of Science in Education Degree (M.S.Ed.) in Mild/Moderate Disabilities and a Concentration in Visual Impairment. The Specialist in Education Degree (Ed.S.) with a concentration in Mild/Moderate Disabilities is offered. Special Education also offers courses for add-on endorsements in Mild/Moderate K- 12, Visually Impaired K-12, Gifted K-12 and Emotional Disabilities K-12. These programs are designed to prepare personnel to work with individuals eligible for special education services, professionals in school settings and other service provider agencies. Typically, graduates of these programs select careers as special education teachers, administrators, and practitioners at alternate placement agencies that serve individuals with special needs.

Accreditation

The Special Education Master's and Specialist's Programs at Jackson State University are accredited by the Council for the Accreditation of Educator Preparation (CAEP) and the Southern Association of Colleges and Schools (SACS). Additionally, the program's standards are in compliance with the Council for Exceptional Children (CEC).

Department of Educational, Multicultural, and Exceptional Studies Goals and Objectives

The mission of Special Education supports the broad mission of the University and the College of Education and Human Development. The mission of the College of Education and Human Development is to employ teaching, research and service within an urban learning community, and to the preparation of practitioners from diverse backgrounds for outstanding professional service through the

development of solutions to potential or existing challenges facing urban institutions.

The Special Education program seeks to encourage and facilitate the efforts of candidates to acquire knowledge, skills, understandings, appreciations and attitudes necessary for effective interaction and instruction of individuals with disabilities. The instructional curriculum and learning experiences provide opportunities for candidates to develop competencies and attitudes that promote and actualize excellence in teaching and outcomes.

The objectives of the Special Education program are as follows:

- To prepare personnel for staffing special education positions in schools and other related human resource agencies.
- To offer candidates a comprehensive curriculum that incorporates a variety of experiences including: campus-based experiences (i.e. microteaching clinics, case studies, computer-assisted instruction) as well as field-based experiences (i.e. internships and tutoring).
- To facilitate candidates' professional development by broadening the knowledge base as set forth in the curriculum by attending conferences, workshops, seminars and participating in collaborative activities with other community agencies (e.g. public schools, human resource agencies, and so forth).
- To enhance candidates' ability to work with culturally, linguistically, and exceptionally distinctive populations through selected research, teaching, and field-based experiences.
- To accommodate candidates from various ethnic backgrounds and exceptionalities through an open, multicultural approach to special education personnel preparation.

Master's Program Admission Requirements

Applicants for the master's degree must hold an undergraduate degree from an accredited college or university, and must be admitted to Jackson State University's Division of Graduate Studies. Refer to the Graduate Studies website for general admissions requirements and to access the online Admissions Pro Portal: https://www.jsums.edu/graduateschool/

All applicants for a Master of Education (M.Ed.) degree program in Special Education must:

1. Create an Admissions Pro Account and submit an application to the Division of Graduate Studies.
2. Submit official transcripts from all college and universities attended.
3. Submit three letters of recommendation from university faculty or supervisors familiar with your academic or professional work.

Departmental Requirements

Applicants to the Special Education Graduate Program must also submit/complete the following application requirements:

1. A letter of application to the M.Ed. Special Education Teaching Program faculty that includes an acceptable personal statement of goals for professional development.
2. An "A" teaching certificate. Applicants who do not hold the appropriate credentials or who are not eligible for the appropriate certification must meet with program faculty and sign an acknowledgment of understanding form which confirms that they are aware that completion of the Special Education graduate level coursework will not lead to licensure.
3. All required immunizations, specifically, candidate has had two (2) MMRs (Mumps, Measles, Rubella) in his or her lifetime and a Tetanus/Diphtheria immunization within the past two years. For more Information, contact Student Health Services at (601) 979-2260.
4. Satisfactory completion of an interview with Special Education faculty. Interviews will be held for Fall admission during Spring Semester and Spring semester interviews will be held during Fall Semesters.
5. A 5-10 page academic writing sample that provides evidence of acquired writing competencies.
6. A professional portfolio that includes a resume, philosophy of education, samples of lesson/unit plans, et.

Admissions Status

Candidates can be admitted as follows:

1. Applicants successfully meeting the admissions criteria with an undergraduate cumulative grade-point average (GPA) of 3.00 or higher on a 4.00 scale may be admitted with a status determination of Full/Good Standing.
2. Applicants successfully meeting the admissions criteria with an undergraduate cumulative grade-point average (GPA) of 2.50 to 2.99 may be admitted with a status of Provisional/ Conditional Standing.
3. Applicants not meeting the admissions criteria will not be admitted.

All applicants for a Master of Education (M.Ed.) degree program in Special Education must first be admitted to the University by the Division of Graduate Studies. Applicants must:

1. Secure an admission packet (online) from the Division of Graduate Studies.
2. Submit two official copies of transcripts from all colleges and universities attended.

Course Requirements

The curriculum offerings are constantly being revised to meet new standards required by accrediting agencies.

Degree Requirements

Code	Title	Hours
Core Courses		
EDFL 511	HISTORY & PHILOSOPHY OF EDUC	3
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDFL 568	CURRICULUM METHODS	3
Required Concentration Courses		
SPED 500	SUR OF EXCEP CHILD & YTH	3
SPED 504	ADMIN & ORG PROC FOR SPE	3
SPED 507	Advanced Methods in Behavioral Management	3
SPED 520	ASSISTIVE TECHNOLOGY FOR DIS	3
SPED 569	ADV. STRA. FOR MANAGING AGGRE	3
SPED 572		3
SPED 586	PRACTICUM IN SPECIAL EDUCATION	3
SPED 599	SEMINAR IN SPECIAL EDUCA	3
Total Hours		**36**

Notes:

1. Matriculation forms must be developed in consultation with the designated department advisor.
2. All students must be approved by the departmental advisor to take the Graduate Area Comprehensive Examination.

Mississippi Add-On Endorsement

Area: Mild/Moderate (Code 224)

Code	Title	Hours
Mild/Moderate K-12		
SPED 500	SUR OF EXCEP CHILD & YTH	3
SPED 504	ADMIN & ORG PROC FOR SPE	3
SPED 507	Advanced Methods in Behavioral Management	3
SPED 528	AD ED ASSM PRE PLN SPE E	3
SPED 572		3
SPED 599	SEMINAR IN SPECIAL EDUCA	3
Total Hours		**18**

Mississippi "AA" Add-On Endorsement

Area: Gifted [K-12] (Code 207)

Code	Title	Hours
Gifted K-12		
SPED 504	ADMIN & ORG PROC FOR SPE	3
SPED 528	AD ED ASSM PRE PLN SPE E	3
SPED 570		3
SPED 571		3
SPED 572		3
Total Hours		**15**

Mississippi Add-On Endorsement Masters' Level Only

Area: Emotional Disabilities (Code 206)

Code	Title	Hours
AA-Emotional Disability		
SPED 504	ADMIN & ORG PROC FOR SPE	3
SPED 507	Advanced Methods in Behavioral Management	3
SPED 552		3
SPED 569	ADV. STRA. FOR MANAGING AGGRE	3
SPED 572		3
Total Hours		**15**

Special Education (M.S.Ed.) Concentration in Visual Impairment

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Faculty

Dr. Doreen N. Myrie, Assistant Professor, Graduate Program Coordinator
Dr. Gwendolyn J. Williams, Associate Professor
Dr. Glenda Windfield, Assistant Professor
Dr. Dennis Williams, MAT Program Coordinator

Mission

Special Education is located in the College of Education and Human Development (CEHD) in the Department of Educational, Multicultural, and Exceptional Studies. The Special Education program offers the Master of Science in Education Degree (M.S.Ed.) in Mild/Moderate Disabilities and a Concentration in Visual Impairment. The Specialist in Education Degree (Ed.S.) with a concentration in Mild/Moderate Disabilities is offered. Special Education also offers courses for add-on endorsements in Mild/Moderate K-12, Visually Impaired K-12, Gifted K-12 and Emotional Disabilities K-12. These programs are designed to prepare personnel to work with individuals eligible for special education services, professionals in school settings and other service provider agencies. Typically, graduates of these programs select careers as special education teachers, administrators, and practitioners at alternate placement agencies that serve individuals with special needs.

Accreditation

The Special Education Master's and Specialist's Programs at Jackson State University are accredited by the Council for the Accreditation of Educator Preparation (CAEP) and the Southern Association of Colleges and Schools (SACS). Additionally, the program's standards are in compliance with the Council for Exceptional Children (CEC).

Department of Educational, Multicultural, and Exceptional Studies Goals and Objectives

The mission of Special Education supports the broad mission of the University and the College of Education and Human Development. The mission of the College of Education and Human Development is to employ teaching, research and service within an urban learning community, and to the preparation of practitioners from diverse backgrounds for outstanding professional service through the development of solutions to potential or existing challenges facing urban institutions.

The Special Education program seeks to encourage and facilitate the efforts of candidates to acquire knowledge, skills, understandings, appreciations and attitudes necessary for effective interaction and instruction of individuals with disabilities. The instructional curriculum and learning experiences provide opportunities for candidates to develop competencies and attitudes that promote and actualize excellence in teaching and outcomes.

The objectives of the Special Education program are as follows:

1. To prepare personnel for staffing special education positions in schools and other related human resource agencies.
2. To offer candidates a comprehensive curriculum that incorporates a variety of experiences including: campus-based experiences (i.e. microteaching clinics, case studies, computer-assisted instruction) as well as field-based experiences (i.e. internships and tutoring).
3. To facilitate candidates' professional development by broadening the knowledge base as set forth in the curriculum by attending conferences, workshops, seminars and participating in collaborative activities with other community agencies (e.g. public schools, human resource agencies, and so forth).

4. To enhance candidates' ability to work with culturally, linguistically, and exceptionally distinctive populations through selected research, teaching, and field-based experiences.
5. To accommodate candidates from various ethnic backgrounds and exceptionalities through an open, multicultural approach to special education personnel preparation.

Mississippi Add-On Endorsement Masters' Level Only

Area: Visually Impaired (Code 218)

Code	Title	Hours
Visually Impaired		
SPED 508		3
SPED 529	ASSESSMENT PROCEDURES FOR THE	3
SPED 540	INTRO CHILDREN W VISUAL IMPAIR	3
SPED 541	METH & MAT TCH VIS HNDCP	3
SPED 542	STRUC & FUNCT OF THE EYE	3
SPED 543	INTRODUCTION TO BRAILLE	3
SPED 544	INTRO TO ORIENTATION & MOBILIT	3
Total Hours		**21**

Sport Science (M.S.) Concentration in Sport Management

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Faculty

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Dr. Brieah Hudson, Assistant Professor
Dr. Joon Young Lee, Assistant Professor
Dr. Picasso Nelson, Instructor
Ms. Michelle Houston, Instructor

The Department of Health, Physical Education and Recreation offers the Master of Science in Physical Education and the Master of Science in Sport Science with two concentrations: Sport Management and Strength and Conditioning.

Accreditation

The Master of Science Sport Science curriculum is designed to meet the Commission on Sport Management Accreditation (COSMA) and the (National Strength and Conditioning Association (NSCA) standards.

Program Objectives

The Master of Science Sport Science program objectives are twofold:

1. To provide the sport management student with advanced specialization in the areas of sport finance, marketing, facilities, economics, analytics and statistics as well as internship placement that will accelerate their careers in the business of sport.
2. To provide the strength and conditioning student advance specialization in exercise physiology, nutrition, conditioning, program design, research methods, statistics and internship placement in order to pass the NSCA CSCS (among others) to become a certified strength and conditioning specialist.

Admissions Requirements

Applicants must be admitted to the Division of Graduate Studies and the Department of Health, Physical Education and Recreation (HPER). The HPER Department has the following admission requirements in addition to the Division of Graduate Studies requirements.

1. A minimum cumulative G.P.A. of 3.00 for regular admission and 2.50 for conditional admission, at the undergraduate level.
2. An applicant must hold a bachelor's degree from an accredited college or university.
3. A completed program application.
4. Academic writing sample.
5. Three letters of recommendation.
6. A strong statement of purpose including the candidate's strengths and specifically how this degree will advance their professional career.

Degree Requirements

To qualify for the master's degree the student must complete 36 semester hours of graduate work for the Sport Management emphasis and 37 semester hours for the Strength & Conditioning emphasis.

Sport Management Emphasis

Code	Title	Hours
Sport Science Core		
SPM 512	FACILITY DESIGN & MAINTENANCE	3
SPM 515	GOVERNING BODIES & THE LAW	3
SPM 560	ETHICS OF SPORT	3
SC 545	SPORT PSYCHOLOGY AND SOCIOLOGY	3
PE 550	RESEARCH IN PHYSICAL EDU	3
Sport Management Emphasis		
SPM 516	Sport Statistics and Analytics	3
ECO 511	MACROECONOMICS THEORY	3
or ECO 512	MICROECONOMICS THEORY	
SPM 510	SPORT MARKETING	3
SPM 530	SPORTS FINANCE	3
SPM 543	SPORT ADMINISTRATION AND ORGN	3
SPM 590	INTERNSHIP	6
or SPM 600	THESIS	
Total Hours		**36**

Sport Science (M.S.) Concentration in Strength and Conditioning

Dr. James H. Robinson, Associate Professor and Chair
P. O. Box 18840
Telephone: (601) 979-2768
Email: james.h.robinson@jsums.edu

Faculty

Dr. G. Dawkins, Assistant Professor
Dr. B. Hudson, Assistant Professor

Dr. J. Young Lee, Assistant Professor
Dr. P. Nelson, Instructor
Ms. M. Houston, Instructor

The Department of Physical Education offers the Master of Science in Education and Master of Science in Sport Science.

Accreditation

The Sport Science curriculum design is strictly set to meet National Accrediting and Recognition bodies within the areas of Sport Management (North American Society for Sport Management/NASSM) and Strength and Conditioning (National Strength and Conditioning Association/NSCA).

Program Objectives

The Master of Science Sport Science program objectives are twofold:

1. To provide the sport management student with advanced specialization in the areas of sport finance, marketing, facilities, economics, analytics and statistics as well as internship placement that will accelerate their careers in the business of sport.
2. To provide the strength and conditioning student advance specialization in exercise physiology, nutrition, conditioning, program design, research methods, statistics and internship placement in order to pass the NSCA CSCS (among others) to become a certified strength and conditioning specialist.

Admissions Requirements

Applicants must be admitted to the Division of Graduate Studies and the Department of Health, Physical Education and Recreation (HPER). The HPER Department has the following admission requirements in addition to the Division of Graduate Studies requirements.

1. A minimum cumulative G.P.A. of 3.00 for regular admission and 2.50 for conditional admission, at the undergraduate level.
2. An applicant must hold a bachelor's degree from an accredited college or university.
3. A completed program application.
4. Academic writing sample.
5. Three letters of recommendation.
6. A strong statement of purpose including the candidate's strengths and specifically how this degree will advance their professional career.

Degree Requirements

To qualify for the master's degree the student must complete 36 semester hours of graduate work for the Sport Management emphasis and 37 semester hours for the Strength & Conditioning emphasis.

Strength and Conditioning Emphasis

Code	Title	Hours
Sport Science Core		
SPM 512	FACILITY DESIGN & MAINTENANCE	3
SPM 515	GOVERNING BODIES & THE LAW	3
SPM 560	ETHICS OF SPORT	3
SC 545	SPORT PSYCHOLOGY AND SOCIOLOGY	3
PE 550	RESEARCH IN PHYSICAL EDU	3
Strength and Conditioning Emphasis		
SC 513	Sport Nutrition	3
SPM 516	Sport Statistics and Analytics	3
PE 552	BIOMECHANICS	3
PE 553	ADV PHYSIOLOGY OF MUS AC	3
SC 501	STRENGTH & CONDITIONING	3
SCL 501	STRENGTH & CONDITIONING LAB	1
SC 550	INTERNSHIP	6
or SC 600	THESIS	
Total Hours		**37**

Teaching (M.A.T.)

Master of Arts in Teaching

- Concentration: Elementary Education
- Concentration: Secondary Education

Dr. Dennis Williams, Director of Master of Arts in Teaching Program (M.A.T.)
Telephone: 601-979-2439
Email: Dennis.d.williams@jsums.edu

Ms. Eunetta Hart, M.A.T. Program Advisor
Telephone: (601) 979-8839
Email: eunetta.c.hart@jsums.edu

Program Objective

Mississippi is facing a severe problem because of the limited number of highly qualified classroom teachers. The alternate route program provides a mechanism for persons holding bachelor level non-education degrees from an accredited institution to become highly qualified teachers in grades 4-6 elementary education and 7-12 secondary education. A license through the MAT Program may be secured through two methods.

Admission Requirements

1. Complete a Division of Graduate Studies Application packet.
2. Complete MAT program application packet.
3. Applicants must provide proof of State required scores for Praxis CORE (or ACT 21 Score and above) and Praxis II.
4. Applicants must have at least a GPA of 2.75.
5. Applicants will successfully respond to written and oral exercises administered by the Faculty Screening Committee.

Program Requirements

Method I

1. Complete the pre-teaching required courses (6 hours–EDCI 556 SPECL TOPICS IN ECE/ELED and EDFL 581 PRINCIPLES OF MEASUREMNT).
2. After successfully completing the pre-teaching required courses, students must apply through the Center for Teacher Quality for a **Provisional Class "A"** three-year license. Requirements for obtaining this **Class "A" License** are the submission of an official transcript and original PRAXIS CORE and PRAXIS II scores.
3. Secure approved employment as a teacher in a state accredited school district (public, private or charter) and enroll in the Introduction to Teaching Internship courses, which are (EDCI 500 INTRO TO TEACHING INTERNSHIP-A and EDCI 500 INTRO TO

TEACHING INTERNSHIP-B) for a total of 6 hours. The professor of the internship courses must approve employment site for purposes of supervision.

4. After successfully completing the internship required courses, students must apply through the Center for Teacher Quality for a **Standard Class "A"** five-year license. Requirements to obtain this **Class "A" License** are the submission of an official transcript and notarized Lawful Presence Verification Form.

*Note: Students must successfully complete the pre-teaching courses before enrolling in (*EDCI 500 INTRO TO TEACHING INTERNSHIP-*A or* EDCI 500 INTRO TO TEACHING INTERNSHIP-*B).*

Method II

1. Successfully complete requirements for Method I.
2. Complete the additional course work (see below-36 hours) and the Graduate Area Comprehensive Exam (GACE) are required for completion of Master of Arts in Teaching (MAT) degree. Once the degree is conferred, the student may apply for a **Standard Class "AA"** license through the Center for Teacher Quality. Requirements to obtain this **Class "AA"** license are submission of an official transcript indicating degree conferral.

Code	Title	Hours
Pre-teaching Core Courses		
EDCI 556	SPECL TOPICS IN ECE/ELED	3
EDFL 581	PRINCIPLES OF MEASUREMNT	3
Professional Core Courses		
SPED 500	SUR OF EXCEP CHILD & YTH	3
EDCI 589	TCH ED PROG & TECHNOLOGY	3
EDCI 568	SEM IN ELE CURR: MOD TRDS & RE	3
EDFL 514	ELEMENTARY STATISTICS	3
Internship Courses		
EDCI 500	INTRO TO TEACHING INTERNSHIP (A)	3
EDCI 500	INTRO TO TEACHING INTERNSHIP (B)	3
Elementary Education Concentration Courses		
RE 511		3
RE 512	USG LIT TO TEACH LITERACY SKIL	3
RE 552	MTHDS/MTRLS FOR TEACH ELEM LIT	3
RE 553		3
Or Any Available 500 Level Reading Courses		
Secondary Education Concentration Courses		
RE 507		3
RE 510	TCHING LIT SKILS N CONTNT AREA	3
Or Any Available 500 Level Reading Courses		
Specialization		
Two courses in the designated content area based on Praxis II		6
Total Hours		**48**

This Program requires thirty-six (36) graduate hours. Prior to enrollment in classes for the degree, please receive appropriate advisement from an advisor in the Office of Master of Arts in Teaching.

College of Health Sciences

"A CEPH Accredited School of Public Health"

Dr. Russell Bennett, Interim Dean
Vacant, Associate Dean
Jackson Medical Mall, Suite 301
350 West Woodrow Wilson Drive
Jackson, MS 39213
Telephone: (601) 979-6387
Fax: (601) 979-1422

Vision

Leadership for optimal public health

Mission

The Mission of the College of Health Sciences is to provide quality teaching, research, and service to produce team-oriented leaders who think critically and address health and societal issues that impact quality of life and well-being in communities at the local, state, national and global levels.

Goals

Education

1. Produce competitive and highly skilled public health professionals, equipped with the knowledge and skills to solve complex public health problems through rigorous, outcomes-based academic programs that enhance critical and analytical thinking skills.
2. Sustain a nurturing educational environment that promotes academic excellence and effective public health practice through the recruitment and retention of qualified and diverse faculty and staff who demonstrate a commitment to academic excellence, research and practice, and progression and forward thinking in all public health disciplines.

Research

1. Promote health equity and social justice and reduce health disparities of disadvantaged populations locally, statewide, nationally and globally through ethical and rigorous research that ensures the inclusion of community in the research, translation and dissemination process.
2. Enhance the research and practice skills of public health students through effective mentorship opportunities.

Service

Transform public health issues through increased visibility within the community in the development of policy and advocating on behalf of disparate populations locally, statewide, nationally and globally.

School of Public Health

School of Social Work

School of Public Health

Graduate Programs in Public Health

The Public Health degree is comprised of five academic disciplines offered within three academic departments:

Behavioral and Environmental Health

Dr. M. Shaw-Ridley, Chair & Professor
Phone: (601)979-3103

Faculty

Dr. Mary Shaw, Professor
Dr. Sophia Leggett, Professor
Dr. Luma Akil, Associate Professor
Dr. Sheila McKinney, Assistant Professor
Dr. Angela Omondi, Assistant Professor
Dr. Nelson Atehortua, Assistant Professor (Adjunct)
Dr. Jennifer Scott (Visiting Associate Professor)
Dr. Kimberly Bentley (Visiting Assistant Professor)

Epidemiology and Biostatistics

Dr. M. Payton, Chair & Professor
Phone: (601) 979-8789

Faculty

Dr. C. Addison, Associate Professor
Dr. A. Bhuiyan, Professor
Dr. J. Lee, Professor
Dr. V. Mendy, Assistant Professor
Dr. A. Mitra, Professor

Health Policy and Management

Dr. R. Bennett, Interim Chair & Associate Professor
Phone: (601) 979-8789
Email: healthpolicy.management@jsums.edu

Faculty

Dr. Russell L. Bennett, Professor

Dr. Yalanda Barner, Assistant Professor

Dr. Alyce Hays, Visiting Assistant Professor

Dr. LaTarsha Michael, Assistant Professor

Dr. Edith Offiah, Assistant Professor

Dr. Mustafa Younis, Professor

Masters

- Public Health (M.P.H.) Health Policy and Management Concentration (p. 67)

Doctoral

- Public Health (Dr.PH.) (p. 70)

Graduate Certificate

- Graduate Certificate in Data Analytics (p. 72)
- Graduate Certificate in Public Health Informatics (https://jsums-public.courseleaf.com/graduate/college-health-sciences/school-public-health/certificate-public-health-informatics/)
- Online Graduate Certificate in Biostatistics (p. 72)
- Online Graduate Certificate in Epidemiology (p. 72)

Course Descriptions

CMD 510 ADV. ARTICULATION & PHONOL DIS (3 Hours)
Prerequisite: Course in phonetics.
Students will develop the skills to effectively assess, plan, and implement appropriate intervention strategies for persons presenting with articulation and/or phonological disorders (including with functional or organic etiology) as well as regional or cultural dialectal variations of speech sound production.

CMD 515 COUNSELING IN SPEECH-LANG PATH (1 Hour)
Prerequisite: Permission of instructor and academic advisor.
This course will explore the social, emotional, cultural and vocational effects a communication disorder may have on individuals, their families and significant others. Students will learn appropriate techniques and strategies for counseling children, adolescents and adults presenting with conditions impacting communication. Students will also learn how to counsel and interact with families (immediate and extended), case managers and other service providers.

CMD 519 AUDIOLOGY FOR SPEECH-LANG PATH (3 Hours)
Prerequisite: Course in speech/hearing science or permission of instructor.
Students will learn the etiology, signs, symptoms, and differential audiological findings in infants, children and adults with a variety of auditory disorders. The theory, methodology and procedures in differential diagnosis and test interpretation, including the appropriate modification of test procedures to accommodate the patient¿s chronological age, intellectual age, cultural differences, physical and emotional states will be examined. The assessment and management of persons with central auditory processing disorders will be explored.

CMD 525 DYSPHAGIA (3 Hours)
Prerequisite: Course in anatomy and physiology of the speech mechanism.
Students will learn the normal anatomy and physiology of swallowing in infants, children and adults. The etiology, signs and symptoms of dysphagia, as well as screening, instrumental assessment and non-instrumental evaluation procedures will be explored. Management, including counseling and sensitivity to cultural differences, models of service delivery, indications and methods of oral and non-oral feeding, nutritional issues, and prevention of complications will be investigated. The student will learn to assess the effectiveness of treatment by using relevant outcomes.

CMD 527 SEM IN CHILD LANG DISORDERS I (3 Hours)
Prerequisite: Course in normal language development.
This course will address normal communication development in children from birth to age three. Students will develop an understanding of the major etiologies of language disorders in infants and toddlers across cultures. Assessment and strategies, including the infusion of technology, for those presenting with disorders as well as for the at-risk child will be discussed. Skills to informally and formally determine the present communicative level of an infant or toddler using non-standard methods, such as play-based assessment will be addressed. Strategies for helping families from diverse backgrounds participate in the successful implementation of speech and language services to infants and toddlers will be shared. Policies impacting service delivery to this population and their families will be explored.

CMD 528 SEM IN CHILD LANGUAGE DISO II (2 Hours)
Prerequisite: Course in normal language development.
Students will develop an understanding of the etiologies of language delay and disorders in children, and the impact of language impairment on the learning process. Formal and informal assessment and intervention strategies as well as treatment outcomes will be discussed. Students will develop awareness of issues pertinent to service delivery including cultural diversity, preparation of individualized educational programs, literacy, assessment of progress, behavior management, collaboration and infusion of technology. Various group processes and structures required for successful service delivery will be recognized. Legislation and policies impacting services to school aged children will be explored.

CMD 530 SEM IN ACQUIRED LANG DISORDERS (3 Hours)
Prerequisite: CMD 537 or equivalent.
This course will explore the incidence, ethnocultural differences and etiology of impairments that jeopardize acquired language as a result of insult to the central nervous system. The characteristics of different types of aphasias, as well as the effects of right hemisphere damage, including neglect, attention, linguistic, communicative, cognitive and affective deficits will be explored. Students will acquire knowledge of standardized and functional assessment of communication to ascertain the individual¿s abilities and impairments. Treatment approaches and strategies (including the infusion of technology) that promote compensation for deficits and promote recovery of function will be explored. Issues including counseling and educating patients, family members, significant others and care givers specific to the patient¿s diagnosis, management plan, prognosis and discharge will be discussed.

CMD 531 SEM ACQUIRED DISORDERS OF LAN (3 Hours)
Prerequisite: CMD 537 or equivalent.
This course will address the incidence, pathophysiology, as well as communicative, mood and behavior changes in persons with dementia (including Alzheimer¿s disease), and those with traumatic brain injury across various cultures. The physiologic, cognitive, auditory and motor speech characteristics, as well as the language, pragmatic and discourse abilities of these individuals will be investigated. The social impact on the individual and the family will be reviewed. Professional services provided to the individual and care giver, including differential diagnosis, assessment and rehabilitation, and the infusion of technology will be discussed. Direct and indirect communication management approaches, including individual and group therapy, stabilization strategies, the use of assistive and augmentative devices, and collaboration with other health care professionals will be explored. Educational intervention and transition to school/work after traumatic brain injury, as well as efficacy, ethical and legal issues pertaining to both disorders will be examined.

CMD 532 METHODS OF RESEARCH (3 Hours)
The student will learn to read critically and evaluate research in normal and disordered speech, language, hearing and swallowing processes. The principles of research, research designs, issues in conducting unbiased research, types of research, observation, measurement, statistical treatment and reporting of data will be explored. The student will be guided in developing an intuitive understanding of clinical research methodology and integrating it with core statistical concepts and techniques.

CMD 535 AUGMENTATIVE & ALTERNATIVE COM (3 Hours)
This course focuses on approaches to the development of augmentative and alternative modes of communication for individuals of all ages with limited oral communication. The skills to effectively evaluate, select, and properly use a variety of gestural and symbol-based communication systems will be developed. Factors that affect assessment and treatment, such as, severity, age, cultural differences, nature of disorder, etc. will be discussed.

CMD 537 NEUROANATOMY & NEUROPHYSIOLOGY (3 Hours)
The neuroanatomy and neurophysiology of the central and peripheral nervous systems will be discussed with emphasis on structures that control language, speech and swallowing. The student will learn about the normal embryonic development of the nervous system, and the critical periods of susceptibility to teratogenic agents. The neurological examination and pertinent diagnostic issues including variations in different countries and cultures will be investigated. Signs, symptoms and sequelae of pathological agents will be correlated with clinical implications. Rehabilitation issues will be addressed.

CMD 540 ADVD CLIN PRAC IN SPCH-LANG PA (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 541 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 542 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 543 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 544 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 545 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 546 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 547 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 548 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 549 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 550 PROF ISSUES IN SPEECH-LANG PAT (1 Hour)
Prerequisite: Permission of instructor and academic advisor.
This course will focus on topics such as professional standards, quality improvement, outcome measures, ethical considerations, funding sources, third party reimbursement, work force issues, health care legislation, as well as the role of professional organizations in developing policies that impact speech-language pathology. Approaches to planning, managing and marketing speech-language pathology services in various communities, cultures and practice settings will be discussed.

CMD 558 SEMINAR IN MULTICULTURAL ISSUE (2 Hours)
This course will focus on the historical origins, rules and features of nonstandard English dialects. Normal language and speech acquisition in speakers from culturally/ethnically and linguistically diverse groups will be examined. Strategies to distinguish individuals with communication differences from those with communication disorders will be identified. Students will learn about current clinical standards and practices associated with service delivery to speakers from different backgrounds in respect to race or ethnicity, age, gender, national origin, sexual orientation and disability.

CMD 565 SEMINAR IN FLUENCY DISORDERS (2 Hours)
Prerequisite: Permission of instructor and academic advisor.
Current as well as historically relevant theories of stuttering and its etiology will be considered. Students will develop skills to identify and classify various types of dysfluencies as well as the social, emotional, cultural, vocational, and economic impact of stuttering. Assessment and intervention strategies for children, adolescents and adults who stutter will be presented.

CMD 570 SEMINAR IN AURAL REHABILITATIO (3 Hours)
Prerequisite: Courses in audiology and normal language development.
This course is an advanced exploration of the critical role of hearing in normal language, speech and psychosocial development. The effects of hearing loss on communication across the life span, and the importance of early intervention and counseling will be investigated. Assessment of oral, signed and written language, speech and voice production, auditory discrimination and perception, and speech reading skills will be discussed. Scales used to assess specific communication breakdown and resultant attitudes will be identified. Treatment options and communication strategies, including the use of amplification systems, assistive listening devices, sensory aids and cochlear implants will be explored. Pertinent legislative and multicultural issues will be reviewed. Assessment and management of auditory processing disorders will be addressed.

CMD 572 COMM BEHAVIOR & AGING PROCEDUR (2 Hours)
Current research and theory concerning age-related changes in communication and swallowing due to anatomical, physiological and cognitive changes will be reviewed. The influence of attitudes and expectations, the effects of cultural, psychological and pharmaceutical variables, the role of genetic factors and deleterious environmental influences will be analyzed. Appropriate modifications in assessment and management procedures to meet individual needs in different health care settings, including the use of group treatment and a collaborative management approach will be discussed. Counseling and assistance provided to caregivers and members of the extended social support network will be explored.

CMD 575 SEM IN ORGANIC SPEECH DISORDER (3 Hours)
Prerequisite: Courses in anatomy and physiology of the speech mechanism, neuroanatomy, neurophysiology and articulation disorders or permission of instructor.
This course is a comprehensive study of the theory and research related to underlying neurological pathology, salient features, confirmatory signs, diagnosis and treatment of motor speech disorders across the life span. The etiology and classifications of congenital orofacial anomalies and dentofacial growth problems, genetics of clefting and associated syndromes, including those typically associated with specific racial and ethnic groups will be explored. Acoustical, perceptual and instrumental measures in assessment, as well as models of service delivery and management procedures will be discussed. Pediatric care and feeding of the newborn with a cleft, and complications associated with clefting and craniofacial disorders will be reviewed.

CMD 578 SEMINAR IN VOICE DISORDERS (3 Hours)
Prerequisite: Courses in anatomy and physiology of the speech mechanism and speech science.
This course includes a comprehensive study of the models of voice production, as well as organic and functional voice disorders across the life span in culturally diverse populations. Etiology, signs, symptoms, and perceptual correlates of vocal pathologies and management will be discussed. The art of assessment including perceptual ratings and the use of contemporary equipment will be explored. Interdisciplinary collaboration in planning and monitoring treatment will be investigated. Communication and swallowing management of tracheotomized and ventilator dependent children and adults, as well as assessment and rehabilitation of head/neck cancer patients will be examined.

CMD 580 BUS & MGNT ASPECTS OF SLP PRAC (2 Hours)
This course provides business and practice management principles and procedures for starting and managing a speech-language pathology practice, or in buying/selling an existing private practice. Topics of discussion include market analysis, marketing plan, operation and organizational plan, financial analysis, risk management, office automation, and personnel issues. Procedures for proper bookkeeping and accounting, strategies in pricing, and financial planning will be examined. Issues such as reimbursement, negotiating service contracts, continuous quality improvement, and risk abatement will be discussed.

CMD 582 SPEC PROBLMS IN SPCH LANG PATH (2-4 Hours)
Prerequisite: Permission of academic advisor and instructor.
This course has varying content dealing with issues, trends and topics of current interest. Content will be developed based on assessed needs, interests and goals of a group(s) of students.

CMD 585 INDEPENDENT STUDY (1-6 Hours)
Prerequisite: Permission of academic advisor and instructor.
This course allows for the exploration of topics and/or issues based upon assessed needs, interest and goals of the individual student under the guidance of a faculty member. Typically, such a study will concentrate on an area not covered in other courses, or an area in which the individual student has developed particular interest and wishes to explore beyond what was covered in another course(s).

CMD 589 MASTER'S PROJECT (3-6 Hours)
Candidates for the Master of Science degree in Communicative Disorders may choose to complete a creative project within the student's professional area under the supervision of a graduate advisor within the Program. It is expected that this project will contribute to the knowledge base of the profession.

CMD 590 THESIS (3-6 Hours)
Candidates for the Master of Science degree in Communicative Disorders may choose to present a thesis that embodies independent research. The topic must be within the student¿s major professional area and must be approved by the student¿s thesis advisor within the Department. It is expected that the research will contribute to the knowledge base of the profession.

PHBI 711 CATEGORICAL DATA ANALYSIS (3 Hours)
Prerequisite: PHS 503 Introduction to Biostatistics and Computer Applications, PHS 701 Advanced Biostatistics and Computer Applications, and a multiple regression analysis course.
This course provides an in-depth review of the appropriate biostatistical techniques for analyzing categorical data. Included will be chi-square statistics, log-linear analysis, and logistic regression. SPSS and/or SAS statistical software packages will be utilized.

PHBI 712 MULTIVARIATE ANALYSIS I (3 Hours)
Prerequisite: PSY 502 may be substituted for MNGT 712.
This course covers multivariate analysis of variance and covariance, canonical correlation, factor analysis, discriminant function analysis, and selected advanced topics.

PHBI 713 MULTIVARIATE METHODS II (3 Hours)
Structural-equation models, log-linear models, and selected advanced topics based on student needs and interests.

PHBS 711 ADV THEORIES&SCI PRIN FOR HP (3 Hours)
The course provides an extensive overview of current theories and models of health promotion and education. In addition, it reviews the scientific evidence and principles supporting the foundation of health promotion and educational programs.

PHBS 712 BEHVL & PSYCHOSOCIAL EPIDEMIOL (3 Hours)
Prerequisite: for doctoral students is PHS 702 Disease Pathogenesis and Behavioral Risk Factors.
This course provides an overview of social, personality, and cultural factors influencing behavior. It also addresses stress and related psychosocial factors as determinants of health and disease. Psychosocial and behavior models are also discussed. Doctoral students are required to analyze a specific data set and prepare a research literature report on a specific topic in behavioral and psychosocial epidemiology. A prerequisite for the master¿s students is PHS 505 Principles of Epidemiology.

PHBS 713 QUALITATIVE RESEARCH METHODS (3 Hours)
This course examines major qualitative approaches that are most frequently applied to the study of process in human service settings. Students learn how to conduct systematic investigations of in-depth, non-quantitative studies of individuals, groups, organizations, or communities.

PHBS 714 CLINCL TRLS & INTRVNTNL ST DES (3 Hours)
Prerequisite: include PHS 521 Epidemiological Study Designs and PHS 703 Designing Research Studies on Minorities and Special Populations.
This course reviews in greater detail the design, conduct, and evaluation of clinical trials and cohort studies. In addition it addresses errors and common methodological pitfalls using practical illustrations. The first half of the course addresses clinical trials and the second half focuses on other interventional study designs.

PHBS 715 RES SEM IN HEALTH PROMOTION (3 Hours)
This course exposes graduates to current research methods and practice in health promotion. The course will consist of a series of guest lecturers

PHBS 716 SOC & COGNITIVE BASES OF BEHAV (3 Hours)
This course addresses the theories and research on attitude formation and change, attributional styles, prejudice, interpersonal perception, group dynamics, self-regulation, and cognitive styles.

PHEP 711 BEHAVIORAL & PSYCHOSOC EPIDEM (3 Hours)
Prerequisite: for doctoral students include PHS 505 and PHS 702 Disease Pathogenesis and Behavioral Risk factors.
This course provides an overview of social, personality, and cultural factors influencing behavior. It also addresses stress and related psychosocial factors as determinants of health and disease. Psychosocial and behavior models are discussed. Doctoral students will be required to analyze a specific data set and prepare a research literature report on a specific topic in behavioral and psychosocial epidemiology. A prerequisite for the master¿s students is PHS 505 Principles of Epidemiology.

PHEP 712 CLNCL TRAILS & INTRVNL ST DEV (3 Hours)
Prerequisite: include PHS 521 Epidemiological Study Designs and PHS 703 Designing Research Studies on Minorities and Special Populations.
This course provides an in-depth review of the design, conduct, and evaluation of clinical trials and cohort studies. In addition it addresses errors and common methodological pitfalls using practical illustrations. The first half of the course addresses clinical trials and the second half focuses on other interventional study designs.

PHEP 713 INFECTIOUS DISEASE EPIDEMIOLGY (3 Hours)
Prerequisite: are PHS 505 Principles of Epidemiology, and Disease Pathogenesis and Behavioral Risk Factors.
This course reviews infectious agents of public health importance. Included are vaccine-preventable infectious diseases; diseases spread by personal contact, water, and food; and arthropod-borne diseases and nosocomial infections. In addition, the emergency preparedness system will be discussed and agents involved in bioterrorism will be addressed regarding treatment and (PHS 702) prevention.

PHEP 714 NUTRITION&GENETIC EPIDEMIOLOGY (3 Hours)
Prerequisite: are PHS 505 Principles of Epidemiology, and PHS 702 Disease Pathogenesis and Behavioral Risk Factors.
This first half of the course addresses nutritional factors and their relationship to disease. The second half involves a review of genetics, inheritance, and molecular factors causing disease.

PHEP 717 ENVIRONMENTAL EPIDEMIOLOGY (3 Hours)

PHPM 711 STRATGC LDRSHP N/MGNT OF HM RE (3 Hours)
This course provides theoretical and practical knowledge for managing the human resources of public health organizations. Topics include cultural and psychological factors affecting recruitment, selection, placement, and promotion; training and development processes; performance appraisal methodologies; and job evaluation methods and compensation practices. Factors promoting employee productivity and job satisfaction are explored. Legal concerns, including the requirements for the validation of selection tools, are covered.

PHPM 712 PUBLIC HEATH ECONOMICS (3 Hours)
This course examines factors determining the supply and demand for healthcare services. Markets for professional services, drugs, and insurance are discussed. Competitive effects on efficiency, effectiveness, and access are examined. The class discusses relevant theories of production, cost curves, market structure, and factor price determination.

PHPM 713 ANALYSIS OF HLTH LEGSLTN & REG (3 Hours)
This course identifies and analyses legislation and regulations that determine and/or influence healthcare access, delivery and practice. It focuses on the factors that influence policy formulation and implementation. Students are expected to analyze laws and regulations affecting the health of populations at risk for major health problems. Examples of current issues covered are Medicaid, Medicare, HIV/AIDS, family planning, and cardiovascular disease.

PHPM 716 ADMN OF INTEGR HLTH & HOSP SYS (3 Hours)
The course focuses on the complex and essential interrelationships that exist within and among healthcare entities. This course will 1) identify and study components of the healthcare system (hospitals, clinics, home care agencies, hospice care, emergency medical services, etc.) as well as the interrelationships necessary for their survival. 2) It will explore the variety of arrangements (networks, systems, alliances, etc.) used for integrating and managing these entities. This course will also illustrate the fact that survival within the healthcare industry is largely predicated upon an entity¿s ability to partner with other healthcare providers.

PHPM 717 MNGD CARE NETWORKS & PUB HLTH (3 Hours)
This course introduces the dynamic impact of managed care on the delivery of healthcare services and the cost containment features of health plans that thrived in the 1990s. The student will become familiar with all aspects of managed care (HMOs, PPOs, and POS) from effectiveness including of these healthcare plans medical/loss ratios, profit margins and outcomes measurements to their effects on access to quality of healthcare services.

PHS 500 INTRO TO PUBLIC HEALTH DSCPLNS (1-3 Hours)

PHS 501 PUBLIC HEALTH & BEHAVIORAL SCI (3 Hours)
This course introduces public health organization and practice, including history, concepts, legal basis, purposes, programs and trends in the evolving of public and private sectors of social and preventive medicine in America. It discusses various behaviorally-related health determinants, and presents a number of theories/models to change behaviors at individual and group levels.

PHS 502 PUBLIC HEALTH POLICY & ADMIN (3 Hours)
This course presents an overarching introduction to national legislative issues and policy processes together with the managerial functions and practices in public and private healthcare organizations. Study emphasis is on the essentials of how executive and supervisory managers professionally perform their roles in the work of leading system-wide teamwork, strategy building, reengineering, resource acquisition, and market effectiveness in competitive environments.

PHS 503 BIOSTATISTICS AND COMPUTER APP (3 Hours)
This course introduces the principles and methods of statistical analysis. Topics include hypothesis testing, confidence limits, sample size, statistical tests of inferences, and simple linear and multivariate analysis. Statistical software packages such as SPSS and Stata will be used in illustrating the basic principles of data analysis.

PHS 504 ENVRNMNTL & OCCUPATIONAL HEALT (3 Hours)
This course introduces major community health concerns and problems in the related fields of environmental and occupational health with an emphasis on disease and disability. Students will review and analyze the policy and ecological change implications of these two public domains.

PHS 505 PRINCIPLES OF EPIDEMIOLOGY (3 Hours)
This course explores the science and practice of epidemiology and its contributions to disease detection, measurement, and prevention in clinical and public health settings. Specific topics include measurement of disease frequency, measurement of disease association, standardization, bias, and study designs. This course also introduces the practical fields of epidemiology.

PHS 506 RESEARCH & QUANTITATIVE MTHDS (3 Hours)
Prerequisite: PHS 503 and PHS 505.
This course introduces students to applied research methods in public health. It emphasizes essential concepts, techniques and methods of research practice. Basic measurement procedures for analyzing health data are examined through SPSS computer software, and the student is required to complete the design of a research study.

PHS 507 APPLIED MASTER'S PROJECT (3 Hours)
Prerequisite: PHS 506 Research and Quantitative Methods.
The Masters¿ Research Project provides a culminating experience of the student¿s scientific and professional practice preparation, including proposal formulation of the problem to be studied or an operational project to be implemented with the evaluating conclusion and defending report of the outcome.

PHS 508 PUBLIC HEALTH INTERNSHIP (3 Hours)
Students conclude their MPH studies with a supervised field experience in their respective specializations. This supervised residency practice operates for the full semester with a student commitment of a minimum of 400 clock hours with the placement organization, recognizing flexible arrangements for the mutual benefit of all parties and including possible compensation. The department, student, preceptor and field setting will abide by a formal affiliation agreement which provides policies and guidelines for the placement expectations and responsibilities. It culminates with an analytical focus on the student¿s concentration area. The report should emphasize the learning objectives and competencies for the internship. Enrollment requires permission of the advisor, the instructor of record, and chair. Completion of the course requires the agency¿s preceptor¿s evaluation.

PHS 511 ORG DESIGN & BEHVR IN PUBLIC H (3 Hours)
This course examines universal organizational theories which adapt to private healthcare and public health services. Students study a framework of analysis looking at the management science explanations of human behavior in these settings from the perspectives of individual worker and patient roles, group and team relationships, and global systems. Topics include professional understanding of organizational culture, conflict, strategic design, change, measuring performance, and creating alliances.

PHS 512 PUB. HEALTH POLICY, LAW & ETHI (3 Hours)
This course provides an overview of principles and policies relating to public health law and ethical applications. This course will explore federal laws and directives, along with state statutes and local ordinances. Recent case law from federal and state courts will be used as illustrations.

PHS 513 FINANCIAL MNGT OF HEALTH SERVS (3 Hours)
Prerequisite: HCA 450 or instructor approvals.
This course explains important financial management techniques applicable to health care settings. Course materials will include the language and function of financial management, analysis of an organization¿s financial position, management of working capital and current assets, budgeting, and the use of financial data for decision making. Students will further their knowledge of computerized information systems through class exercises. Emphasis will be placed on the application of techniques to health services organizations. Students will synthesize techniques through completion of an analysis project and/or research paper in health economic and financing.

PHS 514 HEALTH MNGT INFORMATION SYSTEM (3 Hours)
Prerequisite: Basic knowledge of computing skills.
This course introduces students to systems in managing for-profit and not-for-profit organizations (such as manufacturing, banking, and health care organization) and emphasizes the role of information systems to increase productivity, to improve quality of products and services, and to insure overall effectiveness or organizational operations. Appropriate application software will be used to analyze cases and complete the class project.

PHS 515 MKTG PUBLIC HEALTH & STRATE PL (3 Hours)
This course examines an overview of the strategic planning process and state-of-the-art marketing applications used by community health organizations. Marketing is viewed as a social change opportunity for public health practitioners and the analysis and design of market plans are studied. As an extension of the marketing audit, several key planning strategies and methods are critically reviewed for their relative value to managers and stakeholders in decision making of long-range and short-terms system futures.

PHS 516 HUMAN RESOURCES MNGT IN PUBL H (3 Hours)
This course examines the role of healthcare administrators and supervisors with respect to personnel interviewing, selection, orientation, performance counseling and appraisal; staff development; leadership development; and related functions of human resources management. Issues of job analysis, labor relations, performance appraisal, training and development, and other concerns are studied in relationship to the human resource process system.

PHS 517 MANAGED CARE NETWORKS & PUB HE (3 Hours)
This course introduces the dynamic impact that managed care has had on the delivery of healthcare services and cost containment features of the health plans that thrived in the 1990's. The student will become familiar with all aspects of managed care (HMOs, PPOs, and POS) from effectiveness measurement of these health care plans medical/loss ratios, profit margins and outcomes measurement to the effect on access to quality healthcare services.

PHS 519 HEALTH PROGRAM AND EVALUATION (3 Hours)
This course provides an overview of theories and application of program planning, implementation, and evaluation for public health programs while emphasizing essential components of program planning models and a range or evaluation objectives and designs.

PHS 521 ADVD SEMINAR IN EPIDEMIOLOGY (3 Hours)
Prerequisite: PHS 505.
The hallmark of the course is designing and presenting an epidemiological research study. Emphasis will be placed on the major types of epidemiological study designs: cross-sectional, case-control, cohort, and intervention studies. In addition, diagnostic studies to evaluate screening programs will be discussed.

PHS 522 MULTIVARIATE & PROBABLISTIC BI (3 Hours)
Prerequisite: PHS 503 and PHS 505.
This course addresses modeling and practical application of statistical principals in data analysis. Statistical Software packages such as SAS and SPSS will be used. Topics include probability distributions, simple linear regression, multiple linear regression, log linear modeling, logistic recession, Poisson, and Cox-Proportional Hazard modeling.

PHS 523 CHRONIC AND INFECTIOUS DIS. EP (3 Hours)
Prerequisite: PHS 505.
This course introduces students to various fields of practical epidemiology. This course primarily addresses the epidemiology of cancer, cardiovascular, and infectious diseases.

PHS 524 STAS METHODS FOR APPLIED EPIDE (3 Hours)
Prerequisite: PHS 503 and PHS 505.
This course reviews the basic statistical tools used in epidemiology research. The course includes: sampling and sample size determination, methods to compute confidence intervals and p-values for key epidemiological measures of association, and an overview of regression and statistical methods for analysis of data.

PHS 525 EPIDE. OF MIN. & SPECIAL POPUL (3 Hours)
Prerequisite: PHS 505.
This course introduces the salient features of conducting epidemiological research in special populations with a particular emphasis on African Americans. This course covers the epidemiology of diseases and conditions affecting racial/ethnic minorities, children and the elderly. Other components include psychological and behavioral factors and preventive services.

PHS 528 GENETIC EPIDEMIOLOGY (3 Hours)

PHS 529 PSYCHOSOCIAL EPIDEMIOLOGY (3 Hours)
Prerequisite: PHS 505.
This course provides an overview of the literature incorporating social and personality factors, cultural influences upon individual behavior, stress, and related psychosocial factors as determinants of health. Health and illness determinants are multi-factorial and enmeshed in the social fabric and psychologic constitution of the person and may involve a complex interaction of the person and environment. Psychosocial epidemiological models of chronic disease will be discussed.

PHS 531 HEALTH BEHAVIOR,PROMOTION & ED (3 Hours)
This course provides a comprehensive understanding of health promotion and health education, concepts and applications. It offers students an opportunity to develop a broad understanding of social, cultural and psychological factors as they affect health and health-related behaviors and outcomes at individual, family, and group/community levels. Areas of responsibilities for health educators, as required by the National Commission for Health Education Credentialing (NCHEC) body, are discussed, and students gain competencies essential to pass the Certified Health Education Specialist (CHES) examination. The CHES related skills and competencies in combination with an MPH degree create better job opportunities at state and national levels.

PHS 532 COMMUNITY AND PATIENT HEALTH E (3 Hours)
Prerequisite: Completion of all MPH core courses and PHS 531.
This course examines professional health education practices in most community and individual settings where opportunities exist to acquire and behaviorally deploy personal health knowledge into action. Health risk factors are studied using the socioecological paradigm as applied to a selected community. Furthermore, the roles of the health educator as a community advocate, facilitator and collaborator are explored. Patient education in clinical settings focuses on equipping clinical personnel in the competencies and skills of health promotion techniques.

PHS 533 WELLNESS & MTRNL CHILD HLTH PR (3 Hours)
This course provides the historical perspective, organization and delivery of maternal child health services as well as an analysis of the major health determinants associated with the system of health care and health promotion for this population. Ethical issues, cultural diversity, special and vulnerable populations, disparate health outcomes, environmental health and nutritional issues will be emphasized while highlighted strategies to overcome barriers in health promotion and provision of care.

PHS 534 COMMUNI AND HLTH EDU MARKETING (3 Hours)
Prerequisite: Completion of all MPH core courses, and PHS 531.
This course provides an overview of communication and marketing within a health education context. This course examines communication in health care settings, public health campaigns, and cultural differences in communication.

PHS 535 BEHAVIORAL CHANGE PROG. STRATE (3 Hours)
Prerequisite: PHS 531 Health Behavior Promotion and Education.
This course examines the behavioral science theories which underpin the fundamental ingredients of most change strategies in continuous health program development. Several models/theories that are designed to alter behaviors are discussed. Theories and models of health perception, health promotion and education along and program planning, research and evaluation are explored. Theories of individual health behavior (e.g., Health Belief Model); interpersonal theories (e.g., Social Cognitive Theory), and models for community level behavioral change (e.g., PRECEDE-PROCEDE Model) are discussed; and their applications are shown through research, practices, and actual projects that students undertake in targeted populations. Students also evaluate both classroom case studies and the actual community implementation of health behavior change programs.

PHS 541 ENVL MNGT AND INDUSTRIAL HYGIE (3 Hours)
Prerequisite: PHS 504.
This course introduces students to the basics of Environmental Management and Industrial Hygiene. The course will be divided into two parts. Part I will help students understand the regulatory approaches, effects of pollution and the source of pollutants, and the various environmental management issues. Part II will place an emphasis on control of occupational health hazards that arise as a result of work or during work.

PHS 542 ENVNL & OCPTNL HLTH RISK ASSMT (3 Hours)
This course assists the student in developing the skills necessary to assess, evaluate and recommend control measures to reduce environmental and occupational risks. This course will involve the study of chemical exposures and the harmful actions of chemicals on humans. Students will study scientific methods currently employed to assess human risks to environmental and occupational contaminants.

PHS 543 OCCUPATIONAL HLTH & SAFETY MNG (3 Hours)
This course introduces the field of safety, prevention management, and issues in occupational health. This course will provide the opportunity for the student to apply public health principles and decision making skills with relation to prevention of injury and disease, health promotion, and protection of worker populations from occupational hazards.

PHS 544 ENVL AND OCCUPATIONAL TOXICOLO (3 Hours)
This course examines the basic concepts of toxicology and demonstrates how the basic principles are applied in occupational and environmental regulations. Toxicology, the study of the adverse effects of chemical or physical agents on biological systems, is a pillar of both clinical medicine and public health. Students will acquire the armament to develop, interpret, and utilize toxicological data for solving environmental and occupational health problems.

PHS 545 ENVL PLCY & OCCUP HLTH REGULAT (3 Hours)
Prerequisite: PHS 543.
This course examines Federal laws and regulations concerning environmental and occupational health. This course will introduce students to State environmental policies and occupational health regulations while and emphasize implementation and compliance with environmental and occupational health regulations and laws.

PHS 555 MATERNAL AND CHILD NUTRITION (3 Hours)
This course presents important aspects of growth and development, nutritional requirements and concerns, and dietary recommendations from conception to adulthood. Emphasis is on the special nutritional concerns of minorities and the medical, psycho-social, and environmental factors influencing nutritional status. Topics in current controversies, chronic disease prevention, nutrition education, and health promotion are also covered.

PHS 556 CULTURAL NUTRITION & HLTH DISP (3 Hours)
This course addresses food and its role in the culture and food beliefs and practices of various religious and ethnic groups in the United States. It emphasizes the impact of culture, socio-economic differences, and other factors on food practices and health beliefs to prepare students to provide culturally sensitive services to communities and clients.

PHS 564 COMPARATIVE & INTERTL HLTH SYS (3 Hours)
This course introduces important methodological approaches to comparative analyses. For analytical purposes, the health systems of the world will be classified into four major categories. Important examples from each of these categories will be discussed. Specific objectives of the course are: to discuss the health system categories and their determinants; to identify important components of a health system; and to illustrate the health system categories by selecting country case studies. Health care reform proposals of various countries will also be discussed.

PHS 565 HLTHCARE IN DEVELOPING COUNTRI (3 Hours)
This course introduces the students to health care in settings with severe resource constraints, rapid population growth, critical competing priorities, poor data collection, and high disease burden. Students are prepared for effectiveness in international health by studying infectious disease control, nutrition, environmental health, health practices, and needs for sustainability as they apply to the tropical setting.

PHS 571 STATISTICAL THEORY (3 Hours)
Prerequisite: PHS 503 or an equivalent introductory course in biostatistics.
This course is an introduction to the mathematical foundation of statistics and statistical theory. It provides an in depth coverage that includes probability theory, probability distributions, random variables, theories of statistical testing, interval estimation, and hypothesis testing The course starts with defining a sample space and the random variable then expounds to include distribution and density functions and concludes with applications of hypothesis testing and confidence interval estimation.

PHS 572 STATISTICAL COMPUTER APPS (3 Hours)
The purpose of this course is to teach two statistical computing applications: Statistical Packages for the Social Sciences (SPSS) and Statistical Analysis Software (SAS). This course covers the basic and intermediate applications of these two statistical programming applications. For SPSS, students will learn the following: the basic components of the software (input, analysis and output interfaces), usng the data editor, creating SPSS data file, create and recode variables, and set propertise of variables. For SAS students will learn the following: components to a SAS program, syntax of SAS program, comment statements, the various features of the Data Step, Procedure (PROC) Steps, common features of both Steps, and SAS Utilities will be covered in much detail. Students will apply the knowledge and skills acquired to the generation of statistical reports using descriptive statistics and related charts. The common feature of the PROC Step of statistical methods ranging from Descriptive Statistics through Analysis of Variance.

PHS 587 SPECIAL TOPICS (1-3 Hours)

PHS 598 CONTEMPORARY ISSUES IN PUBL HL (3 Hours)
This course highlights selective topics in public health relevant to today¿s changing public health forum and environment. The topics are designed to encompass a broad range of public health issues. Thus, topics for discussion are addressed within each of the following core areas of public health: Behavioral Health, Biostatics, Environmental Health, Epidemiology and Health-Related Conditions, and Health Care Planning and Organization.

PHS 599 INDEPENDENT STUDY (1-3 Hours)
This is an individual directed study in a specific concentration of public health selected by the student and approved by the professor.

PHS 601 ADVD BIOSTATS & CMPTR SCI APPL (3 Hours)
This course is an advanced, intermediate level course in biostatistics with emphasis on statistical and analytical techniques important to researchers and practitioners within the public health setting. This course provides in depth coverage of bio-statistical methods including statisitcal inference, sample size calculation, and multivariate regression techniques. This course is offered as an advanced PSH 701 with modification in the theoretical exercises and course expectations for examinations.

PHS 602 SAS PROGRAMMING (3 Hours)

PHS 701 ADV BIOSTATISTICS & COMPTR SCI (3 Hours)
This is an advanced course in biostatistics with emphasis on statistical inference, sample size calculations, and multiple regression techniques. The course emphasizes the use of computer software packages in conducting statistical procedures. The software packages include SPSS, SAS, Epi Info, GIS, and others. Emphasis is placed on selecting the appropriate statistical test and the most appropriate analytical procedure. Advanced Biostatistics Lab I course (PHS 711) must be taken simultaneously with this course.

PHS 702 DISEASE PATHOGENESIS&RISK FCTR (3 Hours)
This course addresses the major behavioral factors causing diseases in the nation. The course focuses on cardiovascular disease, cancer, HIV, and other chronic diseases. Disease pathology and pathogenesis are described, and their major determinants and behavioral risk factors are examined. Current models and theories of disease prevention and health promotion are addressed. Students will learn how to implement effective strategies and interventions to reduce risk factors and diseases.

PHS 703 DESGNG RES STUD ON MIN&SPEC PO (3 Hours)
This course examines unique health problems and concerns among African Americans, rural populations, women, children, other minorities and special populations. It describes basic study designs and their strengths and limitations, and addresses specific cultural competencies, research codes of ethics, and health disparities. It also addresses strategies for designing studies and interventions involving lay community leaders, faith-based organizations, and innovative means to reach special communities.

PHS 704 SURV & QUANT RESEARCH METHODS (3 Hours)
This course explores descriptive research methods and emphasizes the importance of using a mixed approach of qualitative and quantitative techniques. Students are provided with an overview of survey research methodology. Questionnaire and interview design, scale construction, methods of administration, response rate, reliability measurements, scale construction and validity are discussed. Also, specific qualitative methods and techniques such as participant observation, interviewing, focus groups, and use of personal documents and records are discussed.

PHS 705 ADVOCACY AND PUBLIC HLTH POLIC (3 Hours)
This course introduces advocacy and support measures for the promotion and formation of new legislation and the establishment of public health policies. Important federal, state, and international legislation is analyzed. The course also addresses the trends and processes by which public health programs are established in the United States and around the world.

PHS 706 PRIN OF ENVMNTAL & OCCU HLTH (3 Hours)

PHS 707 LEADERSHIP FOR PHS PROFESSNLS (3 Hours)
The purpose of this course is to provide students with a foundation not only in the study of leadership practice and theory, but also for the broader concept of leading people and health organization across multiple and interconnected disciplines. It is important for leaders to work collaboratively and appreciate all areas of public health and the important roles that all disciplines play, such as social work, urban planning, anthropology, and education.

PHS 711 ADVANCED BIOSTATISTICS LAB I (1 Hour)
These laboratory courses accompany the Advanced Biostatistics and Computer Applications courses. The computer laboratory courses provide practical experience with the computer software programs discussed in the class. The biostatistics course (PHS 701) and Lab I must be taken at the same time. Lab II and Lab III are taken during the following semesters. Each lab course is a one-hour credit.

PHS 712 Advanced Biostatistics Laboratory II (3 Hours)
SAS statistical software is used for research analysis of public health and clinical data. This course provides hands-on programming approaches to programming and statistical computing skills. It include techniques for entering, data management, and manipulating data combined with step-by-step instruction for analyzing the data using SAS.

PHS 713 ADVANCED BIOSTATISTICS LAB III (1 Hour)
These laboratory courses accompany the Advanced Biostatistics and Computer Applications courses. The computer laboratory courses provide practical experience with the computer software programs discussed in the class. The biostatistics course (PHS 701) and Lab I must be taken at the same time. Lab II and Lab III are taken during the following semesters. Each lab course is a one-hour credit.

PHS 750 COMMUNITY RESEARCH PRACTICUM (1-3 Hours)
This is a supervised community experience where students participate in a community-oriented service or practice to gain first hand knowledge of community issues and decision-making processes. In the context of this experience, the student begins developing a research agenda that should be relevant to community needs and/or practices. Students are required to register for the 1-credit hour practicum during the second semester and maintain enrollment each semester for three consecutive semesters, with the third semester culminating as the capstone experience. A final paper of publishable quality is required for completion of the course and registering for the dissertation.

PHS 755 INDEPENDENT STUDIES IN PUB HLT (1-3 Hours)
This is an individually directed study in a specific concentration in public health selected by the student and approved by the professor.

PHS 798 DISSERTATION (1-15 Hours)
Prerequisite: Consent of the Chair of the Dissertation Committee each semester of enrollment.
Students will complete doctoral level research that demonstrates the ability to conduct a rigorous project within a specific concentration. The research topic, approved by the dissertation committee, should reflect the candidate¿s interest in a problem unique to public health. The completion of a minimum of 45 semester credit hours is required before enrolling in this course. Enrollment must be continuous until the research experience culminates in the successful defense of the dissertation.

Behavorial Health Promotion and Education (M.P.H.)

Master of Public Health (MPH)

This range of work includes healthcare, preventive and regulatory agencies, community health promotion service organizations, health policy organizations, and an array of health-oriented public, not-for-profit, and private groups. The concentrations for the Master of Public Health are as follows.

Admission Requirements

Applicants must be admitted to both the Division of Graduate Studies and the MPH Program. To facilitate determination of admissions into the MPH Program, applicants must submit all admission information into Admission Pros. Applications may be found on-line on the Division of Graduate Studies website. Applicants will be admitted twice a year during the Fall and Spring semesters. This information must be uploaded online into Admission Pros:

- A personal statement of professional goals
- Three letters of recommendation, with at least two from academic professionals.

Regular Status

Applicants must have a baccalaureate degree from an accredited college or university with a 3.00 or better cumulative grade point average. International students must meet equivalent standards and possess a satisfactory score on the Test of English as a Foreign Language (TOEFL) Examination.

Conditional Status

Applicants must have a baccalaureate degree from an accredited college or university with a 2.50-2.99 cumulative grade point average. International students must meet equivalent standards and possess a satisfactory score on the Test of English as a Foreign Language (TOEFL) Examination. International students cannot be admitted under Conditional Status.

Conditional status students must maintain a 3.00 GPA through their first 12 credit hours or be subject to probation and/or dismissal.

Transfer of Credits and Other Requirements

A maximum of 9 graduate semester hours earned with a “B” or higher may be transferred from Jackson State University programs and other institutions toward the MPH degree. Transfer consideration may also be given for MPH Core courses from CEPH accredited programs. The transfer of these hours are subject to the discretion of the academic advisor, department chair and/or College Dean.

Scholarships and Graduate Assistantships

Financial support may be offered (when available) to new and matriculating students holding regular admission status and maintaining at least a 3.35 program GPA as determined by the program. In order to remain eligible for financial assistance, when available, students must maintain a minimum 3.35 cumulative GPA and remain in good professional academic standing (e.g., achieve a passing score on the Graduate Area Comprehensive Examination). Only full-time students (9-12 credit hours) are eligible for assistantships offered by the MPH Program.

Academic Performance

Once admitted to the MPH program, graduate students are required to maintain a 3.0 or higher GPA to continue studies in good academic standing.

MPH Curriculum

All master’s students must complete their program of study within eight (8) years of starting coursework at Jackson State University. However, MPH full-time students can usually complete the curriculum in two and a half years. Part-time students usually require two or more additional semesters to complete the program and are strongly encouraged to graduate within three years of beginning the program of study. Failure to satisfy all requirements during the 8 year time period may result in suspension up to dismissal.

Students acquire the necessary professional knowledge, skills and competencies that qualify them for employment in public health and health service organizations in their specialized disciplines. The program must be completed with a 3.0 or higher cumulative GPA for the minimum 45 credit hours. The curriculum has four major components: core courses, required concentration courses, electives, and the field practicum.

The core courses include the following basic subject studies as required by the CEPH:

1. philosophy and historical basis of public health concepts;
2. statistical basis of population health demography and quantitative, computer-based problem solving;
3. epidemiological foundations of public health;
4. social and behavioral determinants of community and personal health status;
5. environmental and biological factors in public health; and
6. management theory and practice of health and human services.

The MPH curriculum requires 6 core courses or 18 credit hours (3 hours per course) for all students. Each program assures that students take 5 required specialization courses or 15 credit hours for the advanced study in a specific public health concentration: Behavioral Health Promotion and Education, Environmental and Occupational Health, Epidemiology, Biostatistics, and Health Policy and Management.

Elective courses are offered in each concentration. Students may complete their two courses or 6 credit hours of electives within these specializations or other graduate level courses by advisor approval.

All students must complete a public health residency in the field. The Program will assist in the placement of students in field training which will account for 3 credit hours. Students will be placed in an organization for at least one full semester and commit a minimum of 400 clock hours during the semester under the supervision of a professional public health preceptor and faculty advisor. The location and specific residency activities will be worked out individually between the student, faculty of record for PHS 508 PUBLIC HEALTH INTERNSHIP, student advisor and preceptor and approved by the faculty member of record, prior to initiating the experience. Comprehensive “guidelines” will include appropriate covenants of mutual obligation between the university and the field agency through a written affiliation agreement. The purpose of this experience is to provide students with opportunities to apply and demonstrate their acquired knowledge and skill competencies in a public health setting as practice preparation for professional employment or doctoral studies upon graduation.

Graduation Requirements

Students culminate their study program by taking PHS 508 PUBLIC HEALTH INTERNSHIP Public Health Internship and PHS 507 APPLIED MASTER'S PROJECT. A minimum of 45 semester hours with a cumulative average of 3.0 or “B” (on a 4.0 scale) or higher are required to earn the degree. The Graduate Comprehensive Examination must be taken and successfully pass with an aggregate score of 80 percent or above before graduation. The Graduate English Competency Examination must be passed during the first semester of graduate studies at Jackson State University and must be passed before graduation. Students who fail this test must successfully complete ENG 500 ADVANCED LAB WRITING during their second semester of enrollment.

Important Notice for MPH Students

Students who enrolled in the MPH Program beginning in Fall 2016 and after are required to successfully pass the MPH internship (PHS 508 PUBLIC HEALTH INTERNSHIP) and PHS 507 APPLIED MASTER'S PROJECT as part of the program graduation requirements. The culminating experience courses will **only** be taken after successfully passing the graduate area comprehensive exam (GACE). Full-time students are admitted for full-time study to one program only. Each student must complete a Degree Plan with the assistance of their advisor at the beginning of their first semester. The Plan will reflect a full-time or part-time cohort enrollment status. Transfer from (1) full-time to part-time student status, or, (2) part-time to full-time student status must be applied for and approved by the program of origin. A change of concentration must be approved by both the advisor and department chairperson. Transfers are not automatic.

This concentration focuses on the health related behavior of individuals in the context of socio-cultural structures, communities, healthcare systems, and family units. Of particular interest is how health-related behaviors of individuals are determined by and interact with conditions in the social, political, cultural, economic, physical, and biological environment to influence health status. Emphasis is placed on identifying, evaluating, and diminishing unhealthy behaviors and promoting positive personal health. This concentration seeks to integrate and apply health behavior and social theories and methods to problems of human health. Assessment, planning implementation and evaluation of interventions with emphasis on behavioral sociocultural aspects of health are the core themes of the study of health promotion and education.

Code	Title	Hours
Core Couses		
PHS 501	PUBLIC HEALTH & BEHAVIORAL SCI	3
PHS 502	PUBLIC HEALTH POLICY & ADMIN	3
PHS 503	BIOSTATISTICS AND COMPUTER APP	3
PHS 504	ENVRNMNTL & OCCUPATIONAL HEALT	3
PHS 505	PRINCIPLES OF EPIDEMIOLOGY	3
PHS 506	RESEARCH & QUANTITATIVE MTHDS	3
Required Concentration Courses		
PHS 531	HEALTH BEHAVIOR,PROMOTION & ED	3
PHS 532	COMMUNITY AND PATIENT HEALTH E	3
PHS 533	WELLNESS & MTRNL CHILD HLTH PR	3
PHS 534	COMMUNI AND HLTH EDU MARKETING	3
PHS 535	BEHAVIORAL CHANGE PROG. STRATE	3
Elective Courses		
6 credits of Elective Courses [1]		6
Capstone Course		
PHS 507	APPLIED MASTER'S PROJECT	3
PHS 508	PUBLIC HEALTH INTERNSHIP	3
Total Hours		**45**

[1] With approval from the faculty advisor and course instructor a student may take elective courses from other academic units at Jackson State University.

Public Health (M.P.H.) Biostatistics Concentration

Biostatistics is a public health discipline based on mathematical principles. It is a discipline that crosses all fields of public health, and biostatisticians are frequently consulted to address statistical problems in various fields of public health. Biostatisticians and epidemiologists work closely together in designing and analyzing studies.

Students in biostatistics are educated to acquire expertise in research, data analysis, data management, surveillance and monitoring, and

problem solving. Emphasis is placed on understanding foundational theories in probability, sampling data, and utilization of statistical software packages.

Code	Title	Hours
Core Courses		
PHS 501	PUBLIC HEALTH & BEHAVIORAL SCI	3
PHS 502	PUBLIC HEALTH POLICY & ADMIN	3
PHS 503	BIOSTATISTICS AND COMPUTER APP	3
PHS 504	ENVRNMNTL & OCCUPATIONAL HEALT	3
PHS 505	PRINCIPLES OF EPIDEMIOLOGY	3
PHS 506	RESEARCH & QUANTITATIVE MTHDS	3
Required Concentration Courses		
PHS 571	STATISTICAL THEORY	3
PHS 522	MULTIVARIATE & PROBABLISTIC BI	3
PHS 572	STATISTICAL COMPUTER APPS	3
PHS 524	STAS METHODS FOR APPLIED EPIDE	3
PHS 601	ADVD BIOSTATS & CMPTR SCI APPL	3
Elective Courses		
Six credits of Elective courses [1]		6
Capstone Courses		
PHS 507	APPLIED MASTER'S PROJECT	3
PHS 508	PUBLIC HEALTH INTERNSHIP	3
Total Hours		**45**

[1] With approval from the faculty advisor and course instructor a student may take elective courses from other academic units at Jackson State University.

Public Health (M.P.H.) Environmental and Occupational Health Concentration

Environmental and Occupational Health is designed to assess and analyze the relationship between basic science and environmental and occupational injuries and diseases. The environment has absorbed industrial chemicals, radiation, and other toxic substances that require ongoing investigation to determine the effects on human health. This concentration examines the science, policies, laws, and regulations that govern how environmental and occupational issues are handled. Furthermore, it provides knowledge and skills to design and implement prevention measures and promote healthy behaviors in the workplace. A key objective is to train and educate students to become effective leaders in the field of environmental and occupational health.

Code	Title	Hours
Core Courses		
PHS 501	PUBLIC HEALTH & BEHAVIORAL SCI	3
PHS 502	PUBLIC HEALTH POLICY & ADMIN	3
PHS 503	BIOSTATISTICS AND COMPUTER APP	3
PHS 504	ENVRNMNTL & OCCUPATIONAL HEALT	3
PHS 505	PRINCIPLES OF EPIDEMIOLOGY	3
PHS 506	RESEARCH & QUANTITATIVE MTHDS	3
Required Concentration Courses		
PHS 541	ENVL MNGT AND INDUSTRIAL HYGIE	3
PHS 542	ENVNL & OCPTNL HLTH RISK ASSMT	3
PHS 543	OCCUPATIONAL HLTH & SAFETY MNG	3
PHS 544	ENVL AND OCCUPATIONAL TOXICOLO	3
PHS 545	ENVL PLCY & OCCUP HLTH REGULAT	3
Elective Courses		
Six credits of Elective courses [1]		6
Capstone Courses		
PHS 507	APPLIED MASTER'S PROJECT	3
PHS 508	PUBLIC HEALTH INTERNSHIP	3
Total Hours		**45**

[1] With approval from the faculty advisor and course instructor a student may take elective courses from other academic units at Jackson State University.

Public Health (M.P.H.) Epidemiology Concentration

This concentration prepares students for careers as scientific researchers, practical field investigators, health officers, research program directors and managers, and other research areas of public health. Epidemiologists work closely with biostatisticians in designing and analyzing research studies. This concentration is designed for students to acquire a thorough understanding of epidemiological methods, statistical principles, and computer software applications to apply to the practical fields of public health. It offers students an opportunity to acquire specific skills in designing research studies and knowing how to collect data, analyze, and interpret research studies.

Code	Title	Hours
Core Courses		
PHS 501	PUBLIC HEALTH & BEHAVIORAL SCI	3
PHS 502	PUBLIC HEALTH POLICY & ADMIN	3
PHS 503	BIOSTATISTICS AND COMPUTER APP	3
PHS 504	ENVRNMNTL & OCCUPATIONAL HEALT	3
PHS 505	PRINCIPLES OF EPIDEMIOLOGY	3
PHS 506	RESEARCH & QUANTITATIVE MTHDS	3
Required Concentration Courses		
PHS 521	ADVD SEMINAR IN EPIDEMIOLOGY	3
PHS 522	MULTIVARIATE & PROBABLISTIC BI	3
PHS 523	CHRONIC AND INFECTIOUS DIS. EP	3
PHS 524	STAS METHODS FOR APPLIED EPIDE	3
PHS 525	EPIDE. OF MIN. & SPECIAL POPUL	3
Elective Courses		
Six credits of Elective courses [1]		6
Capstone Courses		
PHS 507	APPLIED MASTER'S PROJECT	3
PHS 508	PUBLIC HEALTH INTERNSHIP	3
Total Hours		**45**

[1] With approval from the faculty advisor and course instructor a student may take elective courses from other academic units at Jackson State University.

Public Health (M.P.H.) Health Policy and Management Concentration

This degree concentration prepares students for careers in public health policy and healthcare management. This concentration provides the student with core competencies in management, strategic planning, marketing, human resource management and motivation. Students evaluate the role of governmental institutions in the policy process; examine policy models; and learn how health policy in the United States is uniquely different from that of other countries. Financial aspects of health care are offered to those in the discipline that plan to be future managers. Social and legal principles impacting healthcare delivery in the United States are other core components.

Code	Title	Hours
Core Courses		
PHS 501	PUBLIC HEALTH & BEHAVIORAL SCI	3
PHS 502	PUBLIC HEALTH POLICY & ADMIN	3
PHS 503	BIOSTATISTICS AND COMPUTER APP	3
PHS 504	ENVRNMNTL & OCCUPATIONAL HEALT	3
PHS 505	PRINCIPLES OF EPIDEMIOLOGY	3
PHS 506	RESEARCH & QUANTITATIVE MTHDS	3
Required Concentration Courses		
PHS 511	ORG DESIGN & BEHVR IN PUBLIC H	3
PHS 512	PUB. HEALTH POLICY, LAW & ETHI	3
PHS 513	FINANCIAL MNGT OF HEALTH SERVS	3
PHS 514	HEALTH MNGT INFORMATION SYSTEM	3
PHS 515	MKTG PUBLIC HEALTH & STRATE PL	3
Elective Courses		
Six credits of Elective Courses [1]		6
Capstone Course		
PHS 507	APPLIED MASTER'S PROJECT	3
PHS 508	PUBLIC HEALTH INTERNSHIP	3
Total Hours		**45**

[1] With approval from the faculty advisor and course instructor a student may take elective courses from other academic units at Jackson State University.

Communicative Disorders (M.S.)

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Faculty

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Dr. B. Newkirk-Turner, Professor
Dr. W. Perkins, Clinical Faculty
Dr. D. Stanley, Assistant Professor
Dr. J. Wiles, Clinical Assistant Professor

The Department of Communicative Disorders offers a Master of Science (M.S.) degree program, and students enrolled in the master's program are trained to screen, assess, identify, diagnose, refer, and provide intervention, habilitation/rehabilitation to persons of all ages and cultural/ethnic backgrounds, with, or at risk for, disorders of articulation, fluency, voice, cognition, language, swallowing, hearing and other disabilities. Students learn to counsel and educate individuals with communicative disorders, their families, caregivers and other service providers to select, prescribe, dispense assistive, augmentative and alternative communication devices and other communication prostheses, and to provide services supporting the effective use of these devices.

Accreditation

The master's education program in speech-language pathology at Jackson State University is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association (ASHA). Students who successfully complete the program meet the academic and clinical requirements for a license in Speech-Language Pathology granted by the Mississippi State Board of Health, for the Certificate of Clinical Competence in Speech-Language Pathology awarded by ASHA, and the Mississippi Educator Standard Class AA Vocational license.

Mission

The mission of the graduate program in communicative disorders is to provide quality education to pre-professional and graduate students from diverse populations by offering educational experiences that require the application of knowledge of normal and abnormal communication, critical thinking, data analysis, the use of professional oral and written communication, and the infusion of technology, when possible, for the prevention, assessment and intervention of communication disorders. The program will guide graduate students to:

1. acquire the knowledge and develop the skills, competencies and attitudes that are essential for the prevention, assessment and intervention of communicative disorders, and the safe, effective, and efficient practice of entry-level speech- language pathology,
2. develop the ability to analyze, synthesize, and evaluate data, and to conduct research, provide professional and public service to local, state, national, and world communities,
3. continue their professional growth by exploring developments in the profession and learning new models of prevention, assessment and intervention, and
4. develop an understanding and appreciation of ethnic and cultural diversity on normal and disordered communication.

Program Objectives

The objectives of the Master of Science in Communicative Disorders Program are to:

- Educate students to independently, effectively and safely
  a. differentiate between normal and abnormal communication, as well as normal and abnormal swallowing patterns;
  b. diagnose and treat persons of all ages who have speech, voice, cognitive, language, communication and swallowing disorders; and,
  c. habilitate/rehabilitate infants, children and adults with hearing loss.
- Equip students to ask relevant questions and provide appropriate information to patients, their families, care givers and other service

providers regarding the prevention, diagnosis and management of disorders of human communication and swallowing.

- Facilitate clinical experiences that will train students to provide clinical services in a variety of settings including community clinics, hospitals, private practices, and university settings.
- Prepare students to meet the academic and clinical requirements for licensure granted by the Mississippi State Department of Health and the Certificate of Clinical Competence in Speech-Language Pathology awarded by ASHA.
- Guide students to evaluate developments in the professions, and conduct research in
  a. the normal processes of language, speech, hearing and swallowing and
  b. the prevention, diagnosis and treatment of disorders of human communication and swallowing.
- Assist students to develop sensitivity to and an appreciation of diversity in society, so that they
  a. take into consideration individual differences in the provision of clinical services;
  b. do not discriminate in the delivery of services on the basis of race or ethnicity, age, gender, religion, national origin, sexual orientation or disability; and,
  c. work effectively with other professionals who may be different from them in respect to race or ethnicity, age, gender, religion, national origin, sexual orientation or disability.
- Encourage students to develop high standards of integrity, responsibility and ethics, so that they
  a. hold paramount the welfare of patients they serve;
  b. provide services only in areas in which they are competent; and
  c. adhere to the fundamentals of ethical conduct.
- Prepare students for advanced programs of study in communicative disorders.
- Advocate the pursuit of continued professional growth through continuing education.
- Offer educational programs that will
  a. promote the maintenance of current knowledge and skills of speech-language pathologists in the Jackson area, state, national and world communities and
  b. provide the general public with information regarding the prevention, nature, diagnosis and treatment of communication and swallowing disorders.
- Provide professional and public services to local, state, national and world communities.

Admission Requirements

Admission is competitive. Applicants must meet the following requirements for regular admission:

- A baccalaureate degree in speech-language pathology from a regionally accredited college or university. Students may be admitted with baccalaureate, master's or specialist degrees in professions other than speech language pathology but first must complete specified prerequisite courses with a grade of "B" (on 4-point scale) or better.
- A cumulative grade point average (GPA) of 3.0 (on 4-point scale) for courses completed during the junior and senior years, and a cumulative GPA of 3.0 (4-point scale) at the undergraduate level.
- A satisfactory Graduate Record Examination (GRE) score.
- A personal typewritten statement/essay that includes the applicant's
  a. reasons for pursing a degree speech language pathology;
  b. reasons for pursuing graduate study specifically at Jackson State University;
  c. professional goals;
  d. strengths that will contribute to success in the graduate program at Jackson State University;
  e. limitations, if any, that may need to be addressed in order to successfully pursue graduate studies in speech-language pathology; and
  f. past work, research or volunteer experiences, if any, that have helped to prepare the applicant for graduate studies.
- Typewritten responses to selected essay questions.
- Three letters of recommendation from speech language pathology instructors and/or clinical supervisors. (Students with degrees in professions other than speech-language pathology may obtain these letters from instructors in their major area of study.)
- A satisfactory score on the Test of English as a Foreign Language (TOEFL) or IELTS from international applicants and those for whom English is a second language.

[Conditional admission may be given to a student who has earned a cumulative GPA of at least 2.50 – 2.99 (on a 4-point scale) for courses completed during the junior and senior years. However, admission is competitive. Therefore, conditional admission is rare. The student must earn regular status with a GPA of 3.0 in the first semester of full-time enrollment or the first 12 hours of graduate work.]

Prerequisites

Applicants with baccalaureate, master's or specialist degrees in professions other than speech-language pathology must complete courses in the areas listed below with a grade of "B" or better, prior to or concurrent application for the graduate program:

Courses

Code	Title	Hours
Anatomy and Physiology of Speech Mechanism		3
Speech and Hearing Science		3
Phonetics		3
Normal Language Development		3
Introduction to Audiology		3
Articulation Disorders		3
Language Disorders in Children		3
One course in biological science		3
One course in physical science		3
One course in statistics		3
Six semester hours in behavioral and/or social sciences		6
Total Hours		**36**

Prerequisite courses in the professional area that were taken more than 10 years before the initiation of the graduate program may not be accepted.

Transfer of Credits

Students may be allowed to transfer a limited number of credit hours, provided that the criteria specified by the Graduate School and the Program are met. A maximum of nine (9) graduate semester hours

of course credit earned with a grade of "B" (on 4.0 scale) or better in approved speech language pathology or audiology courses may be transferred, given that the course content is commensurate with the requirements of this program and the credit hours were earned within the immediate past five years from a program accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology. The applicant must apply for transfer of credit with 30 days of notification of acceptance into the program and prior to enrollment. A maximum of 25 clinical observation hours and 50 undergraduate clinical clock hours obtained in another graduate program may be allowed if the national certification and state licensure criteria for clinical supervision were met. A student who wants to transfer clinical clock hours from another program must have:

1. that program's director to verify the number of clock hours in each clinical category.
2. the amount of supervision that was provided.
3. the names and ASHA membership numbers of the clinical supervisor(s) before or at the time the student enrolls in the graduate program at Jackson State University.
4. written approval of the transfer of academic (course) credit and clinical clock hours by the Graduate Communicative Disorders Program.

Clinical Practicum Requirements

The student must successfully complete all clinical clock hours required at the time of graduation by

1. the Communicative Disorders Program,
2. Mississippi State Board of Health for licensure, and
3. ASHA for the Certificate of Clinical Competence in Speech-Language Pathology.

Additionally, the student must acquire all required clinical skills specified in the new certification standards before the student will be cleared for graduation. The Program operates the Central Mississippi Speech, Language and Hearing Clinic. The student must complete the clinical clock hours at this Clinic and at other off campus clinical sites assigned by the Program.

The current cumulative clinical practicum requirements are specified below:

- At least 25-clock hours of clinical observation must be completed before beginning the clinical practicum.
- In addition to the observation, a minimum of 375 clock hours of supervised clinical practicum must be successfully completed, of which 325 clock hours must be earned in the graduate program.

Degree Requirements

A student pursuing the Master of Science degree in Communicative Disorders is required to:

1. Complete at least 52 semester hours (including no more than 6 semester hours of clinical practicum) with a cumulative average of "B" (on a 4.0 scale) or better. In addition to the core curriculum (46 semester hours), the student must successfully complete a thesis, or a project, or additional coursework.
   a. **Thesis Option.** The student must enroll in CMD 590 THESIS, for a total of 6 semester hours, successfully complete a thesis, and the Final Oral Examination.
   b. **Project Option.** The student must enroll in CMD 589 MASTER'S PROJECT, for 6 semester hours, and successfully complete a project.
   c. **Additional Coursework Option.** The student must successfully complete an additional 6 semester hours of electives within the Program, selected with the approval of the academic advisor.
2. Acquire the knowledge and skills required for the Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP) by ASHA.
   Additionally, the student must successfully complete all clinical clock hours required at the time of graduation by:
   a. the Communicative Disorders Program,
   b. the Mississippi State Board of Health for licensure, and
   c. ASHA for the CCC-SLP.
3. Successfully complete the Graduate English Competency (and ENG 500 ADVANCED LAB WRITING, if required) and written Comprehensive Examinations. Students who choose the thesis option must successfully complete a Final Oral Examination.

Academic Requirements

Code	Title	Hours
CMD 510	ADV. ARTICULATION & PHONOL DIS	3
CMD 525	DYSPHAGIA	3
CMD 527	SEM IN CHILD LANG DISORDERS I	3
CMD 528	SEM IN CHILD LANGUAGE DISO II	2
CMD 530	SEM IN ACQUIRED LANG DISORDERS	3
CMD 531	SEM ACQUIRED DISORDERS OF LAN	3
CMD 532	METHODS OF RESEARCH	3
CMD 535	AUGMENTATIVE & ALTERNATIVE COM	3
CMD 537	NEUROANATOMY & NEUROPHYSIOLOGY	3
CMD 565	SEMINAR IN FLUENCY DISORDERS	2
CMD 570	SEMINAR IN AURAL REHABILITATIO	3
CMD 575	SEM IN ORGANIC SPEECH DISORDER	3
CMD 578	SEMINAR IN VOICE DISORDERS	3
Select six credits from the following: [1]		6
CMD 540	ADVD CLIN PRAC IN SPCH-LANG PA	
CMD 541	ADV CLIN PRAC IN SPCH-LANG PAT	
CMD 542	ADV CLIN PRAC IN SPCH-LANG PAT	
CMD 543	ADV CLIN PRAC IN SPCH-LANG PAT	
CMD 544	ADV CLIN PRAC IN SPCH-LANG PAT	
CMD 545	ADV CLIN PRAC IN SPCH-LANG PAT	
CMD 546	ADV CLIN PRAC IN SPCH-LANG PAT	
CMD 547	ADV CLIN PRAC IN SPCH-LANG PAT	
CMD 548	ADV CLIN PRAC IN SPCH-LANG PAT	
CMD 549	ADV CLIN PRAC IN SPCH-LANG PAT	
Electives		
Select six credits from the following:		6
CMD 515	COUNSELING IN SPEECH-LANG PATH	
CMD 519	AUDIOLOGY FOR SPEECH-LANG PATH	
CMD 550	PROF ISSUES IN SPEECH-LANG PAT	
CMD 558	SEMINAR IN MULTICULTURAL ISSUE	
CMD 572	COMM BEHAVIOR & AGING PROCEDUR	
CMD 580	BUS & MGNT ASPECTS OF SLP PRAC	
CMD 582	SPEC PROBLMS IN SPCH LANG PATH	

CMD 585	INDEPENDENT STUDY	
CMD 589	MASTER'S PROJECT	
CMD 590	THESIS	
PHS 500	INTRO TO PUBLIC HEALTH DSCPLNS	
Total Hours		**49**

[1] During each semester in which clinical clock hours are earned, the student must enroll in Advanced Clinical Practice in Speech-Language Pathology (CMD 540 ADVD CLIN PRAC IN SPCH-LANG PA-CMD 549 ADV CLIN PRAC IN SPCH-LANG PAT). However, no more than 6 semester hours may be counted towards the required 52 semester hours.

Plan of Study

Course	Title	Hours
First Year		
Fall		
CMD 510	ADV. ARTICULATION & PHONOL DIS	3
CMD 527	SEM IN CHILD LANG DISORDERS I	3
CMD 532	METHODS OF RESEARCH	3
CMD 537	NEUROANATOMY & NEUROPHYSIOLOGY	3
CMD 540	ADVD CLIN PRAC IN SPCH-LANG PA	1
	Hours	**13**
Spring		
CMD 528	SEM IN CHILD LANGUAGE DISO II	2
CMD 530	SEM IN ACQUIRED LANG DISORDERS	3
CMD 541	ADV CLIN PRAC IN SPCH-LANG PAT	1
CMD 565	SEMINAR IN FLUENCY DISORDERS	2
CMD 575	SEM IN ORGANIC SPEECH DISORDER	3
	Hours	**11**
Summer		
CMD 525	DYSPHAGIA	3
CMD 531	SEM ACQUIRED DISORDERS OF LAN	3
CMD 542	ADV CLIN PRAC IN SPCH-LANG PAT	1
PHS 500	INTRO TO PUBLIC HEALTH DSCPLNS	3
	Hours	**10**
Second Year		
Fall		
CMD 535	AUGMENTATIVE & ALTERNATIVE COM	3
CMD 543	ADV CLIN PRAC IN SPCH-LANG PAT	1
CMD 570	SEMINAR IN AURAL REHABILITATIO	3
CMD 578	SEMINAR IN VOICE DISORDERS	3
	Hours	**10**
Spring		
CMD 544 & CMD 545	ADV CLIN PRAC IN SPCH-LANG PAT and ADV CLIN PRAC IN SPCH-LANG PAT	2
Elective/Thesis/Project		6
	Hours	**8**
	Total Hours	**52**

Public Health (Dr.PH.)

The Doctor of Public Health is offered in a specific concentration through the following departments:

- **Behavioral and Environmental Health** - *with a concentration in Behavioral Health Promotion and Education*
- **Epidemiology and Biostatistics** - *with a concentration in Epidemiology*
- **Health Policy and Management** - *with a concentration in Health Policy and Management*

Overview

The Doctor of Public Health degree provides a foundation of core and concentration specific courses beyond the master's degree that will prepare the student for leadership roles in public health research and/or practice. This includes a dissertation that involves independent study under a faculty mentor. The specific program at Jackson State University focuses on eliminating disparities in public health and health services.

The DrPH Degree Program prepares students to assume leadership roles in public health, especially as research scientists, administrators, educators, or practitioners. Such roles can be expected to include, but not be limited to, positions in for-profit and non-profit organizations and agencies such as universities, public health agencies, community-based organizations (CBOs), hospitals, managed care organizations, pharmaceutical companies, research firms, and other settings where public health specialists are employed.

The program will include advanced theoretical and practical studies in the specialized fields of public health as well as the preparation of a dissertation. The dissertation will establish the student as a competent researcher and scholar, capable of conducting and supervising independent research studies. Students will be trained to study public health from a multidisciplinary.

Students will master core competencies in public health as well as specialized courses in their chosen concentration. They will develop a high level of analytical (quantitative and qualitative research) skills, complemented by an extensive breadth of relevant leadership knowledge in management, research and/or program implementation and evaluation.

Admission Requirements

Requirements for admission to the DrPH program include dual admission to the Division of Graduate Studies and to the program itself. All students seeking admission to the program must meet the following criteria:

- A master's degree in Public Health from a CEPH accredited program.
- A master's degree from an accredited college or university.
- DrPH program and Division of Graduate Studies applications.
- A minimum overall GPA of 3.3 or above (on a 4.0 scale) on the highest earned degree.
- Two official transcripts from all universities or colleges attended prior to program application.
- A satisfactory score on the GRE taken within the last five years.
- Three letters of recommendation, with at least two from academic professionals.
- Statement of purpose reflecting applicant's career goals in public health.
- A successful interview is required with the screening committee.
- For international applicants, satisfactory performance on TOEFL demonstrating oral and written proficiency.

Admission to the Division of Graduate Studies does not automatically guarantee admission to the DrPH Program. **The priority deadline for Fall admission is March 1.**

Residency Requirements

The minimum period of residency for the degree in Public Health is two years or the equivalent of enrollment for four consecutive semesters. The students must be full-time and therefore must take at least nine credit hours each semester counted toward residency. The student must meet the minimum residency requirement prior to taking the comprehensive examination.

Time Limit for Degree

A student has ten (10) years from the initial semester of enrollment to complete all requirements for the DrPH degree. However, for students entering the program with a MPH, it is expected that the student complete all requirements for the degree within six (6) years from the initial semester of enrollment. For students entering the program without a MPH, it is expected that the student complete all requirements for the degree within seven (7) years from the initial semester of enrollment. Failure to satisfy all requirements during this period may result in suspension, or other options including dismissal.

Degree Requirements

The DrPH curriculum provides a broad grounding in overall public health knowledge and skills in addition to an in-depth learning experience within the program concentrations. The curriculum represents an interdisciplinary approach and bridging of academic core areas.

Community Research Practicum

Students are required to spend a minimum of 100 clock hours per semester in the community health research practicum. A minimum of three hours per week must be on site. The research practicum, which begins the second semester of enrollment, requires three continuous, one semester hour courses, which culminates in the final semester. A written and oral presentation of the practice/community research project and the submission of a manuscript to a refereed journal for publication review are required to complete the third course. Students are required to present at a fall colloquium after completion of the three consecutive semesters of field experience.

Research Prospectus

To become a candidate for the DrPH degree, students must successfully complete requirements for the Graduate Area Comprehensive Examination (GACE). The GACE is satisfied with the completion of a research prospectus during the second semester of enrollment in the 700 level advanced courses. Students work with a mentor, identified upon admission, to develop the research prospectus during PHS 703 DESGNG RES STUD ON MIN&SPEC PO and PHS 704 SURV & QUANT RESEARCH METHODS courses.

Transfer of Credits

Students accepted into the program may transfer up to nine (9) credit hours of graduate work from an accredited institution of higher education at the discretion of the academic faculty, Program Chair, and School Dean.

Course Requirements

Candidates with a Master of Public Health Degree

Track I: The curriculum is divided into advanced core courses (24 credit hours), concentration courses (15 credit hours), one selected elective (3 hours), a community research practicum (3 credit hours), and a dissertation. The advanced core courses (24 credit hours) are required for each concentration. The required concentration courses are specific to each concentration. The selected elective (3 credit hours) expand the student's focus within the core and/or a specific concentration. Although electives may be selected from other disciplines, including non-public health degree programs, they must be related to the concentration of interest and approved by the doctoral program advisors.

The community research practicum – the field residency – is based on leadership practice/research and issues related to crosscutting competencies in public health – both foundational and concentration. The practicum allows students to develop insight into planning their dissertation research so that topics can be focused on addressing practical concerns in public health and the community. Students are required to complete a minimum of 45 credit hours plus a dissertation. Students with an MPH may transfer up to nine credits.

Candidates without a Master of Public Health Degree

Track II: All students without a Master of Public Health degree are required to successfully complete prerequisite introductory public health core courses in each of the five core areas of public health (500 level): epidemiology, biostatistics, environmental and occupational health, health policy and management, and behavioral health, prior to beginning their advanced (700 level) courses.

Upon admission into the program, students must choose a concentration in public health for their doctoral studies. The course requirements for the concentrations of Behavioral Health Promotion and Education, Epidemiology, and Health Policy and Management are listed below.

Code	Title	Hours
Advanced Core Courses		
PHS 701	ADV BIOSTATISTICS & COMPTR SCI	3
PHS 702	DISEASE PATHOGENESIS&RISK FCTR	3
PHS 703	DESGNG RES STUD ON MIN&SPEC PO	3
PHS 704	SURV & QUANT RESEARCH METHODS	3
PHS 705	ADVOCACY AND PUBLIC HLTH POLIC	3
PHS 706	PRIN OF ENVMNTAL & OCCU HLTH	3
PHS 707	LEADERSHIP FOR PHS PROFESSNLS	3
PHS 712	Advanced Biostatistics Laboratory II	3
Concentration Courses		
Required Courses (See Specific Concentrations Below)		15
Selected Electives		3
Community Research Practicum		3
Dissertation (minimum/maximum 15 credit hours)		15
Total Hours		**60**

Total Hours = 45 (not including dissertation)

Concentration Courses

The course requirements for the concentrations of Behavioral Health Promotion & Education, Epidemiology, and Health Policy and Management:

Behavioral Health Promotion and Education

Code	Title	Hours
Required Concentration Courses		
PHBS 711	ADV THEORIES&SCI PRIN FOR HP	3
PHBS 712	BEHVL & PSYCHOSOCIAL EPIDEMIOL	3

PHBS 713	QUALITATIVE RESEARCH METHODS	3
Selected Elective		3
Select two of the following:		6
PHBS 714	CLINCL TRLS & INTRVNTNL ST DES	
PHBS 715	RES SEM IN HEALTH PROMOTION	
PHBS 716	SOC & COGNITIVE BASES OF BEHAV	
PHBS 717		
Total Hours		**18**

Epidemiology

Code	Title	Hours
Required Concentration Courses		
PHBI 711	CATEGORICAL DATA ANALYSIS	3
PHEP 711	BEHAVIORAL & PSYCHOSOC EPIDEM	3
PHEP 712	CLNCL TRAILS & INTRVNL ST DEV	3
PHBI 712	MULTIVARIATE ANALYSIS I (Selected Elective)	3
Select two of the following:		6
PHBI 713	MULTIVARIATE METHODS II	
PHEP 713	INFECTIOUS DISEASE EPIDEMIOLGY	
PHEP 714	NUTRITION&GENETIC EPIDEMIOLOGY	
PHEP 717	ENVIRONMENTAL EPIDEMIOLOGY	
Total Hours		**18**

Health Policy and Management

Code	Title	Hours
Required Concentration Courses		
PHPM 711	STRATGC LDRSHP N/MGNT OF HM RE	3
PHPM 712	PUBLIC HEATH ECONOMICS	3
PHPM 713	ANALYSIS OF HLTH LEGSLTN & REG	3
PHBI 711	CATEGORICAL DATA ANALYSIS (Selective Elective)	3
Select two of the following:		6
PHPM 714		
PHPM 715		
PHPM 716	ADMN OF INTEGR HLTH & HOSP SYS	
PHPM 717	MNGD CARE NETWORKS & PUB HLTH	
Total Hours		**18**

Graduate Certificate in Data Analytics

Public Health Informatics and Technology looks to reach and address the goals of equity in public health through training and career placement of minority students. These certificates are designed to increase the capacity of HBCU's to educate underrepresented students in data analytics and informatics.

Public Health Informatics and Technology Certificate Programs

Our Data analytics, Public Health Informatics, and Business Analytics Certificates will provide professionals with the skills to compete for data analysis jobs in a global market. The certificate program will explore the complexities of data analytics and expose students to various data processing, analysis, and visualization topics.

Code	Title	Hours
PHI 500	Introduction to Data Analytics in Public Health Informatics	3
PHI 503	Biostatistics for Data Analytics in Public Health Informatics	3
PHI 545	Artificial Intelligence in Data Science	3
PHI 550	Programming Foundations in Data Science	3
PHI 565	Database Management in Public Health Informatics	3
Total Hours		**15**

If you would like more information on PHIT certificates please email us at PHIT@jsums.edu or call 601.979.1101

Online Graduate Certificate in Biostatistics

The Online Graduate Certificate Program in Biostatistics is a path to accelerate training and professional development in public health and biomedical sciences by training students to develop skills needed to gather, analyze, and assess data to support scientific activities. This five course (15 graduate hours) program covers the critical, statistical concepts used in public services, disease control, health and safety promotion, clinical trials, medical research, and public health research. The courses include:

Code	Title	Hours
PHS 503	BIOSTATISTICS AND COMPUTER APP	3
PHS 522	MULTIVARIATE & PROBABLISTIC BI	3
PHS 571	STATISTICAL THEORY	3
PHS 572	STATISTICAL COMPUTER APPS	3
PHS 601	ADVD BIOSTATS & CMPTR SCI APPL	3
Total Hours		**15**

For further information on the certificate program, please contact (601) 979-8806.

Online Graduate Certificate in Epidemiology

The Online Graduate Certificate Program in Epidemiology provides basic training in epidemiologic concepts and methods and exposes students to analytic/data strategies for understanding epidemiologic disease areas. This five course (15 graduate hours) program covers an understanding of concepts and tools of epidemiology and in depth knowledge of selected disease areas of public health importance. The courses include:

Code	Title	Hours
PHS 505	PRINCIPLES OF EPIDEMIOLOGY	3
PHS 506	RESEARCH & QUANTITATIVE MTHDS	3
PHS 521	ADVD SEMINAR IN EPIDEMIOLOGY	3
PHS 523	CHRONIC AND INFECTIOUS DIS. EP	3
PHS 524	STAS METHODS FOR APPLIED EPIDE	3
Total Hours		**15**

For further information on the certificate program, please contact (601) 979-8806.

School of Social Work

Vacant, Associate Dean

Office: 3825 Ridgewood Road
Jackson, MS 39211
Telephone: (601)979-8896/8869

Programs

- Master of Social Work
- Doctor of Philosophy in Social Work

Accreditation

The Master of Social Work is accredited by the Council on Social Work Education (CSWE).

Program Formats

Online- Advanced Standing; Full-time; Part-time
Residential- Advanced Standing; Full-time; Part-time

Mission

The mission of the School of Social Work is to provide opportunities for a diverse student population to earn social work degrees at the baccalaureate, master, and doctoral levels. Students are provided a supportive academic environment in which to acquire the knowledge, skill, values and ethics of the social work profession. The School also focuses on the development of leadership and scholarship in social work practice.

The School's goals are to produce graduates who will apply their knowledge and skills toward enhancing the quality of life in the urban and rural environments and to equip graduates to promote empowerment of vulnerable individuals, families, groups, organizations, and communities at the local, national, and international levels. Graduates will be prepared to address issues of social responsibility by demonstrating a commitment to economic, political, and social justice and develop as leaders in social work practice, service, and scholarly activities.

Masters

- Social Work (M.S.W.) (p. 76)

Doctoral

- Social Work (Ph.D.) (p. 79)

Course Descriptions

SW 515 CHILD ABUSE & NEG: PROTCT SR (3 Hours)
This course focuses on assessment and intervention skill development for social work practice with children and families who have experienced abuse and neglect or are at-risk of abuse and neglect. Clinical intervention strategies and dilemmas in role expectations of social work practitioners are analyzed. Attention is given to evaluation and use of research content in prevention and intervention services and programs.

SW 520 FORENSIC SOCIAL WORK (3 Hours)
This course focuses on issues common to the discipline of social work and the law. The course will include and introductory review of the law, the American justice system, and basic constitutional principles. Family-related issues-such as, the protection of children, education, adoption, custody and support, marriage, divorce, domestic violence, juvenile law, competency and guardianship-will be explored. Experiential components of the course are designed to prepare social work professionals for effective practice vis-a-vis the intersections of social work and the law.

SW 521 CRISIS INTERVENTION (3 Hours)
The theory and methods of crisis intervention and subsequent consultation are examined in this course. Particular attention is given to the various contemporary techniques of intervention, consultation, referral, and resolution. Assessment techniques used in the intervention process are explored and skills practiced.

SW 535 FAMILY VIOLENCE (3 Hours)

SW 545 ADMINISTRATION IN SOCIAL WELFA (2-3 Hours)
This course is designed to enhance the student¿s awareness and understanding of the basic knowledge and principles which guide the administrative process of social welfare agencies. Administrative skills are taught in relation to the clinical practitioner as well as to other administrative roles.

SW 547 INTERVENTN W/THE ELDERLY (3 Hours)
The most important goal for social service professionals is to improve the quality of life for older people through effective intervention on their behalf. This course will focus on skill development and knowledge and understanding of older persons¿ behavior through the public health model of preventive intervention at the primary, secondary, and tertiary levels. Interventive strategies and case studies will be utilized in the course to develop skills for working with the elderly in institutions and in the community. Models of clinical social work practice with the elderly are critically analyzed.

SW 550 SOCIAL GERONTOLOGY (3 Hours)
This course is designed to give students a general overview of social gerontology as a branch of knowledge in the field of gerontology. Social gerontology concerns itself with psychosocial and economic aspects of the aged individual and the social problems encountered from living in both formal and informal societal groupings. The interaction of these aspects and groupings and the services established and considered for the aged through public and social policy will be discussed.

SW 555 RESEARCH METHODS (3 Hours)
Prerequisite: NONE.
The foundation research course provides an introduction to the principles and methods of basic social work research. Students are introduced to concepts of problem formulation, measurement, research design, sampling, data collection, and data analysis as employed in basic research. Particular attention is directed to social work research that addresses the economic, political, and social needs of people of color and populations-at-risk in American society. This course is designed to prepare students to understand and appreciate scientific research as a valuable tool in furthering professional capabilities and in contributing to the development of the growing body of knowledge in social work practice.

SW 556 ADVANCED RESEARCH METHODS II (3 Hours)
Prerequisite: All foundation courses.
This course is designed to assist students in understanding and applying scientific research methods in clinical practice settings. It builds on the research knowledge of the foundation research course. Students in this course are expected to become proficient in the methods and basic principles of conducting and evaluating empirical research related to clinical practice. In this course, students participate in guided research projects which require a review of relevant research, data collection and analysis and implications for social work practice. Emphasis is given to the importance of demographic, biopsychosocial and cultural variables in the conduct of ethically based research.

SW 558 OPPRESSION, POWER, AND CHANGE (3 Hours)
This course examines institutionalized oppresion and its imp;ications for social work practice of all levels, emphasizing the consequences of social inequality and the social worker's responsibility to fight oppression.

SW 562 PSYCHOPATHOLOGY (3 Hours)
This course is designed to provide students with an indepth knowledge of major forms of emotional and mental disorders manifested in children and adults. Students will learn to assess, diagnose, and treat a diversity of clients and client systems. Particular attention will be directed to the Diagnostic and Statistical Manual (DSM- V) as one of the major assessment tools utilized in human service and clinical practice.

SW 565 HUMAN BEHVR & SOCIAL ENVMNT I (3 Hours)
Human and Behavior and the Social Environment I (HBSE I) (3 hours). This course focuses on the development of the individual from conception through middle childhood and the impact of various aspects (i.e., family, groups, organizations, and community) of the social environment on that development. Content includes empirically based theories and knowledge that focus on the interactions between and among individuals, groups, societies, and economic systems.

SW 566 HUMAN BEHVR & SOC ENVRNMNT II (3 Hours)
Human Behavior and the Social Enlvironment (HBSE II). This course focuses on the development of the individual from middle adolescence/ young adulthood through very old age and the impact of various aspects (i.e., family, group, organization, and community) of the social environment on that development.

SW 575 SOC WELFARE POLICY, SER, & ANL (3 Hours)
Social Welfare Policy, Services, and Analysis. This course gives an overview of the history of social welfare policy, services and the profession of social work. Additionally, this course will cover assessment of policy as it directly affects service delivery. It examines the responsibilities and roles of a generalist worker in policy development, policy clarification, and change in policy implementation.

SW 580 SOCIAL WORK PRACTICE SKILLS LA (1 Hour)

SW 581 PRACTICE W INDVLS, FAMLS, GRPS (3 Hours)
This course provides an introduction to social work practice methodology and the professional use of self in combination with the generalists practice approach to social work with individuals, families, and small groups, and within the context of communities and organizations.

SW 582 PRAC W COMMUNITIES & ORGANZTNS (3 Hours)
This course prepares students to use professional knowledge, values, and skills in generalist practice with diverse groups, communities, and organizations. Because most social work practice takes place within organizations in the context of one or more communities, understanding and intervening at the group, organization, and community levels are essential for effective social work practice.

SW 583 INTEGRATED SOCIAL WORK PRACTIC (3 Hours)
Prerequisite: Acceptance into advanced standing.
This course is a review and refinement of practice skills and professional knowledge provided in the foundation curriculum content of the MSW program. The course focuses on the application and transformation of generalists knowledge and skills to prepare for entry into the concentration curriculum. This bridging foundation course provides an opportunity for students to develop critical thinking skills and apply empowering practice decisions in professional practice settings with all sizes of client systems. Special emphasis is placed on the reciprocal interactions between individuals and their environments toward the engagement of personal and community strengths.

SW 584 ADVD C:INTERVNTN W CHLDN & YTH (3 Hours)
Prerequisite: All foundation courses.
This course is designed to provide advanced clinical practice knowledge and skills for intervention with children and youth, primarily in the context of the urban environment. Special needs and vulnerabilities of these populations are addressed. Students are given orientations to the human services agencies primarily concerned with the complex issues and difficulties faced by these populations, and the implications of service delivery arrangements for clinical practice. Attention is directed to skills needed for the provision of services to children and youth in the context of their families and communities and to programmatic and advocacy activities on their behalf.

SW 586 ADVD CN: INTERVENTN W FAMILIES (3 Hours)
SW 586 Advanced Concentration: Family Intervention (3 Hours) The focus of this course is intervention with families. Advanced skills are developed in areas of social work practitioner roles, strength based assessment, and specific models of intervention with families. Special attention is given to comparative approaches to couple and family intervention (e.g., Multi Systemic Therapy, Dialectical Behavioral Therapy, and Trauma Informed Care); relevant recent research findings related to family therapeutic approaches; the inluences of environmentals, ethnic, and cross-cultural variables; and ethical dilemmas in work with families.

SW 587 ADV SOCIAL WORK PRACTICE W/GRP (3 Hours)
Prerequisite: All foundation courses.
The advanced social work practitioner is required to demonstrate group skills in a wide range of social situations. The foundation practice courses provide the basic skills for this course while the advanced practice with groups course expands, elaborates, and adds to the student's knowledge and skills. The focus of this course is on the development of knowledge and skills in the delivery of preventive, developmental, and remedial group services for at-risk populations of varying ages and social situations.

SW 588 CHLDRN & FAM INTEGRTV CAPSTONE (3 Hours)
Youth and Families Integrative Capstone (3 Hours) This course is conceptualized as a mechanism for students to draw upon all previous courses content in the MSW Program and connect their learning to the nine advanced program competencies paralleled through case analysis. The course is taken concurrently with the final block field placement. Students demonstrate mastery of the theoretical and empirically-based knowledge from all components of the curriculum, and the ability to apply this knowledge in advanced social work practice with children, youth and families, while demonstrating the nine advanced concentration competencies. Additionally, students will be evaluated among dimensions of their learning (knowledge, values, skills and cognitive and affective processing)l.

SW 589 URBAN POVERTY: INTERVENTION AP (3 Hours)
Prerequisite: All foundation courses and SW 584-Intervention with Children, Youth, and Families, SW 585- Psychopathology, and SW-587-Family Intervention.
This capstone course focuses on developing services and programs especially tailored to meet the needs of the urban poor, who are disproportionately people of color. It addresses the multiple and negative impacts of urban poverty on children, youth and families and their functioning in the social environment. Community-oriented and family-centered services in schools, churches, public housing projects, and neighborhood service centers are examined in regard to their individual and collective potential to improve the lives of at-risk children and their families. Particular attention is given to continuing and contemporary urban problems of substance abuse, violence, teen pregnancy, school dropouts, unemployment and underemployment, and the impact of welfare reform on families and their functioning in the community.

SW 593 FIELD INSTRUCTION (3 Hours)
Prerequisite: Acceptance into the Advanced Standing Program.
The advanced standing field instruction course is taken concurrently with SW 583-Integrated Social Work Practice, the advanced standing bridging course. This course focuses on the application and transformation of generalists practice knowledge and skills to clinical practice knowledge and skills with children, youth and families.

SW 594 FUNDTN FIELD PRACTICUM AND SEM (6 Hours)
This course is designed as a block field placement and is taken in the spring of the first year in which the student is enrolled in the M.S,W. Program. This field instruction course is focused on generalist social work practice with individuals, families, groups, organizations, and communities. Seminar sessions are held monthly and are announced at the beginning of the semester.

SW 595 ADVD CNT: FIELD PRACTICE & SEM (6 Hours)

SW 596 INDEPENDENT STUDY (3 Hours)
This is an individually directed intensive study in an area of social work practice which is selected by the student. The independent study selection is made in accordance with the curriculum plan of the MSW Program and is approved by the student¿s faculty advisor and the Master of Social Work Program Coordinator.

SW 700 DOCTORAL PROSEMINAR (3 Hours)
This seminar is designed to enhance the student¿s matriculation in the doctoral program and their preparation for leadership roles as social work scholars and educators. As a backdrop, it provides an overview for discussion of higher education in general and doctoral education as a major focus of study in social work education. Students engage in dialogue and related activities considered essential to their success in the program and preparedness for their prospective roles as faculty in the academy.

SW 705 SOCIAL WELFARE HISTORY & PHILS (3 Hours)

SW 710 MACRO THEORY (3 Hours)
This course critically examines and assesses macro social science theories and explores how they are applied to social problems in social welfare and social work. Selected theories are identified and examined, conceptual and philosophical assumptions assessed, values considered, and empirical evidence analyzed. Particular attention is given to issues of inequality and oppression in relation to race, gender, and class.
This course prepares students for use of macro theories to guide their research.

SW 711 MICRO THEORY (3 Hours)
This course examines human behavior theories and theoretical approaches to child and family studies in social work. The course traces the development of major theoretical approaches in the social and behavioral sciences and examines emerging schools of thought. Conceptual and philosophical issues related to theory building in clinical practice are explored. Through an analysis of the theoretical knowledge base of social work practice with individuals, families, and other small groups, this course prepares students for subsequent use of theory in practice-focused research.

SW 714 SW EDU SEM: ISSUES & KNOWLED P (3 Hours)
Prerequisite: SW 700)
This course examines content, context, and processes in social work education. It critically analyzes current issues and future trends in social work education. Among the areas covered are accreditation, values and ethics, educational and professional organizations, curriculum development, methods of instruction and ancillary educational roles. (

SW 720 RESEARCH METHODOLOGY (3 Hours)
This research course provides students with a foundation for understanding and conducting scientific inquiry in social work. It covers the research process, critically examining problem formulation, use of the literature, theoretical and conceptual framework development, researchable questions, hypothesis development, research design, sampling procedures, measurement, and data collection. Students also consider the ethical, philosophical, and other dimensions of research that are essential to understanding the role of research in social work.

SW 721 RESEARCH METHODS II (3 Hours)
Prerequisite: SW 720 and SW 722)
This advanced research methods course is a continuation of the first research course. It encompasses an in-depth study of qualitative and quantitative research, including grounded theory, biographical life history, phenomenology, ethnography, content analysis, survey research, and experimental, quasi-experimental, and non-experimental designs. Emphasis is placed on measurement, sampling, data analysis, and other relevant issues. The strengths and weaknesses of both qualitative and quantitative research are examined. The integration of both approaches to build a common body of knowledge is also covered. (

SW 722 STATISTICAL METHODS I (3 Hours)
This course explores data analysis issues at the bivariate level and how data are affected by various statistical problems. It emphasizes the application of both qualitative and quantitative statistical reasoning, description, inference, and theoretical underpinning as well as the interpretation of the procedures used in the context of social work research. The statistical knowledge base is augmented by the use of the computer for statistical analysis procedures.

SW 723 STATISTICAL METHODS II (3 Hours)
Prerequisite: SW 720 and SW 722)
This course builds on the first statistical methods course. It concentrates on the multivariate statistical procedures to provide an integrated and in-depth applied approach to multivariate data analysis and linear statistical models in social work research. Particular emphasis is placed on the procedures involved with multiple independent and dependent variables used simultaneously in a comprehensive design. The course utilizes computer programs for statistical analysis procedures. (

SW 724 POL & PRAC ISS IN FAM & CHILD (3 Hours)
This seminar is designed to provide students with an opportunity to explore policies, programs, services, and related practice issues affecting families and children. It focuses on the nature of selected policies, the policy-making process, factors that influence policy formulation, implementation, and evaluation and approaches to policy analysis. Particular emphasis is placed on critical examination of selected policy and practice issues related to families and children. Students are expected to analyze a major policy affecting families and children and prepare a related policy or practice issue paper. Examples of current issues covered are the impact of welfare reform, medicaid coverage, managed care, permanency planning for children at risk, and research on the prevention of family and/or youth violence.

SW 725 STATS MTHDS III: ADV QUNTV ME (3 Hours)

SW 732 INDEPENDENT STUDY (3 Hours)
Prerequisite: SW 720, SW 721, SW 722 and SW 723).
This course builds on the previous methods courses. It concentrates on advanced quantitative statistical procedures to provide an integrated and in-depth applied approach to data analysis and linear statistical models in social work research. Particular emphasis will be placed on higher level statistical methods involved with multiple independent and dependent variables used simultaneously in a comprehensive design. Familiarity with the use of SPSS for data analysis is required. (

SW 742 QUALITATIVE RESEARCH METHODS (3 Hours)
Prerequisite: SW 720 and 721)
This course examines major qualitative approaches that are most frequently applied to the study of process in human services settings. Students learn how to conduct systematic investigations of in-depth, non- quantitative studies of individuals, groups, organizations, or communities. (

SW 760 RESEARCH PRACTICUM (3 Hours)
Prerequisite: SW 720 and 722)
This individualized learning experience is designed to provide students with "hands on" research experience prior to the dissertation project. Students work with their advisors in selecting an ongoing research project and principal investigator for supervision of their work. Students develop and submit a work plan to the practicum supervisor, advisor, practicum director, and doctoral program chair for approval. (

SW 770 DISSERTATION (1-15 Hours)
Students will complete a major conceptually and methodologically rigorous research project of interest that contributes to social work knowledge. The topic of the dissertation is approved by the dissertation committee.

Social Work (M.S.W.)

Dr. Terrell Brown
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Faculty

Dr. T. Brown, Associate Professor, MSW Program Chair

Dr. G. Berhie, Professor

Dr. P. Hernandez, Associate Professor
Dr. P. Jenkins, Associate Professor
Dr. J. Lee, Associate Professor
Dr. G. Prater, Professor, Dean Emerita

Dr. C. Riddley, Assistant Professor

Dr. J. Schroeder, Professor
Dr. Temucula Robinson, Clinical Assistant Professor, Director of MSW Field Education
Dr. E. Yoon, Associate Professor

Mission of the Master of Social Work Program

Bottom of Form

The mission of the Master of Social Work (M.S.W.) Program is to prepare graduate level social workers for advanced direct social work practice with children, youth, and families in both urban and rural areas. The Program produces leaders who demonstrate and build upon the knowledge and skills of advanced direct social work practice; who exemplify the values and ethics of the profession; and who are responsive to the need for services, which promote social, economic, and political justice for all groups, especially those confronting discrimination and oppression. Thus, the Program works to increase the pool of master's level social workers by providing a nurturing academic environment for promising students who reflect the diversity of the state, the nation, and the global community. The Master of Social Work Program supports the implementation of the missions of the University, the College of Public Service, and the School of Social Work.

The goals of the M.S.W. Program are:

1. To prepare students for advanced direct social work practice with children, youth, and families in local, national, and global settings with systems of all sizes;
2. To prepare students for leadership roles in the profession of social work and the social welfare arena;
3. To prepare students to identify patterns, dynamics, and consequences of social, economic, and political discrimination and oppression and promote appropriate change when necessary;
4. To prepare students for advanced direct social work practice in diverse organizational and social contexts, with an understanding of the ways in which these contexts influence social work practice and with the ability to promote appropriate change when necessary; and
5. To provide students with a challenging educational experience that develops self-awareness and assures the acquisition of the knowledge, skills, and values and ethics necessary for competent advanced direct social work practice.

The objectives of the M.S.W. Program are to ensure that graduates:

1. Demonstrate the knowledge, skills, and values and ethics relevant to advanced direct social work practice with children, youth and families in diverse environments;
2. Demonstrate self-awareness and the effective use of self in direct social work practice;
3. Evaluate their own practice in social work settings;
4. Evaluate and apply theoretical perspectives and research findings to practice;
5. Demonstrate the ability to use supervision and consultation appropriate to direct social work practice;

6. Integrate into direct practice a knowledge of the historical development of the profession and the differential impact of social, economic, and political policies;
7. Demonstrate the ability to advocate for social, economic, and political justice and promote appropriate change in organizational and social contexts;
8. Practice without discrimination and with sensitivity when serving diverse populations;
9. Utilize effective oral and written communication skills;
10. Apply critical thinking skills within the context of direct social work practice; and
11. Demonstrate leadership skills and abilities in practice settings.

Admissions Criteria

Admission to the full-time and part-time MSW Program is determined on a selective basis according to the following criteria:

- A baccalaureate degree from an accredited college or university. Students may be admitted with a baccalaureate degree in a field other than social work or social welfare. Transcripts will be evaluated for the presence of courses that meet program requirements for a liberal arts background, inclusive of courses in human biology and statistics;
- A cumulative grade point average (GPA) of 2.75 on a 4.0 scale. Applicants with GPAs lower than a 2.75 may be considered for admission.
- Academic and professional references;
- Written personal statement;
- Evidence of volunteer and/or work experience in the field of social work;
- Updated Resume
- An interview with the Admissions Committee may be required.

Admission to the Advanced Standing M.S.W. Program is determined on a selective basis according the following criteria:

- Applicant must be a graduate of a CSWE accredited baccalaureate program within the past five (5) years.
- A letter grade of "B" or better in all social work courses. **No course repeats**.
- A cumulative grade point average of 3.0 on a 4.0 scale for undergraduate coursework.

*An interview with the Admissions Committee may be required.

To facilitate determination of admission into the MSW Program, applicants must send materials to the Graduate School. Admission materials to be submitted to the Graduate School are as follows:

1. Graduate School Admission Application;
2. Out-of-state Application fee of $25.00 if applicable;
3. Official transcript(s) from all colleges and universities attended;
4. Official copy of TOEFL Score(s), for applicants whose native language is not English;
5. Certified Declaration of Financial Support for International Students. Sufficient funds to cover expenses for one academic year should be placed on deposit with the Jackson State University Office of Fiscal Affairs; and
6. Immunization record showing proof of immunization compliance for measles and rubella, if born after December 1957.
7. Three recommendation forms from instructors, employers, supervisors, or professional colleagues;
8. Personal Statement;
9. Work Experience Form;
10. Graduate School Application for Financial Aid;
11. MSW Program Financial Aid Application; and,
12. MSW Program First-Year Field Instruction Application.

All MSW forms can be found on the MSW homepage under **application packet.** These forms can be downloaded, filled out, saved, and uploaded to the Graduate School application portal (AdmissionPros) or emailed to mswprogram@jsums.edu.

Applicants with a social work degree granted outside the United States must request and submit an Application for Evaluation of Foreign Credentials from the Council of Social Work Education, Foreign Equivalency Determination Service. The address is:

1725 Duke Street, Suite 500
Alexandria, VA 22314-3459.

Their website is: http://www.cswe.org.

A copy of the evaluation is to be forwarded to the MSW Program Admissions.

Transfer Credits

The MSW Program will accept a limited number of transfer students each year. A maximum of 12 semester hours may be applied toward your degree, based on a review by the MSW Admissions Committee. Applicants must meet admission's requirements of the MSW Program and the Graduate School at Jackson State University.

Within 30 days of notification of acceptance into the Program and prior to enrollment, the student must submit a written statement of intent to transfer credit and the specific credit(s) for which transfer is requested to the MSW Program Coordinator.

The request for transfer of credit(s) must be accompanied by an official copy of the graduate catalog from the institution at which the course(s) were taken that covers the year(s) the course(s) was/were taken. For each course for which transfer credit is requested:

- The course must have been taken within the past five years,
- The student must have earned a minimum grade of 3.0 on a 4.0 scale; and

Academic Credit for Life Experience and Work Experience

No academic credit for life and work experience is given.

Duplication of Course Content in the Professional Foundation Curriculum

Students may be exempt from courses in the foundation curriculum that represent duplication of course content previously taken. The courses must have been taken within five years of the date of the request for exemption, with a minimum grade of "B" or 3.0 on a 4.0-point scale.

Each request for exemption must:

1. be made in writing to the MSW Program Coordinator and be submitted **within 30 days of being notified of acceptance into the Program**;
2. specify the course for which the exemption is requested;
3. be accompanied by an official copy of the graduate catalogue from the institution at which the courses were taken that covers the year(s) the course was taken; and
4. be accompanied by a copy of the course syllabus, including bibliography and course assignment(s).

Requests received after the deadline stated above and/or do not meet the requirements stated in this section will not be considered.

Following receipt of the request, a proficiency examination will be administered to determine the student's mastery of the content of the specified course. Proficiency will be determined by the student earning a grade of at least 3.0 on a 4.0 scale on the examination administered.

The MSW Program Coordinator will notify students of the proficiency examination results in writing. The results of the examination are final and there is no appeal of the grade received on the examination. Students who do not earn a minimum grade of "B" or 3.0 on a 4.0 scale on the examination must take the course for which exemption was requested.

Fifty-Seven (57) semester credit hours are required for completion of the MSW Degree. Therefore, students who achieve a grade of 3.0 on a 4.0 scale on the examination administered and are exempted from a specific course or courses are required to take such additional courses as may be required to meet the compulsory sixty credit hours to earn the MSW degree. Courses must be approved by the MSW Program Coordinator.

Academic Performance

Passing Grades

Students must have a cumulative 3.0 grade point average to graduate from the MSW Program. A grade less than "C" or 2.0 is considered failure in a social work course. Students may not receive a grade of "C" in more than two courses.

Probation

If a student's cumulative grade point average falls below 3.0, the student will be placed on academic probation. The student will have until the end of the subsequent semester of enrollment to attain a cumulative grade point average of 3.0. Failure to attain the required cumulative grade point average by the end of the probationary period will result in dismissal of the student from the MSW Program. The probationary period in the MSW Program is defined as one subsequent semester of enrollment in the program after the cumulative grade point average falls below a 3.00.

Repeating Courses

Students may repeat only one course in the program with the recommendation of the advisor and approval of the program coordinator. Students desirous of this option must submit a written request to the program coordinator during the subsequent semester or term/session in which the student is enrolled. The advisor must indicate support (or non-support) of the request in writing to the program coordinator. When a student is allowed to repeat a course, both grades will show on the transcript and both grades will be used in computing the cumulative grade point average.

Degree Requirements

The MSW Program offers a two-year full-time curriculum. Foundation courses are offered in the first year, and the second year focuses on advanced direct practice with children, youth, and families. Students are required to successfully complete 57 credit hours to earn the MSW degree. The last 30 hours must be taken in residence at Jackson State University Field instruction in the two-year full-time and three-year part-time curricula consists of two lock field instruction courses (i.e., four days per week), one in the foundation year, and one in the concentration curriculum, which all students take in the spring of the final semester in which they are enrolled in the program. Both foundation and concentration require courses 450 hours of field instruction (Advanced Standing students need a minimum of 500+ hours). Students must complete a total of 900 hours in field instruction, which is the CSWE required minimum. The foundation field instruction course is SW 594 FUNDTN FIELD PRACTICUM AND SEM, while SW 595 ADVD CNT: FIELD PRACTICE & SEM is designated as the concentration field instruction course.

If the student plans to enroll full-time, the program strongly advises against simultaneous full-time employment, which generates barriers to the completion of field instruction and class attendance. A three-year part-time curriculum is offered, requiring six semesters and two summer sessions for completion of the 57 credit hour MSW program. If the student plans part-time enrollment and is employed full-time or part-time, the program strongly advises the student to consult with his/her employer regarding arrangements to complete field instruction during the regular work day.

An advanced standing curriculum is offered which requires one summer and two semesters to complete requirements for the MSW Degree. Advanced standing students must be enrolled as full-time students throughout the program, beginning in the Graduate Summer Term.

To enroll in field practicum, a student must provide documentation of professional liability insurance. Please contact the School of Social Work for the required minimum liability coverage.

The following are the academic requirements for Field Instruction:

1. Students must maintain a 3.0 cumulative grade point average and a 3.0 or grade of "B" in all practice courses to be eligible for Field Instruction. Students who do not have a 3.0 cumulative grade point average in courses required to meet the compulsory 57 credit hours or approved equivalency to earn the MSW degree, will not be eligible to enroll in a Field Instruction course. Students must earn a minimum grade of "B" or 3.0 in all of the first year practice courses.
2. Students are required to earn a 3.0 in all of the Field Instruction courses. Students may repeat one Field Instruction course in which a grade of less than 3.0 is earned. Students who fail to earn a minimum grade of 3.0 may not enroll in subsequent Field Instruction courses and are subject to dismissal from the MSW program.

Two-Year Full-Time Curriculum

Course	Title	Hours
First Year		
Fall		
SW 555	RESEARCH METHODS	3
SW 558	OPPRESSION, POWER, AND CHANGE	3
SW 565	HUMAN BEHVR & SOCIAL ENVMNT I	3

SW 581	PRACTICE W INDVLS, FAMLS, GRPS	3
	Hours	**12**
Spring		
SW 566	HUMAN BEHVR & SOC ENVRNMNT II	3
SW 582	PRAC W COMMUNITIES & ORGANZTNS	3
SW 594	FUNDTN FIELD PRACTICUM AND SEM	6
	Hours	**12**
Summer		
SW 575	SOC WELFARE POLICY, SER, & ANL	3
Social Work/Graduate Elective		3
Social Work/Graduate Elective		3
	Hours	**9**
Second Year		
Fall		
SW 556	ADVANCED RESEARCH METHODS II	3
SW 562	PSYCHOPATHOLOGY	3
SW 584	ADVD C:INTERVNTN W CHLDN & YTH	3
SW 586	ADVD CN: INTERVENTN W FAMILIES	3
	Hours	**12**
Spring		
SW 588	CHLDRN & FAM INTEGRTV CAPSTONE	3
SW 595	ADVD CNT: FIELD PRACTICE & SEM	6
Social Work Elective		3
	Hours	**12**
	Total Hours	**57**

Three-Year Part-Time Curriculum

Course	Title	Hours
First Year		
Summer		
SW 575	SOC WELFARE POLICY, SER, & ANL	3
SW 558	OPPRESSION, POWER, AND CHANGE	3
	Hours	**6**
Fall		
SW 581	PRACTICE W INDVLS, FAMLS, GRPS	3
SW 565	HUMAN BEHVR & SOCIAL ENVMNT I	3
	Hours	**6**
Spring		
SW 582	PRAC W COMMUNITIES & ORGANZTNS	3
SW 566	HUMAN BEHVR & SOC ENVRNMNT II	3
	Hours	**6**
Second Year		
Summer		
Social Work Elective		3
	Hours	**3**
Fall		
SW 555	RESEARCH METHODS	3
SW 594	FUNDTN FIELD PRACTICUM AND SEM	6
	Hours	**9**
Spring		
SW 556	ADVANCED RESEARCH METHODS II	3
Social Work Elective		3
	Hours	**6**
Third Year		
Summer		
SW 565	HUMAN BEHVR & SOCIAL ENVMNT I	3
Social Work/Graduate Elective		3
	Hours	**6**
Fall		
SW 584	ADVD C:INTERVNTN W CHLDN & YTH	3
SW 586	ADVD CN: INTERVENTN W FAMILIES	3
	Hours	**6**
Spring		
SW 588	CHLDRN & FAM INTEGRTV CAPSTONE	3
SW 595	ADVD CNT: FIELD PRACTICE & SEM	6
	Hours	**9**
	Total Hours	**57**

Advanced Standing Curriculum

Course	Title	Hours
Summer		
SW 583	INTEGRATED SOCIAL WORK PRACTIC	3
Social Work/Graduate Elective		3
	Hours	**6**
Fall		
SW 556	ADVANCED RESEARCH METHODS II	3
SW 562	PSYCHOPATHOLOGY	3
SW 584	ADVD C:INTERVNTN W CHLDN & YTH	3
SW 586	ADVD CN: INTERVENTN W FAMILIES	3
	Hours	**12**
Spring		
SW 588	CHLDRN & FAM INTEGRTV CAPSTONE	3
SW 595	ADVD CNT: FIELD PRACTICE & SEM	6
Social Work Elective		3
	Hours	**12**
	Total Hours	**30**

Social Work (Ph.D.)

Dr. Patrice Jenkins
Interim Program Chair
3825 Ridgewood Road
Jackson, MS 39211
Telephone: 601-979-8897
e-mail: phdssw@jsums.edu

Faculty

Dr. P. Hernandez, Associate Professor
Dr. P. Jenkins, Interim Ph.D. Program Chair, Associate Professor
Dr. J. Lee, Associate Professor
Dr. G. Prater, Professor, Dean Emerita
Dr. J. Schroeder, Professor
Dr. E. Yoon, Associate Professor
Dr. T. Brown, MSW Program Chair, Associate Professor

Mission

The mission of the program is to prepare students for leadership roles as scholars in social work education and research who will advance knowledge about social work and social welfare to assist in resolving urban and rural issues facing families, communities, and society in general.

Objectives

The objectives of the program are consistent with the missions of the School, College, and University. Students are required to demonstrate the following:

- Knowledge of the history, philosophy, and organization of social work education, related contemporary issues, and

design, implementation and assessment of social work/social welfare curricula;
- Knowledge of social work perspectives and behavioral and social science theories and skills to analyze and assess their application to social work research;
- Knowledge of social science and social work research/statistics and skills to conduct rigorous scientific inquiry;
- Knowledge and skills required to synthesize, analyze, and evaluate social problems and social welfare policies, with emphasis on populations facing discrimination and oppression in the global society;
- Knowledge regarding a substantive research area of interest.
- Knowledge of the characteristics of higher education and related issues and strategies to. enhance professional roles as scholars and educators.

Admissions Requirements

Applicants must apply to the Division of Graduate Studies and the Ph.D. Program in Social Work. Please visit www.jsums.edu/graduateschool/ (http://www.jsums.edu/graduateschool/) and submit your application and materials via AdmissionsPros. Please **do not email** materials. Admission to the program is highly selective and is determined by the following criteria:

- Master's degree in social work from a program accredited by the Council on Social Work Education or a master's degree in a related discipline;
- Admission to the Division of Graduate Studies at Jackson State University;
- 3.3 or above G.P.A.,
- Above average undergraduate G.P.A.
- Satisfactory performance on the Graduate Record Examination (GRE) or Miller Analogies Test (MAT) taken within the past five years;
- For international applicants, satisfactory performance on TOEFL by demonstrating oral and written proficiency;
- For applicants with the M. S. W. Degree, professional competence as evidenced by at least two years of post-M.S.W. experience preferred;
- Statement of purpose reflecting applicant's philosophy of social work and educational goals;
- Scholarly or professional paper demonstrating the applicant's conceptual, analytical, or research ability;
- three letters of references (two academic and one professional);
- Curriculum vitae; and
- Interview with the Program Admissions Committee (contingent upon initial assessment).

Admission to the Ph.D. Program is granted every other year for the Fall Semester. For full consideration, applicants must submit all required material by March 1.

Transfer of Credits

A maximum of nine graduate credit hours, excluding credit applied toward previous degrees, may be transferred from graduate degree programs at Jackson State University or other accredited universities to fulfill the elective requirements.

The transfer of relevant graduate course work will only be considered if a grade of "B" or better, on a four-point scale, has been earned, and the course has been completed within the last five years.

Transfer credit for courses taken prior to entering the program must be approved during the first semester of enrollment by the advisor and program director. Transfer credit applied toward the doctoral degree after admission to the program must be approved prior to taking the course by the advisor and program director.

Academic Performance

The student must achieve a grade of "B" or better in all courses in the core curriculum. The student must maintain a "B" or better cumulative grade point average in all course work applied toward the degree.

Repeating Courses

Students may repeat only one course in the program. They must enroll in the course the next semester or term/session in which the course is offered. When a student repeats a course, both grades will show on the transcript and both will be used in computing the cumulative grade point average.

Probation

The probationary period in the program is defined as one subsequent semester of enrollment in the program after the cumulative grade point average falls below 3.00.

If a student's cumulative grade point average falls below 3.00, the student will be placed on academic probation the subsequent semester of enrollment. The student will have until the end of the probationary period to raise the cumulative average to 3.0. If the student fails to achieve a minimum cumulative grade point average of 3.0 by the end of the probationary period, the student will be dismissed from the program.

Unsatisfactory Course Work and Dismissal

A student whose course work is unsatisfactory (below 3.0 cumulative grade point average) at the end of the probationary period, as defined in the program, will be dismissed from the program.

Residency Requirement

The minimum period of residency for the degree in social work is one year or the equivalent of enrollment for two consecutive semesters. The student must be full time and therefore must take at least nine credit hours each semester counted toward residency. The student must meet the minimum residency requirement prior to taking the comprehensive examination.

Time Limit

Students must complete all degree requirements within seven years from the time of admission into the program. The average length of time for completion of doctoral programs in social work is 4.5 years. The actual amount of time required for completion will vary according to factors such as clarity of objectives upon entering the program and while moving through the process, prior preparation for research and knowledge building endeavors, and time for self-directed learning.

Leave of Absence/Re-admission

Any student who is in good standing may request a leave of absence for a period of up to one year. The request must be submitted in writing to

the program director for the time period in which the student plans to be absent from the program. The request must outline the reason(s) for the leave and the time period involved.

Students must apply for re-admission to the program if more than 12 consecutive months have elapsed since enrollment. An application for re-admission requires the submission of all material required by the program at the time the applicant requests re-admission. Applications for re-admission will be considered with the other new applications.

Degree Requirements

Code	Title	Hours
Core		
SW 700	DOCTORAL PROSEMINAR	3
SW 705	SOCIAL WELFARE HISTORY & PHILS	3
SW 710	MACRO THEORY	3
SW 711	MICRO THEORY	3
SW 714	SW EDU SEM: ISSUES & KNOWLED P	3
SW 720	RESEARCH METHODOLOGY	3
SW 722	STATISTICAL METHODS I	3
SW 721	RESEARCH METHODS II	3
SW 723	STATISTICAL METHODS II	3
SW 724	POL & PRAC ISS IN FAM & CHILD	3
SW 725	STATS MTHDS III: ADV QUNTV ME	3
SW 742	QUALITATIVE RESEARCH METHODS	3
SW 760	RESEARCH PRACTICUM (in Family and Children Studies)	3
PHS 700		3
Total Hours		**42**

Electives

Students may select, in consultation with the advisor, a total of 9 credit hours of courses offerings in social work and a related discipline in the Graduate School at Jackson State University or at other colleges or universities.

Dissertation Hours

Following admission to candidacy, students must continuously register for a minimum of one-to-three dissertation hours per semester, for two consecutive semesters. Students must complete a minimum of four dissertation credits in order to complete the program/dissertation.

Curriculum

The curriculum is built upon the knowledge base of the social work profession and its values and principles. It also draws upon theoretical and empirical knowledge from related disciplines that are helpful in the formulation, analysis, and solution of social problems. Particular instruction focuses on theory building and assessment, research methods, social work education, critical analysis and assessment of social problems, social welfare policy and social work practice models/perspectives, and knowledge development in a substantive area of interest.

The curriculum consists of a minimum of 51 credit hours, excluding the dissertation hours. It is organized around three major components: core curriculum, electives, and dissertation.

Core Curriculum

The core curriculum consists of 42 credit hours. The courses focus on the history and philosophy of social welfare, social welfare policy, with emphasis children and their families, social work behavioral and social science theory, research methods, statistics, and social work education.

Electives

The elective courses offer students an array of subject-specific content to develop a substantive area of interest that complements the core curriculum and supports the dissertation work. Students may select, in consultation with the advisor, a total of 9 credit hours of courses offerings in social work and a related discipline in the Graduate School at Jackson State University or at other universities

Comprehensive Examination

Students take the comprehensive examination upon successful completion of the core curriculum. The examination places emphasis on a comprehensive synthesis of material covered in the core courses, with special attention to the student's ability to conceptualize, integrate, and communicate knowledge. In case of failure, the student may be permitted only one additional opportunity to take the examination.

Admission to Candidacy

The student enters candidacy for the degree after passing the comprehensive examination, which is administered after completion of the core courses.

Certification of Dissertation Proposal

Candidates must submit a dissertation proposal to their dissertation committee for approval prior to implementing the research.

The proposal must be approved by the University's Institutional Review Board (IRB) whenever human subjects are proposed for use in the dissertation research. In cases where animal subjects will be used in the study, the research protocol must be approved by the Institutional Animal Care and Use Committee (IACUC).

Dissertation

Candidates for the degree are required to complete a dissertation that demonstrates their ability to conduct rigorous scientific inquiry. The dissertation topic should emanate from the candidate's interest in a problem or issue relevant to social work or social welfare. The dissertation is expected to represent a substantial contribution to social work knowledge.

Oral Defense

Upon completion of the dissertation, an oral examination is required. The purpose of the examination is to assess the candidate's ability to present and defend a conceptually and methodologically rigorous dissertation that contributes to social work knowledge. No student is permitted to defend the dissertation unless all requirements of the Ph.D. Program in Social Work, the School of Social Work, the College of Public Service, and the Division of Graduate Studies have been satisfied.

The student passes the oral defense when **all** dissertation committee members indicate agreement by signing the appropriate form.

College of Liberal Arts

Dr. Rico Chapman, Professor and Dean
Dr. RaShell Smith-Spears, Professor and Associate Dean
Dollye M. E. Robinson Building
Box 18019
Telephone: (601) 979-7036
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School of Communications

- English, Foreign Languages, and Speech Communication
- Journalism and Media Studies

School of Fine and Performing Arts

- Music

School of Social and Behavioral Sciences

- Criminal Justice and Sociology
- History and Philosophy
- Political Science
- Psychology
- Public Policy and Administration

The principal objective of the College is to provide diverse opportunities for meaningful and quality liberal education. The College serves both graduate and undergraduate students. It offers a wide variety of majors in the academic disciplines, core courses, as well as balanced programs of study in related disciplines. The College of Liberal Arts prepares students for many kinds of professions and graduate studies; it cooperates with the College of Education and Human Development in offering joint professional and pre-professional studies for teaching majors.

While the long-range goal is that of producing a well- rounded individual--intellectually, spiritually, physically, emotionally, and aesthetically, the College seeks to accomplish this primarily by placing emphasis on intellectual achievement. Regardless of their professional interest, students are expected to become fluent in their own language, literate in at least one foreign language, and to give attention to the physical and life sciences, computer technology, and the fine arts.

It is hoped that disciplines in the liberal arts will enlarge and augment the student's particular concern in order to produce the resourceful and thinking graduate who has an understanding of self, the past, and present, and who is prepared intellectually and morally for the task of shaping the future.

The College of Liberal Arts offers the following graduate degrees: Doctor of Philosophy in Clinical Psychology; the Master of Arts in Criminology and Justice Services, English, History, Political Science and Sociology; the Master of Music Education; the Master of Science in Mass Communications; and the Master of Science in Education with concentrations in several foreign languages.

- School of Communications (p. 82)
- School of Fine and Performing Arts (p. 85)
- School of Social and Behavioral Sciences (p. 89)

School of Communications

Departments

- English and Modern Languages
- Journalism and Media Studies

The School of Communications is comprised of the Department English and Modern Languages and the Department of Journalism and Media Studies.

The Department of English and Modern Languages has offices on the fourth floor of the Dollye M. E. Robinson Building. It utilizes classrooms in several locations across the campus.

The Department of Journalism and Media Studies is located in the Mississippi e-Center. In addition to faculty and staff offices, the facility includes writing and telecommunications labs and studios. The University also operates a low-power television station, a radio station, and a campus newspaper and several other publications. The faculty includes practicing journalists and features a strong orientation toward media research.

The School of Communications offers several programs of graduate study designed to complement the mission of the College of Liberal Arts and the University. The Department of English and Modern Languages offers the Master of Arts in English. The Department of Journalism and Media Studies offers the Master of Science in Journalism and Media Studies, available with a special concentration in Urban Communications.

Masters

- English (M.A.) (p. 82)
- Journalism and Media Studies (M.S.) Concentration in Urban Communications (p. 83)
- Journalism and Media Studies (M.S.) Thesis/Non-thesis Option (p. 84)

English (M.A.)

Department of English and Modern Languages

Dr. Ebony Lumumba, Associate Professor and Chair

Dr. Shanna Smith, Associate Professor and Asst. Chair

Dr. RaShell R. Smith-Spears, Professor, Graduate Program Coordinator, and Associate Dean

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E-mail: lit.language.speech@jsums.edu

Faculty

Dr. H. Crump, Associate Professor
Dr. T. Cunningham, Associate Professor
Dr. D. Ginn, Associate Professor
Dr. E. Lumumba, Associate Professor
Dr. P. McDaniels, Professor
Dr. B. Phillips, Associate Professor
Dr. L. Pérez Alonso, Associate Professor

Dr. C. Pizzetta, Professor
Dr. S. Smith, Associate Professor
Dr. R. Smith-Spears, Professor
Dr. Wonderful Faison, Associate Professor
Dr. Candice Love-Jackson, Associate Professor

Mission

The mission of the Department of English and Modern Languages is to provide a general, liberal, and professional education to students in languages, literature, grammar and usage, and composition. The programs enable students to communicate clearly, to think critically, to develop an understanding of self and others, and to demonstrate an understanding and appreciation of aesthetic principles underlying the study of language, literature, and composition. To this end, the department offers courses in the core to the general student population and specialized courses to its majors, all of which promote student preparedness for both career success and engaged and informed citizenship.

Program Objectives

The graduate program in English is designed:

- To prepare students for advanced programs of study in English and related areas.
- To prepare well-qualified teachers of English for secondary schools and community colleges.
- To provide an in-service program for teachers of English who serve in secondary schools and community colleges.
- To prepare students for careers in the mass media.
- To prepare for classroom diversity in the sociolinguistics of languages.

Admission Requirements

In accordance with the admission requirements of the Graduate School, admission to the graduate degree program in English requires the following:

1. The Graduate Application for Admission
2. An official copy of transcripts from all colleges/universities attended
3. Three letters of recommendation uploaded to the online admissions portal
4. Writing Sample: Students must submit via email to the department chair or graduate coordinator an electronic copy of an undergraduate research paper
5. A personal statement
6. A satisfactory score on the TOEFL (Test of English as a Foreign Language) for International applicants.

Degree Requirements

The Department of English, Foreign Languages, and Speech Communication offers the following degrees in English: Master of Arts in English and Master of Science in Education with concentrations in French or Spanish. Thirty to thirty-six semester hours are required, depending on the degree program offered.

Master of Arts in English

Code	Title	Hours
Core Courses		
ENG 501	RESEARCH & BIBLIOGRAPHY	3
ENG 505	CRITICAL ANALYSIS OF LITERATUR	3
ENG 590	THESIS WRITING	6
LING 501	FUNDMNTLS OF LINGUISTICS	3
Electives		
15-18 credits of elective courses (500 or 600 levels)		15-18
Total Hours		**30-33**

Note: No more than six (6) hours earned outside the major field may be counted toward the degree.

Non-thesis Option: Students may elect to pursue the non-thesis option, but they must declare their intent upon entering the program. Students choosing this option must satisfy the following:

1. Complete a 33-hour curriculum, which must include the core courses:

Code	Title	Hours
ENG 501	RESEARCH & BIBLIOGRAPHY	3
ENG 505	CRITICAL ANALYSIS OF LITERATUR	3
LING 501	FUNDMNTLS OF LINGUISTICS	3

and two courses from the following list:

Code	Title	Hours
ENG 570	TECHNICAL WRITING	3
ENG 586	PRACTICUM IN TCHNG COMPO	3
ENG 591	INDEPENDENT STUDY	3
ENG 620	CLASSICAL RHETORIC	3
ENG 622	SEMINAR ON WRITING PROB	3
LING 512	SECOND LANGUAGE TEACHING	3
LING 514	LINGUISTICS IN EDUCATION	3

2. Prepare a portfolio.
3. Present the portfolio as a part of an oral examination to be held no later than six weeks prior to the expected date of graduation.

Journalism and Media Studies (M.S.) Concentration in Urban Communications

Dr. Elayne Hayes-Anthony, Professor and Chair
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1230 Raymond Road
Jackson, MS 39204
Telephone: (601) 979-1352
Fax: (601) 979-5800
e-mail: jsumasscom@jsums.edu

Faculty

Dr. L. A. Chang, Assistant Professor and Graduate Coordinator
Dr. E. Hayes-Anthony, Professor
Dr. E. Nwachukwu, Assistant Professor
Dr. N. Towery, Assistant Professor

The Master's degree program in Journalism and Media Studies is offered for students who have a desire to develop those skills and attributes necessary for participation as media practitioners in the areas of News Editorial, Public Relations, Advertising, Broadcast Journalism or Production, and the concentration in Urban Communication. As the urban university of Mississippi, Jackson State University's Journalism and Media Studies program is uniquely positioned to provide graduate students working in the metropolitan area with late afternoon and evening courses tailored to meet professional requirements.

Program Objectives

1. To aid students in developing a philosophical framework for understanding the communications theories and its societal impact.
2. To help students develop understanding in mass communication research and its applications.
3. To guide students toward in-depth reporting and advanced investigative journalism techniques.
4. To assist students in enhancing their command of written communication capabilities.
5. To utilize the critical thinking approach in problem solving, and in the dissemination of information on controversial issues.
6. To help students with their practical knowledge journalism and media studies through the completion of final theses or projects.

Admissions Requirements

Applicants for the Master of Science degree must present a minimum grade point average of 3.00. Conditional admission requirements to the Master's program involve a grade point average of at least 2.50. Additional requirements include a 500 to 1,000 words written statement of purpose, three letters of recommendation, and resume. A TOEFL, ILETS or PTE-A score is required also for international students.

Upon admission the student should arrange for an interview with the chairperson of the Department of Journalism who will assign a permanent adviser.

Prerequisites for Applicants with a B.A., or B.S. degree in Journalism and Media Studies include taking an elementary statistics course unless the student has earned a grade "C" or above in a previous statistics course. If the student takes a graduate course in statistics, it will count in the 15 hours of electives. No credit will be given for undergraduate hours earned in Elementary Statistics.

Degree Requirements

The Master of Science degree in Journalism and Media Studies requires a minimum of thirty (30) to thirty-three (33) semester hours of acceptable graduate credit with at least twenty-one to twenty-four (21-24) hours earned from Jackson State University. A thesis option requires a minimum of 30 hours. A non-thesis option requires a minimum of 33 hours. A thesis or non-thesis option is elected by the student. A creative research project such as a documentary, a series of videotaped public affairs programs, or a series of investigative reports, etc. is required of all students who select the non-thesis option.

A final examination is required on all graduate work, including the thesis/creative project as applicable. A committee will be convened once the thesis or the creative research project is selected and the Graduate Area Comprehensive Examination (GACE) is passed. This committee will advise the student and assess the final product.

The thesis and non-thesis tracks in Journalism and Media Studies require the following core courses:

Code	Title	Hours
Core Courses		
JMS 500	SEM IN MASS COMMUNCATION	3
JMS 501	RESRCH METHODS/N MASS CM	3
JMS 502	ADVANCED NEWS REPORTING	3
JMS 506	SEMINAR-URBAN AFFRS REPT	3
Thesis Or Non-Thesis Option		
Select one of the following options:		3
Thesis Option		
JMS 599	THESIS WRITING	
Non-Thesis Option		
JMS 598	INDEPENDENT RESEARCH PROJECT	
Electives		
15-18 credits of Electives or Restricted electives [1]		15-18
Total Hours		**30-33**

[1] Students are required to earn a B or above grade for each of the four core courses. The remaining 15-18 semester hours may be derived from the Journalism and Media Studies sequences in News Editorial, Public Relations, Advertising or Broadcast (Production or Journalism) or 9-12 semester hours may be selected from a Journalism and Media Studies sequence and 6 semester hours from graduate electives in related areas pending the adviser's approval.

- If the Urban Communications Concentration is selected, 15 hours will be selected from the list of restricted electives.
- If the non-thesis option is selected, the student must take 18 hours of electives.

Concentration in Urban Communications

Code	Title	Hours
List of Restricted Electives		
JMS 527	POLITICS AND THE PRESS	3
PPAD 525	URBAN POLITICS	3
PPAD 548	PUBLIC PERSONNEL ADMINST	3
PPAD 551	PUBLIC POLICY	3
BIO 501	ENVIRONMENTAL SCIENCE	3
Total Hours		**15**

Journalism and Media Studies (M.S.) Thesis/Non-thesis Option

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Faculty

Dr. L. A. Chang, Assistant Professor
Dr. E. Hayes-Anthony, Professor

Dr. E. Nwachukwu, Assistant Professor
Dr. N. Towery, Assistant Professor

The Master's degree program in Journalism and Media Studies is offered for students who have a desire to develop those skills and attributes necessary for participation as media practitioners in the areas of News Editorial, Public Relations, Advertising, Broadcast Journalism or Production, and the concentration in Urban Communication. As the urban university of Mississippi, Jackson State University's Journalism and Media Studies program is uniquely positioned to provide graduate students working in the metropolitan area with late afternoon and evening courses tailored to meet professional requirements.

Program Objectives

1. To aid students in developing a philosophical framework for understanding the communications theories and its societal impact.
2. To help students develop understanding in mass communication research and its applications.
3. To guide students toward in-depth reporting and advanced investigative journalism techniques.
4. To assist students in enhancing their command of written communication capabilities.
5. To utilize the critical thinking approach in problem solving, and in the dissemination of information on controversial issues.
6. To help students with their practical knowledge journalism and media studies through the completion of final theses or projects.

Admissions Requirements

Applicants for the Master of Science degree must present a minimum grade point average of 3.00. Conditional admission requirements to the Master's program involve a grade point average of at least 2.50. Additional requirements include a 500 to 1,000 words written statement of purpose, three letters of recommendation, and resume. A TOEFL, ILETS or PTE-A score is required also for international students.

Upon admission the student should arrange for an interview with the chairperson of the Department of Journalism who will assign a permanent adviser.

Prerequisites for Applicants with a B.A., or B.S. degree in Journalism and Media Studies include taking an elementary statistics course unless the student has earned a grade "C" or above in a previous statistics course. If the student takes a graduate course in statistics, it will count in the 15 hours of electives. No credit will be given for undergraduate hours earned in Elementary Statistics.

Degree Requirements

The Master of Science degree in Journalism and Media Studies requires a minimum of thirty (30) to thirty-three (33) semester hours of acceptable graduate credit with at least twenty-one to twenty-four (21-24) hours earned from Jackson State University. A thesis option requires a minimum of 30 hours. A non-thesis option requires a minimum of 33 hours. A thesis or non-thesis option is elected by the student. A creative research project such as a documentary, a series of videotaped public affairs programs, or a series of investigative reports, etc. is required of all students who select the non-thesis option. A final examination is required on all graduate work, including the thesis/creative project as applicable. A committee will be convened once the thesis or the creative research project is selected and the Graduate Area Comprehensive Examination (GACE) is passed. This committee will advise the student and assess the final product.

The thesis and non-thesis tracks in Journalism and Media Studies require the following core courses:

Code	Title	Hours
Core Courses		
JMS 500	SEM IN MASS COMMUNCATION	3
JMS 501	RESRCH METHODS/N MASS CM	3
JMS 502	ADVANCED NEWS REPORTING	3
JMS 506	SEMINAR-URBAN AFFRS REPT	3
Thesis Or Non-Thesis Option		
Select one of the following options:		3
Thesis Option		
JMS 599	THESIS WRITING	
Non-Thesis Option		
JMS 598	INDEPENDENT RESEARCH PROJECT	
Electives		
15-18 credits of Electives or Restricted electives [1]		15-18
Total Hours		**30-33**

[1] Students are required to earn a B or above grade for each of the four core courses. The remaining 15-18 semester hours may be derived from the Journalism and Media Studies sequences in News Editorial, Public Relations, Advertising or Broadcast (Production or Journalism) or 9-12 semester hours may be selected from a Journalism and Media Studies sequence and 6 semester hours from graduate electives in related areas pending the adviser's approval.
- If the non-thesis option is selected, the student must take 18 hours of electives.

School of Fine and Performing Arts

Department

- Music

The Department of Music offers comprehensive programs in music leading to the Master of Music Education degrees.

The Department of Music, as a unit within Jackson State University, is an accredited member of the National Association of Schools of Music (NASM).

The Department of Music supports many performing ensembles, which include the “Sonic Boom of the South” Marching Band, University Choir, Chorale, Orchestra, Jazz Ensembles, Steel Pan, African Drum and Dance, and Opera Workshop among others. The Department of Music is located in the F.D. Hall Music Center, which houses a recital hall, rehearsal facilities, digital recording studio, and piano and electronic music technology labs. Our faculty members are highly qualified professional educators and musicians, including instrumentalists, vocalists, composers and conductors, trained at some of the most highly respected colleges and conservatories in the nation.

The graduate program leading to the Master of Music Education degree offers a curriculum aligned with the mission of the College of Liberal Arts and the University. The Master of Music Education degree is creatively designed and provides the graduate student with a comprehensive music

education curriculum with options for study in a Thesis, Project, Recital or Extra Hours Plan.

Mission Statement

The Department of Music is committed to providing the highest quality of educational opportunities in music education, performance, and technology by empowering a diverse population of students to develop the technologically advanced skills required to assume leadership roles in music education, music industry, and related areas in the global market. The Department of Music offers courses and performance opportunities which broaden music education in the liberal arts and provides artistic enrichment for the University, Community, State and Nation while facilitating opportunities for artistic activism which begins to address the sociocultural inequalities and challenges of the world.

To this end, and in alignment with the mission of the University as a whole, the department is committed to challenging students to explore new ideas and reach their highest potential through engaging course work, research, and seminars. Additionally, the Department of Music resolves to:

- Provide competitive, accredited, undergraduate and graduate degree programs and curricula which focus on advancing education, research, performance, and technology.
- Engage students of all majors in opportunities to develop their knowledge, and ability in all aspects of music by participating in concerts, performances, workshops, master classes, and guest artist residencies.
- Inspire students and faculty to participate globally in culturally enriching activities by encouraging engagement with Western classical, world, and modern music and through involvement in student exchange and study abroad programs, competitions, international music festivals, and conferences.
- Encourage students to increase knowledge and mastery of the means by which to communicate (verbally, in written form, and through artistic interpretation) the value and vastness of knowledge expressed in music and art, historically and in contemporary times.
- To encourage critical thinking, listening and analytical skills which are reinforced and articulated through college-level rhetorical writing, speaking, and performance of and about Western and world music.

Masters

- Music Education (M.M.Ed.) (p. 86)

Music Education (M.M.Ed.)

Dr. Lisa Beckley-Roberts, Associate Professor and Chair
Dr. Ramon Jackson, Assistant Professor, Graduate Program Coordinator, and Assistant Chair
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Faculty

Dr. L. Beckley-Roberts, Associate Professor
Dr. A. Duckett, Associate Professor
Dr. I. Elezovic, Associate Professor
Dr. D. Harris, Sr., Instructor of Music
Dr. R. Jackson, Assistant Professor
Dr. P. Lewis-Hale, Assistant Professor
Dr. D. Mahloch, Instructor of Music
Dr. J. Mathena, Adjunct Professor
Dr. G. Smith, Associate Professor
Dr. D. Ware, Visiting Assistant Professor

Accreditation

Jackson State University is accredited by the National Association of Schools of Music (NASM) and Council for the Accreditation of Educator Preparation (CAEP). The NASM national office is at 11250 Roger Bacon Drive, Suite 21, Reston, Virginia 20190-5248 and can be reached by phone at (703)437-0700. The CAEP national is at 1140 19th St NW, Suite 400 Washington, DC 20036 and can be reached by phone at (202)223-0077.

Program Objectives

Based upon the stated guidelines and standards of the National Association of Schools of Music (NASM), CAEP, the National Association for Music Educators (NAfME) and "AA" Certification requirements of the State of Mississippi as stated in Bulletin 130, the Department of Music at Jackson State University offers graduate programs in Music Education which will prepare students to:

1. Raise the instructional competencies of music teachers in K-12 schools and junior colleges.
2. Meet the increasing demands, ever changing environments and growing needs of today's society for qualified music educators in early childhood, elementary, secondary and junior/community college levels.
3. Promote learning environments conducive to improving the instructional programs in music throughout the State of Mississippi.

The Master of Music Education program will:

1. Provide concentrated, advanced post-baccalaureate study in a major field or specialization in music.
2. Provide studies beyond the major, which support the major directly by developing a breadth of competence.
3. Improve the competencies of music students to become proficient performers of music in general, vocal, keyboard and instrumental areas.
4. Broaden the scope of graduate study and learning in music with particular reference to various idioms, styles, media, careers, and methodologies.
5. Provide historical, theoretical and technical bases for effective development of musicality on the graduate level.
6. Contribute to and participate actively in the cultural life of the University, area schools, and the community.

Licensure

Candidates for the Master of Music Education Degree in the Department of Music at Jackson State University are required to complete a minimum of 36 credit hours. The candidate has an option to complete one of the following plans of study: Thesis Plan, Project Plan, Recital Plan, and Extra Hours Plan. Students who complete this program are eligible for Class "AA" licensure from the Mississippi Department of Education to teach instrumental or vocal music in K-12 schools and community colleges. In addition, during the first year of graduate school, the candidate is encouraged to prepare and take PRAXIS CASE, Music

PRAXIS II, PLT examinations and apply for the Music Endorsement Licensure with the Mississippi Department of Education.

Admission Requirements

Full admission to the Master of Music Education degree program requires:

1. Undergraduate degree in Music (Bachelor of Music Education, BME; Bachelor of Music, BM; Bachelor of Science, BS; Bachelor of Arts, BA.
2. 3.00 Grade Point Average on a 4.00 scale
3. Satisfactory scores on the PRAXIS CASE and PLT examinations
4. 3 letters of recommendation
5. Personal interview/audition scheduled with the program coordinator/advisor
6. Entrance examinations in Music Theory, Music History and Music Education.

Based on an individualized approach to instructional programming and the selection of a degree plan, a graduate student's program of study in music at Jackson State University is outlined according to one of the following plans:

Degree Plans

Core courses required for area of concentration and each degree plan for all graduate students are:

1. Thesis Plan
2. Project Plan
3. Recital Plan
4. Extra Hours Plan

Courses and the appropriate number of hours are determined in conference with graduate advisers in accordance with the degree plan selected.

In graduate music lecture classes, one semester hour of credit equals one hour of class instruction and at least two hours of work outside of class for 15 weeks. Additionally, in graduate music recitals, two semester hours of credit equals one hour of applied instruction and at least two hours of work outside of class for 15 weeks. Likewise, in applied graduate music classes, two semester hours of credit equals one hour of applied instruction and at least two hours of work outside of class for 15 weeks.

Thesis Plan

Code	Title	Hours
Core Courses		
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDFL 568	CURRICULUM METHODS	3
Thesis Plan		
Music Education Courses. Select 12 credits from the following:		12
MUS 514	ADVANCED CONDUCTING	
MUS 515	CHORAL LIT & TECHNIQUES	
MUS 516	INSTRUMNTL LIT & TECHNIQ	
MUS 517	MARCHING BAND TECHNIQUES	
MUS 518	HIST & PHIL OF MUSIC EDU	
MUS 519	SUR OF RESRCH IN MUS EDU	
MUS 520	INTRO TO MUSIC TECHNOLOGY	
MUS 530	JAZZ MUSIC WORKSHOP	
MUS 531	VOICE PEDAGOGY	
MUS 533	INSTRUMENTAL PEDGAGOGY	
MUS 534	MUSIC IN SPECIAL EDUCATN	
Music Theory and Music History. Select 9 credits from the following:		9
Music Theory		
MUS 540	THEORY REVIEW	
MUS 544	ANALYTICAL TECHNIQUES	
MUS 545	PEDAGOGY OF THEORY	
Music History		
MUS 560	GENERAL HISTORY OF MUSIC	
MUS 561	BAROQUE MUSIC	
MUS 562	CLASSICAL MUSIC	
MUS 563	ROMANTIC MUSIC	
MUS 564	MEDIEVAL MUSIC	
MUS 565	RENAISSANCE MUSIC	
MUS 566	MUSIC IN 20TH CENTURY	
MUS 567	STUDIES IN MUSIC HISTORY	
MUS 568	INTRO TO ETHNOMUSICOLOGY	
MUS 571	VOCAL LITERATURE	
MUS 573	JAZZ HISTORY	
Applied Music. Select 1 credit from the following:		1
MUS 591	APPLIED PIANO	
MUS 592	APPLIED PIANO	
MUS 593	APPLIED PIANO	
MUS 594	APPLIED PIANO	
MUS 595	APPLIED PIANO	
MUS 596	APPLIED PIANO	
Thesis		2
MUS 575	THESIS WRITING	
Electives		3
Total Hours		**36**

Project Plan

Code	Title	Hours
Core Courses		
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDFL 568	CURRICULUM METHODS	3
Project Plan		
Music Education Courses. Select 12 credits from the following:		12
MUS 514	ADVANCED CONDUCTING	
MUS 515	CHORAL LIT & TECHNIQUES	
MUS 516	INSTRUMNTL LIT & TECHNIQ	
MUS 517	MARCHING BAND TECHNIQUES	
MUS 518	HIST & PHIL OF MUSIC EDU	
MUS 519	SUR OF RESRCH IN MUS EDU	
MUS 520	INTRO TO MUSIC TECHNOLOGY	
MUS 530	JAZZ MUSIC WORKSHOP	
MUS 531	VOICE PEDAGOGY	
MUS 533	INSTRUMENTAL PEDGAGOGY	
MUS 534	MUSIC IN SPECIAL EDUCATN	

Music Theory and Music History. Select 9 credits from the following:		9
Music Theory		
MUS 540	THEORY REVIEW	
MUS 544	ANALYTICAL TECHNIQUES	
MUS 545	PEDAGOGY OF THEORY	
Music History		
MUS 560	GENERAL HISTORY OF MUSIC	
MUS 561	BAROQUE MUSIC	
MUS 562	CLASSICAL MUSIC	
MUS 563	ROMANTIC MUSIC	
MUS 564	MEDIEVAL MUSIC	
MUS 565	RENAISSANCE MUSIC	
MUS 566	MUSIC IN 20TH CENTURY	
MUS 567	STUDIES IN MUSIC HISTORY	
MUS 568	INTRO TO ETHNOMUSICOLOGY	
MUS 571	VOCAL LITERATURE	
MUS 573	JAZZ HISTORY	
Applied Music. Select 1 credit from the following:		1
MUS 591	APPLIED PIANO	
MUS 592	APPLIED PIANO	
MUS 593	APPLIED PIANO	
MUS 594	APPLIED PIANO	
MUS 595	APPLIED PIANO	
MUS 596	APPLIED PIANO	
Project		2
MUS 576	PROJECT WRITING	
Electives		3
Total Hours		**36**

Recital Plan

Code	Title	Hours
Core Courses		
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDFL 568	CURRICULUM METHODS	3
Recital Plan		
Music Education Courses. Select 12 credits from the following:		12
MUS 514	ADVANCED CONDUCTING	
MUS 515	CHORAL LIT & TECHNIQUES	
MUS 516	INSTRUMNTL LIT & TECHNIQ	
MUS 517	MARCHING BAND TECHNIQUES	
MUS 518	HIST & PHIL OF MUSIC EDU	
MUS 519	SUR OF RESRCH IN MUS EDU	
MUS 520	INTRO TO MUSIC TECHNOLOGY	
MUS 530	JAZZ MUSIC WORKSHOP	
MUS 531	VOICE PEDAGOGY	
MUS 533	INSTRUMENTAL PEDGAGOGY	
MUS 534	MUSIC IN SPECIAL EDUCATN	
Music Theory and Music History. Select 9 credits from the following:		9
Music Theory		
MUS 540	THEORY REVIEW	
MUS 544	ANALYTICAL TECHNIQUES	
MUS 545	PEDAGOGY OF THEORY	
Music History		
MUS 560	GENERAL HISTORY OF MUSIC	
MUS 561	BAROQUE MUSIC	
MUS 562	CLASSICAL MUSIC	
MUS 563	ROMANTIC MUSIC	
MUS 564	MEDIEVAL MUSIC	
MUS 565	RENAISSANCE MUSIC	
MUS 566	MUSIC IN 20TH CENTURY	
MUS 567	STUDIES IN MUSIC HISTORY	
MUS 568	INTRO TO ETHNOMUSICOLOGY	
MUS 571	VOCAL LITERATURE	
MUS 573	JAZZ HISTORY	
Applied Music. Select 4 credits from the following:		4
MUS 591	APPLIED PIANO	
MUS 592	APPLIED PIANO	
MUS 593	APPLIED PIANO	
MUS 594	APPLIED PIANO	
MUS 595	APPLIED PIANO	
MUS 596	APPLIED PIANO	
Recital		1-3
MUS 597	RECITAL	
Total Hours		**35-37**

Extra Hours Plan

Code	Title	Hours
Core Courses		
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDFL 568	CURRICULUM METHODS	3
Extra Hours Plan		
Music Education Courses. Select 12 credits from the following:		12
MUS 514	ADVANCED CONDUCTING	
MUS 515	CHORAL LIT & TECHNIQUES	
MUS 516	INSTRUMNTL LIT & TECHNIQ	
MUS 517	MARCHING BAND TECHNIQUES	
MUS 518	HIST & PHIL OF MUSIC EDU	
MUS 519	SUR OF RESRCH IN MUS EDU	
MUS 520	INTRO TO MUSIC TECHNOLOGY	
MUS 530	JAZZ MUSIC WORKSHOP	
MUS 531	VOICE PEDAGOGY	
MUS 533	INSTRUMENTAL PEDGAGOGY	
MUS 534	MUSIC IN SPECIAL EDUCATN	
Music Theory Courses. Select 6 credits from the following:		6
MUS 540	THEORY REVIEW	
MUS 544	ANALYTICAL TECHNIQUES	
MUS 545	PEDAGOGY OF THEORY	
Music History Courses. Select 6 credits from the following:		6
MUS 560	GENERAL HISTORY OF MUSIC	
MUS 561	BAROQUE MUSIC	
MUS 562	CLASSICAL MUSIC	
MUS 563	ROMANTIC MUSIC	

MUS 564	MEDIEVAL MUSIC	
MUS 565	RENAISSANCE MUSIC	
MUS 566	MUSIC IN 20TH CENTURY	
MUS 567	STUDIES IN MUSIC HISTORY	
MUS 568	INTRO TO ETHNOMUSICOLOGY	
MUS 571	VOCAL LITERATURE	
MUS 573	JAZZ HISTORY	
Applied Music Courses. Select 3 credits from the following:		3
MUS 591	APPLIED PIANO	
MUS 592	APPLIED PIANO	
MUS 593	APPLIED PIANO	
MUS 594	APPLIED PIANO	
MUS 595	APPLIED PIANO	
MUS 596	APPLIED PIANO	
Total Hours		**36**

School of Social and Behavioral Sciences

Departments

- Criminal Justice and Sociology
- History and Philosophy
- Political Science
- Psychology

The School of Social and Behavioral Sciences consists of leaders in graduate education at Jackson State University. Academic units comprising the School of Social and Behavioral Sciences are the Department of Criminal Justice and Sociology, the Department of History and Philosophy, the Department of Political Science, and the Department of Psychology.

In addition to the four academic units shown above, students and faculty participate in several interdisciplinary research and citizenship programs -- two centers, the Margaret Walker Alexander National Research Center for the Study of the Twentieth Century African American, spawned from the Department of History; the Alcohol and Drug Studies Center; whose genesis was the Department of Sociology; a planned program of research for the Department of Psychology, the Community Health Program (CHP) and a Clinical Psychology Services Program; and the Fannie Lou Hamer National Institute on Citizenship and Democracy, which grew out of more than a quarter of a century of activity by the faculty of the Department of Political Science. In addition, the Institute for Social Justice and Race Relations (ISJRR) provides a multifaceted multimedia platform to engage and educate the students, the academic community, and public as it relates to matters of social justice, activism, and race relations.

The aforementioned four units, their programs of teaching, research and service, attract a substantively diverse and international faculty and student body. All graduate programs in the social and behavioral sciences maintain an optimal student enrollment and provide excellent mentoring by core faculty with combined research and practitioner experiences in traditional academic specializations and public service roles. Graduate students are expected to meet with their mentors many times during the course of the academic year and are encouraged to begin research projects with their mentor the summer preceding their admission. Graduate coursework, preliminary examinations, qualifying examinations, internships, thesis and/or major papers, and dissertation preparation, are the major components of the graduate programs in the School of Social and Behavioral Sciences. The College of Liberal Arts' two doctoral programs - Clinical Psychology and Public Administration - have excellent teaching faculty with planned programs of clinical and field research. The social and behavioral sciences have engaged teaching faculty with quality research publications. The School of Social and Behavioral Sciences generates large sums of external funds to support graduate student fellowships, foster research opportunities that advance student's careers, generate new knowledge/discoveries in collaboration with graduate students.

The School of Social and Behavioral Sciences offers the Doctor of Philosophy in Clinical Psychology and Public Administration; the Master of Arts in Criminal Justice and Justice Services, History, Political Science, and Sociology.

Masters

- Criminology and Justice Services (M.A.) Non-Thesis Option (p. 89)
- Criminology and Justice Services (M.A.) Thesis Option (p. 90)
- History (M.A.) (p. 91)
- Political Science (M.A.) (p. 92)
- Public Policy and Administration (M.P.P.A.) (p. 99)
- Sociology (M.A.) Concentraton in Alcohol/Drug Studies (p. 101)
- Sociology (M.A.) Concentraton in Alcohol/Drug Studies Non-Thesis (p. 102)
- Sociology (M.A.) Non-Thesis Option (p. 102)
- Sociology (M.A.) Thesis Option (p. 103)

Doctoral

- Psychology (Ph.D.) (p. 94)
- Public Administration (Ph.D.) (p. 96)

Criminology and Justice Services (M.A.) Non-Thesis Option

Dr. Thomas Kersen, Interim Chair & Associate Professor
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Faculty

Dr. C. McNeil, Professor
Dr. E. Morgan, Associate Professor
Dr. T. Kersen, Associate Professor
Dr. X. Su, Associate Professor

Program of Criminology and Justice Services

The Master of Arts degree in Criminology and Justice Services is designed to create a cadre of education and policy makers in the area of Criminal Justice. The primary focus of the program is on providing a strong theoretical and methodological foundation for those individuals desiring to restructure and plan for change in the contemporary justice system. The student is expected to demonstrate knowledge of the key theories as well as critical theoretical crime and justice perspectives within the progression of the humanistic spectrum. The curriculum

includes significant strategies, issues and themes on the dimensions of planned change throughout the justice system.

Program Objectives

- To prepare students for studies beyond the master degree focusing on planned change.
- To provide studies in theory, analysis of varied criminal justice systems, management and research sufficient to prepare students for career development in the field.
- To provide courses to enhance the performance and employment potential of individuals in criminal justice agencies.

Admission Requirements

Students must meet all admission, testing and graduation requirements of the Graduate School at Jackson State University. Students must submit a satisfactory score on the Graduate Record Examination, GRE, three letters of recommendation and a statement of purpose.

Students without a background in Criminal Justice, Criminology, Juvenile Justice or Administration of Justice must take competency courses before taking courses in the degree program.

Applicants will only be admitted once a year during the Fall Semester. The department requires that students have a 3.0 grade point average.

Transfer Credits

A maximum of nine (9) hours of credit may be transferred from an accredited graduate school provided the courses are significantly related to those required for the M.A. in criminal justice and the student has approval from the director of the program.

Degree Requirements

NON-THESIS: A total of 36 semester hours are required for the M.A. Each student must complete twelve (12) semester hours of core courses, twenty-one (21) semester hours of criminal justice electives and three (3) semester hours of writing a policy paper. A written comprehensive examination must be taken **and successfully passed** following the completion of the core courses.

Code	Title	Hours
CJ 502	THEORIES OF DELINQUENCY	3
CJ 513	STATISTICS	3
CJ 515	RESEARCH METHODS	3
CJ 526	CRIMINAL JUSTICE ORGN AND MNGT	3
Criminal Justice Electives		21
CJ 601	POLICY PAPER	3
Total Hours		**36**

Criminal Justice Electives

Code	Title	Hours
CJ 520	LEG&ETH ISS IN CRIM JUST	3
CJ 525	DSGNG NW CRM JST SR DL S	3
CJ 530	IMP BEHAV&STRAT-PLNND CH	3
CJ 535	ASSES&EVAL-CRM JST PL&PR	3
CJ 540	COMPARATIVE JUSTICE SYSM	3
CJ 580	SPECIAL TOPICS	3
CJ 599	INDEPENDENT STUDY	3
CJ 620	COMMUNITY ANALYSIS	3
CJ 622	RESEARCH AND STATISTICS	3

Criminology and Justice Services (M.A.) Thesis Option

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Faculty

Dr. C. McNeil, Professor
Dr. E. Morgan, Associate Professor
Dr. T. Kersen, Associate Professor
Dr. X. Su, Associate Professor

Program of Criminology and Justice Services

The Master of Arts degree in Criminology and Justice Services is designed to create a cadre of education and policy makers in the area of Criminal Justice. The primary focus of the program is on providing a strong theoretical and methodological foundation for those individuals desiring to restructure and plan for change in the contemporary justice system. The student is expected to demonstrate knowledge of the key theories as well as critical theoretical crime and justice perspectives within the progression of the humanistic spectrum. The curriculum includes significant strategies, issues and themes on the dimensions of planned change throughout the justice system.

Program Objectives

- To prepare students for studies beyond the master degree focusing on planned change.
- To provide studies in theory, analysis of varied criminal justice systems, management and research sufficient to prepare students for career development in the field.
- To provide courses to enhance the performance and employment potential of individuals in criminal justice agencies.

Admission Requirements

Students must meet all admission, testing and graduation requirements of the Graduate School at Jackson State University. Students must submit a satisfactory score on the Graduate Record Examination, GRE, three letters of recommendation and a statement of purpose.

Students without a background in Criminal Justice, Criminology, Juvenile Justice or Administration of Justice must take competency courses before taking courses in the degree program.

Applicants will only be admitted once a year during the Fall Semester. The department requires that students have a 3.0 grade point average.

Transfer Credits

A maximum of nine (9) hours of credit may be transferred from an accredited graduate school provided the courses are significantly

related to those required for the M.A. in criminal justice and the student has approval from the director of the program.

Degree Requirements

THESIS: A total of 36 semester hours are required for the M.A. Each student must complete twelve (12) semester hours of core courses, eighteen (18) semester hours of criminal justice electives and six (6) semester hours of thesis writing. A written comprehensive examination must be taken **and successfully passed** following the completion of the core courses. A student must write and defend a thesis to the Thesis Committee for approval.

Code	Title	Hours
CJ 502	THEORIES OF DELINQUENCY	3
CJ 513	STATISTICS	3
CJ 515	RESEARCH METHODS	3
CJ 526	CRIMINAL JUSTICE ORGN AND MNGT	3
CJ 600	THESIS	6
Criminal Justice Electives		18
Total Hours		**36**

Criminal Justice Electives

Code	Title	Hours
CJ 520	LEG&ETH ISS IN CRIM JUST	3
CJ 525	DSGNG NW CRM JST SR DL S	3
CJ 530	IMP BEHAV&STRAT-PLNND CH	3
CJ 535	ASSES&EVAL-CRM JST PL&PR	3
CJ 540	COMPARATIVE JUSTICE SYSM	3
CJ 580	SPECIAL TOPICS	3
CJ 599	INDEPENDENT STUDY	3
CJ 620	COMMUNITY ANALYSIS	3
CJ 622	RESEARCH AND STATISTICS	3
CJ 635	CRIME IN THE URBAN COMMUNITY	3
SOC 591	SEM POLICE ADM PRAC PROB	3
SOC 506	SEM IN JUSTICE ADMN MGNT	3

History (M.A.)

Department of History and Philosophy

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Faculty

Dr. Mario Azevedo, Professor and Chair
Dr. K. Barima, Assistant Professor
Dr. M. Bernhardt, Professor
Dr. J. Brockley, Associate Professor
Dr. A. Dorsey, Assistant Professor
Dr. R. Luckett, Professor
Dr. L. Roopnarine, Professor and Graduate Program Coordinator
Dr. C. Turnipseed, Assistant Professor

Our program offers courses in a wide range of fields. Along with the department's strengths in African American History, Public History, and the African Diaspora, the department's faculty also teach classes on Women's History, Film, Latin America, Caribbean, Africa, Sexuality, Disability, the American South, Black Identity, Migration, among other topics.

The department offers both a traditional program and a fully online program. Both include three tracks for students seeking a Master of Arts degree (36 total credit hours) and are designed to be completed in two years. There is also a non-degree option for teacher certification. The traditional project option is specifically for students seeking to improve their credentials. Students complete coursework and spend one semester writing a secondary-source-based research paper or producing a creative work, such as a museum exhibit or documentary. The thesis and Public History project options are recommended for students who wish to continue their graduate education. Students complete coursework and a master's thesis or Public History project (such as a documentary, oral history collection, museum exhibit, historical marker, etc.). These options require a more intensive research focus under the guidance of an advisor with the goal of producing a master's thesis or Public History project. The non-degree seeking program allows those desiring certification to teach History to complete up to 12 hours of coursework.

Mission Statement

The Department of History and Philosophy offers students the opportunity to pursue a course of study that prepares them to enter a range of professional paths and careers. These potential careers include teaching from elementary to high school to junior college to the four- year university. Additional professional forays are possible in research and scholarship enterprises, public and leadership service and a welter of other pursuits, all requiring a demonstrated knowledge, appreciation and application of the human historical experience in response to an ever-changing multi-cultural world.

The graduate History program's areas of concentration include Global, Social and Cultural, U.S., Public, and African Diaspora history. The department has an especially impressive curriculum as well as an assembled coterie of talented teaching research faculty.

Program Objectives

1. To use classroom instruction and relevant professional experiences, thereby preparing majors to conduct historical research while honing the requisite knowledge, competencies and mastery essential for history graduate matriculation.
2. To prepare students to continue graduate study beyond the Master of Arts degree and/or engage in history related professional careers.
3. To prepare students to teach history in middle and secondary schools as well as at the junior college level.
4. To serve the academic needs of teachers, principals, and supervisors by providing opportunities to enhance and hone their skill set for performing current teaching and/or leadership responsibilities.
5. To promote the scholarly study and investigation of the human historical experience and the dissemination of such research via both presentations at professional conferences and publication in the discipline.

Department Admission Requirements

1. Applicants must satisfy all admission requirements of the Division of Graduate Studies.
2. Applicants should have at least a GPA of 3.0 for admittance to the History Department. Applicants with a GPA of less than 3.0 will be considered on a case-by-case basis.
3. Applicants must submit three (3) letters of recommendation with one from a professor.
4. Applicants must submit a 2-page Statement of Purpose with their application describing why they are seeking a graduate degree in history, their research and writing experience, and what they desire to study.

Transfer of Credits

Up to nine semester hours of credits in significantly related courses from other colleges and universities may be accepted toward the M.A. degree in History. The earned credits must be from a graduate history program at an accredited institution of higher learning.

M.A. Degree Requirements

The M.A. degree in History is a 36-hour program with a thesis or project option. Students who desire to pursue additional education beyond the M.A. degree are strongly encouraged to choose the thesis option.

1. Required Courses: HIST 545 HIST CRITIC & HIST-GRAPH and either HIST 546 HISTL RESEARCH FOR THE THESIS or HIST 547 HISTORICAL RESEARCH PROJECT.
2. The thesis option requires 30 hours of course work, 6 hours of HIST 590 THESIS, and the completion of the thesis for graduation. The project option requires 33 hours of course work, 3 hours of HIST 591 PROJECT WRITING, and the completion of a research project for graduation. 15 course hours must be taken in the department's five areas of study (3 course hours in each area of study). The areas of study are: Global History, African Diaspora, U.S. History, Social and Cultural History, and Public History. Up to 6 course hours may be taken in other disciplines. All outside courses taken must be relevant to the student's historical studies or research. The department chair and the department's graduate program coordinator must approve the outside courses and should be consulted before any such courses are taken.
3. A student who has demonstrated some academic deficiencies and is provisionally admitted to the graduate program may be asked to take an undergraduate course(s) or to enroll in a structured remedial program. In this way, the Department increases the likelihood of the student successfully completing the program and receiving the Master of Arts degree. These course hours are not included in the 36 hours required for the program.
4. The Graduate English Competency Exam (GECE) must be taken in the first semester of the program. If the student does not pass the exam, he or she must complete English 500 the following semester.
5. A written Graduate Area Comprehensive Examination (GACE) is required for completion of the M.A. degree in History. Students are eligible to take the exam after completing 18 hours of course work.
6. Thesis-option degree candidates must complete at least 6 hours of HIST 590 THESIS. After completing 18 hours of coursework (which must include HIST 545 HIST CRITIC & HIST-GRAPH and HIST 546 HISTL RESEARCH FOR THE THESIS) and submitting the Committee Approval form, thesis-option degree candidates may register for 3 hours of HIST 590 THESIS. After completing 27 total hours, thesis-option degree candidates may register for an additional 3 hours of HIST 590 THESIS. If the thesis is not completed after the initial six hours, the student must register for at least 1 hour of HIST 590 THESIS each semester until all degree requirements have been satisfied.
7. Project-option degree candidates must complete at least 3 hours of HIST 591 PROJECT WRITING. After completing 27 hours of coursework (which must include HIST 545 HIST CRITIC & HIST-GRAPH and HIST 547 HISTORICAL RESEARCH PROJECT) and submitting the Committee Approval form, project-option degree candidates will enroll in 3 hours of HIST 591 PROJECT WRITING. If the research project is not completed after taking 36 total hours in the program, a student will need to register for at least 1 hour of HIST 591 PROJECT WRITING each semester until all degree requirements have been satisfied.

Thesis Option Course Plan

Code	Title	Hours
HIST 545	HIST CRITIC & HIST-GRAPH	3
HIST 546	HISTL RESEARCH FOR THE THESIS	3
Global History Area		3
African Diaspora Area		3
U.S. History Area		3
Social and Cultural History Area		3
Public History Area		3
Elective Courses		9
HIST 590	THESIS	6
Total Hours		**36**

Project Option Course Plan

Code	Title	Hours
HIST 545	HIST CRITIC & HIST-GRAPH	3
HIST 547	HISTORICAL RESEARCH PROJECT	3
Global History Area		3
African Diaspora Area		3
U.S. History Area		3
Social and Cultural History Area		3
Public History Area		3
Elective Courses		12
HIST 591	PROJECT WRITING	3
Total Hours		**36**

Political Science (M.A.)

Department of Political Science

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Faculty

Dr. M. Mangum, Professor and Chair
Dr. R. S. Mikell, Assistant Professor and Graduate Program Coordinator
Dr. E. C. Nwagboso, Professor
Dr. B. D'Andra Orey, Professor

Dr. B. House-Soremekun, Professor

The Department of Political Science offers a **traditional/online** graduate program leading to the Master of Arts in Political Science. Students may choose the thesis or non-thesis options to complete the M.A. degree.

Mission Statement

Students and faculty in the Master of Arts program in Political Science, work in partnership to observe, critique, debate and analyze the appropriate and effective use of power by governmental institutions and actors, in a democratic society and the larger global community. The graduate program serves the public interest by developing and preparing leaders for employment and service in the institutions of public life. The program also prepares students for doctoral and advanced professional study, which contributes to the development of the discipline of political science. Our urban location in the capital city of Jackson provides a rich and varied laboratory for both empirical and applied research, as well as opportunity to observe and participate in politics.

Program Goals

Students enrolled in the department shall:

- Develop a substantive body of knowledge about the history and evolution of the discipline, including its various approaches and methodologies.
- Acquire the capacity to gather and analyze primary and secondary data on politics in domestic and international contexts, and to critique extant studies as a way to develop original research.
- Engage in independent original research or with colleagues or faculty and practice these skills through internships and service learning opportunities.

Admission Requirements

Prospective students must satisfy the requirements for admission to the Division of Graduate Studies. The Department of Political Science requests the submission of a statement of purpose and at least two letters of recommendation, and a minimum GPA of 2.8 (conditional enrollment).

Requirement for Degree Candidacy

The comprehensive examination and completion of the core political science courses are required for a student to be admitted to candidacy for the M.A. in Political Science. The comprehensive examination consists of written essay questions seeking integration across the subfields of political science. It should be taken and passed by the end of the second year.

Retention Requirement

A minimum grade point average of 3.00 (on a 4.00 scale) on graduate work earned in the degree program is required.

Degree Requirements

The Department offers two routes for earning the M.A. in Political Science: thesis and non-thesis. The thesis route is intended for students who plan to pursue a doctorate or other post-graduate study. The thesis route requires a minimum of thirty semester hours of coursework and six credits of thesis culminating in the writing and defense of a thesis.

The non-thesis route requires the completion of a minimum of thirty-six semester hours of coursework and the submission of a significant research paper.

All students must successfully complete the following and maintain an overall 3.00 GPA (on a 4.00 scale) in order to earn the M.A. degree in Political Science.

1. Complete 18 hours of required courses, (see below)
2. Take and pass the Graduate English Competency Examination.
3. Take and pass the Graduate Area Comprehensive Examination.

Students pursuing the thesis option must also complete the following requirements.

1. Complete at least six (6) hours of electives in consultation with the major advisor.
2. Write and have an oral defense of masters' thesis.

Students pursuing the non-thesis option must also complete the following requirements.

1. Complete at least twelve (12) hours of electives in consultation with the major advisor.
2. Write and submit a significant research paper.

Non-Thesis Track Course Requirements

(36 hours+ Significant research paper)

Code	Title	Hours
Core Coursework [1]		
PS 515	MODERN POLITICAL PHILOSOPHY	3
PS 507	POLITCL INQUIRY & RESEAR	3
PS 509	AFRICAN POLITICAL SYSTEMS	3
PS 542		3
PS 512	BLACK POLITICAL THOUGHT	3
PS 506	METH & APPRCH TO POL SCI	3
PS 532	African American Politics	3
PS 565	INTERNATIONAL RELATIONS	3
Electives		
Four Elective Courses		12
Total Hours		**36**

[1] All courses are 3 credit hours.

Thesis Track Course Requirements

(30 hours + 6 Thesis hours)

Code	Title	Hours
Core Coursework [1]		
PS 515	MODERN POLITICAL PHILOSOPHY	3
PS 507	POLITCL INQUIRY & RESEAR	3
PS 509	AFRICAN POLITICAL SYSTEMS	3
PS 542		3
PS 598	THESIS	3
PS 512	BLACK POLITICAL THOUGHT	3
PS 506	METH & APPRCH TO POL SCI	3
PS 532	African American Politics	3
PS 565	INTERNATIONAL RELATIONS	3

PS 598	THESIS	3
Electives		
Two Elective Courses		6
Total Hours		**36**

[1] All courses are 3 credit hours.

Psychology (Ph.D.)

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Faculty

Dr. D. McLin, Professor
Dr. J. Broussard, Assistant Professor
Dr. K. Hudson, Assistant Professor
Dr. C. Moreland, Assistant Professor
Dr. R. Liu-Pham, Assistant Professor
Dr. K. Sly, Associate Professor
Dr. J. Schweitzer, Interim Director of Clinical Training

Program Objectives and Mission

The Department of Psychology offers a Ph.D. degree in Clinical Psychology. The mission of the doctoral program is:

1. To produce graduates who are skilled in the science, theory and practice of psychology.
2. To increase student awareness, knowledge, and skills in multicultural psychology.
3. To produce graduates who have the requisite knowledge and skills to conduct their work in accordance with ethical, legal, and professional standards in their practice and research.
4. To produce students who will engage in clinical and research experience involving the diverse psychological, health, and service needs of ethnic minority populations.

Departmental faculty, supervisors, and administrators have a professional, ethical, and potentially legal obligation to ensure that graduates from this program are competent to engage in effective, and appropriate service, research and practice in the profession of psychology. This requires the Program Faculty, training staff, supervisors, and administrators only to admit and graduate doctoral candidates that possess the appropriate professional, ethical, interpersonal, and psychological qualities without demonstrable problems (e.g., cognitive, emotional, psychological, interpersonal, technical, and ethical) that do not interfere with professional competence while working with other programs, employers, or the public-at-large.

Students in this program will be guided by a curriculum anchored in the cumulative body of psychological knowledge, and grounded in statistics, research design, and experimental methodology. The curriculum is designed to develop students' knowledge and skills required to effectively function as an empirically oriented clinical psychologist in diverse settings. This is accomplished through a sequence of formal clinical courses, distinguished by in-depth exploration of multicultural issues and exposure to ethnic minority communities, including interdisciplinary and inter-organizational collaboration and consultation.

The process utilized to accomplish this mission is consistent with the goals and mission of Jackson State University as a comprehensive university. This program is comprised of students and faculty committed to addressing multicultural issues, conducting objective assessments/evaluations, and utilizing systematic individual and community-level interventions. The psychology department strives to support students and faculty involved in basic and applied research through the use of a challenging intellectual environment.

Accreditation

The program is accredited by the American Psychological Association. Additional inquiries about our accreditation status can be addressed to the APA Office of Program Consultation and Accreditation: (202) 336-5979.

Admission Requirements

A major goal of this program is retention and graduation of admitted applicants who have the educational foundation, motivation, and personality characteristics required to successfully complete an academically intensive and rigorous doctoral program. Applicants who have passed the initial screening are required to participate in an in-person interview conducted by the members of the Graduate Faculty. Admission into the program is a very competitive process. A limited number of slots (6 to 7) are available each academic year. Please note that meeting minimal application standards does not guarantee admission.

The minimum requirement for admission is a Bachelor's degree from a regionally accredited institution with at least 24 semester hours of psychology coursework in the following psychology subject domains: abnormal, developmental, experimental or research methods, learning or cognition, biological or physiological, personality, social, and statistics.

The following application materials are required:

1. Official transcripts of all post-secondary academic work sent from institutions directly to the JSU Graduate School.
2. An official copy of the GRE test scores sent from ETS directly to the Graduate Faculty. The program does not use specific GRE cut-off scores in the admission process; however, submission of GRE scores prior to the application deadline is required. The GRE subject test in Psychology is not required.
3. A signed "Informed Consent to Participate in the Admissions Screening, Evaluation and Interview Process" form and the "Clinical Psychology Doctoral Program Application."
4. A curriculum vitae/resume.
5. Three letters of recommendation from individuals qualified to assess the applicant's academic and professional potential. A minimum of two (2) letters must be written by faculty members or faculty mentors familiar with the applicant's academic performance; the third letter may be written by qualified mentors who have supervised previous clinical or research work. Please send no more than four letters. All letters must be typed and accompanied with the JSU Recommendation Form.
6. An acceptable score of the Test of English as a Foreign Language (TOEFL) must be submitted, if applicable.

The following application materials and other related information are available for download at www.jsums.edu/psychology/graduate (http://www.jsums.edu/psychology/graduate/):

1. Program Goals and Objectives
2. Program's Mission Statement
3. Doctoral Program Information
4. Degree Requirements, Curriculum and Course Description
5. Graduate Program Application
6. Program Assistantship Application
7. Program Evaluation and Recommendation Form
8. Clinical Psychology Doctoral Students
9. Student Admissions, Outcomes and other Data

The Admissions Committee utilizes application materials to evaluate the prospective doctoral candidates in the following domains:

1. Academic aptitude for doctoral-level studies;
2. Understanding and appreciation of diversity issues;
3. Understanding and appreciation of the program's requirements;
4. Previous professional or training experience in a clinical setting;
5. Previous research experience and dissemination history;
6. Psychological suitability to perform as a clinical psychologist;
7. Verbal communication skills;
8. Interpersonal skills;
9. Professional demeanor;
10. Ethical considerations based on the Ethical Principles of Psychologist and Code of Conduct (APA, 2016)

Currently, criminal background checks are not required as part of the applicant evaluation process. However, all applicants must be aware that the various agencies that provide practicum, externship, and pre-doctoral internship training opportunities usually require a criminal background check prior to placement. These agencies are external to the University and may set or revise placement policies at any time; a background check that reveals professional misconduct or a criminal conviction could result in a student's ineligibility for initial or continued enrollment in the program. This program cannot be completed without the successful completion of all coursework.

Readmission to the Program

Inactive and/or former students of the program must consult with the Director of Clinical Training regarding current readmission policies.

Transfer Credits

Students with previous graduate coursework in psychology can transfer a maximum of 15 credit hours if the coursework has been completed within eight years of the first date of enrollment into the program. Additionally, the transferred courses must have a letter grade of "B" or better. Any course transferred must be equivalent to 700 level courses at Jackson State University and should include coverage of pertinent multicultural issues commensurate with the program's focus and expectations.

Up to two courses can be transferred to satisfy specific course requirements listed under both the General Core and Research Core (totaling four). No more than one course can be transferred as satisfy specific course requirements listed under the Multicultural/Diversity Core. Any remaining courses (no more than 15 hours) can be transferred to satisfy elective course requirements. Any transfer courses to be considered as satisfying General Core, Research Core, or Multicultural Core requirements must have PSY or equivalent prefix. Equivalent coursework listed under the Clinical Core cannot be transferred.

Degree Requirements

The Ph.D. program is a full-time, on campus program requiring a minimum of five years of post-baccalaureate study, including the completion of Dissertation Research and a one-year, full-time predoctoral internship. Some courses will only be offered during summer sessions. Students are expected to complete all requirements for the Ph.D. degree and graduate within eight years of the date of first enrollment. Currently, the Department does not offer a Master's degree.

The Ph.D. program requires 18 hours of General Core Courses, 16 hours of Research Core Courses, 21 hours of Clinical Core Courses, 9 hours of Multicultural/Diversity Core Courses, 20 hours of Practica and Externship Courses, 9 hours of Elective Courses, 9 hours of Dissertation Credit, and a one-year internship at an APA-accredited/APPIC-member pre-doctoral internship training program (total of 2 credit hours).

During the third year of study, the student must pass the Graduate Area Comprehensive Examination. The student must pass this examination to be admitted to candidacy for the Ph.D. The student must also pass an oral clinical competency examination and propose their dissertation proposal before applying for a pre-doctoral internship position.

For a detailed explanation of program requirements refer the *Clinical Psychology Program Handbook*.

Curriculum Outline

Code	Title	Hours
I. General Core		
PSY 710	THEORIES OF PERSONALITY	3
PSY 711	LEARNING AND COGNITION	3
PSY 712	ADVND DEVELPMENTAL PSYCHOLOGY	3
PSY 713	BIOLOGICAL PSYCHOLOGY	3
PSY 714	SOC AND CGNTVE BASES OF BEHAVR	3
PSY 715	HISTORY AND SYSTEMS	3
II. Research Core		
PSY 700	RESEARCH SEMINAR [1]	2
PSY 730	RESEARCH METHODS	3
PSY 731	ADVANCED STATISTICS I	3
PSY 732	ADVANCED STATISTICS II	3
PSY 733	MULTIVARIATE METHODS I	3
PSY 734	PSYCHOMETRICS	3
III. Clinical Core		
PSY 740	PSYCHOPATHOLOGY	3
PSY 742	COGNITIVE ASSESSMENT	3
PSY 743	PERSONALITY ASSESSMENT	3
PSY 750	ETHICS IN PSYCHOLOGY	3
PSY 751	PSYCHOTHERAPY	3
PSY 752	BEHAVIOR THERAPY	3
PSY 753	GROUP THERAPY	3
IV. Multicultural/Diversity Core		
PSY 720	CROSS CULTURAL PSYCHOLOGY	3
Select two of the following:		6

PSY 721	PSYCHOLGY OF AFRICAN-AMERICANS	
PSY 722	PSYCHLGY IN THE URBAN ENVIRNMT	
PSY 723	PSYCHOLOGY OF GENDER	
V. Practicum and Externships		
PSY 735	RESEARCH PRACTICUM I	1
PSY 736	RESEARCH PRACTICUM II	1
PSY 760	CLINICAL PRACTICUM I	3
PSY 761	CLINICAL PRACTICUM II	3
PSY 762	CLINICAL PRACTICUM III	3
PSY 765	EXTERNSHIP I	3
PSY 766	EXTERNSHIP II	3
PSY 767	EXTERNSHIP III	1-3
Select three of the following:		9
PSY 745	FORENSIC PSYCHOLOGY	
PSY 755	PSYCHOPHARMACOLOGY	
PSY 772	HEALTH PSYCHOLOGY	
PSY 773	THEORY & TREATMNT OF ADD DISOR	
PSY 775	MARITAL AND FAMILY THERAPY	
PSY 777	LGBTQ+ Psychology	
VII. Disseration Research		
PSY 790	DISSERTATION RESEARCH	1-9
PSY 790	DISSERTATION RESEARCH	1-6
VIII. Predoctoral Intership		
PSY 799	INTERNSHIP	2-9
Total Hours		**96-118**

[1] 1 hour in Research Seminar
1 hour in APA Research Writing

Public Administration (Ph.D.)

In 1992, Jackson State University commenced offering the Doctor of Philosophy Degree in Public Administration. The program requires a minimum of 60 semester hours of course work beyond the Master's degree. These 60 hours include the dissertation.

Mission of Program

The Ph.D. program has an urban management focus as well as other areas of concentration. Students must master a body of knowledge that centers around the public management aspects of urban problems, urban minorities; urban development (both past and present); and analysis of social systems. The program is designed to prepare persons for careers in executive management, teaching, research, and other public and non-profit responsibility positions. Concomitantly, this degree program emphasizes the acquisition of a knowledge base in the discipline of public administration, emphasizing policy making, planning, analysis, evaluation, and program implementation. In addition to the urban concentration, students will select a concentration in program management, policy analysis, and environmental management, planning, and policy. This degree is especially appropriate for persons in public, non-profit, and "quasi-public" management settings.

Admission Requirements

The Doctor of Philosophy in Public Administration degree demands sound conceptual and analytical abilities. A solid educational foundation and substantial academic and professional achievement are among the criteria upon which applications for admission are evaluated. Specific prerequisites for admission include the following:

1. A graduate-level degree from an accredited institution with a grade point average of 3.5, as evidenced by an official transcript.
2. Three letters of recommendation, two from academic sources.
3. A career goals essay.
4. Two samples of academic and professional writing.
5. For international students, a satisfactory score on the TOEFL or IELTS as determined by the Graduate School.
6. Other considerations such as work or life experiences directly related to the program's potential successful completion may also be factored into the admission review.
7. Interview, if required by the department's admission committee.

Admission to the Ph.D. program is granted once per annum for the Fall semester.

Alternative Ph.D. Admission Tracks

The Admissions Committee reviews candidates' admission applications, which includes their G.P.A., three letters of recommendation, two writing samples, a statement of professional goals, test scores, and work experience. Should a candidate fall below the 3.5 minimum G.P.A., three alternative admissions tracks are possible. Regardless of the track employed, each applicant must meet acceptable standards as reviewed by the Admissions Committee.

1. GPA 3.4 - 3.49 and one of the following:
   a. Excellent writing sample
   b. Excellent work experience
2. GPA 3.1 - 3.39 along with all of the following:
   a. Excellent writing sample
   b. Excellent work experience
   c. An oral and/or written competency examination.
3. GPA 3.0 - 3.09 and all of the following:
   a. Excellent writing sample
   b. Public and private sector management experience above ten years
   c. An oral and/or written competency examination

For the writing sample, excellence assessment is defined by a committee's assessment that the sample would be awarded a minimum of a B+ in a first-year Ph.D. course. Excellent work experience is defined as a combination of duration in position and rank. Excellence is awarded to any combination of the following:

1. Four (4) or more years of (4 year-college) teaching experience in a management field at the instructor level or above and excellent performance evaluations.
2. Four (4) or more years as a senior executive (C.E.O., C.O.O., V.P., Facility Manager, or Department Head) of an organization employing ten or more FTEs requiring executive-level skills such as fiscal and human resource management.
3. Eight (8) or more years of public sector employment in mid-level or higher positions. The committee may consider combinations of the above. Oral and/or written interviews are required for admission to the doctoral program if requested by the program's admission committee.

Deficiencies

Students who matriculate successfully in the Ph.D. Program in Public Administration must demonstrate a knowledge base of the American intergovernmental system, research methodology and computer applications, and fiscal resource and budgeting administration. Persons entering the program from academic disciplines without these subjects will be administered preliminary exams or other evaluative methods to determine the need for compensatory work. Compensatory work will not be counted toward the major program of students.

Degree Requirements

A minimum of 48 semester hours above the Master's degree, plus 12 hours in dissertation credits, is required to complete the Ph.D. in Public Administration coursework. The 48 semester hours are divided as follows:

- 24 hours of public administration core courses
- 12 hours of urban management concentration courses
- 12 hours of elective concentration courses
- 12 hours of dissertation (which may be counted toward the degree)

The three elective concentration areas are:

- Policy Analysis
- Program Management
- Environmental Management and Planning.

Program Management

Code	Title	Hours
Public Administration Core		
PPAD 705	THE SCOPE OF PUBLIC ADMIN	3
PPAD 707	MNGT OF INFORMATION SYSTEMS	3
PPAD 748	PUB PERSONNEL HUM RES ADMIN	3
PPAD 760	FINANCIAL MNGT TO PUBLIC ORGN	3
PPAD 776	THEORIES OF PUBLIC ORGNZTN	3
PPAD 777	PUBLIC POLICY FORMU & IMPLEMTN	3
PPAD 796	ADVANCED RESEARCH METHODS I [1]	6
Urban Management Concentration		
Select 12 hours from the following:		12
PPAD 712	URBAN MNGT AND URBAN SRVCS	
PPAD 718	SEMINAR IN STATE POLITICS	
PPAD 525/725	URBAN POLITICS	
PPAD 782	SEM IN PROG DEVLPMNT AND EVAL	
PPAD 786	URBAN PROBLMS& NON-TRAD OPTS	
PPAD 585/785	SEMINAR IN URBAN PROBLEMS [2]	
PPAD 712	URBAN MNGT AND URBAN SRVCS	
PPAD 725	URBAN POLITICS AND POLICIES	
PPAD 514/714	PROB OF COUNTY ADMINSTRN	
PPAD 519/719	PROB OF STATE ADMINSTRAT	
PS 537	URBANIZTN SOC CHG & POLI	
SOC 620	COMMUNITY ANALYSIS	
Program Management Concentration		
Select 12 hours from the following:		12
PPAD 700	HEALTH CARE FINANCE AND ADM	
PPAD 708	SEM IN CONTEM TPCS IN PUBL ADM	
PPAD 709	SEMINAR IN EXECUTIVE LDRSHP [2]	
PPAD 736	THE ADMIN OF HEALTH AGENCIES	
PPAD 750	STATE & LOC GOVT BUD&FIN	
PPAD 770	ADMIN OF NON-PROFIT ORGANIZA	
PPAD 781	SEM IN COMMUNITY DEV & ECO DEV	
PPAD 782	SEM IN PROG DEVLPMNT AND EVAL [2]	
Dissertation		
Twelve hours of dissertation (which may be counted toward the degree)		12
Total Hours		**60**

[1] Six hours include Advanced Research Methods I and II

[2] Required Course: Unless granted an exemption, one must take at least six hours in concentration before enrolling in a seminar course.

Policy Analysis

Code	Title	Hours
Public Administration Core		
PPAD 705	THE SCOPE OF PUBLIC ADMIN	3
PPAD 707	MNGT OF INFORMATION SYSTEMS	3
PPAD 748	PUB PERSONNEL HUM RES ADMIN	3
PPAD 760	FINANCIAL MNGT TO PUBLIC ORGN	3
PPAD 776	THEORIES OF PUBLIC ORGNZTN	3
PPAD 777	PUBLIC POLICY FORMU & IMPLEMTN	3
PPAD 796	ADVANCED RESEARCH METHODS I [1]	3
Urban Management Concentration		
Select 12 hours from the following:		12
PPAD 712	URBAN MNGT AND URBAN SRVCS	
PPAD 718	SEMINAR IN STATE POLITICS	
PPAD 525/725	URBAN POLITICS	
PPAD 782	SEM IN PROG DEVLPMNT AND EVAL	
PPAD 786	URBAN PROBLMS& NON-TRAD OPTS	
PPAD 585/785	SEMINAR IN URBAN PROBLEMS [2]	
PPAD 712	URBAN MNGT AND URBAN SRVCS	
PPAD 725	URBAN POLITICS AND POLICIES	
PPAD 514/714	PROB OF COUNTY ADMINSTRN	
PPAD 519/719	PROB OF STATE ADMINSTRAT	
PS 537	URBANIZTN SOC CHG & POLI	
Policy Analysis Concentration		
Select 12 hours from the following:		12
PPAD 706	QUANTITATIVE METHODS	
PPAD 708	SEM IN CONTEM TPCS IN PUBL ADM	
PPAD 709	SEMINAR IN EXECUTIVE LDRSHP [2]	
PPAD 710	EPDMLGY &TOXICO FOR PUB MNGRS	
PPAD 759	SEM IN PUBLIC POLICY ANALYSIS [2]	
PPAD 782	SEM IN PROG DEVLPMNT AND EVAL [2]	
New Courses		
Dissertation		
Twelve hours of dissertation (which may be counted toward the degree)		12
Total Hours		**57**

[1] Six hours include Advanced Research Methods I and II.
[2] Required Course: Unless granted an exemption, one must take at least six hours in concentration before enrolling in a seminar course.

Environmental Management and Planning

Code	Title	Hours
Public Administration Core		
PPAD 705	THE SCOPE OF PUBLIC ADMIN	3
PPAD 707	MNGT OF INFORMATION SYSTEMS	3
PPAD 748	PUB PERSONNEL HUM RES ADMIN	3
PPAD 760	FINANCIAL MNGT TO PUBLIC ORGN	3
PPAD 776	THEORIES OF PUBLIC ORGNZTN	3
PPAD 777	PUBLIC POLICY FORMU & IMPLEMTN	3
PPAD 796	ADVANCED RESEARCH METHODS I [1]	3
Urban Management Concentration		
Select 12 hours from the following:		12
PPAD 712	URBAN MNGT AND URBAN SRVCS	
PPAD 718	SEMINAR IN STATE POLITICS	
PPAD 525/725	URBAN POLITICS	
PPAD 782	SEM IN PROG DEVLPMNT AND EVAL	
PPAD 786	URBAN PROBLMS& NON-TRAD OPTS	
PPAD 585/785	SEMINAR IN URBAN PROBLEMS [2]	
PPAD 712/785	URBAN MNGT AND URBAN SRVCS [2]	
PPAD 725	URBAN POLITICS AND POLICIES	
PPAD 514/714	PROB OF COUNTY ADMINSTRN	
PPAD 519/719	PROB OF STATE ADMINSTRAT	
PS 537	URBANIZTN SOC CHG & POLI	
Environmental Management and Planning Concentration		
Select 12 hours from the following:		12
PPAD 760	FINANCIAL MNGT TO PUBLIC ORGN [1]	
PPAD 709	SEMINAR IN EXECUTIVE LDRSHP [1]	
PPAD 781	SEM IN COMMUNITY DEV & ECO DEV [2]	
PPAD 710	EPDMLGY &TOXICO FOR PUB MNGRS	
BIO 501	ENVIRONMENTAL SCIENCE	
ITHM 529	ENV TOXICOLOGY & RISK ASSESSME	
Dissertation		
Twelve hours of dissertation (which may be counted toward the degree)		12
Total Hours		**57**

[1] Six hours include Advanced Research Methods I and II.
[2] Required Course: Unless granted an exemption, one must take at least six hours in concentration before enrolling in a seminar course.

Other Courses

Code	Title	Hours
PPAD 798	DISSERTATION	3-6
PPAD 799	INDEPENDENT STUDY	1-3

Qualifying Exam

A qualifying exam must be taken by students after 18-21 hours of course work in selected courses (see Policy and Procedure Manual). This examination will determine the feasibility of a student continuing pursuit of the doctoral degree in Public Policy and Administration.

Students who do not pass the qualifying exam will be asked to exit the program.

Comprehensive Exam

The Graduate Faculty will administer a Comprehensive Exam. The student is expected to use the examination to creatively demonstrate his/her ability to integrate the various fields of study effectively and apply them to his/her professional area. The Comprehensive Examination will be administered upon completion of course work and before submitting a dissertation proposal.

Dissertation and Defense

To be awarded the Doctor of Philosophy in Public Administration degree, the candidate will be required to present and have approved a dissertation on a pertinent research problem in his/her area of concentration and pass an oral examination in defense of the research. The student's plan for independent research will be developed with the assistance and active participation of the student's dissertation committee. The dissertation must demonstrate the student's competency in scholarly research.

Graduation Requirements

1. Completion of 48 hours of coursework.
2. Passage of the qualifying examination. (*Given Fall, Spring, and Summer*)
3. Passage of the comprehensive examination. (*Given Fall and Spring only*)
4. Maintenance of a G.P.A. of not lower than 3.0 with no more than two grades of C.
5. Completion and Defense of the Dissertation.
6. Proposal and Dissertation.

Sample Matriculation Schedule of a Typical Ph.D. Student

Semester I

Code	Title	Hours
PPAD 705	THE SCOPE OF PUBLIC ADMIN (C)	3
PPAD 760	FINANCIAL MNGT TO PUBLIC ORGN	3
PPAD 796	ADVANCED RESEARCH METHODS I (C)	3
Total Hours		**9**

Semester II

Code	Title	Hours
PPAD 777	PUBLIC POLICY FORMU & IMPLEMTN (C)	3
PPAD 796	ADVANCED RESEARCH METHODS I (C)	3
PPAD 776	THEORIES OF PUBLIC ORGNZTN	3
PPAD 781	SEM IN COMMUNITY DEV & ECO DEV	3
PPAD 782	SEM IN PROG DEVLPMNT AND EVAL	3
PPAD 785	SEMINAR IN URBAN PROBLEMS	3
PPAD 786	URBAN PROBLMS& NON-TRAD OPTS	3
Total Hours		**21**

Semester III

Code	Title	Hours
PPAD 707	MNGT OF INFORMATION SYSTEMS	3
Qualifying Examination to be taken		
Total Hours		**3**

Semester IV

Submission of the student's Plan of Study

Semester V and VI

In subsequent semesters, the typical student will complete the urban concentration and elective concentration. Students must sit for the Graduate Area Comprehensive Examination after all coursework.

Semester VII to X

Upon successful passage of the Graduate Area Comprehensive Examination, the dissertation is initiated. After the dissertation is written and completed, the student graduates.

Public Policy and Administration (M.P.P.A.)

Dr. Gloria J. Billingsley, Professor and Interim Chair
101 West Capitol Street, Jackson, MS 39201
(601) 979-8784
Webpage: https://www.jsums.edu/publicpolicy/# (https://www.jsums.edu/publicpolicy/)

Faculty

Dr. G. Billingsley, Professor,
Dr. J. Gilleylen, Sr., Associate Professor
Dr. B. Odunsi, Professor
Dr. C. Robinson, Associate Professor
Dr. J. Ko, Associate Professor
Dr. A. Hines, Associate Professor
Dr. Ester Stokes, Assistant Professor

This program offers a Master of Public Policy and Administration (MPPA) degree and a Doctor of Philosophy (Ph.D.) in Public Administration. The Program of Public Policy and Administration seeks to prepare students for significant professional managerial and leadership positions. The curriculum is designed to equip students with the skills of contemporary public management, provide a broad understanding of the role of administration in the decision-making process, and provide a sound foundation in ethics.

Accreditation

The Department of Public Policy and Administration programs are accredited and rostered by the Network of Schools of Public Policy, Affairs and Administration (NASPAA).

Educational Philosophy

The effort to allocate resources and the administration of the allocation of resources is as old as the history of humankind residing communally. However, the academic discipline of American Public Administration is a comparatively new discipline, tracing its beginning to the late 1800s.
From that time to the present, the discipline of Public Administration has been linked, perhaps more than many others, to the ideological foundations of the American intergovernmental system. The major focus of any public administration program of quality has been on the administration of resources with equity. Indeed, the public servant then becomes the noblest of all professions, practicing the noblest art. The nobility of public service, the underpinnings of equity, and the allocation of resources with equity are the ethos that drives the philosophy of learning in the Public Policy and Administration Programs at Jackson State. It is this philosophy that we seek to engender in the P.P.A. student. The Program of Public Policy and Administration is the principal historical unit at Jackson State University which educates persons primarily for careers in public management and policy analysis and for service in public, non-profit, and "quasi" public organizations. Concomitantly, it is also the mission of the Program of Public Policy and Administration to serve as a resource to the Jackson State University community, the Jackson metropolitan area, the State of Mississippi, the nation, and developing areas throughout the world.

The Master of Public Policy and Administration Degree (MPPA)

The MPPA program seeks to prepare students for significant professional and managerial positions in the public and non-profit sectors. The curriculum is designed to equip students with the necessary skills of contemporary public management, provide a broad understanding of the role of administration in the policy process, and provide a sound foundation in ethics. Thus, our MPPA program seeks to:

1. Provide a cadre of highly trained individuals who are committed to the notion of public service in a variety of organizational settings;
2. Develop advanced educational opportunities for students of public administration in an urban environment where a multiplicity of governmental opportunities, interactions, and practices can be observed;
3. Fill the need for public, quasi-governmental, and non-profit high-level executive management which exists in the State of Mississippi, the nation, and the world, particularly as this need relates to minorities and women; and
4. Serve as a resource to the greater community.

Program Objective

The Master of Public Policy and Administration degree is designed to prepare students for significant professional and managerial positions, primarily in public agencies, governmental departments, non-profit, and other administrative entities.

Admission Requirements

Students wishing to enter the program must have a B.A. or B.S. from an accredited college or university. Students must have a 3.0 cumulative G.P.A. for unconditional admission. Program applicants should submit three letters of recommendation (at least two academic references), academic transcripts, career goals statement, and a university application. The department may require an oral and/or written interview.

Alternative Admission Track

The Department of Public Policy and Administration program has developed an "alternative admission track" for the MPPA degree program for students who do not meet the general admission requirement. The track establishes other criteria for gaining entry into the program.

1. The applicant must have graduated at least three years prior to admission.
2. The applicant must have a full-time employment history of at least three years.
3. The applicant must provide a rationale in writing, as a part of the career goals essay, which demonstrates to the Admission Committee that the applicant's prior history in academia is not indicative of their graduate potential.
4. The applicant must enroll in nine hours of MPPA core/concentration courses, three enhancement hours, and obtain a 3.00 G.P.A. in the first semester of enrollment.
5. The applicant must attend a personal interview if requested by the Admission Committee.

Program Curriculum

Students must maintain an overall 3.0 G.P.A. (4.0 scale) in PPAD courses and complete the following in order to earn the Master of Public Policy and Administration degree:

Thesis Option: 39 Hours

1. Complete 18 hours of required courses.
2. Complete 12 hours of coursework in one of eight areas of general public administration
3. Take at least one (1) three-(3) hour course elective.
4. Complete 3-6 hours of internship or additional coursework if the student is in-service.
5. Take and pass a comprehensive examination. *(Given Spring and Fall only)*
6. Write and defend a thesis orally (3-6 hours).

Non-Thesis Option: 45 Hours

1. Complete 18 hours of required courses.
2. Complete 12 hours of coursework in one of eight (8) specialized areas of general public administration.
3. Take at least one (1) three-(3) hour course elective.
4. Complete six (6) hours of internship or additional coursework if in services.
5. Take and pass a comprehensive examination. *(Given Spring and Fall only)*
6. Take six (6) additional hours (3 hours in a skill-based or research methods course and 3 hours in the area of specialization).

Specializations

Students have the opportunity to pursue the following program specializations:

- Public Finance Administration
- Health Care Administration
- Community and Economic Development
- Judicial Administration
- Human Resource Management
- General Management
- State and Local Government
- Environmental Management, Planning & Policy

Students who enter the program without understanding the American Intergovernmental System, Research Methodology or Computer Applications to Management will have to take compensatory coursework that may not count towards the degree.

Only students admitted to a degree program may enroll in the Core Courses without prior approval.

Code	Title	Hours
Core Courses		
PPAD 505	PRIN OF PUBLIC ADMINISTRATION	3
PPAD 548	PUBLIC PERSONNEL ADMINST	3
PPAD 549	PUBLIC FINANCE ADMINSTRA	3
PPAD 551	PUBLIC POLICY	3
PPAD 576	THEORIES OF ADMINISTRATION	3
PPAD 596	RESEARCH FOR PUBLIC MANAGEMENT	3
Total Hours		**18**

For additional information and requirements, please see the MPPA Policy and Procedures Manual.

Curriculum Plans

1. **General Management: Thesis Option**
   Full-Time Plan: Two Years with Summer

Course	Title	Hours
First Year		
Fall		
PPAD 505	PRIN OF PUBLIC ADMINISTRATION	3
PPAD 551	PUBLIC POLICY	3
PPAD 596	RESEARCH FOR PUBLIC MANAGEMENT	3
	Hours	**9**
Spring		
PPAD 548	PUBLIC PERSONNEL ADMINST	3
PPAD 549	PUBLIC FINANCE ADMINSTRA	3
Concentration Course		3
	Hours	**9**
Summer		
Concentration Course		3
	Hours	**3**
Second Year		
Fall		
PPAD 576	THEORIES OF ADMINISTRATION	3
Concentration Course		3
Concentration, Internship or Elective		3
	Hours	**9**
Spring		
PPAD 598	THESIS	3
Concentration, Internship, or Elective		3
	Hours	**6**
	Total Hours	**36**

2. **General Management: Non-Thesis Option**
   Full Time Plan: Two Years with Summers

Course	Title	Hours
First Year		
Fall		
PPAD 505	PRIN OF PUBLIC ADMINISTRATION	3
PPAD 551	PUBLIC POLICY	3
PPAD 596	RESEARCH FOR PUBLIC MANAGEMENT	3
	Hours	**9**
Spring		
PPAD 548	PUBLIC PERSONNEL ADMINST	3

PPAD 549	PUBLIC FINANCE ADMINSTRA	3
Concentration Course		3
	Hours	**9**
Summer		
PPAD 707	MNGT OF INFORMATION SYSTEMS	3
Concentration, Internship or Elective		3
	Hours	**6**
Second Year		
Fall		
PPAD 549	PUBLIC FINANCE ADMINSTRA	3
PPAD 576	THEORIES OF ADMINISTRATION	3
Concentration, Internship or Elective		3
	Hours	**9**
Spring		
PPAD 597	INTERNSHIP	3
Advanced Concentration Elective		3
Concentration or Elective		3
	Hours	**9**
Summer		
Concentration, Internship or Elective		3
	Hours	**3**
	Total Hours	**45**

3. **General Management: Thesis Option**
Part Time Plan: Three Years with Summers

Course	Title	Hours
First Year		
Fall		
PPAD 505	PRIN OF PUBLIC ADMINISTRATION	3
PPAD 596	RESEARCH FOR PUBLIC MANAGEMENT	3
	Hours	**6**
Spring		
PPAD 548	PUBLIC PERSONNEL ADMINST	3
PPAD 551	PUBLIC POLICY	3
	Hours	**6**
Summer		
PPAD 597	INTERNSHIP	3
Concentration Course		3
	Hours	**6**
Second Year		
Fall		
PPAD 549	PUBLIC FINANCE ADMINSTRA	3
PPAD 576	THEORIES OF ADMINISTRATION	3
	Hours	**6**
Spring		
Concentration		
PPAD 509	SEM IN EXECUTIVE LEADERSHIP	3
Concentration Course		3
	Hours	**6**
Summer		
PPAD 521	BLACK PERSPECTV & PUBL ADM SYS	3
	Hours	**3**
Third Year		
Fall		
PPAD 549	PUBLIC FINANCE ADMINSTRA	3
	Hours	**3**
Spring		
PPAD 549	PUBLIC FINANCE ADMINSTRA	3
	Hours	**3**
	Total Hours	**39**

4. **General Management: Non-Thesis Option**
Part-Time Plan: Three Years with Summers

Course	Title	Hours
First Year		
Fall		
PPAD 505	PRIN OF PUBLIC ADMINISTRATION	3
PPAD 596	RESEARCH FOR PUBLIC MANAGEMENT	3
	Hours	**6**
Spring		
PPAD 548	PUBLIC PERSONNEL ADMINST	3
PPAD 551	PUBLIC POLICY	3
	Hours	**6**
Summer		
Concentration		
PPAD 525	URBAN POLITICS	3
PPAD 597	INTERNSHIP	3
	Hours	**6**
Second Year		
Fall		
PPAD 549	PUBLIC FINANCE ADMINSTRA	3
PPAD 576	THEORIES OF ADMINISTRATION	3
	Hours	**6**
Spring		
PPAD 509	SEM IN EXECUTIVE LEADERSHIP	3
PPAD 770	ADMIN OF NON-PROFIT ORGANIZA	3
	Hours	**6**
Summer		
Elective		3
	Hours	**3**
Third Year		
Fall		
PPAD 521	BLACK PERSPECTV & PUBL ADM SYS	3
PPAD 597	INTERNSHIP	3
	Hours	**6**
Spring		
PPAD 707	MNGT OF INFORMATION SYSTEMS	3
Advanced Elective		3
	Hours	**6**
	Total Hours	**45**

Sociology (M.A.) Concentraton in Alcohol/Drug Studies

Code	Title	Hours
Core Courses		
SOC 503	HIST&PHIL OF ALCOHOLISM	3
SOC 513	ELEM SOCIAL STATISTICS	3
SOC 588	INTERVENTIVE METHODS I	3
SOC 590	PRACTCM&INTERGRATV SEMIN	5
SOC 600	MASTERS THESIS	6
HE 500	DRUG ABUSE EDUCATION	3
Sociology Elective		4
Special Skills Area		
Select one of the following tracks:		9
Counseling		
SOC 589	INTERVENTIVE METHODS II	
COUN 520	PRINCIPLES & TECHNQ OF CNSLNG	

COUN 526	DYNAMICS OF GROUP PROCESSING	
Planning and Administration		
SOC 620	COMMUNITY ANALYSIS	
MNGT 502	HUMAN RELATIONS & ORGAN BEHAVI	
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	
Public Information		
SOC 620	COMMUNITY ANALYSIS	
JMS 571	PUBLIC RELATIONS PRACTICE	
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	
Total Hours		**36**

Sociology (M.A.) Concentraton in Alcohol/Drug Studies Non-Thesis

Code	Title	Hours
Core Courses		
SOC 503	HIST&PHIL OF ALCOHOLISM	3
SOC 513	ELEM SOCIAL STATISTICS	3
SOC 538	SOC PSY OF DEVIANT BEHAV	3
SOC 588	INTERVENTIVE METHODS I	3
SOC 590	PRACTCM&INTERGRATV SEMIN	5
SOC 592	CRIME & SUBSTANCE ABUSE	3
HE 600	PUBLIC & COMM HEALTH	3
HE 500	DRUG ABUSE EDUCATION	3
Special Skills Area		
Select one track from the following:		12
Counseling		
SOC 589	INTERVENTIVE METHODS II	
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	
COUN 520	PRINCIPLES & TECHNQ OF CNSLNG	
COUN 526	DYNAMICS OF GROUP PROCESSING	
Planning and Adminstration		
SOC 589	INTERVENTIVE METHODS II	
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	
SOC 620	COMMUNITY ANALYSIS	
MNGT 502	HUMAN RELATIONS & ORGAN BEHAVI	
Public Information		
SOC 589	INTERVENTIVE METHODS II	
COUN 517	LIFESTYLES & CAREER DEVELOPMNT	
SOC 620	COMMUNITY ANALYSIS	
JMS 571	PUBLIC RELATIONS PRACTICE	
Total Hours		**38**

Sociology (M.A.) Non-Thesis Option

Department Chair: Dr. Thomas Kersen (Interim)
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Faculty
Dr. C. McNeil, Professor
Dr. E. Morgan, Associate Professor
Dr. T. Kersen, Associate Professor
Dr. X. Su, Assistant Professor

The Sociology program offers the Master of Arts Degree in Sociology and the Master of Arts Degree in Sociology with emphasis in Alcohol and Drug Studies.

Mission

The missions of the department are to provide learning experiences that will enable the sociology student to analyze, synthesize, and evaluate sociological concepts and research. Marketable skills such as effective written and oral communication, problem solving, and familiarity with quantitative and qualitative methodologies will be emphasized. Students will learn to use their sociological imagination to study emerging social issues such as globalization and modernization. Students will these skills are highly sought after in various parts of the labor market such as social service agencies, correctional systems and research institutions.The M.A. program is also designed to provide adequate training to pursue a doctoral program at other universities. The M.A. in Sociology with Emphasis in Alcohol and Drug Studies Program is designed to develop a manpower pool for service delivery in the human services profession with emphasis on the training of alcohol and drug counselors. This program also provides planning, management and public information expertise to the general public. Specialists in the field of substance abuse and human services engaged in the applied research develop and test theories on the nature
and extent of alcohol and drug abuse problems.

Program Objectives

- The purposes and intent of the graduate programs in Sociology are careers and human services oriented. As such, the objectives are to:
- Use the social scientific approach to study problems and locate possible solutions.
- Provide ample opportunities for students to write and present research from a sociological perspective.
- Challenge students to analyze, synthesize, and evaluate sociological concepts and theories.
- Familiarize students about quantitative, qualitative and mixed-method approaches.
- Prepare teachers for community colleges or further graduate studies.
- Prepare counselors for Alcohol and Drug abuse centers and programs.

Admission Requirements

The program for the Master of Arts Degree in Sociology is open to those who have completed the Bachelor of Arts Degree in Sociology or its equivalent from an accredited institution. All applicants are required to submit a satisfactory score on the Graduate Record Examination (GRE), three letters of recommendation and a statement of purpose. Students without a background in Sociology must take competency courses before taking courses in the degree program. Applicants will only be admitted once a year during the Fall Semester. The department requires that students have a 3.0 grade point average.

Degree Requirements

Non-Thesis: A total of 36 semester hours are required for the M.A. Each student is required to complete 15 semester hours of core courses, 6 semester hours of electives in the field and 15 hours of general electives

(500 level). A written comprehensive examination must be taken and successfully passed following the completion of core courses.

Code	Title	Hours
Core Courses		
SOC 505	HISTORY OF SOCIOLOGY	3
SOC 507	RECENT SOCIAL THEORY	3
SOC 512	MTHDS OF SOCIAL RESEARCH	3
SOC 513	ELEM SOCIAL STATISTICS	3
SOC 622	RESEARCH AND STATISTICS	3
Electives		6
Electives (500 level)		15
Total Hours		**36**

Sociology (M.A.) Thesis Option

Department Chair: Dr. Thomas Kersen (Interim)
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The Sociology program offers the Master of Arts Degree in Sociology and the Master of Arts Degree in Sociology with emphasis in Alcohol and Drug Studies.

Mission

The missions of the department are to provide learning experiences that will enable the sociology student to analyze, synthesize, and evaluate sociological concepts and research. Marketable skills such as effective written and oral communication, problem solving, and familiarity with quantitative and qualitative methodologies will be emphasized. Students will learn to use their sociological imagination to study emerging social issues such as globalization and modernization. Students will these skills are highly sought after in various parts of the labor market such as social service agencies, correctional systems and research institutions. The M.A. program is also designed to provide adequate training to pursue a doctoral program at other universities. The M.A. in Sociology with Emphasis in Alcohol and Drug Studies Program is designed to develop a manpower pool for service delivery in the human services profession with emphasis on the training of alcohol and drug counselors. This program also provides planning, management and public information expertise to the general public. Specialists in the field of substance abuse and human services engaged in the applied research develop and test theories on the nature and extent of alcohol and drug abuse problems.

Program Objectives

The purposes and intent of the graduate programs in Sociology are careers and human services oriented. As such, the objectives are to:

- Use the social scientific approach to study problems and locate possible solutions.
- Provide ample opportunities for students to write and present research from a sociological perspective.
- Challenge students to analyze, synthesize, and evaluate sociological concepts and theories.
- Familiarize students about quantitative, qualitative and mixed-method approaches.
- Prepare teachers for community colleges or further graduate studies.
- Prepare counselors for Alcohol and Drug abuse centers and programs.

Admission Requirements

The program for the Master of Arts Degree in Sociology is open to those who have completed the Bachelor of Arts Degree in Sociology or its equivalent from an accredited institution. All applicants are required to submit a satisfactory score on the Graduate Record Examination (GRE), three letters of recommendation and a statement of purpose. Students without a background in Sociology must take competency courses before taking courses in the degree program.

Applicants will only be admitted once a year during the Fall Semester. The department requires that students have a 3.0 grade point average.

Degree Requirements

Thesis: A total of 36 semester hours are required for the M.A. Each student must complete 24 semester hours of core courses, six (6) semester hours of electives, and six (6) semester hours of thesis writing. A written comprehensive examination must be taken **and successfully passed** following the completion of the core courses. A student must write and defend a thesis to the Thesis Committee for approval.

Code	Title	Hours
SOC 505	HISTORY OF SOCIOLOGY	3
SOC 507	RECENT SOCIAL THEORY	3
SOC 512	MTHDS OF SOCIAL RESEARCH	3
SOC 513	ELEM SOCIAL STATISTICS	3
SOC 622	RESEARCH AND STATISTICS	3
SOC 600	MASTERS THESIS	6
Electives (500 level)		15
Total Hours		**36**

Social Science (M.A.)

The Master of Social Science is designed for individuals who desire to take an interdisciplinary approach – drawing on several disciplines – to study a problem or expand their knowledge of social sciences. The degree program is designed to provide the theoretical knowledge, foundational research methods, and to emphasize the critical and analytical thinking skills that graduates need to become informed and socially conscious members of the workforce such as historical consciousness, social science inquiry, diversity, and social values. Given the program's emphasis on critical and analytical thinking, upon the completion of this program, graduates are well positioned to expand their graduate studies in other areas.

Program Objectives

The purposes and intent of the graduate program in Social Science are careers and human services oriented. As such, the objectives are to:

- Expose the student to a variety of courses in the social sciences to enhance their knowledge in the various themes offered in the tracks
- Use the social scientific approach to study problems and locate possible solutions.
- Challenge students to analyze, synthesize, and evaluate concepts and theories in the social sciences
- Familiarize students about quantitative, qualitative and mixed-method approaches.

- Prepare teachers for community colleges or further graduate studies.
- Offer tracks in Historical Perspectives of the Social Sciences, Critical Study of Social Sciences, and Women Studies.

Admission Requirements

The admission requirement for this degree program is the completion of a four-year degree with a minimum grade point average of 2.7 GPA from an accredited college or university. Applicants are also required to submit two (2) letters of recommendation and a personal statement for consideration.

Degree Requirements

The curriculum is derived primarily from the social science disciplines, such as history, political science, psychology, and sociology, but are integrated with other disciplines including English, fine arts, and communication. Courses from the disciplines of sociology, political science, and history provide students with a graduate-level interdisciplinary theoretical and methodological foundation.

Code	Title	Hours
SOC 502	THEORIES OF CRIME DELING	3
HIST 545	HIST CRITIC & HIST-GRAPH	3
PS 512	BLACK POLITICAL THOUGHT	3
PS 507	POLITCL INQUIRY & RESEAR	3
SOC 512	MTHDS OF SOCIAL RESEARCH	3
HIST 505	INTRO TO PUBLI HIST STUD	3
Interdisciplinary Humanities Workshop		3
Electives (from designated tracks)		9
Total Hours		**30**

Designated Tracks

Track 1: Historical Perspectives of the Social Sciences
Track 2: Critical Study of Social Sciences
Track 3: Women Studies

College of Science, Engineering, and Technology

Dr. Wilbur Walters, Professor and Dean
Dr. Ramzi M. Kafoury, Associate Professor and Associate Dean
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Departments/Programs

- Department of Biology
- Department of Chemistry, Physics and Atmospheric Sciences
- Department of Civil and Environmental Engineering, and Industrial Systems and Technology
- Department of Electrical and Computer Engineering, and Computer Science
- Department of Mathematics and Statistical Sciences
- Graduate Engineering Programs
- Interdisciplinary Computational Data-Enabled Science and Engineering
- Department of Urban and Regional Planning

The College of Science, Engineering, and Technology (CSET) was authorized in 2002, through an academic reorganization plan that combined the School of Science and Technology with the School of Engineering. The focal point of CSET's vision is the preparation of highly qualified and competitive graduates. Academic programs help to fulfill this vision, which is complemented by a faculty with a rich diversity of recognized scholars, and scientists who have established reputations around the world. A capable and energetic administration, with a well trained staff, is in place to provide the knowledge, support and experiences required to ensure and enhance productivity in the academic environment.

- Department of Biology (p. 104)
- Department of Chemistry, Physics and Atmospheric Sciences (p. 111)
- Department of Civil and Environmental Engineering and Industrial Systems and Technology (p. 115)
- Department of Electrical and Computer Engineering and Computer Science (p. 117)
- Department of Mathematics and Statistical Sciences (p. 121)
- Department of Urban and Regional Planning (p. 126)
- Graduate Engineering Program (p. 132)
- Interdisciplinary Computational Data-Enabled Science and Engineering (p. 145)

Department of Biology

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Faculty

Dr. H. A. Ahmad, Professor
Dr. I. Farah, Professor
Dr. B. Graham, Associate Professor
Dr. C. Howard, Professor
Dr. H. C. Huang, Assistant Professor
Dr. N. Ibrahim, Assistant Professor
Dr. R. Kafoury, Associate Professor
Dr. R. Kulawardhana, Assistant Professor
Dr. A. Mbemi, Assistant Professor
Dr. K. Ndebele, Associate Professor
Dr. F. Noubissi, Assistant Professor
Dr. M. Pacurari, Associate Professor
Dr. A. Patlolla, Assistant Professor

Dr. J. Stevens, Professor
Dr. Tammie Taylor, Assistant Professor
Dr. Brent Thoma, Assistant Professor

Masters

- Biology (M.S.) (p. 107)

Doctoral

- Environmental Science (Ph.D.) (p. 109)

Course Descriptions

BIO 501 ENVIRONMENTAL SCIENCE (3 Hours)
An introductory course for non-major graduate students dealing with the science of the environment and man's relationships through political, social, economic, and ethical processes.

BIO 506 HUMAN ENVIRONMENT & NATURL SYS (3 Hours)
Emphasis placed on fundamental problems that confront man from day to day. Topics among others for discussion are ecology, population, energy, food, transportation and land pollution.

BIO 507 BIOLOGY FOR ELEMENTARY TEACHER (3 Hours)
Prerequisite: None.
The application of biological procedures and techniques at the elementary school level with emphasis on selected topics in biology.

BIO 509 GENERAL GENETICS (3 Hours)
Prerequisite: ; Bio 318.
A study of the principal concepts of heredity to include the application of classical and modem genetics.

BIO 511 BIOSTATISTICS (3 Hours)
This course is designed for students in biological sciences with no advanced training in mathematics. Basic concepts in statistical methods and experimental techniques and their general applicability in biology will be stressed.

BIO 512 NATURAL RESOURCES & CONS (3 Hours)
A study of our natural resources with emphasis on their origin, properties, use and misuse and good conservation practices.

BIO 513 HUMAN NUTRITION (3 Hours)
Prerequisite: Bio 233 or 218 and CHEM 241.
Review of nutrient sources, requirements and deficiency diseases of man. Emphasis on nutritional metabolism under normal and pathological conditions, and current research.

BIO 515 MOLECULAR BIOLOGY (3 Hours)
Study of the structure, synthesis, isolation and interactions of macromolecules of biological interest.

BIO 517 MAMMALIAN PHYSIOLOGY (3 Hours)

BIO 523 ECOLOGY (3 Hours)
Prerequisite: Senior standing or consent of instructor.
A study of the tropic relationships and energy transfer in ecosystems.

BIO 530 ADVANCED MICROBIOLOGY (3 Hours)
Prerequisite: BIO 313; CHEM 242.
Special techniques for culturing microorganisms. Includes a survey of some of the important microbes in medicine, industry and public health.

BIO 531 INVERTEBRATE ZOOLOGY (3 Hours)
Prerequisite: BIO 114, CHEM 142.
Intended for students who wish to obtain a comprehensive knowledge of the invertebrates.

BIO 532 ADVANCED PARASITOLOGY (3 Hours)
Prerequisite: BIO 331; CHEM 142, 242.
The physiology of specific parasite and host-parasite relationships will be studied in great detail. Clinical specimens will be studied.

BIO 540 CELL BIOLOGY (3 Hours)
Prerequisite: BIO 111, 119 or 121, 313, and CHEM 241.
Study of cell anatomy as revealed by electron microscopy. Emphasis on bioenergetics, cell metabolism and current cell research.

BIO 550 IMMUNOLOGY & SEROLOGY (3 Hours)
The study of antibodies that are elicited in response to antigens and the difference between the protoplasm of one organism and another as reflected in the blood.

BIO 561 MOLECULAR VIROLOGY (3 Hours)
An introduction to the types of viruses that infect humans, animals, plants, and bacteria, their mode of replication, mode of swiping cellular functions, human viral diseases and viral vaccines, and drug development, and the medical and economic significance of viral diseases in public health.

BIO 570 HUMAN PHYSIOLOGY (3 Hours)
Prerequisite: BIO 115, CHEM 242.
The study of physiological processes related to the human. The physiological systems to be examined are: gastro-intestinal, renal, endocrine, neural, and reproductive.

BIO 575 ENDOCRINOLOGY (3 Hours)
Prerequisite: BIO 115, 218; CHEM 142, 242.
The basic fundamentals of endocrinology. The role of the endocrine glands and their products (hormones) in the maintenance of a constant internal environment in living organisms.

BIO 576 HISTOPATHOLOGY (3 Hours)
Prerequisite: BIO 115, 218, and 441.
Provides general consideration of the principal concepts of tissues and cellular pathology, with emphasis on human tissues and pathology. The course prepares students for further studies in medicine, dentistry, and allied health fields.

BIO 587 INDEPENDENT STUDY (2-4 Hours)
Prerequisite: Graduate standing in biology.
Students will elect a specific topic that is not covered in other biology courses. The student, working independently, will be required to submit a research paper that includes an exhaustive review of literature.

BIO 589 GRADUATE SEMINAR (1 Hour)
A course designed for survey of biological literature. The student will be required to prepare and present reports and assigned projects. Required of all students.

BIO 599 THESIS RESEARCH (1-6 Hours)
Thesis representing original research. (Required for M.S. students)

BIO 610 ENVIRONMENTAL MICROBIOLOGY (3 Hours)
The study of the roles of microorganisms in natural systems with attention given to the examination of nutrient cycles, methods of analysis of microbial biomass and activities as well as the functional roles of microorganisms.

BIO 615 PRINCIPLES OF BIOREMEDIATION (3 Hours)
This course uses modern knowledge in life sciences, as well as new developments in biotechnology to address important issues related to environmental clean-up of hazardous wastes. The nature of environmental pollution is reviewed, and basic concepts in molecular biology, biochemistry, and microbiology and plant physiology are applied to demonstrate the significance of bioremediation and phytoremediation in pollution control. Therefore, an emphasis is put on the use of biological methods and processes for the remediation of contaminated soils and water resources.

BIO 620 INDEPENDENT STUDY (1-6 Hours)
Students will elect a specific topic that is not covered in other biology courses. The student, working independently, will be required to submit a research paper that includes an exhaustive review of literature.

BIO 623 SYSMS BIO & SIGNALING NETWORKS (3 Hours)
The objectives of the Systems Biology course is to prevent methods for modeling and analyzing biological systems, in particular cellular systems. It is designed to cover intracellular processes, including enzymatic reactions, polymerization processes, gene expression, gene-environment interactions, and signal transduction. Also the course introduces mathematical modeling fundamentals, including deterministic models, includinglinear regression methods, explains the differences between linear and nonlinear regression, and illustrates how to determine input variables to improve estimation accuracy during experimental design. The material covers the process-function-behavior sequence in cells and illustrates how modeling and analysis of signal transduction units play a mediating role between process and function.

BIO 650 ANALYSIS OF HORMONE ACTION (3 Hours)
Prerequisite: Graduate status and consent of the instructor.
An analysis of the cellular mechanisms of hormone action. The role of target tissues, receptors, hormone analogs and, metabolic inhibitors in studies of hormone action will be discussed.

BIO 689 ADVD TPCS IN COMPUTATIONAL BIO (3 Hours)
The Advanced Topics in Computational Biology will introduce the students to data-driven models of molecular interaction networks and applications of discrete algorithms, data mining, and machine learning to the modeling and analysis of molecular interactions and computational disciplines in systems biology networks.

ENV 700 ENVIRONMENTAL SYSTEMS (3 Hours)
A groundwork of environmental science, environmental awareness and ecological literacy for the incoming Ph.D. students is presented. The environment and its living and non living components, and the interactions of these component areas studied. The course is set in a thermodynamic perspective and is based on a nested hierarchy of systems. Key concepts and principles that govern how we think the environment works are presented while learning how to apply these concepts to possible solutions of various environmental degradation, pollution and resource problems.

ENV 701 ENVIRONMENTAL CHEMISTRY (3 Hours)
Prerequisite: One year of general Chemistry and one year of organic chemistry.
Studies of the basic concepts of environmental chemistry; the nature of chemical compounds; organic and inorganic; chemical reactions; their effects, and fate of chemical species, in aquatic systems. This include: Studies of equilibrium phenomena of acids, bases, salts, complex compounds, and oxidation/reduction reactions. Studies of water pollution, environmental chemistry of water and its properties.

ENV 702 ENVIRONMENTAL HEALTH (3 Hours)
This course focuses on the impact of environmental problems on human health. Health issues related to water pollution/contamination by physical, chemical and biological agents; wastewater discharges; radiations; air pollution; municipal, and industrial wastes; food contamination; pesticides; occupational hazards; and vector-borne diseases are discussed.

ENV 710 ENVIRONMENTAL MICROBIOLOGY (3 Hours)

ENV 711 APPLIED ENVIRONMENTAL BIOSTATS (3 Hours)
Prerequisite: Biostatistics (Bio 511) or equivalent.
This course is designed as an applied, advanced biostatistics course for students in the Environmental Science Ph.D. Program. Students will learn how to apply important concepts and principles of environmental biostatistics in the conduct of their research, from the initial designing of experiments to proper data collection and analysis, inferences, interpretation of results in applied terms, reporting and presentation of the results. The statistical computer software (SAS) will be used to analyze and interpret results.

ENV 715 PRINCIPLES OF BIOREMEDIATION (3 Hours)
This course uses modern knowledges in life sciences, as well as new developments in biotechnology to address important issues related to environmental clean-up of hazardous wastes. The nature of environmental pollution is reviewed, and basic concepts in molecular biology, biochemistry, microbiology, and plant physiology are applied to demonstrate the significance of bioremediation and phytoremediation in pollution control. Therefore, an emphasis is put on the use of biological methods and processes for the remediation of contaminated soils and water resources.

ENV 717 INTRO TO REMOTE SENSING (3 Hours)

ENV 718 REMOTE SENSING APPLIED (3 Hours)

ENV 720 ENVNMNTL & OCCUPATION HEALTH (3 Hours)
This course explores the relationship and impact of the environment to health and illness in human populations. An exploration of man-made and natural environmental hazards will be discussed. Environmental health and risk assessment will be discussed as well as interventions. Environmental policy and practices will be viewed from the public health perspective and include the study of energy, waste, environmental justice, and regulation.

ENV 721 SOLID WASTE MANAGEMENT & TREAT (3 Hours)
This course emphasizes on waste control methodologies for both municipal and industrial wastes including hazardous and nonhazardous waste under the Resource Conservation and Recovery Act (RCRA). The students are familiarized with environmental legislation regulating these wastes at state and federal levels. A thorough review is done on waste handling, transport, treatment technologies including chemical, physical, biological and thermal treatments, and disposal options such as land disposal of wastes. Waste minimization techniques such as source reduction and recycling are also discussed.

ENV 751 WATERQUALITY MANAGEMENT (3 Hours)
This course provides students with basic concepts and principles in Water Quality Management. The effects of organic, inorganic, biological and thermal pollutants/contaminants in various systems of the hydrologic cycle including streams, reservoirs, and estuaries; eutrophication; water quality criteria and standards; monitoring concepts; methods in water quality management; regulatory considerations; and non point source pollution control, are discussed.

ENV 755 AIR QUALITY MANAGEMENT (3 Hours)
This course provides students with basic concepts and principles of air quality management. Contaminant classification, pollutant sources, criteria pollutants, health effects, exposure and risk assessment are discussed. Pollutant measurements and air quality assessment techniques are considered with regard to atmospheric effects on dispersion and transport. Identification of, and control strategies for, stationary and mobile sources, and environmental regulations are studied, and indoor air quality considered.

ENV 780 ENVIRONMENTAL EPIDEMIOLOGY (3 Hours)
This course is designed to provide students with the basic knowledge and skills required to develop and apply epidemiologic principles and concepts to the study of adverse effects of various environmental factors on both human and ecological health. Emphasis is put on the study of the health effects of physical, chemical and biologic factors in the external environment, broadly conceived from the epidemiologic point of view. As such, it enables students to interpret epidemiological data and understand the approaches used in the epidemiologic investigations of acute and chronic diseases. The course also covers the basic methods and issues involved in epidemiologic investigation of disease conditions in human populations.

ENV 800 ENVIRONMENTAL TOXICOLOGY (3 Hours)
Prerequisite: ENV 701, ENV 702.
This course is designed to provide an overview of the basic principles and concepts of toxicology including : exposure characterization, dose-response relationship, kinetics and distribution of toxicants in a biological system; to understand the fate, behavior and toxicities of xenobiotic chemicals, and the mechanisms by which they affect cells and organs; and to identify the sources and discuss the effects of various groups of environmental toxicants including heavy metals, pesticides and other industrial byproducts.

ENV 801 RISK ASSESSMENT&MANAGMNT (3 Hours)
Prerequisite: ENV 800, MATH 700.
This course is designed to provide students with qualitative and quantitative skills necessary to evaluate the probability of injury, disease and death in humans and other life forms, from exposure to various environmental contaminants. Hazard identification, exposure assessment, dose-response evaluation and risk characterization are emphasized. Regulatory and technical aspects of risk assessment in the promulgation of public and environmental safety standards are discussed.

ENV 802 ENVIRONMENTAL PHYSIOLOGY (3 Hours)
This course provides students the basic concepts of homeostasis and adaptation to the environment. Discussions are designed to provide an understanding of the physiological responses to various types of pollutants in the different environmental systems including aerospace, hyperbaric, marine and terrestrial environments. Emphasis is placed on homeostatic responses at cellular, organ and organ system levels to various environmental stresses.

ENV 803 WETLAND ECOLOGY (3 Hours)
This course is designed to provide scientific knowledge for a better understanding of interactions between biological, physical and chemical components of wetlands. The structure and function of various types of wetlands; their biodiversity, biogeochemistry, and the impact of pollution on their ecological characteristics are discussed. Discussions are also done on how constructed wetlands can be used as water quality enhancers.

ENV 805 MEDICAL GEOLOGY (3 Hours)
This course is designed to provide students with qualitative and quantitative skills necessary to examine and understand the impacts of the natural geologic materials and processes on the prevalence, incidence and distribution of human (and other animal) diseases. The course focuses on the understanding of the nature and behavior of geological factors, and the examination of their impacts on health. Hence, the course will encompass major local, national and global health issues impacted by geological materials and/or processes. It will also encompass the interactions between human activities, geological factors, environment and health, as well as the innovative technologies that are used for the characterization and impact assessment of geologic materials on health.

ENV 900 SEMINAR (0.5 Hours)
This course focuses on contemporary issues in environmental health science. The student is expected to review, discuss, and present orally a report on a topic related to contemporary environmental issues. Topic areas for selection include (but not limited to): environmental biology, environmental chemistry, environmental microbiology, environmental toxicology, atmospheric science, water quality management, solid and hazardous waste management, computer modeling and remote sensing. Students are required to attend all scheduled seminars.

ENV 989 RESEARCH PROBLEMS (6 Hours)

ENV 999 DISSERTATION RESEARCH (1-6 Hours)
Original research in one of several subdisciplines in Environmental Science. Credit per academic session allowable is 1-6 hours. Student must produce, present and defend a document of publication quality.

Biology (M.S.)

Program Overview & Admission Requirements

The Department of Biology in the College of Science, Engineering and Technology (CSET) offers graduate studies leading toward the Master of Science (M.S.) in Biology, The M.S. in Biology degree is research/coursework-oriented and designed to satisfy academic requirements for those students intending eventually to seek degree(s) beyond the master's level. There are three graduation options:

- Master of Science in Biology (Thesis Research Route);
- the Master of Science in Biology (Research Project Route), and
- the Master of Science in Biology (Coursework Route).

Programs Objectives

1. To provide advanced academic and practical training at the master's degree level,
2. To contribute to the pool of biologists and environmental scientists qualified to undertake doctoral degree programs, and to obtain employment in industry, government and academic institutions, and
3. To offer a program that will enable biology majors to obtain the necessary classroom, laboratory and/or field experiences required for entering areas in and related to biological and environmental sciences directly upon graduation.

Admissions Requirements

In addition to the requirements set forth by JSU's Graduate Studies, all applicants seeking admission to the M.S. in Biology program

in the Department of Biology must meet the following minimum admission requirements:

1. Compliance with Immunization Requirements: https://www.jsums.edu/healthservices/immunization-requirements/
2. An undergraduate (B.S.) degree in biology or related field.
3. A minimum undergraduate grade point average (GPA) of 3.00 or higher as evidenced by an official transcript from all accredited colleges and universities attended
4. Application for admission to JSU Graduate School.
5. Three letters of recommendation (sent directly to the department), at least 2 from academic professors who can assess the applicant's:
   a. academic qualifications;
   b. written and oral communication skills;
   c. capacity for critical and analytical thinking; and
   d. overall potential for graduate studies;
   Letters of recommendation form (http://www.jsums.edu/graduateschool (http://www.jsums.edu/graduateschool/).)
6. A minimum Test of English as Foreign Language (TOEFL) score of 520; and a Certified Declaration of Financial Support filed with JSU Division of International Studies-(required for international/foreign applicants).
7. A career goal essay (maximum of 800-1200 words).
8. A complete application package submitted before or on the following deadlines: March 1 for fall semester; March 15 for summer; and October 15 for spring semester. (Incomplete and late applications received after the deadlines will not be evaluated.)

Transfer of Credits

Courses for which transfer credits are sought must have been completed with a grade of "B" or better. Approval is required by the Chair of the Department.

Time Limit

No student will be granted an M.S. degree unless all requirements are completed within a period of eight (8) consecutive calendar years from the time of admission to the program.

Residence

Students are required to spend one academic year in resident study on campus. One academic year may include two consecutive regular semesters or one regular semester and one adjacent summer session. To satisfy the continuous residence requirement, the student must complete a minimum of eighteen (18) hours for the required period.

Admission to Candidacy Requirements

When a minimum of 12-15 semester hours has been completed, the student should submit an application for advancement to candidacy. Please note that students cannot be advanced to candidacy until:

1. All admission requirements have been met.
2. Notification of the program option the student is electing, or that is required.
3. All incompletes (“I” grades) have been removed.
4. The Graduate English Competency Examination (GECE) was passed, or in the event of failure, passed ENG 500 ADVANCED LAB WRITING with a grade of B or better. Please refer to the graduate Catalogue page 20 for the GECE exemption requirements.
5. Earned a 3.00 cumulative G. P. A.
6. Filed the Application for Graduate Degree Candidacy with the approval of the Candidacy Committee.

Degree Requirements

A student seeking the M.S. in Biology degree must:

1. Complete a minimum of thirty (30), thirty three (33) or thirty-six (36) semester hours based on graduation option, with a B or higher cumulative G.P.A. Six (6; BIO 599 THESIS RESEARCH) or three (3; BIO 620 INDEPENDENT STUDY) of the required semester hours must be in thesis research or graduation project respectively.
2. Pass the Graduate Area Comprehensive Examination (GACE) in 1 elective and 2 core/required courses.
3. Successfully defend the thesis before the Thesis Committee and public audience.

Master of Science in Biology

Courses available for the M.S. degree in Biology:

1. Provide advanced preparation in biological and marine sciences,
2. Provide preparation for advanced professional degrees elsewhere in zoology, plant science, marine science, environmental biology, environmental health, biomedical science, toxicology, genetics, immunology, physiology, microbiology, biochemistry, anatomy and other associated areas,
3. Support careers in industry, government and academic institutions, and
4. Provide preparation for professional degrees in medicine, dentistry, veterinary medicine, pharmacy and related health fields.

MS in Biology Curriculum

Code	Title	Hours
General Core		
BIO 511	BIOSTATISTICS	3
BIO 589	GRADUATE SEMINAR	1
Focus Core Areas		
I. Molecular and Cellular Biology		
BIO 540	CELL BIOLOGY	3
BIO 515	MOLECULAR BIOLOGY	3
CHEM 531	BIOCHEMISTRY	3
BIO 509	GENERAL GENETICS	3
II. Microbiology and Immunology		
BIO 530 & BIOL 530	ADVANCED MICROBIOLOGY and ADVANCED MICROBIOLOGY LAB	4
BIO 550	IMMUNOLOGY & SEROLOGY	3
BIO 561	MOLECULAR VIROLOGY	3
BIO 610	ENVIRONMENTAL MICROBIOLOGY	3
BIO 532	ADVANCED PARASITOLOGY	3
III. Human Physiology and Nutrition		
BIO 513	HUMAN NUTRITION	3
BIO 570	HUMAN PHYSIOLOGY	3
BIO 575	ENDOCRINOLOGY	3
IV. Environmental and Marine Sciences		
BIO 523 & BIOL 523	ECOLOGY and ECOLOGY LAB	4

BIOL 523	ECOLOGY LAB	1
BIO 513	HUMAN NUTRITION	3
BIO 615	PRINCIPLES OF BIOREMEDIATION	3
BIO 517	MAMMALIAN PHYSIOLOGY	3
Thesis/Project		
BIO 599	THESIS RESEARCH	3-6
or BIO 620	INDEPENDENT STUDY	

All students are required to meet the following requirements:

1. Degree Candidacy (GNST 500 APPS FOR GRAD DEG CAND MASTERS) after completing 12-15 hours of class work.
2. The Graduate Area comprehensive Exam (GACE; GNST 555 GRAD AREA COMP EXAM (MS LEVEL)), one from the general core and two courses from the core emphasis area.

Graduation Options

Thirty (30), Thirty-three (33), or thirty-six (36), semester hours are required for the Master of Science Degree in Biology depending upon which of the following three options, the student selects with approval of his or her department chairperson and/or
advisor.

- **Option I:** Twenty-four (24) semester hours of coursework plus a six - hour thesis research
- **Option 2:** Thirty (30) semester hours of coursework plus three-hour independent project
- **Option 3:** Thirty-six (36) semester hours of coursework

- **Option 1:** Requires a formal written thesis, formal presentation.
- **Option 2:** Requires a written Project report, formal presentation
- **Option 3:** Requires an oral exam.

Based on the graduation option, each student should take the general core (4), select one course (4 hours) from each focus areas as a general biology core (16 hours) for a total of (20 hours).

Depending on the focus area and the graduation option, student will select courses from the core area to complete the total number of hours needed for the graduation option.

Students with the approval of their advisor, department chair and the graduate dean may transfer to any of the three graduation options upon approval.

Environmental Science (Ph.D.)

Dr. Barbara Graham, Associate Professor and Director
P.O. Box 18540
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E-mail: barbara.e.graham@jsums.edu
URL: http://www.jsums.edu/esphd (http://www.jsums.edu/esphd/)

Dr. Kenneth Ndebele, Associate Professor and Assistant Director for Research
E-mail: kenneth.ndebele@jsums.edu

Faculty

(Interdisciplinary, listed by their Primary Department)

Biology

Dr. H. Ahmad, Professor
Dr. I. Farah, Professor
Dr. C. Howard, Professor
Dr. H-C. Huang, Assistant Professor
Dr. N. Ibrahim, Assistant Professor
Dr. R. Kafoury, Associate Professor
Dr. R. Kulawardhana, Assistant Professor
Dr. A. Mbemi, Assistant Professor
Dr. A. Mohamed, Professor Emeritus
Dr. F. Noubissi, Assistant Professor
Dr. A. Patolla, Assistant Professor
Dr. J. Stevens, Professor
Dr. B. Thoma, Assistant Professor

Chemistry, Physics and Atmospheric Sciences

Dr. M. Fadavi, Professor
Dr. F. Han, Professor
Dr. G. Hill, Professor
Dr. A. Hossain, Professor
Dr. S. Islam, Assistant Professor
Dr. J. Leszczynski, Presidential Distinguished Professor
Dr. Y. Liu, Professor
Dr. D. Lu, Associate Professor
Dr. P. Ray, Professor
Dr. S. Reddy, Associate Professor

Civil and Environmental Engineering and Industrial Systems and Technology

Dr. K. Ali, Professor
Dr. F. Amini, Professor
Dr. Y. Li, Associate Professor
Dr. R. Whalin, Professor

Electrical and Computer Engineering, and Computer Science

Dr. N. Meghanathan, Professor
Dr. M. Manzoul, Professor

Mathematics and Statistical Sciences

Dr. T. Kwembe, Professor

Urban and Regional Planning

Dr. B. Herbert, Associate Professor
Dr. E. Merem, Professor

Program Mission

To produce highly skilled environmental scholars who in turn will provide for policy makers and the general public, scientific and factual information derived from laboratory and field applied research encompassing basic sciences, engineering and technology. As such, it is related to the assessment of water contamination, food contamination, air pollution, global warming, toxic and hazardous substances releases and associated environmental issues; and the development of cost effective methodologies and strategies to protect the environment and human health.

Program Objectives

1. To provide graduate students with essential knowledge, skills and aptitudes needed for successful careers in environmental

science related jobs at various institutions including government agencies, academia and the environmental industry.
2. To protect the environment and human health by educating and training students on the interactions between the various components/systems of the environment, the complex and fragile nature of the environment, and how to sustain ecosystem integrity and protect human health.
3. To establish applied environmental science research initiatives that will lead to an authoritative base of knowledge concerning the State of Mississippi's environment and natural resources; by assessing and understanding the mechanisms by which physical, chemical, and biological agents generated by nature may cause alterations of ecosystem integrity, disability and diseases in man and other life forms.
4. To develop and understand cost-effective methodologies and means whereby the impact of various environmental pollutants may be prevented and/or controlled, and to integrate important knowledge and technologies in the physical, chemical, biological and social sciences needed to set policies and guidelines for appropriate utilization and management of vital resources.
5. To render services to the community through outreach programs, technology transfer for the protection of natural resources and the development of the economy, and communication to convey environmental science education to the public.

Admission Requirements

Admission to the doctoral program in Environmental Science is open to persons holding the master's degree in science, technology, engineering, or agriculture; demonstrated satisfactory performance on the Graduate Record Examination (GRE), and the Test of English as Foreign Language (TOEFL) for international students; and acceptable academic records.

All students seeking admission to this Ph.D. Program must meet the following criteria:

1. A Master's degree in natural sciences or related sciences from an accredited university. *An applicant with a Bachelor's degree only may be admitted when that student shows exceptional potential as determined by a GPA of **3.35** or better, a satisfactory GRE, and extraordinary work experience.*
2. A completed program application submitted to the Graduate School,
3. An official score on the Graduate Record Examination (GRE),
4. An overall GPA of 3.00 or above (on a 4.0 scale) on the highest earned degree,
5. Transcripts for all post secondary and graduate work attempted prior to a program application,
6. Recommendations from three major graduate professor's knowledgeable of the applicant's professional academic ability, job experiences, and leadership and research potential,
7. Acceptable evidence of a student's writing ability as determined by a writing sample,
8. A satisfactory TOEFL score for international students,
9. A successful interview with the program screening committee, and,
10. Recommendation for admission by the program screening committee.

All applications received are reviewed by a standing Environmental Science Doctoral Advisory Committee that recommends acceptance or denial of admission to the Graduate School. The Graduate School officially informs the prospective student of its decision for the University.

Transfer Credits

A maximum number of nine credit hours can be transferred into the Program. Courses for which transfer credits are sought must be at least 700-Level; must have been completed with a grade of B or better; and must be approved by the student's Advisory Committee, the Environmental Science Advisory Committee, the Dean of the College of Science, Engineering and Technology, and the Dean of the Division of Graduate Studies. Credit for thesis or dissertation research as well as "internship" course work in any form is not transferable.

Time Limit

No student will be granted a doctoral degree unless all requirements are completed within a period of ten (10) consecutive calendar years from the time of admission
to the program.

Financial Aid

Graduate research and teaching assistantships are available on a competitive basis to highly qualified students.

Residence

Students are required to spend one academic year in resident study on the campus. One academic year may include two adjacent regular semesters or one regular semester and one adjacent summer session. To satisfy the continuous residence requirement, the student must complete a minimum of eighteen (18) hours for the required period.

Candidacy Requirements

To be admitted to candidacy for the doctoral degree, a student must have:

1. Completed the formal coursework with a GPA of 3.0 or better.
2. Passed the Comprehensive Examination.
3. Filed with the Dean of the Graduate School, the dissertation proposal approved by the student's Advisory Committee, the Program Director and the Academic College Dean.

Degree Requirements

The program requires approximately two years of course work (40 semester hours) and a minimum of twenty (20) semester hours of dissertation research credit beyond the MS degree. The student's graduate committee will determine the exact program of study.

Additional requirements include:

1. Satisfactory performance on the Comprehensive Examination administered after the student has completed all course work; and,
2. Successful defense of the dissertation research. The final basis for granting the degree shall be the candidate's grasp of the subject matter in a specialized area of environmental science, and a demonstrated ability to express thoughts clearly and forcefully in both oral and written languages.

Code	Title	Hours
Required Courses		
ENV 700	ENVIRONMENTAL SYSTEMS	3
ENV 701	ENVIRONMENTAL CHEMISTRY	3
ENVL 701	ENVIRONMENTAL CHEMISTRY LAB	1-3
ENV 702	ENVIRONMENTAL HEALTH	3
ENV 711	APPLIED ENVIRONMENTAL BIOSTATS	3
ENV 751	WATERQUALITY MANAGEMENT	3
ENV 755	AIR QUALITY MANAGEMENT	3
ENV 800	ENVIRONMENTAL TOXICOLOGY	3
ENVL 800	ENVRNMNTL TOXICOLOGY LAB	1
ENV 801	RISK ASSESSMENT&MANAGMNT	3
ENV 900	SEMINAR	.5
ENV 900	SEMINAR	0.5
ENV 900	SEMINAR	0.5
ENV 900	SEMINAR	0.5
ENV 999	DISSERTATION RESEARCH	1-6
ENV 999	DISSERTATION RESEARCH	1-6
ENV 999	DISSERTATION RESEARCH	1-6
ENV 999	DISSERTATION RESEARCH	1-2
Total Hours		**32-50**

In addition to the required courses shown above, the student must complete a minimum of 12 semester hours selected from the elective courses listed below. Other electives in biological sciences, physical sciences, engineering, technology, and public policy will be added as developed.

Code	Title	Hours
Elective Courses		**12**
MATH 700	TPCS N MATH & STATS A N CDS&E	
MET 801	ENVIRONMENTAL METEOROLOGY	
ENV 715	PRINCIPLES OF BIOREMEDIATION	
ENV 717	INTRO TO REMOTE SENSING	
ENV 718	REMOTE SENSING APPLIED	
ENV 720	ENVNMNTL & OCCUPATION HEALTH	
ENV 721	SOLID WASTE MANAGEMENT & TREAT	
ENV 780	ENVIRONMENTAL EPIDEMIOLOGY	
ENV 802	ENVIRONMENTAL PHYSIOLOGY	
ENV 805	MEDICAL GEOLOGY	
Total Hours		**12**

The minimum total semester hours required for the doctoral degree is 60.

Department of Chemistry, Physics and Atmospheric Sciences

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Faculty

Dr. N. Campbell, Associate Professor
Dr. Q. Dai, Associate Professor
Dr. M. Fadavi, Professor
Dr. S. Goupalov, Associate Professor
Dr. F. Han, Professor
Dr. E. Heydari, Professor
Dr. G. Hill, Professor
Dr. Md. Hossain, Professor
Dr. M. Huang, Professor
Dr. M. Islam, Assistant Professor
Dr. K. Lee, Professor
Dr. J. Leszczynski, Presidential Distinguished Professor
Dr. Y. Liu, Professor
Dr. D. Lu, Associate Professor
Dr. I. Ogungbe, Associate Professor
Dr. N. Pradhan, Associate Professor
Dr. P. Ray, Professor
Dr. S. R. Reddy, Professor
Dr. T. Shahbazyan, Professor
Dr. H. Tachikawa, Professor Emeritus
Dr. J. D. Watts, Professor
Dr. L. White, Associate Professor
Dr. S. Yang, Associate Professor
Dr. M. Yasir, Visiting Assistant Professor
Dr. Y. Zhao, Associate Professor
Dr. J. Zhou, Assistant Professor

Program Description

The Department of Chemistry, Physics and Atmospheric Sciences offers both a Doctor of Philosophy (Ph.D.) and a Master of Science (M.S.) degree in Chemistry, and Master of Science Teaching (MST). The Ph.D. degree in chemistry requires evidence of high-quality scientific research leading to peer-reviewed publications with classroom teaching, laboratory supervising, and proposal and manuscript writing experiences. The program covers all modern areas of chemistry including analytical, biochemistry, computational, environmental, inorganic, organic, and physical chemistry, as well as interdisciplinary areas in material, energy, environmental, and biomedical research. The intensive graduate training includes formal lecture courses, hands-on laboratory, and theoretical research experiences, teaching experiences, independent proposal development, preparation of manuscripts and preparation of research thesis/dissertation for publication.

Program Mission

The Department of Chemistry, Physics and Atmospheric Sciences aims to provide a comprehensive graduate education in all areas of modern chemistry and related fields for a diverse student body. These programs aim for national and international distinction and produce high quality chemists for education institutions, governmental agencies, and industrial and business entities.

Program Objectives

- To provide the best education and career opportunity for students from the underrepresented minority groups with a nurturing environment conducive to learning and scholarly activities.
- To provide opportunities in which students can develop methods of independent and systematic investigations leading to scientific discoveries.

- To prepare students for a successful career at academic institutions, industrial and business entities, and governmental agencies.
- To promote professional development and growth of the faculty.

Time Limits

For full-time students working toward an **M.S. degree**, the degree requirements should be completed by the end of the second year following the first semester of study. Students beyond their second year of full-time study will be reviewed by their Graduate Advisory Committee for satisfactory progress every semester. A report of unsatisfactory will result in dismissal from the program. Under special circumstances, MS students must graduate in three years in full time status. Part time students are considered separately.

For full-time students working toward a **Ph.D. degree,** we recommend that the final defense be completed within five years. Under special circumstances, Ph.D. students must graduate in eight years in full time status. Part time students are considered separately. Students beyond their fifth year of full-time study will be reviewed by their Graduate Advisory Committee for satisfactory progress every semester. A report of unsatisfactory will result in dismissal from the program. The student will be allowed to apply for a Master's degree in this case.

Masters

- Chemistry (M.S.) (p. 114)

Doctoral

- Chemistry (Ph.D.) (p. 114)

Course Descriptions

CHEM 523 ADVANCED ANALYTICAL CHEMISTRY (3 Hours)
Prerequisite: Courses in Analytical Chemistry and Physical Chemistry.
Principles and application of selected analytical methods including electrochemistry, spectroscopy and selected topics of unusual current interest.

CHEM 531 BIOCHEMISTRY (3 Hours)
Prerequisite: One year of Organic Chemistry.
The chemical composition of living matter and the chemical mechanics of life processes.

CHEM 532 BIOCHEMISTRY (3 Hours)
Prerequisite: One year of Organic Chemistry.
The chemical composition of living matter and the chemical mechanics of life processes.

CHEM 536 PHYSICAL ORGANIC CHEMISTRY (3 Hours)
Prerequisite: Physical Chemistry and Organic Chemistry.
A study of organic molecular structure, Woodward Hoffmann Rules, substituents effects, intra- and intermolecular forces, kinetics and stereochemistry.

CHEM 541 ADVANCED INORGANIC CHEMISTRY (3 Hours)
Prerequisite: An undergraduate course in Physical Chemistry.
A study of inorganic compounds with the application of Physical Chemistry principles to thermodynamic, kinetic and structural problems.

CHEM 558 QUANTUM CHEMISTRY (3 Hours)
Prerequisite: Physical Chemistry.
Principles and applications of quantum theory.

CHEM 580 THESIS RESEARCH (1-6 Hours)
Prerequisite: Permission of adviser.
Selected topics arranged in consultation with the staff; includes literature, research, and laboratory investigation of a problem.

CHEM 711 CHEMISTRY SEMINAR (0.5 Hours)
Presentation and discussion of current chemical topics and research by visiting speakers, faculty and students.

CHEM 721 ADVANCE INSTRUMENTAL ANALYSIS (3 Hours)
Prerequisite: Analytical Chemistry and Physical Chemistry (two semesters).
Theoretical principles and laboratory techniques involved in characterization of chemical systems using instrumental methods. This one semester course will present the following topics of interest: absorption and emission spectrometry, mass spectrometry, liquid and gas chromatography, and electrophoresis. A laboratory series on spectro-photometry, fluorometry, atomic absorption spectrometry, inductively coupled plasma atomic emission spectrometry, FT-IR, gas chromatography-mass spectroscopy, and high performance liquid chromatography are included in this course.

CHEM 723 ADVANCE ANALYTICAL CHEMISTRY (3 Hours)
Prerequisite: Analytical Chemistry and Physical Chemistry (two semesters).
Principles and application of analytical methods including acid-base titrations, redox titrations, titrations which involve metal-ligand complexes, gravimetric analysis, separation methods (chromatography), and electroanalytical chemistry.

CHEM 729 SPECTROSCOPIC METHODS (3 Hours)
Using of modern spectroscopic methods, mainly Nuclear Magnetic Resonance, Mass Spectrometry, X-Ray Crystallography, and infrared Spectroscopy, for elucidation of simple to complex structures of organic compounds. Topics on new developments in modern NMR, X-Ray, MS, and IR will be updated and included.

CHEM 731 ADVANCED BIOCHEMISTRY (3 Hours)
Prerequisite: Organic Chemistry (two semesters).
Comprehensive coverage of major areas of biochemistry. Topics covered include proteins, enzymology, bioenergetics, the chemistry and intermediary metabolism of carbohydrates, lipids, proteins and nucleic acids.

CHEM 734 PHYSICAL BIOCHEMISTRY (3 Hours)
Characterization of macromolecules, hydrodynamic methods, multiple equilibria, maromolecule-ligand interactions.

CHEM 736 PHYSICAL ORGANIC CHEMISTRY (3 Hours)
Prerequisite: Organic Chemistry (two semesters).
A study of organic molecular structure, Woodward Hoffmann Rules, substituents effects, intra- and intermolecular forces, kinetics and stereochemistry.

CHEM 738 ORGANIC SYNTHESIS (3 Hours)
Prerequisite: Organic Chemistry (two semesters).
The course covers the formation of carbon-carbon and carbon-heteroatom bonds, functionalization and interconversion of functional groups, reactions of organic reagents, protective groups, total synthesis and asymmetric synthesis in organic synthesis.

CHEM 741 ADVANCED INORGANIC CHEMISTRY (3 Hours)
Prerequisite: Advanced Inorganic Chemistry (CHEM 441).
A study of symmetry and group theory, bonding and structures of inorganic compounds, coordination chemistry and acid-base chemistry.

CHEM 744 RADIOCHEMISTRY (3 Hours)
A study of natural radioactivity, nuclear systematics and reactions, radioactive decay processes, the transuranium elements, nuclear reactors and nuclear power energy, radiation detection and measurement, radiation biollogy/medicine, radiation safety and security, and nuclear forensics, etc.

CHEM 745 NUCLEAR WASTE CHEMI & SAFETY (3 Hours)
This course studies chemistry of radioactive waste, advanced separation chemistry, and nuclear safety. It covers radioactive sources, decay, radiation shielding, separation chemistry, and emerging and innovative treatment techniques for fuel reprocessing and radioactive waste treatment. Handling and disposal of nuclear waste, and technical and regulatory aspects of waste management will be reviewed. It will also study nuclear countermeasures and nuclear security, nuclear event and incidents, radiological incidient management and planning, medical treatment of radiological injures, cleanup and decontamination after a radiological incident.

CHEM 746 RADIATN DECTN AND MEASUREMENT (3 Hours)
This course studies the principals of radiation detection, instrumentation systems and their application. This prepares our students to seek job opportunities on nuclear energy, radiological sciences, nuclear medical science and pharmacy, industrial safety and control systems, and radiation protection etc.

CHEM 748 ACTINIDE CHEMISTRY (3 Hours)
This course studies the fundamental chemistry of actinide elements from Ac through Lr: the structures, physical and chemical properties. This course examines their chemistry (speciation/transport) in the environment including geological, biological metrics as well as nuclear wastes. Finally the separation chemistry and safe handling and storage are reviewed. This better prepares students to seek job opportunities on nuclear energy/radiological/sciences/nuclear medical science/ pharmacy/industrial safety and control systems etc.

CHEM 750 PRACTICUM IN COLLEGE CHEM TEAC (1 Hour)
This course is designed to provide Graduate Teaching Assistants (TAs) with information which can be used to enhance and improve their teaching effectiveness and to learn about teaching approaches that are effective at the college level and to practice and discuss aspects of their teaching assignments.

CHEM 752 ATOMIC & MOLECULAR SPECTROSCRO (3 Hours)
Prerequisite: Physical Chemistry (two semesters).
A comprehensive course covering concepts and methods of modern atomic and molecular spectroscopy. Subjects covered include electric phenomena, absorption and emission of radiation, atomic spectroscopy, rotational spectroscopy, vibrational spectroscopy, electronic spectroscopy, and magnetic resonance spectroscopy.

CHEM 758 QUANTUM CHEMISTRY (3 Hours)
Prerequisite: Physical Chemistry (two semesters).
(Computational Chemistry) Important concepts of quantum chemistry at the intermediate level, including angular momentum, perturbation theory, electronic structure of molecules, and radiation matter interaction. Applications will vary from year to year.

CHEM 768 MOLECULAR QUANTUM MECHANICS (3 Hours)
Prerequisite: Quantum Chemistry (CHEM 758) or equivalent.
Theoretical, algorithmic, and practical aspects of the methods of molecular quantum mechanics and their application to chemical systems. Topics covered include Hartree-Fock theory, perturbation theory, configuration interaction, coupled cluster theory, and density-function theory.

CHEM 780 DISSERTATION RESEARCH (1-9 Hours)

CHEM 782 SPCL TOPICS IN ANALYTICAL CHEM (3 Hours)
Selected topics not covered in regularly scheduled courses, and current research topics in analytical chemistry.

CHEM 783 SPECIAL TOPICS IN BIOCHEMISTRY (3 Hours)
Selected topics not covered in regularly scheduled courses, and current research topics in biochemistry.

CHEM 784 SPCL TPCS IN ORGANIC CHEMSTRY (3 Hours)
A course in a specific area of organic chemistry such as structure determination in organic chemistry, or current research subject not covered in regularly scheduled courses presented to fit the interests of advanced students.

CHEM 786 SPCL TPCS IN PHYSICAL CHEM (3 Hours)
Topics vary from year to year will include subjects such as photochemistry, solid state, surface chemistry, and radiation chemistry.

CHEM 787 NANOSCIENCE AND NANOTECHNOLOGY (3 Hours)
This course will provide a comprehensive introduction to the rapidly developing field of Nano-science and Nano-technology with the special emphasis on bio, physical and material chemistry. This is a three credit hour course in nano-science and will cover many of the recent topics in this new and exciting field including, synthesis, characterization and properties of individual nano particles, nanotubes, wires and dots; and their applications in biological and environmental science.

CHEM 788 MEDICINAL CHEMISTRY (3 Hours)
This course will introduce students to in-depth description of organic and biological compounds used as medicinal agents. The principles and practice of contemporary drug discovery and design will be emphasized. Sources, chemical properties, structure-activity relationships, molecular modeling, structure-based drug design, drug-like properties, compound library generation, optimization of high-throughput screening (HTS) hit using efficient synthetic reactions/transformations, metabolism, molecular target, modern chemical biology methods used to study drug actions, and specific mechanism of action studies will be covered.

SCI 502 GENERAL SCIENCE FOR TEACHERS (3 Hours)
A study of topics in astronomy, chemistry, geology, meteorology and physics.

SCI 513 COMPUT APPS N THE TCHNG OF SCI (3 Hours)
This course includes computer concepts; programming in the Basic language; building modules for computer assisted instruction and computer aided instruction; problem solving on a microcomputer system.

SCI 515 EARTH AND SPACE SCIENCE (3 Hours)
This course is the study of Earth Science, Geology, and Meteorology.

SCI 516 PHY SCI I FOR MIDDLE SCH TEACH (3 Hours)
This course is the study of properties and reactions of matter.

SCI 522 ENVIRONMENTAL SCIENCE (3 Hours)
A general study of environmental problems created by various kinds of pollution and the effects of man's bio-physical environment.

SCI 563 PROBLEMS & ISSUES IN SCIENCE (3 Hours)
Content in elementary science; aims and methods of instruction, new curricular developments.

SCI 581 OPERATIONS PHYSICS I (3 Hours)
This course is the study of mechanics that includes: measurement, force and motion, simple machines and forces, and fluids.

SCI 583 OPERATION PHYSICS III (3 Hours)
This course addresses the conceptual understanding and teaching of topics related to physics, space science and meteorology. The curriculum reflects the broader effort to be more inclusive of all the topics that teachers cover in the K12 area. Objectives for the course are correlated to the Mississippi Science Curriculum Structure.

SCI 584 OPERATION SCI OF TEACHERS II (3 Hours)

SCI 603 SPECIAL TOPICS IN SCIENCE (3 Hours)
Topics of current interest, both theoretical and experimental.

Chemistry (M.S.)

Admission Requirements

In addition to the requirements of the Division of Graduate Studies, applicants must have the following:

1. A B.S. degree in chemistry or a closely related field with passing grade ("C" or better) in the following courses with labs
   - 2 semesters of General Chemistry
   - 2 semesters of Organic Chemistry
   - 1 semester of Analytical Chemistry
   - 1 semester of Physical Chemistry
   - 1 semester of Inorganic Chemistry
2. Three Letters of Recommendation
3. A Statement of Purpose for Graduate Study
4. GRE Score

Retention Requirements

In addition to satisfying the basic requirements of the Division of Graduate Studies, students are required to maintain a chemistry GPA of 3.00 or higher every semester. Seminar courses, dissertation courses, and other non-chemistry elective courses are excluded from the calculation of the chemistry GPA. Students whose chemistry GPA is below 3.00 will be placed on probation for up to one year to fix the deficiencies.

Degree Requirements

A student pursuing a M.S. degree in Chemistry is required to complete a minimum of 30 credit hours with a written thesis in Chemistry.

1. Within the 18 credit hours of lecture courses, students must complete at least three (3) of five (5) core courses for a total of nine (9) hour and two semesters of seminar for one (1) credit hour. The core courses are:

Code	Title	Hours
CHEM 523	ADVANCED ANALYTICAL CHEMISTRY	3
CHEM 541	ADVANCED INORGANIC CHEMISTRY	3
CHEM 531	BIOCHEMISTRY	3
CHEM 558	QUANTUM CHEMISTRY	3
CHEM 536	PHYSICAL ORGANIC CHEMISTRY	3

2. Students will fulfill the remaining 11 hours from Chemistry electives with no more than 11 hours in CHEM 580 THESIS RESEARCH. It is possible to take some courses in related fields upon recommendation of the advisor.
3. Write and defend a Thesis Research Proposal.
4. Pass the Graduate Area Comprehensive Examination in three chemistry areas.
5. The student must participate as a teaching assistant in the chemistry department for at least two semesters.
6. Defend a thesis before the Thesis Committee and public audience.
7. Submit an approved thesis to the Division of Graduate Studies with one copy to the Department and one to the University Library.

Non-Thesis Master's Degree

Ph.D. students who fulfill the following requirements will be awarded a Non-Thesis Master's degree in Chemistry, if the student applies and do not wish to continue to finish the doctorate degree.

1. A minimum of 36 credit hours, including at least 18 hours of approved graduate level lecture courses and two hours of seminar with a GPA of 3.00 or better. The graduate lecture courses should include at least three of the five core courses:
   - Advanced Analytical Chemistry,
   - Advanced Inorganic Chemistry,
   - Biochemistry,
   - Quantum Chemistry, and
   - Physical Organic Chemistry.
2. Pass the Graduate Area Comprehensive Examination.
3. Pass an oral examination demonstrating competency in Chemistry subject matter.

Chemistry (Ph.D.)

Doctoral Program in Chemistry Admission Requirements

In addition to the requirements of the Division of Graduate Studies, applicants must have the following:

1. A B.S. degree in chemistry or a closely related field with passing grades 'C' or better for the following courses with labs:
   - 2 semesters of General Chemistry
   - 2 semesters of Organic Chemistry
   - 1 semester of Analytical Chemistry
   - 1 semester of Physical Chemistry
   - 1 semester of Inorganic Chemistry
2. GRE Score
3. Three Letters of Recommendation
4. A Statement of Purpose for Graduate Study

Retention Requirements

In addition to satisfying the basic requirements of the Division of Graduate Studies, students are required to maintain a chemistry GPA of 3.00 or higher every semester. Seminar courses, dissertation courses, and other non-chemistry elective courses are excluded from the calculation of the chemistry GPA. Students whose chemistry GPA is below 3.00 will be placed on probation for up to one year to fix the deficiencies.

Repeating a Course

If a student receives a grade of "C" or lower in a chemistry core course or a course in the student's major field of study, that course must be retaken and the student must earn a grade of "B" or better.

Degree Candidacy Requirements

After completing the lecture and seminar course requirements, students need to take and pass the comprehensive examination and defend an independent research proposal to become an official Ph.D. candidate. The comprehensive examination of 3 subjects must be taken and passed during the second year of study and the written independent research proposal must be prepared and defended during the third year of study or at least one year before graduation.

Graduation Requirements

The minimum number of credit hours for the Ph.D. degree in Chemistry is 60 credit hours.

- A minimum of 18 credit hours from graduate chemistry lecture courses
- 2 credit hours for Seminars
- 40 credit hours for Dissertation Research
- Teach four semesters of undergraduate courses as a teaching assistant.
- Write and defend a Dissertation Research Proposal.
- Pass Area Comprehensive Examination in three subject areas.
- Write and defend an Independent Research Proposal.
- Defend the dissertation before the Dissertation Committee and public audience.
- Submit an approved dissertation to the Division of Graduate Studies with one copy to the Department and one to the University Library

The 18 credit hours of lecture courses must include at least three out of the following five core courses for a total of at least 9 credit hours:

Code	Title	Hours
CHEM 723	ADVANCE ANALYTICAL CHEMISTRY	3
CHEM 731	ADVANCED BIOCHEMISTRY	3
CHEM 736	PHYSICAL ORGANIC CHEMISTRY	3
CHEM 741	ADVANCED INORGANIC CHEMISTRY	3
CHEM 758	QUANTUM CHEMISTRY	3

Students Entering the Ph.D. Program With a M.S. Degree in Chemistry

Students, who earned a M.S. degree from another institution, are allowed to transfer up to four (4) lecture courses or 12 credit hours if these courses are equivalent to the JSU chemistry doctoral courses. Students who earned a M.S. degree from JSU will be required to take at least two more approved lecture courses instead of the required six lecture courses. Other requirements are the same as for those entering the Ph.D. program with a B.S. degree.

Department of Civil and Environmental Engineering and Industrial Systems and Technology

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Dr. J. L. Murphy, Professor
Dr. H. Shih, Professor
Dr. F. Tuluri, Professor
Dr. P. C. Yuan, Adjunct Professor

The Department of Civil and Environmental Engineering and Industrial Systems and Technology offers the Master of Science in Education with Technology Education concentration and the Master of Science in Hazardous Materials Management. The Master of Science in Education degree with a concentration in Technology Education is designed to improve the competencies of technology educators, administrators, and other professionals in secondary and post-secondary schools and contemporary technology-based workforces. The Master of Hazardous Materials Management is designed to prepare individuals for safety or environmental management manager positions in the safe handling, transporting, and managing of hazardous materials and toxic chemicals.

Masters

- Hazardous Materials Management (M.S.) (p. 117)
- Technology Education (M.S.Ed.) (p. 117)

Course Descriptions

ITHM 500 GRADUATE RESEARCH/THESIS (1-4 Hours)
The student is required to select an appropriate topic with approval from advisor and do a presentation.

ITHM 520 INTRO TO HAZARDOUS MATERIALS (3 Hours)
(For Non-hazardous Materials Management Majors). An introduction to contemporary national problems of air and water pollution, environmental monitoring, toxicology, hazardous waste; general problems of environmental contamination; legal and political aspects of current regulations; general scientific principles applied to the evaluation and control of specific problems.

ITHM 521 SYSTEM MODELING (3 Hours)
Practical application of simulation to diverse environmental systems including air, land, surface, sub-surface, water systems and also, the hazardous materials management models.

ITHM 522 CHEMISTRY OF HAZ MATERIALS (3 Hours)
Prerequisite: Chemistry 135 235.
This course shows how chemistry can be applied to hazardous materials. The course is designed to introduce and train students' awareness of the unique requirements involved in handling hazardous materials when they are encountered in different situations, thus reducing the loss of lives and property.

ITHM 523 STATISTICS/DATA ANALYSIS (3 Hours)
Prerequisite: Math 111, CSC 115, 203.
This course is designed for the development and maintenance of proficiency in statistical interface. It contains a comprehensive overview of how statistics work in actual cases and how it can be applied in hazardous materials management.

ITHM 524 PUBLIC ISSUES/N HAZARDOUS MATR (3 Hours)
This course is an overview of the strategies, tactics and techniques regarding environmental affairs, both public and private.

ITHM 525 NATURAL RESOURCE & CONSERVATIO (3 Hours)
This course is designed to give students pertinent information of our natural resources with emphasis on their origin, properties, use, misuse, and conservation practices.

ITHM 526 ENVIRONMENTAL REGULATION (3 Hours)
A study of Federal Laws and Regulations concerning hazardous materials and wastes. This course will introduce students to laws and regulations in Mississippi and the nation. The course emphasizes how to implement and comply with laws.

ITHM 527 WATER/WASTE WATER TREATMENT (3 Hours)
Prerequisite: BIO 115 and CHEM 142.
Students will be given an overview on waste/wastewater treatment through discussions of various selected topics. The primary focus of these topics will be to introduce students to treatment methods.

ITHM 528 WASTE MINIMIZATION (3 Hours)
This course is designed to make students aware of the vast number of problems encountered as a result of disposing waste. Also, students will be given lectures on methods of recycling, reuse and reducing our waste.

ITHM 529 ENV TOXICOLOGY & RISK ASSESSME (3 Hours)
This course will involve studying chemicals and harmful actions of chemicals on biological issues. This will include understanding chemical reactions and interactions of biological organisms. Students will also be introduced to scientific data and methods currently used to access human risk to environmental chemicals.

ITHM 530 INDUSTRIAL WASTE TREATMENT (3 Hours)
Prerequisite: ITHM 302.
This course is an advanced course for hazardous waste treatment technology. It includes training in pretreatment of hazardous materials, chemical/physical process, stabilization, recovery processes, final disposal of, and secured landfill stabilization. EPA requirements for each process will be addressed in this class.

ITHM 532 EMERGEN MNGT OF HAZA MATER (3 Hours)

ITHM 533 APPLIC OF GIS IN HAZA MAT MNGT (3 Hours)

ITHM 534 INDEPENDENT STUDY (1-3 Hours)

ITHM 535 OCCPTNL SAFETY & INDU HYGIENE (3 Hours)

ITHM 536 HAZARDOUS RISK MANAGEMENT (3 Hours)
This course will introduce students to the basic models, theories, and concepts that underlie modern emergency management's understanding of hazards and disasters. Students will examine the hazard-scope, using varous hazard models, with a focus on hazard mitigation and emergency management issues. The interdependence of physical,l and social and economic characteristics in determing vulnerability will be considered in past disasters and for future planning. The importance of hazard and risk management in a comprehensive emergency management program will also be presented.

ITHM 537 SOC & ECO IMPACT OF DISASTERS (3 Hours)
This course is to introduce key terms associated with sustainable disaster recovery, describe the individual, social economic, and environmental impacts of disasters, and begin to describe the complexities of recovery utilizing case studies.

ITHM 538 NATURE HAZARDS AND TERRORISM (3 Hours)
This class introduces the students to all kinds of disaster caused by nature, man-made disasters and terrorist attacks. How the different levels of governments handle the disaster. Ghe governments' policy and continue operation. The classes will us different nature and terrorism cases happened in past years for study.

ITHM 539 RADIATION,PREPARDNESS & EXERCI (3 Hours)
This class introduces the students to the radiation safety, preparedness and emergency response, principles of probabilistic risk assessment. The exercises include case studies, survey, detection and population monitoring.

TE 500 SEMINAR/WORKSHOP (3 Hours)
) Designed for offering courses on subjects which are current and important to industrial education.

TE 501 CUR LITERATURE AND RESEARCH (3 Hours)
Identification, analysis, and discussion of the periodicals, topical books, major issues, and research in the field of industrial education.

TE 504 LAB PLANNING AND MANAGEMENT (3 Hours)
Designing various industrial education laboratories and facilities. Includes attention to purpose, recommended sizes and other specifications.

TE 505 HISTORY AND PHILOSOPHY (3 Hours)
Factors involved in developing the trends and leaders in industrial and vocational education. Analysis of objectives, current concepts, practices and anticipated policies in industrial education.

TE 511 TECHNICAL EDUCATION (3 Hours)
Emphasis on trends, community surveys, curricula, definitions, and needs of post-secondary technical education programs.

TE 512 ADMINISTRATION & FUNDING (3 Hours)
Identifying current legislation and funding practices concerning industrial education. Function and relationship of directors, supervisors and instructors in all fields of industrial education.

TE 513 INSTRUCTIONAL AIDS (3 Hours)
Studying the many instructional aids available for teaching industrial subjects. The course includes instruction in the common audio-visual aids but also making models, cutaways and other industrial teaching aids.

TE 515 CAREER EDUCATION (3 Hours)
Current career education programs and their relationship to industrial education. Emphasis on integrating career education goals in industrial education with attention to the goals of each field.

TE 516 CURRICULUM DEVELOPMENT (3 Hours)
Principles and techniques of designing and writing industrial education curricula. Attention will be given to goals, behavioral objectives, designing programs to meet objectives and evaluating results.

TE 521 PROBLMS IN ELE/ELECTRONICS (3 Hours)
Opportunity to study problems related to the area of electricity/electronics. Problems based on needs of students with approval of the advisor and the Dean of the School.

TE 522 PROBLEMS IN DRAFTING (3 Hours)
Opportunity to study problems related to the area of drafting. Problems based on needs of students with approval of the Dean of the School and his advisor.

TE 599 INDEPENDENT RESEARCH (1-3 Hours)

TE 601 Selection and Organization of Subject Matter (3 Hours)
Analysis and selection of materials for junior and senior high school, and also, adult industrial technical education.

TE 602 EVALUATION OF PROGRAMS (3 Hours)
Evaluation principles and practices in the specialized areas of industrial arts, technical and industrial education.

TE 621 COORDINATION IN OCCUP TRNG PRO (3 Hours)
Analysis of objectives and scope of trade and industrial cooperative education program, apprenticeship, and general education work experiences.

Hazardous Materials Management (M.S.)

The Master of Hazardous Materials Management is designed to prepare individuals for safety or environmental management manager positions in the safe handling, transporting, and managing of hazardous materials and toxic chemicals.

Degree Requirements

The degree options are

- 30 semester hours plus a thesis;
- 33 semester hours plus a project; or
- 36 semester hours of course credit.

Hazardous Materials Management Concentration

Code	Title	Hours
ITHM 520	INTRO TO HAZARDOUS MATERIALS	3
ITHM 523	STATISTICS/DATA ANALYSIS	3
ITHM 524	PUBLIC ISSUES/N HAZARDOUS MATR	3
ITHM 525/ BIO 506	NATURAL RESOURCE & CONSERVATIO	3
ITHM 529	ENV TOXICOLOGY & RISK ASSESSME	3
Total Hours		**15**

Emergency Management Concentration

Code	Title	Hours
Required Courses		
ITHM 523	STATISTICS/DATA ANALYSIS	3
ITHM 533	APPLIC OF GIS IN HAZA MAT MNGT	3
ITHM 536	HAZARDOUS RISK MANAGEMENT	3
ITHM 537	SOC & ECO IMPACT OF DISASTERS	3
ITHM 538	NATURE HAZARDS AND TERRORISM	3
ITHM 539	RADIATION,PREPARDNESS & EXERCI	3
Total Hours		**18**

Elective Courses

Code	Title	Hours
ITHM 521	SYSTEM MODELING	3
ITHM 522	CHEMISTRY OF HAZ MATERIALS	3
ITHM 526	ENVIRONMENTAL REGULATION	3
ITHM 527	WATER/WASTE WATER TREATMENT	3
ITHM 528	WASTE MINIMIZATION	3
ITHM 530	INDUSTRIAL WASTE TREATMENT	3
ITHM 532	EMERGEN MNGT OF HAZA MATER	3
ITHM 534	INDEPENDENT STUDY	1-3
ITHM 535	OCCPTNL SAFETY & INDU HYGIENE	3
Total Hours		**25-27**

Note: Additional Elective Courses Available

Technology Education (M.S.Ed.)

Degree Requirements

The degree options are

- 30 semester hours plus a thesis;
- 33 semester hours plus a project; or
- 36 semester hours of course credit.

Code	Title	Hours
Course Requirements		
TE 501	CUR LITERATURE AND RESEARCH	3
TE 504	LAB PLANNING AND MANAGEMENT	3
TE 505	HISTORY AND PHILOSOPHY	3
TE 512	ADMINISTRATION & FUNDING	3
TE 513	INSTRUCTIONAL AIDS	3
Courses in Education		
EDFL 514	ELEMENTARY STATISTICS	3
EDFL 515	METHODS OF EDUCATIONAL RESEARC	3
EDFL 568	CURRICULUM METHODS	3
Elective Courses		
Select 6-12 credits from the following: [1]		6-12
TE 500	SEMINAR/WORKSHOP	
TE 511	TECHNICAL EDUCATION	
TE 515	CAREER EDUCATION	
TE 516	CURRICULUM DEVELOPMENT	
TE 521	PROBLMS IN ELE/ELECTRONICS	
TE 522	PROBLEMS IN DRAFTING	
Total Hours		**30-36**

[1] Additional Elective Courses Available.

Department of Electrical and Computer Engineering and Computer Science

Dr. Jacqueline Jackson, Associate Professor and Interim Chair
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Faculty

Dr. K. Abed, Professor
Dr. A. Abu El Humos, Professor
Dr. K. Ali, Professor
Dr. S. Aliabadi, Professor
Dr. F. C. Dancer, Assistant Professor
Dr. L. Gong, Assistant Professor
Dr. S. Hong, Associate Professor
Dr. J. Jackson, Associate Professor
Dr. M. Manzoul, Professor
Dr. N. Meghanathan, Professor
Dr. V. Melapu, Assistant Professor
Dr. L. Moore, Professor
Dr. T. Pei, Professor
Dr. A. Tanner, Associate Professor
Dr. S. Tu, Professor

The Department of Electrical and Computer Engineering and Computer Science offers the Master of Science in Computer Science. The curriculum is geared to

1. provide training for those preparing to enter fields where a substantial working knowledge of computing is required,
2. provide additional training to people already working in the field, and/or
3. prepare students for study at the doctoral level.

Program Objectives

1. To afford students the opportunity for in depth study of Computer Science concepts and theories.
2. To keep abreast of, and expose students to, state-of-the-art, as well as state-of-the-practice, computer applications and technologies.
3. To engage faculty and students in meaningful computer science research and applications.
4. To promote professional development and growth of students and faculty.

Admission Requirements

In addition to satisfying the university requirements to enter the graduate school, students must meet other specific requirements to be formally admitted to the Department of Electrical and Computer Engineering and Computer Science program. Ideally, students will have a B.S. in Computer Science, or a related field, and at least the equivalent of the following courses:

Code	Title	Hours
CSC 118	COMPUTER SCIENCE I	3
CSCL 118		1
CSC 119	COMPUTER SCIENCE II	3
CSCL 119		1
CSC 216	COMPUTER ARCHITECTURE & ORGNZA	3
CSC 216L		1
CSC 225	DISCRETE STRUCTURES	3
CSC 228	DATA STRUCTURES & ALGORITHMS	3
CSC 228L		1
CSC 325	OPERATING SYSTEMS	3
EN 212		3
ENL 212L		1
BIO 111	GENERAL BIOLOGY	3
CHEM 141	GENERAL CHEMISTRY I	3
MATH 241	CALCULUS I WITH LABORATORY	3
MATH 242	CALCULUS II WITH LABORATORY	3
MATH 355	PROBABILITY&STATISTICS I	3
PHY 211	General Physics I	3
PHY 212	General Physics II	3

Students who do not have the required background may be admitted as conditional students. These students must take specified courses to make up deficiencies and no credit toward the degree is awarded for courses prescribed to satisfy entrance requirements.

Masters

- Computer Science (M.S.) (p. 120)

Course Descriptions

CSC 506 Graduate Seminar (3 Hours)
Reports on recent advances and problems in computer science by guest speakers, faculty, and students; student participation, presentations, general discussion; exercises in scientific writing format and style, with particular emphasis on writing abstracts and manuscripts for publication in referred archival journals; discussion of program requirements; introductory programming project exercises.

CSC 509 COMPUTERS AND SOCIETY (3 Hours)
History of computing and technology; place of computers in modern society; the computer and individual; survey of computer applications, legal issues; computers in decision making processes; the computer scientist as a professional; futurist¿s view of computing; public perception of computers and computer scientists.

CSC 511 OBJECT-ORIENTED PROGRAMMING (3 Hours)
Discussion of object-oriented languages. Object-Oriented techniques using the C++ language, classes, objects, constructors, destructors, friend functions, operator overloading, inheritance, multiple inheritance, and polymorphism. Reusability is emphasized.

CSC 512 COMPUTER ARCHITECTURE (3 Hours)
An advanced introduction to computer design and architecture. Topics include instruction set architecture, RISC computers, control unit design, pipelining, vector processing, memory system architecture, and classification of computers.

CSC 515 DATA STRU ALGORITH ANALY (3 Hours)
Mathematical foundations for complexity theory, asymptotic notation, recurrence relations. Strategies for development of algorithms like divide and conquer, greedy, dynamic programming, backtracking. Exposure to some typical and important algorithms in computer science. Introduction to the theory of NP-completeness.

CSC 518 PRIN OPRTNG SYST CMP ARC (3 Hours)
Emphasizes the concepts of process communication and synchronization, protection, performance measurement, and evaluation. Problems associated with mutual exclusion and synchronization, concurrent processes, information, process, device, and memory management are examined. Implementation of I/0 and interrupt structure is also considered.

CSC 519 PRIN PROG SYSTEMS & LANG (3 Hours)
Important programming language concepts including, representation of data and sequence control, data abstraction and encapsulation; procedural and non-procedural paradigms: functional, logic, and object-oriented languages; distributed and parallel programming issues.

CSC 524 COMP COMM NETWK DIST PRO (3 Hours)
Topologies, media selection, medium access control for local area networks (LANs) including high speed and bridged LANs; circuit switched, ISDN wide area networks (WANs) internetworking issues and standards, 150/051, TCP/IP protocols.

CSC 527 REAL TIME SYSTEMS (3 Hours)
An introduction to the problems, concepts, and techniques involved in computer systems which must interface with external devices. These include process control systems, computer systems embedded within aircraft or automobiles, and graphics systems. The course concentrates on operating system software for these systems.

CSC 530 THEORY OF COMPUTATION (3 Hours)
A survey of formal models for computation. Includes Turing Machines, partial recursive functions, recursive and recursively enumerable sets, abstract complexity theory, program schemes, and concrete complexity.

CSC 537 CLOUD COMPUTING (3 Hours)
The course will present the state of the art in cloud computing technologies and applications as well as providing hands-on project opportunities and experiment with different technologies. Topics will include: telecommunications needs; architectural models for cloud computing; cloud computing platforms and services; security, privacy, and trust management; resource allocation and quality of service; cloud economics and business models; pricing and risk management; interoperability and internetworking; legal issues; and novel applications.

CSC 539 SPECIAL TOPICS (3 Hours)
Prerequisite: Consent of instructor.
Topics and problems of information systems that are of practical importance and current interest. New developments in system concepts, techniques, and equipment.

CSC 541 CRYPTO AND NETWORK SECURITY (3 Hours)
Cryptography and Network Security. This course will focus on graduate-level topics in cryptography and network security, including: Symmetric Key and Public Key encryption algorithms, Digital Signature, Certificates, Cryptanalysis, Key management and distribution, Classical network attacks and their solutions, User authentication protocols, Transport-level security, Wireless network security, g-mail security, Web security, IP security, Distributed system security, Firewalls and Intrusion detection systems.

CSC 542 Digital Forensics (3 Hours)
Digital forensics is a new and emerging field that is becoming increasingly important and visible. The ease with which one can access the internet and commit crimes with and against computers has led to an increase in the need for online protection. As a result, there is a need for computer science graduates with skills needed to investigate these crimes. In this course, topics of computer crimes, system and computer forensics will be introduced. Students will be required to learn the different aspects of computer crime and ways to uncover, protect, and exploit digital evidence. In addition, the lab projects will expose students to different types of tools, both hardware and software, and will enable them to perform fundamental investigations.

CSC 545 ARTIFICIAL INTELLIGENCE (3 Hours)
Efficient and intelligent search techniques. Knowledge representation e.g., logic, and semantic nets. Reasoning techniques including reasoning under uncertainty, e.g., fuzzy reasoning. Exposure to different artificial intelligence systems like planning and learning (including neural networks).

CSC 547 Computer Security (3 Hours)
This course provides an overview of security challenges and strategies of countermeasures in the information systems environment. Topics include definition of terms, concepts, elements, and goals incorporating industry standards and practices with a focus on confidentiality, availability, and integrity aspects of information systems.

CSC 551 PARALLEL & DISTRIBUTED COMPUTI (3 Hours)
The course introduces the concepts and design of parallel and distributed computing systems. Topics covered include: Data versus control parallelism (SIMD/Vector, Pipelines, MIMD, Multi-core, GPU); Shared versus distributed memory (SMP and NUMA), Message passing Interface (MPI) and Topologies; Parallel and distributed algorithms: Paradigms, Models and Complexity, Scheduling, Synchronization, Deadlock detection, Fault tolerance and Load balancing.

CSC 552 APPLIED PROGRAMMING (3 Hours)
Department and advisor approval. This course focuses on the fundamentals of computing and is geared toward non-CS majors going into computational sciences. The course will cover key concepts of data strudtures, data manipulation, algorithms and efficiency, and how they apply to the various application domains specific to computational fields. The course will also provide an introduction to Python for computational sciences. Topics include: an introduction to computational complexity, data structures (arrays, lists, stacks, queues, trees, and graphs), elementary algorithms and their complexity.

CSC 560 SOFTWARE ENGINEERING (3 Hours)
Formal approach to techniques and software design and development. Software cycle encompassed from initial ideas through code design and implementation with emphasis on object-oriented design techniques will be included. Software testing and maintenance will be discussed.

CSC 571 PROGRAMMING FOR BIG DATA (3 Hours)
The course will expose students to three programming paradigms for big dat analytics to cover the three Vs: Velocity, Volume, and Variety. The course will focus on design and development of programs based on the: (1) Supervised and unsupervised machine learning algorithms to perform predictive analytics of Big Data dn implement them using a high-level algorithms such as Octave; (2) Map-reduce parallel programming paradigm for selected data-intensive computational problems; (3) Functional programming paradigm using languages such as OCaml to analyze big data in a recursive fashion. In addition, the course will enable students to be able to configure a distributed file system based on the Hadoop architecture for reliable share storage and develop programs that interface with it, as well as manage large datasets using SQL-like access to unstructured data (Hive) and NoSQL storage solutions (HBase).

CSC 582 SOCIAL NETWORK ANALYSIS (3 Hours)
This course will cover the structure and analysis of large social networks on models and algorithms that abstract their properties. Topics covered include: Nodes, edges, and network measures, structure, and visualization and tools, the tie strength of networks, trust in social media, analyzing and classifying user roles, attributes and behavior, link prediction and entity resolution, epidemic models, location-based social media analysis, social sharing and filtering, aggregation and data mining, and network strategies for the individual and for the government.

CSC 595 INFO SYST & DEVELOP PROJ (1-3 Hours)
Prerequisite: Pass comprehensive examination and consent of advisor. Provide the student with the experience in analyzing, designing, implementing, and evaluating information systems. Students are assigned one or more system development projects. The project involves part or all of the system development cycle.

CSC 597 Internship (1-3 Hours)
Prerequisite: Permission of department.
Supervised graduate internship or externship in selected areas of computer science.

CSC 599 THESIS RESEARCH (1-6 Hours)
Prerequisite: Pass comprehensive examination and consent of advisor. An independent study course for the preparation of a Master's thesis.

CSC 601 COMPUTER ALGORITHMS (3 Hours)
The course focuses on algorithms of different design strategies, and the mathematical concepts used in describing the complexity of an algorithm. Topics covered include: Asymptotic notations; Time complexity analysis of iterative and recursive algorithms; design strategies like Bruite force, Diviide and Conquer, Transform and Conquer,Greedy and Dynamic programming; Space-time tradeoffs in algorithms and NP-completeness - Heuristics and Approximation algorithms. The course will also cover graph theory algorithms and string matching algorithms with respect to the application of the above design strategies for specific problems.

CSC 620 DATABASE MANAGEMENT SYSTEMS (3 Hours)
This course is designed for non-computer science majors entering the Ph.D. in Computational and Data Enabled Sciences and Engineering. It introduces students to the concepts and theories of database systems, necessary in the CDS&E fields. Topics include: information models and systems; the database environment; data modeling; conceptual modeling using the entitiy-relationship approach and mapping to relational tables; the relational model including the relational data structure, integrity rules, relational algebra and relational calculus; normalizaation; data definition and data manipulation in SQL; conceptual, logical, and physical database design; security; transaction management; query processing; and advanced topics in database systems, and how this applies to computational and data enabled sciences and engineering.

CSC 621 MACHINE LEARNING (3 Hours)
This course will deal enable students to understand the underlying algorithms used in varioius learning systems. Topics covered include: Inductive classification, Decision-tree learning, Ensembles, Experimental evaluation, Computational learning theory, Rule learning, Neural network learning, Support vector machines, Bayesian learning, Instance-based learning and Text categorization.

CSC 634 BIG DATA MINING (3 Hours)
This course will focus on data mining of very large amounts of data that is so large enough not to fit in main memory, characteristic of data retrieved from the web. Topics to be covered include: Distributed file systems and Map Reduce, Similarly search techniques, Real-time data-stream processing algorithms, Technology of search engines (PageRank, Link-spam detection, hubs-and-authorities approach) and Frequent-itemset mininig. The course will also expose students to algorithms for clustering very large, high-dimensional datasets.

CSC 641 NETWORK SCIENCE (3 Hours)
Topics covered include the measurement and structure of networks, methods for analyzing network data, including methods developed in physics, and statistics, and sociology, graph theory, computer algorithms, mathematical models of networks, including random graph models and generative models, and theories of dynamical processes taking place on networks.

CSC 651 FNDS OF PROGRAMMING & COMP SYS (3 Hours)
Prerequisite: experience in any object-oriented language.
This course will focus on graduate-levle central concepts in modern programming languages, impact on software development, language design trade-offs, and implementation considerations. Functional, imperative, and object-oriented paradigms. Formal semantic methods and program analysis. Modern type systems, higher order functions and closures, exceptions and continuationsl Modurlarity, object-oriented languages, and concurrency. Runtime support for language features, interoperability, and security issues.

CSC 899 DISSERTATION RESEARCH (1-9 Hours)
Prerequisite: permission of advisor.
Dissertation representing Independent and original research in the area of Computational Science and Engineering.

Computer Science (M.S.)

Degree Requirements

The Department offers courses on a semester basis. Thirty-six credit hours are required for a master's degree. All students are required to pass the departmental Graduate Area Comprehensive Examination. Upon successful completion of 18 hours of courses, completion of the Graduate English Proficiency Exam, completion of the core courses, and maintaining a 3.0 GPA, students will be eligible to take the Graduate Area Comprehensive Exam. Students will be tested on content covered in each of the core courses.

Students can choose one of the three-degree options: *Thesis*, *Project*, or *Course-only* option.

Areas of Emphasis

- Networks & Communications
- Software Engineering
- Computer Architecture
- Information Systems
- Algorithm Design & Analysis
- Artificial Intelligence
- Parallel/Distributed Computing
- Informatics
- Modeling and Simulation
- Data Science
- Computability & Complexity
- Cyber Security

Course Requirements for the Degree Options

All the three-degree options require 36 credits, out of which 12 credits of core courses and 9 credits of major courses are required. The option specific requirements are:

- *Thesis:* Electives (6 credits) and CSC 599 THESIS RESEARCH (1-6 s.h.) (6 credits)
- *Project:* Electives (9 credits) and CSC 595 (3 credits)
- *Course-only:* Electives (15 credits)

Code	Title	Hours
Core Courses		
CSC 511	OBJECT-ORIENTED PROGRAMMING	3
CSC 515	DATA STRU ALGORITH ANALY	3
CSC 518	PRIN OPRTNG SYST CMP ARC	3
CSC 512	COMPUTER ARCHITECTURE	3
Major Courses		
Select three of the following:		9
CSC 519	PRIN PROG SYSTEMS & LANG	
CSC 620	DATABASE MANAGEMENT SYSTEMS	
CSC 524	COMP COMM NETWK DIST PRO	
CSC 527	REAL TIME SYSTEMS	
CSC 530	THEORY OF COMPUTATION	
CSC 537	CLOUD COMPUTING	
CSC 541	CRYPTO AND NETWORK SECURITY	
CSC 545	ARTIFICIAL INTELLIGENCE	
CSC 551	PARALLEL & DISTRIBUTED COMPUTI	
CSC 560	SOFTWARE ENGINEERING	
Total Hours		**21**

Electives

The elective courses that can be included in the student's degree plan must be approved by the student's Major Advisor and the Department Chair. The elective courses need to be of CSC course prefix and have to be at the 5xx and/or 6xx-levels.

Total Required for the Degree

(Thesis or Project options: **33 credits)** and (Course-only option: **36 credits)**

Engineering (Ph.D.)

Emphasis Areas:

1. Computer Engineering
2. Telecommunications Engineering
3. Electrical Engineering
4. Computational Engineering

Department: Electrical & Computer Engineering

Core Courses
The required four core courses are:

Code	Title	Hours
Core Courses		
CPE 503	COMPUTATIONAL METHODS	3
CPE 520	ADVANCED ENGINEERING ANALYSIS	3
CPE 521	ADVD ENGINEERING ANALYSIS II	3
CPE 635	ADVANCED CIRCUIT THEORY	3
Elective Courses		
CPE 500	SOFTWARE ENGINEERING	3
CPE 503	COMPUTATIONAL METHODS	3
CPE 505	ANALYSIS OF ALGORITHMS	3
CPE 508	OPERATING SYSTEMS	3
CPE 512	COMPUTER ARCHITECTURE	3
CPE 515	ADVANCED LOGIC DESIGN	3
CPE 520	ADVANCED ENGINEERING ANALYSIS	3
CPE 521	ADVD ENGINEERING ANALYSIS II	3
CPE 530	VLSI DESIGN	3
CPE 532	DIGITAL INTEGRATED CIRCUITS	3
CPE 541	COMPUTER NETWORK	3
CPE 544	ELECTROMAGNETIC FIELD ANALYSIS	3
CPE 545	ANTENNAS	3
CPE 551	DIGITAL SIGNAL PROCESSING	3
CPE 552	COMPUTER VISION	3
CPE 555	CONTROL SYSTEMS	3
CPE 557	ROBOTICS	3
CPE 560	EMBEDDED DESIGN W/MICHROPROCES	3
CPE 618	HIGH PERFORMANCE COMPUTING	3
CPE 635	ADVANCED CIRCUIT THEORY	3
CPE 693	ADVANCED TOPICS-IC DESIGN	3
CPE 697	INTERNSHIP	1-3
CPE 698	INDEPENDENT STUDY	1-4

Department of Mathematics and Statistical Sciences

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Faculty

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Dr. R. Gentry, Professor
Dr. T. A. Kwembe, Professor
Dr. C. Wafo Soh, Professor
Dr. N. Wang, Associate Professor
Dr. Y. Yan, Associate Professor
Dr. Z. Zhang, Professor

The Department of Mathematics and Statistical Sciences offers a doctoral degree concentration in computational mathematics and statistical sciences through the College of Science, Engineering and Technology's Ph.D. program in Computational Data-Enabled Sciences and Engineering (CDS&E). The Department also offers programs leading to the MST degree in mathematics designed for persons who wish additional preparation for mathematics teaching or mathematics supervision and the MS degree in Pure or Applied Mathematics for students who seek careers in academia, government, industry, or the business sector. The programs are designed for persons with adequate background in undergraduate statistics and mathematics beyond the calculus sequence.

Program Mission

In keeping with the mission and vision of the university, the Department of Mathematics and Statistical Sciences aims to equip its graduate with the necessary advanced mathematics and statistical knowledge and skills that prepares them to find solutions to mathematics or statistics problems arising in other academic fields and in areas outside the normal academic setting and to use this knowledge to solve society problems of challenge. The program aims for national and international distinction in preparing mathematics students for a spectrum of careers including academic and non-academic employment.

Program Objectives

1. To provide quality mathematics training at the doctoral and master's degree level.
2. To provide a learning and research friendly environment for all students.
3. To prepare students to recognize opportunities for advancing mathematics or statistical ideas arising in other fields.
4. To increase the pool of mathematicians seeking academic and non-academic employment.

Transfer of Credits

A course for which transfer credit is sought must have been completed with a grade of "B" or better. Departmental approval is required.

Time Limit

Students with adequate mathematics preparation at the undergraduate level will normally take two years to complete any of the Master's degree programs and a minimum of five years to complete the doctoral program. However, all students must complete their programs within eight years of starting coursework at Jackson State University or elsewhere.

Masters

- Mathematics (M.S.) (p. 125)

Doctoral

- Computational Mathematics and Data-Enabled Science & Engineering (Ph.D.) (p. 124)

Course Descriptions

MATH 501 TOPICS IN GEOMETRY (3 Hours)
Prerequisite: Approval of department.
A survey of geometries and their structures. Emphasis is on both synthetic and analytic methods.

MATH 503 FOUNDATIONS OF MATH I (3 Hours)
The fundamental elements of set theory and finite mathematical structures; cardinals and ordinals; logical deduction, elements of probability; vectors and matrices, linear programming, theory of games and applications.

MATH 504 FOUNDATIONS OF MATH II (3 Hours)
The fundamental elements of set theory and finite mathematical structures; cardinals and ordinals; logical deduction, elements of probability; vectors and matrices, linear programming, theory of games and applications.

MATH 506 BASIC CONCPTS FOR TCHR I (3 Hours)
Prerequisite: Approval of department.
Higher mathematics for teachers, reviewing the fundamental areas of algebra, geometry and analysis, with stress on rigor and validity of ideas.

MATH 507 BASIC CONCPTS FOR TCH II (0.5-3 Hours)
Prerequisite: Approval of department.
Higher mathematics for teachers, reviewing the fundamental areas of algebra, geometry and analysis, with stress on rigor and validity of ideas.

MATH 510 TOPICS & ISSUES IN MATH (3 Hours)
This course is designed for in-service teachers who are interested in the renewal of teaching licenses and the pursuit of graduate studies in the teaching of mathematics. Emphasis is on individualized research dealing with the stages of development of mathematics, new trends in the teaching of mathematics, and the exploration of teaching theories resulting from the work of experimental psychologists such as Piaget, Aushel and Bruner. Because of the individualized nature of the course, students with diverse backgrounds in mathematics can be accommodated.

MATH 511 BASIC ABSTRACT ALGEBRA I (3 Hours)
Groups, (homomorphisms), rings, integral domains, modules and fields, elementary linear algebra, number theory.

MATH 513 LINEAR ALGEBRA I (3 Hours)
Vector spaces, matrices, linear transformations, determinants and linear equations. Selected topics on eigenvalues, canonical forms, inner products, inner product spaces, bilinear and quadratic forms.

MATH 531 BASIC REAL ANALYSIS I (3 Hours)
Prerequisite: Math 511 or approval of department.
Metric spaces, regulated functions and integrals; integrals of Riemann and Lebesgue; trigonometrical and Fourier series; differentiation and Stieltjes Integrals.

MATH 532 BASIC REAL ANALYSIS II (3 Hours)
Prerequisite: Math 511 or approval of department.
Metric spaces, regulated functions and integrals; integrals of Riemann and Lebesgue; trigonometrical and Fourier series; differentiation and Stieltjes Integrals.

MATH 535 INTRO MEAS & INTEGRTN I (3 Hours)
Prerequisite: Mathematics 531 or approval of department.
Lebesgue measure of linear sets, measurable functions, definite integral, convergence, integration and differentiation, spaces of functions, orthogonal expansions, multiple integrals and the Stieltjes Integral.

MATH 536 INTRO MEAS & INTEGRTN II (3 Hours)
Prerequisite: Mathematics 531 or approval of department.
Lebesgue measure of linear sets, measurable functions, definite integral, convergence, integration and differentiation, spaces of functions, orthogonal expansions, multiple integrals and the Stieltjes Integral.

MATH 541 BASIC COMPLEX ANALYSIS I (3 Hours)
Complex numbers, sets and functions; limits and continuity; analytic functions of a complex variable, elementary functions; integration; power and Laurent series, calculus of residues, conformal representation, special topics.

MATH 542 BASIC COMPLEX ANALYS II (3 Hours)
Complex numbers, sets and functions; limits and continuity; analytic functions of a complex variable, elementary functions; integration; power and Laurent series, calculus of residues, conformal representation, special topics.

MATH 543 NUMERICAL ANALYSIS (3 Hours)
This is an introductory course on Numerical Analysis. It is made of five related modules: M1) floating-point arithmetic, M2) root-finding algorithms, M3) numerical solution of systems of equations, M4) interpolation problems and M5) numerical integration.

MATH 551 BASIC GENERAL TOPOLOGY I (3 Hours)
Prerequisite: Mathematics 223 and approval of department.
Elementary set theory, ordinals and cardinals; topological spaces; cartesian products; connectedness; special topologies; separation axioms; covering axioms, metric spaces; convergence; compactness; function spaces; spaces of continuous functions and complete spaces; homotopy; maps into spheres; topology of En; homotopy type; introduction to algebraic topological ideas.

MATH 563 EXPERIMENTAL DESIGN I (3 Hours)
Prerequisite: Mathematics 272.
Experimental Design: Completely randomize design; randomize block designs, factorial experiments split plot design. confounding.

MATH 567 NON-PARAMETRIC STATS I (3 Hours)
Prerequisite: Mathematics 562 and approval of department.
Problems of estimating testing hypotheses when the functional form of the underlying distribution is unknown. Robust methods; sign test, rank test and confidence procedures based on these tests; tests based on permutations of observations. Non-parametric tolerance limits; large sample properties of the tests, multi sample problems; ranking methods in analysis of variance; Bivariate and multivariate procedures, efficiency comparisons.

MATH 571 NUMERICAL ANALYSIS I (3 Hours)
Prerequisite: Approval of department.
Introduction to Matlab, approximate differentiation, local truncation error and order, Euler¿s method, Runge-Kutta methods, embedded Runge-Kutta methods, stiff equations and implicit methods, explicit multi-step methods, implicit multi-step methods, shooting method, finite element method, finite difference methods for partial differential equations.

MATH 577 ORDINARY DIF EQUATIONS I (3 Hours)
Ordinary differential equations: basic theorems of existence, uniqueness, and continuous dependence of the solutions; linear differential equations and systems; stability theory; topology of integral curves; differential equations in the complex domain, asymptotic integration; boundary value problems. Partial differential equations; equations of first order method of characteristics, Hamilton-Jacobi theory; equations of second order-classification according to type; elliptic equations-potential equation, maximum principle, characteristics, and other topics of interest.

MATH 578 ORDINARY DIF EQUATION II (3 Hours)
Ordinary differential equations: basic theorems of existence, uniqueness, and continuous dependence of the solutions; linear differential equations and systems; stability theory; topology of integral curves; differential equations in the complex domain, asymptotic integration; boundary value problems. Partial differential equations; equations of first order method of characteristics, Hamilton-Jacobi theory; equations of second order-classification according to type; elliptic equations-potential equation, maximum principle, characteristics, and other topics of interest.

MATH 579 PARTIAL DIFF EQUATIONS I (3 Hours)
Prerequisite: Mathematics 577 or departmental approval.
Linear equations with constant coefficients in two independent variables, applications, eigenfunction expansions, homogeneous and nonhomogeneous equations. Fourier series, existence, solution uniqueness and representation, Initial boundary value problems, Laplace's equation, and special topics.

MATH 584 INDEPENDENT STUDY (3 Hours)
Prerequisite: Departmental consent.
Intensive study and research of a subject selected in accordance with student needs and arranged in consultation with the staff. Topics will vary. Student will make periodic reports on his/her reading and will-prepare a scholarly paper on a problem.

MATH 599 THESIS (3 Hours)
The candidate for the Master's degree must present a Thesis embodying the results of his research. The candidate chooses his problem, but approval by his adviser is required.

MATH 628 ADVD PARTIAL DIFF EQUATIONS I (3 Hours)
This course covers representation formulas for Laplace's equation, heat equation, and wave equation' theory of general nonlinear first-order partial differential equations; solvability of uniformly second order ellipitc, parabolic, and hyperbolic equations; theory of Sobolev spaces.

MATH 629 ADVND PARTIAL DIF EQUATIONS II (3 Hours)
This course is a continuation of MATH 628 and covers the theory and qualitative analysis techniques for nonlinear higher-order partial differential equations including calculus of variations, monotonicity methods, fixed point methods, methods of sub-solutions and super-solutions, nonexistence, geometric properties of solutions, gradient flows, Hamilton-Jacobi equations, and system of conservation laws.

MATH 670 COMPUTATIONAL METHODS N MATH I (3 Hours)
This course is designed to give an overview of the design, analysis and implementation of the most fundamental numerical techniques of MATH 543 in numerical linear algebra, the interpolation of functions, and the evaluation of integrals. This course in most part will depend on programming with MATLAB and/or C++. While we present many MATLAB examples throughout the course, students are strongly advised to have some previous programming experience in any computer programming language.

MATH 671 COMPUTATNL METHODS IN MATH II (3 Hours)
This course is a continuation of MATH 670. Topics covered includes introduction to mathematical and computational problems arising in the context of molecular biology. Theory and applications of combinatories, probability, statistics, geometry, and topology to problems ranging from sequence determination to structure analysis. The course depends on parallel and distributed programming.

MATH 673 QUANTITATIVE EXPLORATN OF DATA (3 Hours)
This course covers how to analyze and mine data with the Structured Query Language (SQL). Understand SQL fundamentals, and then advance into the uses of SQL data analysis and data mining with real applications. Learn to use Microsoft Excel to further analyze, manipulate and present your data exploration and data-mining findings in tabular and graphical formats. Students will be exposed to Extreme Science and Engineering Discovery Environment (XSEDE).

MATH 700 TPCS N MATH & STATS A N CDS&E (3-6 Hours)
The course may be repeated for credit. It covers current trends and challenges of mathematical and statistical applications in CDS&E.

MATH 827 NUMERICAL SOLUTN OF DIF EQUATI (3 Hours)
Ordinary differential equations:Runga-Kutta and predictor-corrector methods; stability theory, Richardson extrapolation, sitff equations, boundary value problems. Partial equations, boundary value problems. Partial differential equations: stablity, accuracy and convergence, Von Neumann and CFL conditions, finite difference solutions of hyperbolic and parabolic equations. Finite differences and finite element solution of elliptic equations.

Computational Mathematics and Data-Enabled Science & Engineering (Ph.D.)

Computational Mathematics and Statistical Sciences Track

The doctoral program in CDS&E is a research-oriented program that requires a minimum of 72 credit hours beyond the Bachelor's degree or a minimum of 48 credit hours beyond the Master's degree. The program shares resources with the departments and schools offering concentrations in CDS&E and operates under the College of Science, Engineering, and Technology (CSET). The CDS&E program seeks to improve our ability to extract knowledge from large and complex digital data as we endeavor to meet the national imperative to accelerate discoveries in science and engineering, strengthen our national security and transform teaching and learning. The concentration in Computational Mathematics and Statistical Sciences track is an interdisciplinary program designed to ensure that the student acquires knowledge in a broad spectrum of the mathematics and statistical sciences through quantitative exploration of data. The program of study is structured to reflect the belief that a student in the program should not only be proficient in a specialized track, but also understand how it relates to other academic fields and big data and be able to recognize opportunities for developing new ideas of the track and solve real-world problems. As a result, the Ph.D. graduate in computational mathematics and statistical sciences is equipped with all necessary tools and skills to recognize opportunities for developing and advancing mathematics and statistical ideas arising from many domain fields and for work outside of the traditional mathematics and statistics academic setting. In addition to opportunities for consulting experience through the Laboratory for Interdisciplinary Statistical Analysis through Quantitative Exploration of Data (LISA-QED), students in the track may have opportunities for participation on research projects through other facilities on campus designed for computational and quantitative simulations, exploration, and visualization of data, and make presentations at professional CDS&E conferences.

Admission Requirements

To be considered for admission, the following requirements should be met:

- Applicants must have completed the Graduate Application for Admission.
- Applicants must have provided official copies of transcripts from all colleges/universities attended.
- The applicant must have a Bachelor's or Master's degree from an accredited college or university in a STEM field or related fields, and
- A minimum GPA of 3.00 (on a 4.00 scale) on the highest degree earned.
- A satisfactory TOEFL score for international students whose native language is not English.
- Three letters of recommendation from three professors or professionals knowledgeable of the applicant's professional or academic ability, job experiences, and leadership potential.
- A statement of purpose.

Degree Requirements

- Common Core = 12 credit hours
- Track Requirement = 12 credit hours
- Track electives = 24 credit hours
- Dissertation = Not more than 24 credit hours

Please refer to College of Science, Engineering and Technology section of the catalog for all the details regarding the CDS&E Ph.D. degree completion. Students are advised to follow the guidelines given by the Division of Graduate Studies for the completion of the Doctorate degree.

Ph.D. Examination Procedures

- Comprehensive Qualifying Examination (GNST 700 APPS FOR GRAD DEG CAND DOCTORA)
- Graduate Area Comprehensive Examinations (GNST 888 GRAD COMP EXAM(DOCTORAL LEVEL))
- The Dissertation (Thesis)
- Final Defense of Dissertation
- Comprehensive Qualifying Examination (GNST 700 APPS FOR GRAD DEG CAND DOCTORA)

To ensure that the skills and basic knowledge have been acquired to carry out the research necessary for the dissertation, the student must demonstrate competence in the common core and concentration track areas. Competence will be demonstrated by a comprehensive qualifying examination which shall consists of written examinations over each of these two areas. The two parts comprehensive qualifying examination will consist of 3 of the 4 common core courses (CSC 601 COMPUTER ALGORITHMS, CSC 620 DATABASE MANAGEMENT SYSTEMS, and STAT 661 PROBABILITY AND STATISTICS or STAT 672 COMPUTATIONAL STATISTICS) as Part I and all the 4 required courses for the chosen track as Part II. A good performance on both Part I and Part II exams will be required for passing. Knowledge of the content of the courses listed in the common core and specialized concentration tracks, such as the typical course sequence listed under each area, should be adequate preparation for the comprehensive qualifying examination. Study guides for each of the examination areas will also be available.

A Comprehensive qualifying examination will normally be scheduled at the beginning of the spring semester and once during the summer. To show satisfactory progress in his/her graduate studies, a student is normally expected to complete his/her comprehensive qualifying examinations by the end of the second full academic year of Ph.D. work or equivalently, completing the common core and concentration track course work. A student will be allowed to repeat an examination only once or as recommended by the faculty advisory committee.

Graduate Area Comprehensive Examinations (GACE)

When the comprehensive qualifying examinations have been passed, the Graduate Advisory Committee is formed. The Doctoral Committee and mentor are selected with the dissertation research topic chosen, and when all course work on the program of study has been completed, the student may request the Graduate Area Comprehensive Examination [GACE] to be scheduled. The GACE will be an examination in the core courses as well as an in-depth examination in the track. It will be administered by the student's doctoral committee and must contain an oral component. Pass or fail will be determined by majority vote of the

committee. The oral component of the examination is open to members of the faculty.

The Dissertation

After the GACE has been passed, the student's doctoral committee will be reconstituted to form the dissertation committee. The student and the major professor of the doctoral committee will select the student's dissertation committee, subject to the approval of the CDS&E Ph.D. Advisory Committee. The dissertation committee will consist of at least five graduate faculty members, including a major professor and at least three additional graduate faculty members from the other concentration tracks, including an external member. The primary responsibility of the committee will be to supervise the student's research and writing of the dissertation in the chosen concentration track, and its members should be chosen with this mission in mind. In the early stages of the research effort, the student will make a formal dissertation proposal to the dissertation committee. The dissertation will be an original work that makes a significant contribution to the student's area of specialization. An external person who has expertise in the dissertation area will be enlisted by the student and his/her committee to serve as an external examiner for the dissertation. This person will read the dissertation and submit written comments regarding its
quality and significance to the student's committee. It is highly recommended that at least two publications in professionally refereed journals be resulted from the dissertation.

Final Defense Examination

After all other examinations and the dissertation have been completed, the student's committee will schedule the final defense examination for the student. This examination will consist of an oral defense of the dissertation and will be open to the public. After consultation with the CDS&E Ph.D. program Coordinator, the major professor will publicize the time and place that the examination will be held. This announcement should be at least one week prior to the scheduled date of the examination. A pass or fail on this examination will be determined by a majority vote of the student's committee. In making its decision, the committee will give due consideration to the external examiner's assessment of the dissertation and the refereed publications that resulted from the dissertation.

Mathematics (M.S.)

Master's Degrees

The M.S. degree is essentially a transition to a doctoral program in the mathematical sciences. The M.S. degree and the M.S.T. degree can be completed with only course work; a Thesis or Project is optional. However, all the programs are designed to meet academic requirements for students who are interested in seeking degrees beyond the master or specialist level.

Admissions Requirements

Admission to any of the Master's degree program in mathematics requires at least 15 semester hours of undergraduate mathematics above the regular calculus sequence and the fulfillment of the admission requirement into graduate studies at Jackson State University, which is an earned Bachelor's degree with a cumulative GPA of at least 3.0 on the 4.0 scale in all undergraduate courses taken at a regional accredited degree granting institution. GRE is not required for admission into any of the Master's degree programs. However, students who are seeking to pursue the doctoral degree are encouraged to take the GRE exams, general and subject area, to increase their chances for competitive admission and financial assistance. These exams can be taken while students are taking courses or after they have completed all coursework.

Master of Science in Mathematics

The department offers programs leading to the M.S. degree in Pure or Applied Mathematics for students who plan on pursuing the doctoral degree or wish to seek careers in college or university teaching, government, industry and the business sector. The programs are designed for persons with adequate background in undergraduate mathematics beyond the calculus sequence.

To receive the M.S. degree a student must be in residence at Jackson State University for at least one semester, complete all degree requirements and must take and pass the Graduate English Competency Exam. If a student's GPA upon completion of all coursework is below 3.33, then such a student is required to take and score at least 70% on a comprehensive exit exam given by the Department.

The requirements for the M.S. degree are:

1. Thirty-six (36) hours are required with a thesis, or thirty-three (33) hours with a project, or thirty-six (36) hours of course work with a score of 70% on an area comprehensive exam.
2. A "B" average with no more than one "C" grade is required for graduation.
3. Pass the Graduate English Competency Exam.

Code	Title	Hours
Required Courses		
MATH 513	LINEAR ALGEBRA I	3
MATH 511	BASIC ABSTRACT ALGEBRA I	3
MATH 531	BASIC REAL ANALYSIS I	3
MATH 541	BASIC COMPLEX ANALYSIS I	3
MATH 551	BASIC GENERAL TOPOLOGY I	3
MATH 561		3
MATH 599	THESIS [1]	6
Total Hours		**24**

[1] A student electing the thesis option, will fulfill the remaining 12 hours from mathematics electives drawn from a list of pure or applied mathematics courses to match his/her area of concentration.

A student electing the thesis option, will fulfill the remaining 12 hours from mathematics electives drawn from a list of pure or applied mathematics courses to match his/her area of concentration. Courses are offered each semester to match each enrolled student's interest. In consultation with an advisor and the Chairperson of the Department, a student must develop a study plan and select sufficient electives from departmental courses to complete degree requirements with a concentration in either pure or applied mathematics. See the list of departmental courses below. A typical study plan for a student with a concentration in applied mathematics who is seeking to pursue a doctoral degree would look like this:

Course	Title	Hours
First Year		
Fall		
MATH 511	BASIC ABSTRACT ALGEBRA I	3
MATH 513	LINEAR ALGEBRA I	3

MATH 531	BASIC REAL ANALYSIS I	3
	Hours	**9**
Spring		
MATH 541	BASIC COMPLEX ANALYSIS I	3
MATH XXX ELECTIVE [1]		3
MATH XXX ELECTIVE [1]		3
	Hours	**9**
Second Year		
Fall		
MATH 551	BASIC GENERAL TOPOLOGY I	3
MATH XXX ELECTIVE [1]		3
MATH 599	THESIS (or MATH XXX ELECTIVE) [2]	3
	Hours	**9**
Spring		
MATH 561		3
MATH XXX ELECTIVE [1]		3
MATH 599	THESIS (or MATH XXX ELECTIVE) [2]	3
	Hours	**9**
	Total Hours	**36**

[1] Approved Mathematics Electives: MATH 514, MATH 531, MATH 532, MATH 537, MATH 542, MATH 577, and MAT 597

[2] A student electing the non-thesis option must enroll in a course from the approved mathematics electives.

Department of Urban and Regional Planning

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Faculty

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Dr. Berneece Herbert, Associate Professor
Dr. Edmund Merem, Professor
Dr. Joan Wesley, Associate Professor
Dr. Talya D. Thomas, Associate Professor

Mission of Program

The Urban and Regional Planning (URP) programs seek to develop leaders in the field of city planning. The programs provide students with learning opportunities that enable them to develop the intellectual qualities necessary for meeting the broad and varied range of problems and challenges associated with urban growth and development. The Department of Urban and Regional Planning (DURP) offers a Master of Arts degree and a Doctor of Philosophy degree. The Master of Arts (M.A.) program is accredited through the Planning Accreditation Board (PAB) and is the only accredited Planning program in the State of Mississippi. The M.A. program consists of an inter-disciplinary curriculum of 49 semester hours, including practical community-based learning experiences and planning studios, while the Doctor of Philosophy consists of 48 semester hours, beyond the master's degree. Both programs have a special focus on increasing the number of under-represented groups and women in the profession. The rigorous programs are designed for both full-time and part-time students. The programs target recognition at the regional, state, and national levels.

Program Objectives

Urban and Regional Planning concentrates upon the challenging issues and problems confronting planning professionals and scholars in the rebuilding of cities across the nation. Courses and studios offer challenging scholarly and practical work that focuses attention on real world solutions while respecting the ethical, skill, and plan development practices of the profession.

Masters

- Urban and Regional Planning (M.A.) (p. 129)

Doctoral

- Urban and Regional Planning (Ph.D.) (p. 131)

Course Descriptions

URP 500 HISTORY OF PLANNING (3 Hours)
Introduction to the historical roots, periods, and personalities that have shaped the profession. A study in the development of the profession within the context of urban American history.

URP 502 PLANNING THEORY & PRACTICE (3 Hours)
Overview of theories that have contributed to the development of contemporary urban planning; theories introduced include rationality, advocacy, and critical. Also studied are issues related to professional ethics, race and class, and urban development.

URP 504 QUANTITATIVE ANALYSIS &COMPUTE (4 Hours)
Introduction to the use of quantitative reasoning and statistical techniques to solve planning and policy problems. This course focuses on application of descriptive and inferential statistics, sampling, regression analysis and modeling.

URP 506 LEGAL ASPECTS OF PLANNING (3 Hours)
Introduction to the basis in constitutional, common, and statutory law for the authority of plan effectuation. This course delineates the legal and legislative bases for planning at the local, state, and federal levels.

URP 508 INTRODUCTION TO URBAN DESIGN (3 Hours)
This course provides an understanding of the dynamics that created contemporary urban and regional spatial patterns, elements of physical planning in relation to social, economic, and political forces as well as the role of the urban designer in the planning process.

URP 520 HOUSING POLICY (3 Hours)
Thorough review of the problems and issues related to housing planning and policy dealing primarily with inter-relationships and interdependencies among socio-cultural, economic and physical aspects of housing. This course focuses on the social, political, and economic aspects of housing policy in the United States.

URP 521 AFRICAN AMERICAN COMMUNITY (3 Hours)
Investigates processes of community development for their application in community building in African American communities. Explores the development of a model for development and discusses various roles of participants in the community development process.

URP 522 INTRO. TO COMMUNITY DEVELOPMEN (3 Hours)
Overview of the elements of the community development process including housing, economic development, education, public safety, social services, transportation, infrastructure, the environment, citizen participation and leadership. This course places an emphasis on the application of planning methods and theory to the resolution of community problems.

URP 524 NEIGHBORHOOD REVITALIZATION (3 Hours)
Exploration of planning and political activities that contribute to the restoration of older neighborhoods. Impacts of economic, social, and political processes that govern decision making and funding for revitalization efforts.

URP 525 LAND DEVELOPMENT DYNAMICS (3 Hours)
Emphasizes private decision making and development, public/private relationships, and regulatory activities. This course explores patterns of land utilization from the perspectives of the neighborhood, city, and metropolis.

URP 526 CITIZEN PARTICIPATION (3 Hours)
Introduction to the issues, policies, and techniques related to the role of citizens in the public decision making process. Consideration will be given to legislative requirements for public involvement as well as the role of survey research in the citizen participation process. Techniques for developing local capacity through citizen mobilization and a focus on community building are explored.

URP 527 PUBLIC FINANCE PLANNING (3 Hours)
Overview of the principle of public budgeting, capital budget planning and public finance strategies. This course considers issues surrounding local development and fiscal decision making as they relate to project planning, revenue sources and project evaluation.

URP 528 ECONOMIC DEVELOPMENT PLANNING (3 Hours)
Strategies and tools for developing employment, business ownership, and investment in local, state, and regional economies. This course focuses on contemporary economic development patterns and practices in central cities and urban areas in the South.

URP 529 PLANNING IN LOCAL GOVERNMENT (3 Hours)
Examination of the role of local government in the city planning process. Special consideration is given to the functional areas of planning such as transportation, housing, neighborhoods, environmental constraints, and land use.

URP 530 INTRO TO ENVIRONMENTAL PLANNIN (3 Hours)
Comprehensive overview of the field and the efforts being made to organize, control, and coordinate environmental, aesthetic, and uses of nature and of man-made substances. This course focuses on the problems, potential solutions, and methodologies of public policy, law, and economics as they affect environmental issues in planning.

URP 531 GROWTH MANAGEMENT (3 Hours)
Techniques employed to manage growth-related change and to implement plans. This course focuses on matters of capital investment, development impact analysis, impact mitigation, ethical implications, and alternative growth potentials.

URP 532 ENVIRONMENTAL PLANNING ETHICS (3 Hours)
Investigation of the issues and affects of decision making related to environmental justice. This course focuses on the history of the development, cases, and advocacies for ethical decision making related to the environment.

URP 533 RURAL LAND USE PLANNING (3 Hours)
Small-town planning, rural populations, and development dynamics are explored. This course focuses on the social, economic, political, and environmental factors that are employed by planners to assist citizens plan for quality futures.

URP 535 COMPREHENSIVE PLANNING STUDIO (3 Hours)
Introduction to the theory and practice of urban and regional planning. Planning as a method of decision making and strategic choice, goal setting, alternative development, and implementation solutions.

URP 536 DVLPNG NATIONS ENVIRONMENTL PL (3 Hours)
Examines urban development issues and impacts in Third World nations. This course explores issues of environmental quality, policy responses, housing production, biological diversity, agriculture, conservation, wildlife management, and socio-economic pressures

URP 537 PLAN IMPLEMENTATION (3 Hours)
Interactive community and governmental dynamics in plan implementation are explored. This course focuses on the use of land-use regulatory tools and community facilities in implementing the plan.

URP 538 ZONING AND LAND USE REGULATION (3 Hours)
The theory, practice, and consequences of zoning as a land use tool in the implementation plans. This course includes the legal and administrative elements employed in zoning law, ordinance preparation, and other regulatory devices.

URP 540 HISTORIC PRESERVATN & CONSERVA (3 Hours)
Issues of revitalizing and preserving historic resources are explored. This course focuses on the history, context, methods, and public policies related to historic preservation movements and programs.

URP 541 TECH SKILLS OF COMP AND COMMUN (3 Hours)
Studio introducing graphic communication (in two and three dimensions) as visual organization and sequencing of the complex and varied information considered in the decision-making process of planning. Exercise of cognitive and aesthetic judgment by selective use and drawing of lines, planes, perspective, solids, shade, shadow and color; including introduction to the examination of aesthetic, symbolic and cultural elements of design.

URP 542 INFRASTRUCTURE & COMMUNITY FAC (3 Hours)
Examines planning and policy issues surrounding public services and facilities. Topics include the distribution of the benefits and costs of various public services and fiscal, traffic, and environmental impacts of land development.

URP 543 COMPUTER-AIDED DESIGN I (3 Hours)
Prerequisite: URP 541)
Studio introducing the concepts, issues and methods of computer-aided design as a tool in the planning and urban design process. A previous knowledge of computers is not required. (

URP 544 DESIGN STUDIO (3 Hours)
Investigates the development of physical form of cities through models, geographic landscape, and intentional human use. This course focuses on the manner in which people exploit land and human experiences that determine design principles.

URP 546 SITE DEVELOPMENT (3 Hours)
Introduction to site analysis, using environmental and engineering principles and modeling exercises to analyze and understand the use of land for development purposes. This course focuses on elements of grading, drainage, and landscape architecture.

URP 547 BEHAVIOR & CULTURAL FACTORS (3 Hours)

URP 550 SPECIAL TOPICS (3 Hours)
Students electing to not pursue the thesis option may enroll in this course to conduct a special project topic. A maximum of three credits are allowed for this course.

URP 551 REGIONAL PLANNING (3 Hours)
This course provides students with an in-depth understanding of regional planning - its historical roots, current practices, regionalism. Regional planning, metropolitan planning, and similar terms are constantly being used by planners. What do these terms mean? How can they influence practice and scholarship in this field?

URP 555 INDEPENDENT STUDY (1-6 Hours)
Students wishing to explore an in-depth study of a topic not directly offered in the curriculum may enroll in this course. A maximum of six credit hours of independent study may be accrued. Permission of the faculty is required.

URP 560 THESIS RESEARCH (3 Hours)
Students pursuing the thesis option must enroll in this course. This course focuses on the methodology and techniques of writing a thesis, including the research and presentation of the document.

URP 566 MASTER'S THESIS (3 Hours)
Students electing the thesis option must obtain approval from the faculty for the prospectus. All requirements of the Graduate School for submission dates must be met.

URP 570 INTERNSHIP (3 Hours)

URP 571 GIS FOR PLANNING (3 Hours)

URP 572 ADVD CONCEPTS IN GIS URB PLNG (3 Hours)

URP 700 HISTORICAL DEVELOPMENT OF CITI (3 Hours)
Intensive investigation and discussion of major contributing factors to the economic, social and ecological development of cities. The course will require students to apply historical research methodologies in the analysis of urban agglomerations.

URP 702 THEORETICAL PERSPECTIVES IN PL (3 Hours)
Study of the advanced theoretical concepts in urban planning and the relationship between planning theory and social science precepts. Comparative analysis of theories that stimulate planning thought and philosophy.

URP 710 ADVANCED STATISTICAL METHODS (3 Hours)
Prerequisite: URP 502 or equivalent.
The course is designed to offer state-of-the-art procedures and paradigms in statistical applications.

URP 712 RESEARCH METHODOLOGY (3 Hours)
Students acquire a foundation in conceptualization, measurement, research design, prospectus preparation, data collection, approaches to data analysis, documentation, and presentation of substantive research.

URP 714 ETHICS IN PLANNING SEMINAR (3 Hours)
In this course students examine the theory and practice of professional ethics. The principles of ethical thinking and behavior in the planning profession are covered extensively.

URP 720 URBAN HOUSING POLICIES (3 Hours)
This course examines the policies that impact housing systems in the United States. Factors contributing to housing shortages and housing costs are analyzed, and programs developed to address these issues are evaluated. Additionally, the role of housing advocacy is studied.

URP 722 COMMUNITY DEVELOPMENT & HOUSIN (3 Hours)
A thorough analysis and evaluation of the principles and practices of community development. Substantive areas of housing, economic development, education, public safety, social services, transportation, infrastructure, the environment, citizen participation and leadership will be selectively covered. This course places an emphasis on the application of planning methods and theory to the resolution of community problems.

URP 724 URBAN REVITALIZATION STUDIO (3 Hours)
Prerequisite: Specialization in community development and housing.
In-depth study of a selected problem related to urban revitalization. Students will be required to prepare a detailed planning document addressing the redevelopment needs of a specific urban neighborhood or area. Topics vary each semester depending on research opportunities.

URP 726 CITIZEN PARTICIPATION (3 Hours)
This course provides an intensive study of the roles of citizen participation influencing the public planning process. Consideration is given to emerging methods and programs for public involvement as well as the role of survey research in the citizen participation process. Techniques for developing local capacity through citizen mobilization and a focus on community building will be explored.

URP 728 LOCAL & REGIONAL ECONOMIC DEVE (3 Hours)
An in-depth examination and evaluation of strategies and tools for developing employment, business ownership, and investment in local, state, and regional economics. This course allows students to conduct research on a specialized interest in the areas of economic development and finance, while gaining a greater understanding of the relationship between local and regional economic development patterns and practices.

URP 729 POLITICS OF PLANNG N LOCAL GOV (3 Hours)
This course will examine the key role of politics and the planning functions that are carried out by local governments within the United States. Key issues in several functional areas will be highlighted such sustainable development that will focus on transportation, environmental concerns, housing, land use, and community economic development.

URP 730 ENVIRONMENT AND LAND USE (3 Hours)
This course investigates the major competing theories and policies related to the built environment and natural world. Methods of classifying and evaluating the effects of pollution upon natural and social systems are discussed.

URP 731 GROWTH DEVELOPMENT (3 Hours)

URP 732 ENVIRONMENTAL PLANNING ETHICS (3 Hours)

URP 733 COUNTRYSIDE DEVEPMT & PLANNG (3 Hours)
In this course, students examine the theory and practice of country side development and planning. The principles of ecological, socio-economic, political elements and development models shaping planning for rural communities in a substainable setting are covered extensively.

URP 735 LAND USE PLANNING STUDIO (3 Hours)
Selective problems related to urban and/or rural issues are presented. Students are required to prepare (individually or in teams) area or comprehensive plans that are designed to provide alternative solutions to identified problems.

URP 736 INTERNATIONAL HUMAN SETTLEMENT (3 Hours)
An overview of conditions, policies, and programs that characterize living patterns in international settings. Students are required to conduct research and make scholarly presentations regarding the diverse settlements found in western and non-western nations.

URP 737 PLAN IMPLEMENTATION (3 Hours)
The theories, practices and rationalizations for planner involvement in the implementation of alternatives are investigated. Students are required to present a formal strategy for the implementation of a planning proposal.

URP 740 FOUNDATIONS IN URBAN DESIGN (3 Hours)
Prerequisite: URP 700 or permission of the instructor.
Examination of the social, physical and cultural determinants of form, pattern, and space that expresses the heritage of urban design and city building; and the role of urban design in the fields of architecture, landscape architecture and urban planning.

URP 742 ANLYL & EVAL MTHDS FOR URBAN D (3 Hours)
Prerequisite: URP 740.
Exploration of the theoretical, methodological and practical issues of urban design, including urban space and morphology, conceptions of place, cognition, perception and information field theory. Students will gain a working competence in at least one of the methods analyzed. Focus on selected contemporary issues in commercial and neighborhood design and planning.

URP 744 URBAN DESIGN STUDIO (3 Hours)
Systematic study of specialized subject matter leading to the design and effectuation of physical improvement plans, program design, and public policies. Synthesis of urban design and planning issues and research methods in a laboratory setting. Topics vary each year, depending on current planning interest and needs.

URP 746 URBAN DESIGN DOCTORAL SEMINAR (3 Hours)
Prerequisite: Completion of Ph.
Discussion and critique of selected research work and analytical methods involving issues of urban design. Presentation and critique of research proposed by members of the seminar. D. core courses and required urban design concentration courses.

URP 750 PROFESSNL PRACTICE ISS N PLANN (3 Hours)
This course is designed to study the most current and effective practices to study the most current and effective practices in the profession. A range of considerations related to the techniques of intervention methods of design, and public involvement in the planning and decision-making process are selectively covered.

URP 751 REGIONAL PLANNING (3 Hours)

URP 760 ADVANCED READINGS (3 Hours)
In this colloquium students read and discuss the assigned books. The instructor facilitates the discussion. Each student will be responsible for at least two readings and weekly discussions.

URP 770 INDEPENDENT STUDY (1-9 Hours)
By arrangement with the advisor and approval with the faculty, students may pursue a topic of special academic or research interest. The independent research must be at an advanced graduate level and related to the field of planning. May be repeated with change of topic.

URP 771 SEM IN GIS FOR URBAN PLANNING (3 Hours)

URP 772 ADVD GIS APPLICATIONS IN URP (3 Hours)

URP 777 DOCTORAL RESEARCH PREPARATION (1-6 Hours)
The course is designed to specifically and exclusively for those students who have completed all required coursework, obtained permission to enroll from the Department Chair, and seek time to prepare for the Comprehensive Examination. The course will permit qualified students to interact with faculty and colleagues to properly prepare for the Comprehensive Examination. Permission from the Department Chair is required.

URP 899 DISSERTATION HOURS (1-9 Hours)
Prerequisite: completion of all Ph.
Working with a faculty approved committee, the student is required to undertake dissertation research. D. course work, approved dissertation proposal, and dissertator status with the Graduate School. Course may be repeated provided progress is being made on the dissertation.

Urban and Regional Planning (M.A.)

Admission Requirements

Admission to the graduate degree program in Urban and Regional Planning is governed by the regulation of the Division of Graduate Studies and Urban and Regional Planning. The following criteria must be met:

1. Admission by the Division of Graduate Studies;
2. A minimum grade point average of 3.0 on a 4.0 scale;
3. Consistent with Graduate School Guidelines, Conditional status may be assigned to students who possess a cumulative GPA of at least 2.50 – 2.99 at the undergraduate level (on 4.0 scale);
4. Satisfactory performance on the Graduate Record Examination or equivalent test;
5. Demonstrated promise for successful academic achievement in professional graduate work;
6. For international students, indication of adequate financial support and satisfactory performance on TOEFL demonstrating oral and written proficiency;
7. Official statement of intent; and
8. Three letters of recommendation.

Degree Requirements

Urban and Regional Planning offers courses on a semester basis. Forty-nine credit hours are required for a master's degree. A basic core and three areas of concentration (Community Development and Housing, Environment and Land Use, and Urban Design) are offered. A thesis or major report option may be elected. An internship in a planning or planning related agency is required of all students with no prior planning or planning related experience.

Course Requirements

Code	Title	Hours
Core Courses		
URP 500	HISTORY OF PLANNING [1]	3
URP 502	PLANNING THEORY & PRACTICE [1]	3
URP 504	QUANTITATIVE ANALYSIS &COMPUTE [1]	4
URP 506	LEGAL ASPECTS OF PLANNING [1]	3
URP 508	INTRODUCTION TO URBAN DESIGN [1]	3
Concentration Courses		
Select 15 hours minimum from one of the three concentration areas		15
Electives		
Select nine credits hours of elective courses [2]		9
Internship		
URP 570	INTERNSHIP [1]	3
Thesis or Non-Thesis Option		
Select six credit hours from one of the following options:		6
Thesis		
URP 560	THESIS RESEARCH	
URP 566	MASTER'S THESIS	
Non-Thesis		
Six credits of non-thesis courses [2]		
Total Hours		**49**

[1] Required course.

[2] Faculty Advisor's approval required.

Concentration Courses

(15 hours minimum from one of the three concentration areas)

Community Development and Housing Concentration

Community development is an encompassing term, which includes all the facets of human effort to improve the quality of life in the environment. The term typically anticipates initiatives by members of the community to make these improvements with the assistance of advocates and government. The dynamics of the social, economic, and political spheres are included. A major element of community development is housing and its associated human settlement issues. The roles of the public and private sectors in determining the location, design, construction, and management of housing are central to the city planning function.

Code	Title	Hours
Select a minimum of 15 credit hours from the following:		15
URP 520	HOUSING POLICY [1]	
URP 521	AFRICAN AMERICAN COMMUNITY	
URP 522	INTRO. TO COMMUNITY DEVELOPMEN [1]	
URP 524	NEIGHBORHOOD REVITALIZATION [2]	
URP 525	LAND DEVELOPMENT DYNAMICS	
URP 526	CITIZEN PARTICIPATION	
URP 527	PUBLIC FINANCE PLANNING	
URP 528	ECONOMIC DEVELOPMENT PLANNING	
URP 529	PLANNING IN LOCAL GOVERNMENT	
URP 551	REGIONAL PLANNING	
URP 571	GIS FOR PLANNING	
Total Hours		**15**

[1] Required Concentration Course.
[2] Required Concentration Studio Course.

Environment and Land Use Concentration

This concentration focuses on an analysis of measures that conserve, preserve, and equitably distribute the ecological and social elements of the natural and built environment. The role of natural systems in efforts to achieve a sustainable environment is included in the study of environmental planning. In the investigation of environmental systems, planning seeks to identify and document the economic, political, and social outcomes of policies and programs that engage protective and preservative environmental measures.

Code	Title	Hours
Select a minimum of 15 credit hours from the following:		15
URP 530	INTRO TO ENVIRONMENTAL PLANNIN [1]	
URP 531	GROWTH MANAGEMENT [1]	
URP 532	ENVIRONMENTAL PLANNING ETHICS	
URP 533	RURAL LAND USE PLANNING	
URP 535	COMPREHENSIVE PLANNING STUDIO [2]	
URP 536	DVLPNG NATIONS ENVIRONMENTL PL	
URP 537	PLAN IMPLEMENTATION	
URP 538	ZONING AND LAND USE REGULATION	
URP 571	GIS FOR PLANNING	
Total Hours		**15**

[1] Required Concentration Course.
[2] Required Concentration Studio Course.

Urban Design Concentration

Urban design, broadly understood, is place making. In urban design, we consider the many aspects of development and come to understand multiple analytic paths through which we can engage urban issues and contexts. We approach urban design as a sociopolitical phenomenon, embracing urban design as a web of relationships between private, public, and nonprofit interests that influence the relational and spatial configurations of our cities. The primary emphasis of the urban design curriculum is to support the development of citizens, planners, and scholars who are able to identify and analyze both urban issues and contexts, who are prepared to use context sensitive design principles and social science frameworks, and who are committed to leading creative approaches for improving the quality of life of those who live and work in urban areas.

Code	Title	Hours
Select a minimum of 15 credit hours from the following:		15
URP 540	HISTORIC PRESERVATN & CONSERVA	
URP 541	TECH SKILLS OF COMP AND COMMUN [1]	
URP 542	INFRASTRUCTURE & COMMUNITY FAC	
URP 543	COMPUTER-AIDED DESIGN I	
URP 544	DESIGN STUDIO [2]	
URP 546	SITE DEVELOPMENT	
URP 547	BEHAVIOR & CULTURAL FACTORS [1]	
URP 571	GIS FOR PLANNING	
URP 572	ADVD CONCEPTS IN GIS URB PLNG	
Total Hours		**15**

[1] Required Concentration Course.
[2] Required Concentration Studio Course.

Curriculum Plans

Community Development and Housing Concentrations: Non-Thesis Option-Full Time Plan

Course	Title	Hours
First Year		
Fall		
URP 500	HISTORY OF PLANNING	3
URP 502	PLANNING THEORY & PRACTICE	3
URP 520	HOUSING POLICY	3
	Hours	**9**
Spring		
URP 504	QUANTITATIVE ANALYSIS &COMPUTE	4
URP 508	INTRODUCTION TO URBAN DESIGN	3
URP 522	INTRO. TO COMMUNITY DEVELOPMEN	3
	Hours	**10**
Summer		
URP 521	AFRICAN AMERICAN COMMUNITY	3
URP 555	INDEPENDENT STUDY	3
	Hours	**6**

Second Year		
Fall		
URP 506	LEGAL ASPECTS OF PLANNING	3
URP 523		3
URP 524	NEIGHBORHOOD REVITALIZATION	3
URP 570	INTERNSHIP	3
	Hours	**12**
Spring		
URP 526	CITIZEN PARTICIPATION	3
URP 529	PLANNING IN LOCAL GOVERNMENT	3
URP 532	ENVIRONMENTAL PLANNING ETHICS	3
URP 551	REGIONAL PLANNING	3
	Hours	**12**
	Total Hours	**49**

Urban Design Concentration, Non-Thesis Option-Full Time Plan

Course	Title	Hours
First Year		
Fall		
URP 500	HISTORY OF PLANNING	3
URP 502	PLANNING THEORY & PRACTICE	3
URP 541	TECH SKILLS OF COMP AND COMMUN	3
	Hours	**9**
Spring		
URP 504	QUANTITATIVE ANALYSIS &COMPUTE	4
URP 508	INTRODUCTION TO URBAN DESIGN	3
URP 530	INTRO TO ENVIRONMENTAL PLANNIN	3
URP 547	BEHAVIOR & CULTURAL FACTORS	3
	Hours	**13**
Summer		
URP 521	AFRICAN AMERICAN COMMUNITY	3
URP 533	RURAL LAND USE PLANNING	3
	Hours	**6**
Second Year		
Fall		
URP 506	LEGAL ASPECTS OF PLANNING	3
URP 542	INFRASTRUCTURE & COMMUNITY FAC	3
URP 543	COMPUTER-AIDED DESIGN I	3
URP 544	DESIGN STUDIO	3
	Hours	**12**
Spring		
URP 522	INTRO. TO COMMUNITY DEVELOPMEN	3
URP 545		3
URP 546	SITE DEVELOPMENT	3
URP 570	INTERNSHIP	3
	Hours	**12**
	Total Hours	**52**

Environment and Land Use Concentration, Non-Thesis Option-Full Time Plan

Course	Title	Hours
First Year		
Fall		
URP 500	HISTORY OF PLANNING	3
URP 502	PLANNING THEORY & PRACTICE	3
URP 530	INTRO TO ENVIRONMENTAL PLANNIN	3
	Hours	**9**
Spring		
URP 504	QUANTITATIVE ANALYSIS &COMPUTE	4
URP 508	INTRODUCTION TO URBAN DESIGN	3
URP 531	GROWTH MANAGEMENT	3
	Hours	**10**
Summer		
URP 533	RURAL LAND USE PLANNING	3
URP 537	PLAN IMPLEMENTATION	3
	Hours	**6**
Second Year		
Fall		
URP 506	LEGAL ASPECTS OF PLANNING	3
URP 534		3
URP 535	COMPREHENSIVE PLANNING STUDIO	3
URP 538	ZONING AND LAND USE REGULATION	3
	Hours	**12**
Spring		
URP 532	ENVIRONMENTAL PLANNING ETHICS	3
URP 536	DVLPNG NATIONS ENVIRONMENTL PL	3
URP 539		3
URP 555	INDEPENDENT STUDY	3
	Hours	**12**
	Total Hours	**49**

Urban and Regional Planning (Ph.D.)

Admissions Requirements

Admissions to the doctoral program is governed by the regulations of the Division of Graduate Studies and Urban and Regional Planning. The following criteria must be met:

1. Admissions by the Division of Graduate Studies at Jackson State University with a minimum grade point average of 3.0 on a 4.0 scale;
2. Satisfactory performance on the Graduate Record Examination or equivalent test.
3. Promise for successful academic achievement at the doctoral level.
4. For international students, indication of adequate financial support and satisfactory performance on TOEFL demonstrating oral and written proficiency.
5. Three letters of recommendation.
6. Substantive statement of proposed research within one of the Program's areas of concentration.
7. When applicable, a description of professional experience and/or samples of previous scholarly works.
8. A personal interview with a faculty when practical.

Candidacy Requirements

Students must successfully complete a comprehensive examination and prepare and defend a proposal for dissertation research prior to being declared a degree candidate.

Degree Requirements

Urban and Regional Planning offers courses on a semester basis. A basic core curriculum and three areas of concentration (Community Development and Housing, Environment and Land Use, and Urban Design) are offered. Thirty-six credit hours of course work beyond the master's degree are required prior to writing the dissertation. After completing these course requirements, students may earn a maximum of twelve additional credit hours of dissertation credit. The Ph.D. is awarded after successful completion and defense of the dissertation.

Course Requirements

Code	Title	Hours
Core Courses		
URP 700	HISTORICAL DEVELOPMENT OF CITI	3
URP 702	THEORETICAL PERSPECTIVES IN PL	3
URP 710	ADVANCED STATISTICAL METHODS	3
URP 712	RESEARCH METHODOLOGY	3
URP 714	ETHICS IN PLANNING SEMINAR	3
Concentration Courses		
Select 12 hours from one of the three concentration areas		12
Community Development and Housing Concentration		
The following seminars and studios would apply toward this concentration:		
URP 720	URBAN HOUSING POLICIES	
URP 722	COMMUNITY DEVELOPMENT & HOUSIN	
URP 724	URBAN REVITALIZATION STUDIO	
URP 726	CITIZEN PARTICIPATION	
URP 728	LOCAL & REGIONAL ECONOMIC DEVE	
URP 729	POLITICS OF PLANNG N LOCAL GOV	
URP 760	ADVANCED READINGS	
Environment and Land Use Concentration		
The following seminars and studios would apply toward this concentration:		
URP 730	ENVIRONMENT AND LAND USE	
URP 731	GROWTH DEVELOPMENT	
URP 732	ENVIRONMENTAL PLANNING ETHICS	
URP 733	COUNTRYSIDE DEVEPMT & PLANNG	
URP 735	LAND USE PLANNING STUDIO	
URP 736	INTERNATIONAL HUMAN SETTLEMENT	
URP 737	PLAN IMPLEMENTATION	
URP 760	ADVANCED READINGS	
Urban Design Concentration		
The following seminars and studios would apply toward this concentration:		
URP 740	FOUNDATIONS IN URBAN DESIGN	
URP 742	ANLYL & EVAL MTHDS FOR URBAN D	
URP 744	URBAN DESIGN STUDIO	
URP 746	URBAN DESIGN DOCTORAL SEMINAR	
URP 760	ADVANCED READINGS	
Electives		
Nine hours minimum of Electives [1]		9
Dissertation		
URP 899	DISSERTATION HOURS (12 hours minimum)	12
Total Hours		**48**

[1] Faculty Advisor's Approval Required.

Graduate Engineering Program

The Graduate Engineering Program includes both M.S. and Ph.D. degrees in engineering. Enrolled students may specialize in one or more of the eight areas of emphasis including:

- Civil Engineering,
- Environmental Engineering,
- Geological Engineering,
- Coastal Engineering,
- Computer Engineering,
- Computational Engineering,
- Electrical Engineering, or
- Telecommunications Engineering.

Department of Civil & Environmental Engineering and Industrial Systems & Technology

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Faculty

Dr. D. Leszczynska, Professor
Dr. Y. Li, Professor
Dr. R. W. Whalin, Professor
Dr. W. Zheng, Professor
Dr. M. Khan, Associate Professor
Dr. K. Wen, Assistant Professor
Dr. R. Talchabhadel, Assistant Professor
Dr. H. Liu, Assistant Professor

Department of Electrical & Computer Engineering and Computer Science

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E-mail: jacqueline.m.jackson@jsums.edu

Faculty

Dr. K. Abed, Professor
Dr. A. Abu El Humos, Professor
Dr. K. Ali, Professor
Dr. S. Aliabadi, Professor
Dr. F. C. Dancer, Assistant Professor
Dr. L. Gong, Assistant Professor
Dr. S. Hong, Associate Professor
Dr. J. Jackson, Associate Professor
Dr. M. Manzoul, Professor
Dr. N. Meghanathan, Professor
Dr. V. Melapu, Assistant Professor
Dr. L. Moore, Professor
Dr. T. Pei, Professor
Dr. A. Tanner, Associate Professor
Dr. S. Tu, Professor

Masters

Doctoral

Course Descriptions

CIV 520 ADVANCED ENGINEERING ANAYLS I (3 Hours)
A comprehensive course to familiarize engineering professionals with advanced applied mathematics as it relates to solving practical engineering problems. The course of intensive study blends the theoretical underpinnings of advanced applied mathematics with an understanding of how these powerful tools can be used to solve practical engineering problems. The material covered includes Ordinary Differential Equations; Linear Algebra, Vector Calculus; Fourier Analysis and Partial Differential Equations.

CIV 521 ADVD ENGINEERING ANALYSIS II (3 Hours)
A comprehensive course to familiarize engineering professions with advanced applied mathematics as it relates to solving practical engineering problems. The course of intensive study blends the theoretical use of advanced applied mathematics with an understanding of how these powerful tools can be used to solve practical engineering problems. The material covered includes Complex Analysis; Numberical Methods; Optimization; Graphs, and Probability and Statistics.

CIV 531 TRAFFIC ENGINEERING (3 Hours)
Prerequisite: CIV 390 or permission of Department.
Study of fundamentals of traffic engineering; analysis of traffic stream characteristics; capacity of urban and rural highways; design and analysis of traffic signals and intersection; traffic control; traffic impact studies; and traffic accidents.

CIV 535 PAVEMENT DESIGN (3 Hours)
Aggregate, binder systems. Theory and design of pavement structures, rigid and flexible pavement designs, subgrade materials, pavement management, nondestructive testing, pavement maintenance, design constraints, infrastructure maintenance, major design project.

CIV 536 HIGHWAY ENGINEERING (3 Hours)
Analysis of factors in developing highway transportation facilities; traffic estimates and assignment; problems of highway geometrics and design standards; planning and location principles; intersection design factors; street systems and terminal facilities; programming improvements; drainage design; structural design of surface; concepts of highway management and finance; and highway maintenance planning.

CIV 538 COASTAL STRUCTURES (3 Hours)
The types and functions of coastal structures studied include, seawalls, groins, revetments, bulkheads, dikes, detached breakwaters, reef breakwaters, storm surge barriers and others. A coastal structure will be designed to each student to provide the class a lecture and to prepare a term paper on the coastal structure assigned. Determination of the design wave climate for coastal structures is investigated as it pertains to the functional types of coastal structures. Invited guest lecturers will appear as available.

CIV 539 ADVANCED COASTAL ENGNRG DESIGN (3 Hours)
This course provides a comprehensive advanced investigation of the coastal engineering design process. It includes the Planning and Design Process, Site Characterization, Shore Protection Projects, Beach Fill Design, Navigation Projects, Sediment Management at Inlets and Environmental Enhancement. A design project will be assigned to each student to provide the class a power point presentation and to prepare a term paper on the design project assigned. Invited guest design professionals will appear and present lectures as available.

CIV 542 ADVND DESIGN OF CONCRETE STRUC (3 Hours)
Prerequisite: CIV 420.
Theory and design of reinforced concrete continuous beams, slender columns, two-way-slabs, footings, retaining walls, shear walls and multistory buildings. Design for torsion and design constraints. Framing systems and loads for buildings and bridges, design constraints and a major design project. (Cross reference: CIV 477)

CIV 544 ADVD DESIGN OF STEEL STRUCTURE (3 Hours)
Prerequisite: CIV 360.
Behavior and design of members subjected to fatigue, dynamic, combined loading. Methods of allowable design stress, and load resistance factor design. Design of continuous beams, plate girders, composite beams, open-web joists, connections, torsion and plastic analysis and design. Framing systems and loads for industrial buildings and bridges, design constraints and a major design project. (Cross reference: CIV 476)

CIV 550 ENGINEERING HYDROLOGY (3 Hours)
Prerequisite: CIV 370 or permission of Department.
Principles and theory of surface water and groundwater flow and quality; understanding and determination of water budget, hydrologic cycle, Darcy¿s law, and water resources management at the watershed scale. Water quality parameters including data analysis and interpretation, laboratory tests, and maintenance of water quality. Applications in engineering design,

CIV 560 ENVIRONMENTAL ENGINEERING II (3 Hours)
Prerequisite: permission of Department.
The physical, chemical, and biological environmental engineering systems that are used to protect health and the environment. Examples include drinking water treatment, wastewater treatment, hazardous waste treatment, and air pollution control.

CIV 561 CHEMISTRY FOR ENVIRNL ENGINEER (3 Hours)
Prerequisite: CIV 340, or CIV 560, or permission of Department.
The principles of physical, equilibrium, inorganic, and organic chemistry as they apply to drinking water treatment, wastewater treatment, natural water quality, air quality, and air pollution control. Applications in engineering design.

CIV 562 HAZARDOUS WASTE ENGINEERING (3 Hours)
Prerequisite: CHEM 241, CHML 241, CIV 340, CIVL 340, or permission of Department.
Comprehensive study of the complex, interdisciplinary engineering principles involved in hazardous waste handling, collection, transportation, treatment, and disposal. Also covered are waste minimization, site remediation, and regulations important for engineering applications. Design constraints, engineering judgment, and ethical responsibility are covered. Contemporary hazardous waste issues and urban issues are also addressed. (Cross reference: CIV 468)

CIV 564 SURFACE WATER (3 Hours)
Prerequisite: permission of Department.
Water quantity, water quality, regulation of, and management of rivers, lakes, and wetlands. Applications in engineering design.

CIV 566 AIR POLLUTION (3 Hours)
Prerequisite: permission of Department.
The sources of and engineering principles to prevent or control air pollution and to design and operate processes. Topics include the risks of air pollution to which the public is exposed, the principle and factor underlying the generation of pollutants, physical principles describing how pollution affects the atmosphere and human well-being, regulations which engineers will be expected to understand and comply with. The engineering aspects including principles governing pollutant production from stationary and mobile combustion systems, modeling of the generation and transport of pollutants in the atmosphere, methods for separation and removal of gases and particulates from a process gas stream.

CIV 567 ENVIRONMENTAL REMEDIATION (3 Hours)
Prerequisite: permission of Department.
The course covers current engineering solutions for the remediation of soils and waters contaminated by hazardous waste or spills. The technologies to be covered include bioremediaton, oxidation, soil vapor extraction, soil washing, surfactant-enhanced remedy, thermal treatment, air stripping, solidification/stabilizations, electro kinetic decontamination, underground barriers, permeable reactive treatment walls, and other newly-emerging technologies. The engineering principles behind the remediation technologies are emphasized. Examples of successful applications of the remediation technologies are emphasized. Examples of successful applications of the remediation technologies are discussed.

CIV 568 LAND DISPOSAL OF WASTE (3 Hours)
Prerequisite: permission of Department.
Theoretical, regulatory, and practical aspects of the disposal of waste on lands. Decontamination and reclamation of lands contaminated by industrial activities and spills of industrial chemicals. The usefulness and environmental impact of the disposal of municipal and industrial wastes via land treatment and land filling. Design considerations and engineering problems associated with the land disposal of septic tank effluent, municipal garbage, sewage sludge, sewage effluent, industrial and hazardous waste, and radioactive wastes.

CIV 569 ADVD TPCS IN WATER RESOU ENGNE (1 Hour)
Prerequisite: permission of Department.
Mathematical modeling of environmental systems, including rivers, lakes, estuaries, and air.

CIV 573 ENVRNMNTL GEOLOGY FOR ENGNS (3 Hours)
Defines the role of Environmental Geology in the engineering design of remedial activities dealing with a wide range of geotechnical engineering problems. Fundamental concepts of environmental unity and the rising human population will be addressed. Topics will range from earthquakes to coastal processes with particular emphasis on landslides and water problems.

CIV 574 HYDROGEOLOGY (3 Hours)
Prerequisite: permission of Department.
Defines the role of Hydrogeology in the engineering design of activities dealing with the interaction of ground and surface water. The course will address a wide range of topics including the role of water in earthquakes and landslides, land subsidence, swelling clay foundations, geothermal energy, engineered wetlands, cave and karst formation, contaminant transport, and water resources with emphasis in engineering design.

CIV 580 Advanced Construction Engineering & Management (3 Hours)
Prerequisite: CIV 452 or permission of the department
Skills and knowledge required for sound project management in a variety of management settings, discussion of corporation structures, risk management concepts, labor, safety, and finance. Elements of sound project management. Advanced knowledge of planning, scheduling, and monitoring of construction projects. Contracting issues facing project managers in the engineering world are discussed.

CIV 581 Construction Scheduling (3 Hours)
Prerequisite: Department permission.
This course aims to increase and improve the working knowledge of students in project scheduling and to train them as professional construction managers as stated in the program mission. Students will be provided an understanding of planning, scheduling, and monitoring of construction projects including development of critical path networks, Gantt bar charts and construction cost control and reporting practices. The students will also learn how to use the software tools to accurately prepare and analyze the project schedule and to effectively communicate the schedule to the management team. (Cross-referenced: CIV 454)

CIV 582 Construction Estimating, Cost Analysis & Control (3 Hours)
Prerequisite: CIV 453 or department permission.
This course presents a broad study of estimating methodology, including detailed unit pricing, labor, equipment, materials, subcontracts, job conditions, preconstruction costs, indirect costs, and profit. Detailed Work Breakdown Structure in the estimating process and preparation of a sound bid estimate are presented. Methods for cost control are discussed.

CIV 583 Construction Engineering Equipment & Methods (3 Hours)
Prerequiste: Permission of the department. This course provides an understanding of the various construction methods and equipment employed in the construction industry. The International Building Code, as well as fundamental principles of green building and sustainable design are presented. This course presents a detailed study of typical building materials, design details, and various construction methods, and materials including soil, steel, concrete, wood, and composites. Deployment of equipment, materials, personnel, and subcontracts using a variety of building material and system types are presented.

CIV 584 Construction Contracts, Laws, & Claims (3 Hours)
Prerequisite: Departmental permission.
This course provides an overview of the fundamental aspects of the laws that affect construction and engineering companies, subcontractors as well as the project owners. Construction contracts including contract forms, provisions related to the liability for engineering design and construction, contract language negotiations, as well as key contract terms and how to apply them when managing an active construction project will be discussed. In addition, the course will focus on understanding how to manage claims and disputes, such as claims related to schedule delays and productivity losses.

CIV 585 Building Information Modeling and Integrated Project Delivery (3 Hours)
Prerequisite: Permission of the department
This course covers the Building Information Modeling (BIM) and Integrated Project Delivery (IPD) approaches that address and resolve the perceived inefficiencies in the construction industry. BIM covers geometry, spatial relationships, geographic information, quantities, and properties of building components and can be used to demonstrate the entire building lifecycle including the processes of construction and facility operation. IPD deals with the integration of people, systems, business structures and practices into a single process and collaboratively harness the talents and insights of all participants on a particular construction project in order to optimize project results, increase value to the owner, reduce waste, and maximize efficiency through all phases of design, fabrication, and construction. (Cross reference: CIV 455);

CIV 586 Construction Economic Analysis (3 Hours)
Prerequisite: CIV 355 or permission of the department.
Foundation in Life Cycle Cost Analysis computation within the context of current issues in environmental sustainability and evidence-based thinking; lean construction as a strategy to overcome the hurdle of first cost. Topics covered include the time value of money, and the importance of Cash Flow Diagrams.

CIV 587 Computer Integrated Construction Engineering (3 Hours)
Prerequisite: Permission of the department.
This course educates the emerging design and construction engineering, related work processes, and the contractual relationships for a successful project to the student. The Building Information modeling (BIM), virtual design & construction (VDC), and reality capture will be presented to the students, and various software will be taught.

CIV 588 Decision & Risk Analysis in Construction Engineering (3 Hours)
Prerequisite: Permission of the department
This course provides an overview of the concept of risk analysis including probability, and uncertainty, including probabilistic theories and models, data sampling, hypothesis testing, and the basics of Bayesian Decision Theory. Components of a risk event such as source and impact, and risk reward structure, in construction engineering projects are presented. Decision making process based on risks analysis in construction industry is presented. Sound approaches to support "go" or "no go" decision-making, project financing choices, and project risk mitigation are discussed.

CIV 589 Productivity in Construction Engineering (3 Hours)
Prerequisite: Permission of the department
This course provides an overview of the construction productivity and methods to reduce waste. Lean history concepts and methods, optimization, deduction of basic training modules in lean project delivery, and application of lean management in construction projects are presented. Applications of methods improvement techniques such as time-lapse photography, flow charts, process charts and time standards to improvement of construction productivity are discussed.

CIV 590 Sustainable Construction (3 Hours)
Prerequisite: CIV 453 or departmental permission
Sustainable development includes reducing the impacts of human activities on natural ecosystems and understanding the role these ecosystems have in the economy and on human welfare. The course covers the environmental ethics and environmental justice; ecological/environmental economics including Life Cycle Costing; building assessment (frameworks) and ecolabels. The course develops basic knowledge about energy systems, exergy, entropy, energy conservation and renewable energy; Life Cycle Assessment, embodied energy, energy, and materials.

CIV 631 LINEAR THEORY OF OCEAN WAVES (3 Hours)
Governing equations in free surface flow, deterministic and probabilistic wave theories, wave transformation, wave-induced coastal currents. The formulation and solution of the governing boundary value problem for small amplitude waves are developed and kinematic and pressure fields for short and long waves are explored.

CIV 632 TIDES AND LONG WAVES (3 Hours)
Prerequisite: permission of the Department.
A systematic development of the theory of ocean tides, tidal forcing functions, near shore tidal transformations and tidal propagation in harbors and estuaries. An introduction to the response of harbors to long waves and the study of the generation of long ocean waves.

CIV 636 SPECTRAL WAVE ANALSIS (3 Hours)
Prerequisite: CIV 330, CIV 631 or permission of the Department.
Measurement techniques of ocean waves. Introduction and basic concept of wave spectrum. Harmonic analysis and mathematical formulation of wave spectrum. Maximum entropy and maximum likelyhood methods. Idealized wave spectral models. Wave energy balance equation and its application. Nonlinear wave-wave interaction and diffraction. Wave hindcast and forecast modeling in coastal waters.

CIV 637 ADVD DESIGN FOR BRKWATER REHAB (3 Hours)
Advanced analysis and design considerations for breakwaters are investigated for the most complex challenges. These challenges are associated with rehabilitation and/or reconstruction of damaged breakwaters. Design considerations are explored from an analysis of breakwater failures at Sines, Nawilliwilli, Kahului and others. Toe design, crest elevation, crown design, core alternatives, runup, overtopping, design waves, head design, constructability and functionality are explored.

CIV 640 FINITE ELEMENT METHODS (3 Hours)
Prerequisite: CIV 540 or permission of Department.
Theory and application of the finite element method; stiffness matrices for triangular, quadrilateral, and isoparametric elements; two- and three-dimensional elements; algorithms necessary for the assembly and solutions; direct stress and plate bending problems for static, nonlinear buckling and dynamic load conditions; displacement, hybrid, and mixed models together with their origin in variational methods.

CIV 642 PRESTRESSED CONCRETE DESIGN (3 Hours)
Study of strength, behavior, and design of prestressed reinforced concrete members and structures, with primary emphasis on precast, prestressed construction; emphasis on the necessary coordination between design and construction techniques in prestressing.

CIV 650 SMALL WATERSHED HYDROLOGY (3 Hours)
Prerequisite: CIV 550 or permission of Department.
The role of land conditions in dealing with engineering problems of applied hydrology with emphasis on the small watershed, limited data, and land management situations; gain a physically-based understanding of hydrologic processes that define the functions of small watersheds; Effects of natural and human disturbances on the components of the hydrologic cycle; Investigate special characteristics of small watersheds; Approaches for dealing with limited data; Use the understanding of applied hydrology to predict the impacts of various land use activities on terrestrial and aquatic ecosystems; Develop analytic tools to integrate land use and catchment characteristics to predict catchment response and guide watershed management. Topics include stream flow generation, hill slope hydrology, stream channel hydraulics, hydrograph separation, evapotranspiration, hydrologic tracers, riparian zone hydrology, and hyporheic zone hydrology. Applications in engineering design.

CIV 653 ADVD DESIGN OF HYDRAULIC STRUC (3 Hours)
Prerequisite: CIV 370 or permission of Department.
Analysis and characteristics of flow in open channels (natural and artificial); channel design considerations including uniform flow (rivers, sewers), flow measuring devices (weirs, flumes), gradually varied flow (backwater and other flow profiles, flood routing), rapidly varied flow (hydraulic jump, spillways), and channel design problems (geometric considerations, scour, channel stabilization, sediment transport); analysis and design of hydraulic structures such as dams, spillways etc. based on economic, environmental, ethical, political, societal, health and safety considerations. (Cross-Reference: CIV 466)

CIV 659 ADVD TPS IN WATER RESOURCE ENG (1-4 Hours)

CIV 660 PHYCML PROCESSES IN WATER & WT (3 Hours)
Prerequisite: CIV 561 or permission of Department.
Fundamental principles, analysis, modeling, and design considerations of physical and chemical processes for water and wastewater treatment processes and operations. Drinking water treatment processes will be focused on while parallel wastewater treatment schemes also being discussed. Relevant water quality characteristics, standards, and regulations in engineering design will be reviewed.

CIV 661 BIOL PROCESS IN WASTEWATER ENG (3 Hours)
Prerequisite: CIV 660.
Theory and applications of the biological processes available for the treatment of wastewaters. Fundamentals of biological degradations and transformation of pollutants. Microbial growth kinetics and modeling. Wastewater treatment processes, both aerobic and anaerobic, including suspended growth biological processes and attached growth processes. Emphasis on engineering design considerations and parameters.

CIV 666 ADVND WASTE TRTMNT PROC IN ENV (3 Hours)
Prerequisite: CIV 661 or permission of Department.
An in-depth study of the biological processes used to treat wastewater, with an emphasis on recently published information.

CIV 669 ADVND TPC IN ENVRNML ENGINEERG (3 Hours)
Prerequisite: permission of Department.
Course will focus on a variety of topics in the field of environmental engineering. May be repeated for credit.

CIV 670 ROCK MECHANICS (3 Hours)
Prerequisite: permission of Department.
Classification of rock masses, stress and strain in rock, elastic and time-dependent behavior of rock, state of stress in rock masses, failure mechanisms, construction applications, geological and engineering applications.

CIV 672 ADVANCED GEOMECHANICS (3 Hours)
Prerequisite: CIV 380 or permission of Department.
Theoretical and quasi-theoretical approaches for advanced soil mechanics including stress analysis, consolidation theory, immediate settlement, and saturated and partially saturated soils; problem idealization; introduction to rock mechanics; engineering judgment.

CIV 673 ADVD FOUNDATION ENGINEERING (3 Hours)
Prerequisite: CIV 430 or permission of Department.
Advanced topics in foundations design, special cases of shallow foundations; horizontal load capacity of pile foundations; battered piles, load calculation of pile groups. Drilled caissons; design and construction of sheet piles including cantilever and anchored sheet piles; earth pressures and stability of retaining structures; design of braced supports, cofferdams; design examples.

CIV 675 EARTH DAMS AND SLOPES (3 Hours)
Prerequisite: CIV 380 or permission from the Department.
Stability of natural and man-made slopes under various loading conditions, slope protection. Selection and measurement of pertinent soil parameters. Engineering design and construction of earth dams and embankments. Practical aspects of seepage effects and ground water flow. Flow net and its use; wells; filters; total and effective stress methods of slope analysis.

CIV 680 UNSATURATED SOIL MECHANICS (3 Hours)
Introduction of unsaturated soil, stress-state variables, soil water suction and soil water characteristics curves, hydraulic function curves, flow in unsaturated soil, shear strength and slope stability analysis, lateral earth pressure and retaining structures, design, and compressibility and volumne change analysis for unsaturated soils.

CIV 681 EXCAVATION SUPPORT SYSMS & R S (3 Hours)
Earth pressure theory used in the design of temporary and permanent earth retaining structures, guidelines for the selection of retention method, retaining wall design and associated construction issues of gravity walls, concrete retaining walls,MSE wall, sheet pile wall, soldier pile and diaphragm walls, braced and tie back excavation support systems.

CIV 682 COMPUTATIONAL GEOTECHNICS (3 Hours)
Introduction to numerical and finite element modeling, analyses of embackments, earth dams, slopes, excavation support systems including soldier pile and diaphragm walls, shallow and deep foundation systems, and other geo-structures using advanced geotechnical software.

CIV 683 SOIL STRUCTURE INTERACTION (3 Hours)
Introduction to geotechnical earthquake engineering and fundamental understanding of soil behavior under dynamic loading, finite element analysis of soil structure interaction due to dynamic loading and structural response, seismic slope stability analysis, seismic design of retaining wall and buried structures, case studies.

CIV 684 ADVND SITE CHARACTER & INSTRUM (3 Hours)
In situ test methods, advantages and limitations,SPT, CPT, DCPT, CPTU or piezoncone, DMT, pressure meter, shear vane and other field testvmethods, non-destructive seismic, resistivity, electromagnetic methods, soil property interpretation procedures, geotechnical instrumentation types, monitoring and applications.

CIV 696 SEMINAR (1 Hour)
Presentation of papers, projects and reports by visiting lecturers, graduate students, engineers, and community leaders.

CIV 697 INTERNSHIP (1-3 Hours)
Prerequisite: permission of Department.
Supervised graduate internship and externship in various ares.

CIV 698 INDEPENDENT STUDY (1-4 Hours)
Prerequisite: permission of Department.
Intensive study of a special engineering project including research and literature review selected in accordance with student interests and arranged in consultation with the adviser. Topics will vary. Student will make periodic reports, and will prepare a scholarly paper at the end of semester.

CIV 699 THESIS RESEARCH (1-3 Hours)
Prerequisite: permission of adviser.
Master's thesis representing an independent and original research.

CIV 899 DISSERTATION RESEARCH (1-6 Hours)
Dissertation representing independent and original research.

Engineering (M.S.)

Program Mission

Jackson State University offers course work leading to the Master of Science in Engineering through the Graduate Engineering Program in collaboration with the Department of Civil and Environmental Engineering and Industrial Systems and Technology, and the Department of Electrical & Computer Engineering and Computer Science. Engineering students may pursue a MS degree with emphasis in Civil Engineering, Environmental Engineering, Geological Engineering, Computer Engineering, Computational Engineering, Electrical Engineering, or Telecommunications Engineering. The Programs offers a non-degree admission for engineers in the Jackson area who are only interested in continuing engineering education or desire preparation for the Professional Engineering (PE) Exam.

One objective of the Graduate Engineering Program is to meet the post-graduate engineering educational needs of individuals in the greater Jackson metro area who are employed full time. The curriculum is designed not only to meet individual needs, but to provide courses that upgrade the technical skills of employees in private industry, and municipal, state and federal agencies. Classes are typically taught in the evenings to accommodate the working student. The Graduate Engineering Program provides an environment that accommodates full time graduate engineering students who plan to pursue careers in engineering practice, research, or academia.

Admission Requirements

Admission is open to applicants with an undergraduate degree in engineering. Applicants with an undergraduate degree in a closely related field may be considered. Engineering applicants may be admitted to the Graduate School as Regular Graduate Students, Qualifying Students, Conditional Students or Non-Degree Students. Admission requirements for each of these categories are outlined in the JSU Graduate Catalog. Applicants may have to satisfy undergraduate coursework prerequisites as determined by their Department Chairperson and/or Advisor.

Applicants must also submit three (3) letters of recommendations and must meet all other admission requirements outlined in the Jackson State University Graduate Catalog. In addition, international applicants must submit all documentation as outlined in the Graduate Catalog. All applicants must comply with the admission date deadlines of The Division of Graduate Studies.

Transfer of Graduate Credit

Engineering Graduate students may transfer up to 9 semester hours of graduate credit from another institution upon the recommendation of their advisor and approval by the Department Chairperson.

Time Limit

All course work applied toward a Master of Science Degree in Engineering must be completed within an 8-calendar year period from the date of first entering the graduate program.

Degree Requirements

Thirty (30), or thirty-six (36), semester hours are required for the Master of Science Degree in Engineering depending upon which of the following three options the student selects with approval of his or her department chairperson and/or advisor.

- **Option 1:** Twenty-four (24) semester hours of coursework plus a six-hour thesis
- **Option 2:** Twenty-seven (27) semester hours of coursework plus a three-hour project
- **Option 3:** Thirty-six (36) semester hours of coursework

- **Option 1:** Requires a formal written thesis, formal presentation and oral exam.
- **Option 2:** Requires a written project report, formal presentation and oral exam.
- **Option 3:** Requires an oral exam.

To remain in "good standing," students must maintain a minimum cumulative grade point average (GPA) of 3.0 ("B" average).

Core Courses

Each emphasis area has either three or four core courses (9 to12 semester hours). Electives are selected with approval of the student's graduate committee and/or graduate advisor.

Note: Please refer to the Department of Computer Science for admission and degree requirements, as well as emphasis areas, core courses and description of all courses for the Master of Science in Computer Science.

Engineering (M.S.) Civil Engineering Emphasis

Mission

To provide graduate learning opportunities in civil engineering for acquiring the knowledge, skills and attitudes necessary for practice and life-long professional development; to contribute to the expansion of knowledge of civil engineering through research programs; and to provide professional and community service to the state, the nation, and the world.

Program Objectives

1. Provide the depth and breathe in civil engineering topics necessary for civil engineering practice and development.
2. Provide graduate education in specialized civil engineering areas.

3. Contribute to the discovery of new knowledge and methods that enhance the theory and practice of civil engineering; and engage in meaningful service activities.
4. Provide an environment that promotes professional development, growth of the intellect, character, and spirit of students, faculty, and staff.

Program Requirements

Thirty(30), or thirty-six (36), semester hours are required for the Master of Science Degree in Engineering depending upon which of the following three options the student selects with approval of his or her department chairperson and/or advisor.

Option 1 Twenty-four (24) semester hours of coursework plus a six-hour thesis
Option 2 Twenty-seven (27) semester hours of coursework plus a three-hour project
Option 3 Thirty-six (36) semester hours of coursework

Option 1 Requires a formal written thesis, formal presentation and oral exam.
Option 2 Requires a written project report, formal presentation and oral exam.
Option 3 Requires an oral exam.

To remain in "good standing," students must maintain a minimum cumulative grade point average (GPA) of 3.0 ("B average).

Core Courses

The students are required to select three courses among the list of core courses. The three courses must be approved by the Department prior to selection. The remaining courses may be chosen from the list of electives or from the other core courses with the approval of the student's advisor.

Code	Title	Hours
CIV 531	TRAFFIC ENGINEERING	3
CIV 542	ADVND DESIGN OF CONCRETE STRUC	3
CIV 550	ENGINEERING HYDROLOGY	3
CIV 672	ADVANCED GEOMECHANICS	3
CIV 673	ADVD FOUNDATION ENGINEERING	3

Elective Courses

Code	Title	Hours
CIV 520	ADVANCED ENGINEERING ANAYLS I	3
CIV 521	ADVD ENGINEERING ANALYSIS II	3
CIV 535	PAVEMENT DESIGN	3
CIV 536	HIGHWAY ENGINEERING	3
CIV 544	ADVD DESIGN OF STEEL STRUCTURE	3
CIV 562	HAZARDOUS WASTE ENGINEERING	3
CIV 564	SURFACE WATER	3
CIV 567	ENVIRONMENTAL REMEDIATION	3
CIV 568	LAND DISPOSAL OF WASTE	3
CIV 631	LINEAR THEORY OF OCEAN WAVES	3
CIV 632	TIDES AND LONG WAVES	3
CIV 640	FINITE ELEMENT METHODS	3
CIV 642	PRESTRESSED CONCRETE DESIGN	3
CIV 650	SMALL WATERSHED HYDROLOGY	3
CIV 653	ADVD DESIGN OF HYDRAULIC STRUC	3
CIV 670	ROCK MECHANICS	3
CIV 675	EARTH DAMS AND SLOPES	3
CIV 680	UNSATURATED SOIL MECHANICS	3
CIV 681	EXCAVATION SUPPORT SYSMS & R S	3
CIV 682	COMPUTATIONAL GEOTECHNICS	3
CIV 683	SOIL STRUCTURE INTERACTION	3
CIV 684	ADVND SITE CHARACTER & INSTRUM	3
CIV 696	SEMINAR	1
CIV 697	INTERNSHIP	1-3
CIV 698	INDEPENDENT STUDY	1-4
CIV 699	THESIS RESEARCH	1-3

Engineering (M.S.) Coastal Engineering Emphasis

Mission

To provide engineers with graduate education in the specialized field of coastal engineering, including knowledge, skills and abilities to address coastal engineering challenges arising from coastal natural disasters.

Program Objectives

1. Provide students an understanding of the fundamental coastal engineering knowledge and principles necessary to address engineering challenges in a coastal environment, especially those arising from coastal natural disasters.
2. Provide graduate course work and research programs in coastal engineering.
3. Enable students to achieve enhanced professional development and to appreciate the technical and societal challenges existing in the practice of coastal engineering.

Program Requirements

Thirty(30), or thirty-six (36), semester hours are required for the Master of Science Degree in Engineering depending upon which of the following three options the student selects with approval of his or her department chairperson and/or advisor.

Option 1 Twenty-four (24) semester hours of coursework plus a six-hour thesis
Option 2 Twenty-seven (27) semester hours of coursework plus a three-hour project
Option 3 Thirty-six (36) semester hours of coursework

Option 1 Requires a formal written thesis, formal presentation and oral exam.
Option 2 Requires a written project report, formal presentation and oral exam.
Option 3 Requires an oral exam.

To remain in "good standing," students must maintain a minimum cumulative grade point average (GPA) of 3.0 ("B average).

Core Courses

The students are required to select four courses among the list of seven core courses and one of the four must be CIV 520 ADVANCED ENGINEERING ANAYLS I. The other three core courses must be approved

by the Department prior to selection. The remaining courses may be chosen from the list of electives or from the other core courses with approval of the student's advisor.

Code	Title	Hours
CIV 520	ADVANCED ENGINEERING ANAYLS I	3
CIV 538	COASTAL STRUCTURES	3
CIV 539	ADVANCED COASTAL ENGNRG DESIGN	3
CIV 631	LINEAR THEORY OF OCEAN WAVES	3
CIV 632	TIDES AND LONG WAVES	3
CIV 636	SPECTRAL WAVE ANALSIS	3
CIV 637	ADVD DESIGN FOR BRKWATER REHAB	3

Elective Courses

Code	Title	Hours
CIV 521	ADVD ENGINEERING ANALYSIS II	3
CIV 531	TRAFFIC ENGINEERING	3
CIV 542	ADVND DESIGN OF CONCRETE STRUC	3
CIV 550	ENGINEERING HYDROLOGY	3
CIV 562	HAZARDOUS WASTE ENGINEERING	3
CIV 564	SURFACE WATER	3
CIV 632	TIDES AND LONG WAVES	3
CIV 640	FINITE ELEMENT METHODS	3
CIV 650	SMALL WATERSHED HYDROLOGY	3
CIV 670	ROCK MECHANICS	3
CIV 680	UNSATURATED SOIL MECHANICS	3
CIV 681	EXCAVATION SUPPORT SYSMS & R S	3
CIV 682	COMPUTATIONAL GEOTECHNICS	3
CIV 683	SOIL STRUCTURE INTERACTION	3
CIV 684	ADVND SITE CHARACTER & INSTRUM	3
CIV 696	SEMINAR	1
CIV 697	INTERNSHIP	1-3
CIV 698	INDEPENDENT STUDY	1-4
CIV 699	THESIS RESEARCH	1-3

Engineering (M.S.) Computational Engineering Emphasis

It is essential for engineers to be skillful in computational technologies. Emergence of high performance computing has created a third mode of scientific investigation. Computational simulation now joins theoretical analysis and physical experimentation as tools for discovering new knowledge.

Program Objectives

1. Develop computational systems for the solution of physical problems in engineering and science.
2. Develop algorithms and software required for the mathematical models of physical processes.
3. Visualize, analyze, and interpret computed results and other physical data.

Degree Requirements

Thirty(30), or thirty-six (36), semester hours are required for the Master of Science Degree in Engineering depending upon which of the following three options the student selects with approval of his or her department chairperson and/or advisor:

Option 1 Twenty-four (24) semester hours of coursework plus a six-hour thesis
Option 2 Twenty-seven (27) semester hours of coursework plus a three-hour project
Option 3 Thirty-six (36) semester hours of coursework

Option 1 Requires a formal written thesis, formal presentation and oral exam.
Option 2 Requires a written project report, formal presentation and oral exam.
Option 3 Requires an oral exam.

To remain in "good standing," students must maintain a minimum cumulative grade point average (GPA) of 3.0 ("B average).

Core Courses

Each emphasis area has either three or four core courses (9 to12 semester hours). Electives are selected with approval of the student's graduate committee and/or graduate advisor

Code	Title	Hours
CPE 503	COMPUTATIONAL METHODS	3
CPE 520	ADVANCED ENGINEERING ANALYSIS	3
CPE 521	ADVD ENGINEERING ANALYSIS II	3
CPE 618	HIGH PERFORMANCE COMPUTING	3

Elective Courses

Code	Title	Hours
CPE 500	SOFTWARE ENGINEERING	3
CPE 505	ANALYSIS OF ALGORITHMS	3
CPE 508	OPERATING SYSTEMS	3
CPE 512	COMPUTER ARCHITECTURE	3
CPE 515	ADVANCED LOGIC DESIGN	3
CPE 530	VLSI DESIGN	3
CPE 532	DIGITAL INTEGRATED CIRCUITS	3
CPE 541	COMPUTER NETWORK	3
CPE 552	COMPUTER VISION	3
CPE 555	CONTROL SYSTEMS	3
CPE 557	ROBOTICS	3
CPE 560	EMBEDDED DESIGN W/MICHROPROCES	3
CPE 610	PARALLEL COMPUTING AND PROGRAM	3
CPE 693	ADVANCED TOPICS-IC DESIGN	3
CPE 697	INTERNSHIP	1-3
CPE 698	INDEPENDENT STUDY	1-4
CPE 699	THESIS	1-6

Engineering (M.S.) Computer Engineering Emphasis

Mission

Provide a solid foundation in the design and implementation of computer systems emphasizing the development of both software and hardware. Provide an outstanding educational program that enables graduates to have a solid background in both theoretical and practical aspects of Computer Engineering to prepare them to make meaningful contributions to their profession. Provide an outstanding educational program that enables our graduates to become leaders in their profession by imparting fundamental principles, skills, and tools necessary to innovate and excel in engineering practice, research, or academia.

Program Objectives

1. Afford students the opportunity for in-depth study of Computer Engineering concepts and theories
2. Provide state-of-the-art applications and implementations in the design of computer based systems
3. Provide graduates with effective communications skills required for career advancement
4. Endow students with a sense of professionalism, professional ethics, and active participation in the affairs of the profession
5. Engage faculty and graduate students in meaningful Computer Engineering research
6. Promote professional development and growth of students and faculty

Degree Requirements

Thirty(30), or thirty-six (36), semester hours are required for the Master of Science Degree in Engineering depending upon which of the following three options the student selects with approval of his or her department chairperson and/or advisor.

Option 1 Twenty-four (24) semester hours of coursework plus a six-hour thesis
Option 2 Twenty-seven (27) semester hours of coursework plus a three-hour project
Option 3 Thirty-six (36) semester hours of coursework

Option 1 Requires a formal written thesis, formal presentation and oral exam.
Option 2 Requires a written project report, formal presentation and oral exam.
Option 3 Requires an oral exam.

To remain in "good standing," students must maintain a minimum cumulative grade point average (GPA) of 3.0 ("B average).

Core Courses

Each emphasis area has either three or four core courses (9 to12 semester hours). Electives are selected with approval of the student's graduate committee and/or graduate advisor

Code	Title	Hours
CPE 508	OPERATING SYSTEMS	3
CPE 512	COMPUTER ARCHITECTURE	3
CPE 515	ADVANCED LOGIC DESIGN	3
CPE 541	COMPUTER NETWORK	3

Elective Courses

Code	Title	Hours
CPE 500	SOFTWARE ENGINEERING	3
CPE 505	ANALYSIS OF ALGORITHMS	3
CPE 520	ADVANCED ENGINEERING ANALYSIS	3
CPE 521	ADVD ENGINEERING ANALYSIS II	3
CPE 530	VLSI DESIGN	3
CPE 532	DIGITAL INTEGRATED CIRCUITS	3
CPE 552	COMPUTER VISION	3
CPE 555	CONTROL SYSTEMS	3
CPE 557	ROBOTICS	3
CPE 560	EMBEDDED DESIGN W/MICHROPROCES	3
CPE 610	PARALLEL COMPUTING AND PROGRAM	3
CPE 693	ADVANCED TOPICS-IC DESIGN	3
CPE 697	INTERNSHIP	3
CPE 698	INDEPENDENT STUDY	1-4
CPE 699	THESIS	1-6

Engineering (M.S.) Electrical Engineering Emphasis

Mission

Provide students with a solid foundation in electrical engineering, knowledge of technical specialty areas, and an appreciation for collaborative problem solving to make significant contributions to the profession.

Program Objectives

1. Provide students with a solid foundation in electrical engineering (EE), EE practices; and major design skills
2. to maintain high employability, adaptability to changing technologies, and an ability to conceive new technologies and innovative solutions to EE challenges
3. Provide graduates with effective communication skills required for career advancement;
4. Endow students with a sense of professionalism, professional ethics and active participation in the affairs of the profession;
5. Enable students to work effectively in a team environment.

Degree Requirements

Thirty(30), or thirty-six (36), semester hours are required for the Master of Science Degree in Engineering depending upon which of the following three options the student selects with approval of his or her department chairperson and/or advisor.

Option 1 Twenty-four (24) semester hours of coursework plus a six-hour thesis
Option 2 Twenty-seven (27) semester hours of coursework plus a three-hour project
Option 3 Thirty-six (36) semester hours of coursework

Option 1 Requires a formal written thesis, formal presentation and oral exam.
Option 2 Requires a written project report, formal presentation and oral exam.
Option 3 Requires an oral exam.

To remain in "good standing," students must maintain a minimum cumulative grade point average (GPA) of 3.0 ("B average).

Core Courses

Each emphasis area has either three or four core courses (9 to12 semester hours). Electives are selected with approval of the student's graduate committee and/or graduate advisor

Code	Title	Hours
CPE 551	DIGITAL SIGNAL PROCESSING	3
CPE 555	CONTROL SYSTEMS	3
CPE 560	EMBEDDED DESIGN W/MICHROPROCES	3
CPE 635	ADVANCED CIRCUIT THEORY	3

Elective Courses

Code	Title	Hours
CPE 503	COMPUTATIONAL METHODS	3
CPE 520	ADVANCED ENGINEERING ANALYSIS	3
CPE 521	ADVD ENGINEERING ANALYSIS II	3
CPE 530	VLSI DESIGN	3
CPE 532	DIGITAL INTEGRATED CIRCUITS	3
CPE 544	ELECTROMAGNETIC FIELD ANALYSIS	3
CPE 557	ROBOTICS	3
CPE 693	ADVANCED TOPICS-IC DESIGN	3
CPE 697	INTERNSHIP	1-3
CPE 698	INDEPENDENT STUDY	1-4
CPE 699	THESIS	1-6
Total Hours		**27-37**

Engineering (M.S.) Environmental Engineering Emphasis

Mission

To provide engineers and scientists with advanced graduate education in the broad areas of environmental engineering

Program Objectives

1. Provide students an understanding of fundamental scientific and engineering principles necessary to manage and solve environmental challenges in natural and engineered systems
2. Provide advanced course work and research programs in environmental engineering
3. Enable students to develop increased professional competence in the broad areas of environmental engineering

Degree Requirements

Thirty(30), or thirty-six (36), semester hours are required for the Master of Science Degree in Engineering depending upon which of the following three options the student selects with approval of his or her department chairperson and/or advisor.

Option 1 Twenty-four (24) semester hours of coursework plus a six-hour thesis
Option 2 Twenty-seven (27) semester hours of coursework plus a three-hour project
Option 3 Thirty-six (36) semester hours of coursework

Option 1 Requires a formal written thesis, formal presentation and oral exam.
Option 2 Requires a written project report, formal presentation and oral exam.
Option 3 Requires an oral exam.

To remain in "good standing," students must maintain a minimum cumulative grade point average (GPA) of 3.0 ("B average).

Core Courses

Each emphasis area has either three or four core courses (9 to12 semester hours). Electives are selected with approval of the student's graduate committee and/or graduate advisor

Code	Title	Hours
CIV 561	CHEMISTRY FOR ENVIRNL ENGINEER	3
CIV 562	HAZARDOUS WASTE ENGINEERING	3
CIV 660	PHYCML PROCESSES IN WATER & WT	3
CIV 661	BIOL PROCESS IN WASTEWATER ENG	3
Total Hours		**12**

Elective Courses

Code	Title	Hours
CIV 520	ADVANCED ENGINEERING ANAYLS I	3
CIV 521	ADVD ENGINEERING ANALYSIS II	3
CIV 550	ENGINEERING HYDROLOGY	3
CIV 560	ENVIRONMENTAL ENGINEERING II	3
CIV 564	SURFACE WATER	3
CIV 566	AIR POLLUTION	3
CIV 567	ENVIRONMENTAL REMEDIATION	3
CIV 568	LAND DISPOSAL OF WASTE	3
CIV 569	ADVD TPCS IN WATER RESOU ENGNE	1
CIV 573	ENVRNMNTL GEOLOGY FOR ENGNS	3
CIV 574	HYDROGEOLOGY	3
CIV 631	LINEAR THEORY OF OCEAN WAVES	3
CIV 632	TIDES AND LONG WAVES	3
CIV 650	SMALL WATERSHED HYDROLOGY	3
CIV 653	ADVD DESIGN OF HYDRAULIC STRUC	3
CIV 666	ADVND WASTE TRTMNT PROC IN ENV	3
CIV 669	ADVND TPC IN ENVRNML ENGINEERG	3
CIV 680	UNSATURATED SOIL MECHANICS	3
CIV 681	EXCAVATION SUPPORT SYSMS & R S	3
CIV 682	COMPUTATIONAL GEOTECHNICS	3
CIV 683	SOIL STRUCTURE INTERACTION	3
CIV 684	ADVND SITE CHARACTER & INSTRUM	3
CIV 696	SEMINAR	1
CIV 697	INTERNSHIP	1-3

CIV 698	INDEPENDENT STUDY	1-4
CIV 699	THESIS RESEARCH	1-3

Engineering (M.S.) Telecommunications Engineering Emphasis

Mission

To provide quality education to prepare students to play a significant role in shaping the future telecommunication's environment, and to provide knowledge and skills necessary to foster life-long learning.

Program Objectives

1. Provide students with both theoretical and practical foundations of telecommunications engineering
2. Engage faculty and students in research endeavors in telecommunications hardware, software, and systems
3. Promote professional development and growth of students and faculty
4. Produce graduates with effective communications skills required for career advancement
5. Endow students with a sense of professionalism, professional ethics, and active participation in the affairs of the profession

Degree Requirements

Thirty(30), or thirty-six (36), semester hours are required for the Master of Science Degree in Engineering depending upon which of the following three options the student selects with approval of his or her department chairperson and/or advisor.

Option 1 Twenty-four (24) semester hours of coursework plus a six-hour thesis
Option 2 Twenty-seven (27) semester hours of coursework plus a three-hour project
Option 3 Thirty-six (36) semester hours of coursework

Option 1 Requires a formal written thesis, formal presentation and oral exam.
Option 2 Requires a written project report, formal presentation and oral exam.
Option 3 Requires an oral exam.

To remain in "good standing," students must maintain a minimum cumulative grade point average (GPA) of 3.0 ("B average).

Core Courses

Each emphasis area has either three or four core courses (9 to12 semester hours). Electives are selected with approval of the student's graduate committee and/or graduate advisor

Code	Title	Hours
CPE 540		3
CPE 541	COMPUTER NETWORK	3
CPE 543		3
CPE 551	DIGITAL SIGNAL PROCESSING	3

Elective Courses

Code	Title	Hours
CPE 500	SOFTWARE ENGINEERING	3
CPE 520	ADVANCED ENGINEERING ANALYSIS	3
CPE 521	ADVD ENGINEERING ANALYSIS II	3
CPE 545	ANTENNAS	3
CPE 693	ADVANCED TOPICS-IC DESIGN	3
CPE 697	INTERNSHIP	1-3
CPE 698	INDEPENDENT STUDY	1-4
CPE 699	THESIS	1-6

Engineering (Ph.D.)

Program Description

The Ph.D. in Engineering Program consists of 8 emphasis areas including Computer Engineering, Telecommunications Engineering, Electrical Engineering, Computational Engineering, Civil Engineering, Coastal Engineering, Environmental Engineering, and Geological Engineering.

Mission

To provide students with the necessary advanced knowledge, research skills, creativity, ethics, critical thinking, and problem solving to be able respond to engineering challenges and needs of our ever-changing world for professional competence and life-long and inquiry-based learning.

Objectives

The primary educational objective of the Ph.D. in Engineering Program is to produce engineers with terminal degrees to meet the needs for highly educated engineers with advanced technical and research skills in the workforces. The specific objectives of the seven emphasis areas are as following:

- Civil Engineering: to prepare students for continued professional and scholarly development consistent with their technical interests in civil engineering by conducting a major independent and original research study with critical thinking.
- Coastal Engineering: to prepare students with advanced knowledge and skills in coastal engineering, (including coastal natural disasters) and produce graduates with competencies in advanced original research, education, and professional practice in coastal engineering.
- Environmental Engineering: to equip students with advanced knowledge and skills in the environmental engineering field and produce graduates with competencies in advanced original research, education, and professional practice in environmental engineering.
- Geological Engineering: to train students with advanced knowledge and scholarly development in geological engineering and produce graduates with competency in advanced original research in the area of geological engineering.
- Computer Engineering: to equip students with advanced knowledge in computer engineering and produce graduates with competencies in advanced original research, education, and professional practice in computer engineering.
- Telecommunications Engineering: to equip students with advanced knowledge in telecommunications engineering and produce graduates with competencies in advanced original research, education, and professional practice in telecommunications engineering.

- Electrical Engineering: to equip students with advanced knowledge in electrical engineering and produce graduates with competencies in advanced original research, education, and professional practice in electrical engineering.
- Computational Engineering: to equip students with advanced knowledge in computational engineering and produce graduates with competencies in advanced original research, education, and professional practice in computational engineering.

Admission Requirements

The applicants must meet all admission requirements set by the Division of Graduate Studies. In addition, the applicants must meet the following admission requirements.

1. A Bachelor of Science (B.S.) degree in civil engineering, environmental engineering, computer engineering, or electrical engineering or closely related engineering disciplines from accredited colleges and universities, or a Master of Science (M.S.) in related engineering field.
2. Applicants who do not have a B.S. or M.S. in an engineering field will be required to satisfy the articulation courses.
3. Minimum undergraduate grade point average (GPA) of 3.0 on a 4.0 scale and minimum graduate GPA of 3.50 on a 4.0 scale are required. In special cases, exceptional applicants with B.S. degrees in engineering will be considered. These applicants must have a minimum GPA of 3.5.
4. Applicants with Minimum undergraduate grade point average (GPA) of 2.90 on a 4.0 scale and minimum graduate GPA of 3.250 on a 4.0 scale may be considered for conditional admission. These applicants must achieve a minimum graduate GPA of 3.50 during the first year of the Ph.D. Program to be eligible for consideration for regular admission.
5. International students must meet the English requirements as outlined by the Division of Graduate Studies.
6. Applicant must submit three letters of recommendation from professionals who are knowledgeable with applicant's credentials.
7. Applicant must submit a one-page statement on career goals and objectives, as well as research experience and interests.

Degree Requirements

The applicants must meet all degree requirements set by the Division of Graduate Studies. In addition, the applicants must meet the following degree requirements.

To obtain the Ph.D. in Engineering Degree, the students are required to complete a minimum of 72 credit hours beyond B.S. or 36 credit hours beyond M.S. degree. The program includes core courses, elective courses, and 24 hours of dissertation research. The adviser or the advising committee may recommend additional courses based on the students' background and proposed research plan. Students have to maintain a graduate GPA of 3.0 or above to avoid academic probation.

A comprehensive qualifying exam is given to the student after six months of the study beyond the M.S. degree, but no later than after 2 years of study. Academic advisor and engineering faculty in a student's area of research determine the coursework needed for a student to prepare for the comprehensive qualifying examination. The comprehensive qualifying examination includes a written part and oral exam. During the comprehensive qualifying examination, students must demonstrate a sufficient depth and breadth of knowledge in their major to pursue independent and original research. However, the student must consult with their advisor and/or the exam coordinator in the major area of study for the schedule and specific procedures. A signature form, verifying that a student has passed the comprehensive qualifying exam, must be signed by the student's advisor and returned to the departmental office. After passing the comprehensive qualifying exam, the students will be admitted to Ph.D. Candidacy. If a student fails to pass the comprehensive qualifying exam, he/she will be allowed to take it again between one and six months after the first attempt. If the student fails twice on this exam, he/she will be dropped from the PhD program.

When at least 80% of coursework is completed and the comprehensive qualifying exam is successfully passed, the students can take a preliminary exam administered by the advising committee and academic advisor. Students should take the preliminary exam within 3 years of residence beyond the MS degree and at least two semesters before their final dissertation defense. This exam is based upon an oral exam and a written proposal and a detailed plan to carry out the Ph.D. dissertation. Students must consult with their advisors for specific details of the requirements for the preliminary exam.

The defense of dissertation is the final exam of the Ph.D. program. An oral defense and a written Ph.D. dissertation demonstrating original and independent research and major contributions to an engineering field have to be approved by the advising committee before graduation. Recognizing the importance of high-quality graduates, each graduate is expected to publish at least 2 papers based on the results of his/her research in high quality refereed engineering journals. A summary of minimum degree requirements is shown below.

Summary of Minimum Degree Requirements for Ph.D. in Engineering

Credit Hours

A minimum of 72 credit hours beyond B.S. or 36 credit hours beyond M.S. degree. Must complete 24 hours of dissertation research, the required core courses, and elective courses. The adviser or the advising committee may recommend additional courses based on the students' background and the proposed research area.

Comprehensive Qualifying Exam

Successful completion of written and oral Comprehensive Qualifying Exam, given after six months of the study beyond the M.S. degree, but no later than after 2 years of study.

Preliminary Exam

Successful completion of the preliminary exam within 3 years of residence beyond the MS degree and at least two semesters before their final dissertation defense.

Final Dissertation and Defense

An oral defense and a written Ph.D. dissertation demonstrating original independent research and major contributions. Each graduate is expected to publish at least 2 papers based on the results of his/her research in high quality refereed engineering journals.

Engineering (Ph.D.) Civil Engineering Emphasis

Department: Civil and Environmental Engineering

Civil Engineering: to prepare students for continued professional and scholarly development consistent with their technical interests in civil engineering by conducting a major independent and original research study with critical thinking.

A minimum of 72 credit hours beyond B.S. or 36 credit hours beyond M.S. degree. Must complete 24 hours of dissertation research, the required core courses, and elective courses. The adviser or the advising committee may recommend additional courses based on the students' background and the proposed research area.

Core Courses

Code	Title	Hours
Select three of the following courses: [1]		9
CIV 531	TRAFFIC ENGINEERING	
CIV 542	ADVND DESIGN OF CONCRETE STRUC	
CIV 550	ENGINEERING HYDROLOGY	
CIV 672	ADVANCED GEOMECHANICS	
CIV 673	ADVD FOUNDATION ENGINEERING	
Graduate level advanced mathematics course [1]		3
Total Hours		**12**

[1] After consultation and approval of the student's adviser.

Elective Courses

Code	Title	Hours
CIV 520	ADVANCED ENGINEERING ANAYLS I	3
CIV 521	ADVD ENGINEERING ANALYSIS II	3
CIV 535	PAVEMENT DESIGN	3
CIV 536	HIGHWAY ENGINEERING	3
CIV 544	ADVD DESIGN OF STEEL STRUCTURE	3
CIV 562	HAZARDOUS WASTE ENGINEERING	3
CIV 564	SURFACE WATER	3
CIV 567	ENVIRONMENTAL REMEDIATION	3
CIV 568	LAND DISPOSAL OF WASTE	3
CIV 631	LINEAR THEORY OF OCEAN WAVES	3
CIV 632	TIDES AND LONG WAVES	3
CIV 640	FINITE ELEMENT METHODS	3
CIV 642	PRESTRESSED CONCRETE DESIGN	3
CIV 650	SMALL WATERSHED HYDROLOGY	3
CIV 653	ADVD DESIGN OF HYDRAULIC STRUC	3
CIV 670	ROCK MECHANICS	3
CIV 675	EARTH DAMS AND SLOPES	3
CIV 680	UNSATURATED SOIL MECHANICS	3
CIV 681	EXCAVATION SUPPORT SYSMS & R S	3
CIV 682	COMPUTATIONAL GEOTECHNICS	3
CIV 683	SOIL STRUCTURE INTERACTION	3
CIV 684	ADVND SITE CHARACTER & INSTRUM	3
CIV 696	SEMINAR	1
CIV 697	INTERNSHIP	1-3
CIV 698	INDEPENDENT STUDY	1-4

Engineering (Ph.D.) Coastal Engineering Emphasis

Department: Civil and Environmental Engineering and Industrial Systems and Technology

Coastal Engineering: to prepare students with advanced knowledge and skills in coastal engineering, (including coastal natural disasters) and produce graduates with competencies in advanced original research, education, and professional practice in coastal engineering.

A minimum of 72 credit hours beyond B.S. or 36 credit hours beyond M.S. degree. Must complete 24 hours of dissertation research, the required core courses, and elective courses. The adviser or the advising committee may recommend additional courses based on the students' background and the proposed research area.

Core Courses

Code	Title	Hours
CIV 520	ADVANCED ENGINEERING ANAYLS I	3
Select three of the following: [1]		9
CIV 538	COASTAL STRUCTURES	
CIV 539	ADVANCED COASTAL ENGNRG DESIGN	
CIV 631	LINEAR THEORY OF OCEAN WAVES	
CIV 632	TIDES AND LONG WAVES	
CIV 636	SPECTRAL WAVE ANALSIS	
CIV 637	ADVD DESIGN FOR BRKWATER REHAB	
Total Hours		**12**

[1] After consultation and approval of the student's adviser.

Elective Courses

Code	Title	Hours
CIV 521	ADVD ENGINEERING ANALYSIS II	3
CIV 531	TRAFFIC ENGINEERING	3
CIV 542	ADVND DESIGN OF CONCRETE STRUC	3
CIV 550	ENGINEERING HYDROLOGY	3
CIV 562	HAZARDOUS WASTE ENGINEERING	3
CIV 564	SURFACE WATER	3
CIV 640	FINITE ELEMENT METHODS	3
CIV 650	SMALL WATERSHED HYDROLOGY	3
CIV 670	ROCK MECHANICS	3
CIV 680	UNSATURATED SOIL MECHANICS	3
CIV 697	INTERNSHIP	1-3
CIV 698	INDEPENDENT STUDY	1-4
CIV 899	DISSERTATION RESEARCH	1-6

Engineering (Ph.D.) Environmental Engineering Emphasis

Department: Civil and Environmental Engineering

Environmental Engineering: to equip students with advanced knowledge and skills in the environmental engineering field and produce graduates

with competencies in advanced original research, education, and professional practice in environmental engineering.

A minimum of 72 credit hours beyond B.S. or 36 credit hours beyond M.S. degree. Must complete 24 hours of dissertation research, the required core courses, and elective courses. The adviser or the advising committee may recommend additional courses based on the students' background and the proposed research area.

Core Courses

Code	Title	Hours
Select three of the following: [1]		9
CIV 561	CHEMISTRY FOR ENVIRNL ENGINEER	
CIV 562	HAZARDOUS WASTE ENGINEERING	
CIV 660	PHYCML PROCESSES IN WATER & WT	
CIV 661	BIOL PROCESS IN WASTEWATER ENG	
Graduate level advanced mathematics course [1]		3
Total Hours		**12**

[1] After consultation and approval of the student's adviser.

Elective Courses

Code	Title	Hours
CIV 520	ADVANCED ENGINEERING ANAYLS I	3
CIV 521	ADVD ENGINEERING ANALYSIS II	3
CIV 550	ENGINEERING HYDROLOGY	3
CIV 560	ENVIRONMENTAL ENGINEERING II	3
CIV 564	SURFACE WATER	3
CIV 566	AIR POLLUTION	3
CIV 567	ENVIRONMENTAL REMEDIATION	3
CIV 568	LAND DISPOSAL OF WASTE	3
CIV 569	ADVD TPCS IN WATER RESOU ENGNE	1
CIV 573	ENVRNMNTL GEOLOGY FOR ENGNS	3
CIV 574	HYDROGEOLOGY	3
CIV 631	LINEAR THEORY OF OCEAN WAVES	3
CIV 632	TIDES AND LONG WAVES	3
CIV 650	SMALL WATERSHED HYDROLOGY	3
CIV 653	ADVD DESIGN OF HYDRAULIC STRUC	3
CIV 666	ADVND WASTE TRTMNT PROC IN ENV	3
CIV 669	ADVND TPC IN ENVRNML ENGINEERG	3
CIV 680	UNSATURATED SOIL MECHANICS	3
CIV 681	EXCAVATION SUPPORT SYSMS & R S	3
CIV 682	COMPUTATIONAL GEOTECHNICS	3
CIV 683	SOIL STRUCTURE INTERACTION	3
CIV 684	ADVND SITE CHARACTER & INSTRUM	3
CIV 697	INTERNSHIP	1-3
CIV 698	INDEPENDENT STUDY	1-4

Interdisciplinary Computational Data-Enabled Science and Engineering

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Faculty

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Dr. H.C. Huang, Assistant Professor
Dr. R. Kafoury, Associate Professor
Dr. J. Stevens, Professor
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Faculty/Computer Science

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Dr. F. C. Dancer, Assistant Professor
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Dr. M. Manzoul, Professor
Dr. N. Meghanathan, Professor
Dr. L. A. Moore, Professor
Dr. T. Pei, Professor
Dr. A. Tanner, Associate Professor
Dr. Shuang Tu, Professor

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Dr. Tigran Shahbazian, Professor
Dr. Jiange Zhou, Assistant Professor
Dr. G. Hill, Professor
Dr. Md. Hossain, Professor
Dr. M. Huang, Professor
Dr. J. Leszczynski, Presidential Distinguished Professor
Dr. I. Ogungbe, Associate Professor
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Dr. `Emeka Nwagwu, Professor
Dr. Issac Perkins, Professor
Dr. Jung Lee, Professor
Dr. Marinelle Payton, Professor
Dr. Sophia Leggett, Professor
Dr. B. Graham, Associate Professor
Dr. R. Kafoury, Associate Professor
Dr. R. Kulawardhana, Assistant Professor
Dr. J. Stevens, Professor

Masters

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Doctoral

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Course Descriptions

BIO 501 ENVIRONMENTAL SCIENCE (3 Hours)
An introductory course for non-major graduate students dealing with the science of the environment and man's relationships through political, social, economic, and ethical processes.

BIO 506 HUMAN ENVIRONMENT & NATURL SYS (3 Hours)
Emphasis placed on fundamental problems that confront man from day to day. Topics among others for discussion are ecology, population, energy, food, transportation and land pollution.

BIO 507 BIOLOGY FOR ELEMENTARY TEACHER (3 Hours)
Prerequisite: None.
The application of biological procedures and techniques at the elementary school level with emphasis on selected topics in biology.

BIO 509 GENERAL GENETICS (3 Hours)
Prerequisite: ; Bio 318.
A study of the principal concepts of heredity to include the application of classical and modem genetics.

BIO 511 BIOSTATISTICS (3 Hours)
This course is designed for students in biological sciences with no advanced training in mathematics. Basic concepts in statistical methods and experimental techniques and their general applicability in biology will be stressed.

BIO 512 NATURAL RESOURCES & CONS (3 Hours)
A study of our natural resources with emphasis on their origin, properties, use and misuse and good conservation practices.

BIO 513 HUMAN NUTRITION (3 Hours)
Prerequisite: Bio 233 or 218 and CHEM 241.
Review of nutrient sources, requirements and deficiency diseases of man. Emphasis on nutritional metabolism under normal and pathological conditions, and current research.

BIO 515 MOLECULAR BIOLOGY (3 Hours)
Study of the structure, synthesis, isolation and interactions of macromolecules of biological interest.

BIO 517 MAMMALIAN PHYSIOLOGY (3 Hours)

BIO 523 ECOLOGY (3 Hours)
Prerequisite: Senior standing or consent of instructor.
A study of the tropic relationships and energy transfer in ecosystems.

BIO 530 ADVANCED MICROBIOLOGY (3 Hours)
Prerequisite: BIO 313; CHEM 242.
Special techniques for culturing microorganisms. Includes a survey of some of the important microbes in medicine, industry and public health.

BIO 531 INVERTEBRATE ZOOLOGY (3 Hours)
Prerequisite: BIO 114, CHEM 142.
Intended for students who wish to obtain a comprehensive knowledge of the invertebrates.

BIO 532 ADVANCED PARASITOLOGY (3 Hours)
Prerequisite: BIO 331; CHEM 142, 242.
The physiology of specific parasite and host-parasite relationships will be studied in great detail. Clinical specimens will be studied.

BIO 540 CELL BIOLOGY (3 Hours)
Prerequisite: BIO 111, 119 or 121, 313, and CHEM 241.
Study of cell anatomy as revealed by electron microscopy. Emphasis on bioenergetics, cell metabolism and current cell research.

BIO 550 IMMUNOLOGY & SEROLOGY (3 Hours)
The study of antibodies that are elicited in response to antigens and the difference between the protoplasm of one organism and another as reflected in the blood.

BIO 561 MOLECULAR VIROLOGY (3 Hours)
An introduction to the types of viruses that infect humans, animals, plants, and bacteria, their mode of replication, mode of swiping cellular functions, human viral diseases and viral vaccines, and drug development, and the medical and economic significance of viral diseases in public health.

BIO 570 HUMAN PHYSIOLOGY (3 Hours)
Prerequisite: BIO 115, CHEM 242.
The study of physiological processes related to the human. The physiological systems to be examined are: gastro-intestinal, renal, endocrine, neural, and reproductive.

BIO 575 ENDOCRINOLOGY (3 Hours)
Prerequisite: BIO 115, 218; CHEM 142, 242.
The basic fundamentals of endocrinology. The role of the endocrine glands and their products (hormones) in the maintenance of a constant internal environment in living organisms.

BIO 576 HISTOPATHOLOGY (3 Hours)
Prerequisite: BIO 115, 218, and 441.
Provides general consideration of the principal concepts of tissues and cellular pathology, with emphasis on human tissues and pathology. The course prepares students for further studies in medicine, dentistry, and allied health fields.

BIO 587 INDEPENDENT STUDY (2-4 Hours)
Prerequisite: Graduate standing in biology.
Students will elect a specific topic that is not covered in other biology courses. The student, working independently, will be required to submit a research paper that includes an exhaustive review of literature.

BIO 589 GRADUATE SEMINAR (1 Hour)
A course designed for survey of biological literature. The student will be required to prepare and present reports and assigned projects. Required of all students.

BIO 599 THESIS RESEARCH (1-6 Hours)
Thesis representing original research. (Required for M.S. students)

BIO 610 ENVIRONMENTAL MICROBIOLOGY (3 Hours)
The study of the roles of microorganisms in natural systems with attention given to the examination of nutrient cycles, methods of analysis of microbial biomass and activities as well as the functional roles of microorganisms.

BIO 615 PRINCIPLES OF BIOREMEDIATION (3 Hours)
This course uses modern knowledge in life sciences, as well as new developments in biotechnology to address important issues related to environmental clean-up of hazardous wastes. The nature of environmental pollution is reviewed, and basic concepts in molecular biology, biochemistry, and microbiology and plant physiology are applied to demonstrate the significance of bioremediation and phytoremediation in pollution control. Therefore, an emphasis is put on the use of biological methods and processes for the remediation of contaminated soils and water resources.

BIO 620 INDEPENDENT STUDY (1-6 Hours)
Students will elect a specific topic that is not covered in other biology courses. The student, working independently, will be required to submit a research paper that includes an exhaustive review of literature.

BIO 623 SYSMS BIO & SIGNALING NETWORKS (3 Hours)
The objectives of the Systems Biology course is to prevent methods for modeling and analyzing biological systems, in particular cellular systems. It is designed to cover intracellular processes, including enzymatic reactions, polymerization processes, gene expression, gene-environment interactions, and signal transduction. Also the course introduces mathematical modeling fundamentals, including deterministic models, includinglinear regression methods, explains the differences between linear and nonlinear regression, and illustrates how to determine input variables to improve estimation accuracy during experimental design. The material covers the process-function-behavior sequence in cells and illustrates how modeling and analysis of signal transduction units play a mediating role between process and function.

BIO 650 ANALYSIS OF HORMONE ACTION (3 Hours)
Prerequisite: Graduate status and consent of the instructor.
An analysis of the cellular mechanisms of hormone action. The role of target tissues, receptors, hormone analogs and, metabolic inhibitors in studies of hormone action will be discussed.

BIO 689 ADVD TPCS IN COMPUTATIONAL BIO (3 Hours)
The Advanced Topics in Computational Biology will introduce the students to data-driven models of molecular interaction networks and applications of discrete algorithms, data mining, and machine learning to the modeling and analysis of molecular interactions and computational disciplines in systems biology networks.

CDSE 700 SEM N COMP DATA SCI & ENG (1-3 Hours)
Prerequisite: CDSE Ph.
Computational Data-enabled Science & Engineering (CDS&E). Covers Trends and challenges in Computational Data-Enabled Science and Engineering (CDS&E) and occupational outlook. A student seminar forum on contemporary topics and issues in CDS&E designed for survey of CDS&E literature. The student will be required to prepare and present reports and assigned projects. D, students.

CDSE 701 INT N COMP DATA SCI & ENG (1-3 Hours)
Prerequisite: CDSE Ph.
Internship in Computational Data-Enabled Science and Engineering (CDS&E). Covers Industrial Internships training in Computational Data-Enabled Science and Engineering (CDS&E) and occupational outlook in a specific concentration track of the CDS&E Ph.D. program. This include summer (or an academic term(s) of internship or research participation with industry, research laboratories or other academic research centers. The student will be required to prepare and present reports and assigned projects based on the activities of the internships. D. students.

CDSE 702 CURRENT TRENDS IN CDS&E (1-3 Hours)
Prerequisite: CDSE Ph.
Current Trends in Computational Data-Enabled Science and Engineering (CDS&E). Covers Topics in Computational Data-Enabled Science and Engineering (CDS&E) specific to a concentration track of the CDS&E Ph.D. program that are not covered in the regularly listed courses to fit the research interest of the student. D. students.

CDSE 899 DISSERTATION RESEARCH (1-9 Hours)
Prerequisite: permission of advisor.
Dissertation representing independent and original research in the area of Computational Data-Enabled Science and Engineering (CDS&E) Ph.D. disciplinary program concentration tracks.

CPE 500 SOFTWARE ENGINEERING (3 Hours)
Examination of the software development life cycle; requirements elicitation; system design; Unified Modeling Language (UML) focus on design; risk analysis; configuration management; testing; maintenance; software project management; team building.

CPE 503 COMPUTATIONAL METHODS (3 Hours)
Computational methods for solving problems in engineering analysis; variational methods; finite-difference analysis; optimization methods; finite-difference analysis; matrix methods; focus is on real-world engineering problems; techniques and algorithms for simulating large-scale digital and analog circuits.

CPE 505 ANALYSIS OF ALGORITHMS (3 Hours)
Mathematical foundations of algorithms and algorithm analysis; sorting and searching algorithms, graph algorithms, algorithm design techniques, lower bound theory, fast Fourier transforms, NP-completeness.

CPE 508 OPERATING SYSTEMS (3 Hours)
Examination of concepts of process communication and synchronization; protection; performance measurement; study of mutual exclusion; concurrent processes; device and memory management; I/O and interrupt structures.

CPE 512 COMPUTER ARCHITECTURE (3 Hours)
Study of architectural features of modern processors, including cache memories and memory systems, pipeline designs, branch prediction techniques; design of superscalar, multithreaded VLIW processors, code optimization for such systems will be studied; quantitative evaluation of architectural features.

CPE 515 ADVANCED LOGIC DESIGN (3 Hours)
Advanced concepts in Boolean algebra; use of hardware description languages as a practical means to implement hybrid sequential and combinational designs; digital logic simulation; rapid prototyping techniques; design for stability concepts; focuses upon the actual design and implementation of sizeable digital design problems using a representative set of Computer Aided Design (CAD) tools.

CPE 520 ADVANCED ENGINEERING ANALYSIS (3 Hours)
A comprehensive course to familiarize engineering professionals with advanced applied mathematics as it relates to solving practical engineering problems. The course of intensive study blends the theoretical underpinnings of advanced applied mathematics with an understanding of how these powerful tools can be used to solve practical engineering problems. The material covered includes Ordinary Differential Equations; Linear Algebra, Vector Calculus; Fourier Analysis and Partial Differential Equations.

CPE 521 ADVD ENGINEERING ANALYSIS II (3 Hours)
A comprehensive course to familiarize engineering professions with advanced applied mathematics as it relates to solving practical engineering problems. The course of intensive study blends theoretical and advanced applied mathematics with an understanding of how these powerful tools can be used to solve practical engineering problems. The material covered includes Complex Analysis; Numerical Methods; Optimization; Graphs; and Probability and Statistics.

CPE 530 VLSI DESIGN (3 Hours)
Theory of MOS transistors: fabrication, layout, characterization; CMOS circuit and logic design; circuit and logic simulation, fully complementary CMOS logic, pseudo-NMOS logic, dynamic CMOS logic, pass-transistor logic, clocking strategies; sub system design; ALUs, multipliers, memories, PLAs; architecture design: data path, floor planning, iterative cellular arrays, systolic arrays; VLSI algorithms; chip design and test; full custom design of chips, possible chip fabrication by MOSIS and subsequent chip testing.

CPE 532 DIGITAL INTEGRATED CIRCUITS (3 Hours)
Design methodologies for digital systems using a modern hardware description language; algorithmic, architectural and implementation aspects of arithmetic processing elements; design of Complex Instruction Set (CISC), Reduced Instruction Set (RISC), and floating point processors; synthesis, simulation and testing of processors with computer-aided design tools.

CPE 541 COMPUTER NETWORK (3 Hours)
Study of computer network architectures, protocols, and interfaces; OSI reference model; Internet architecture; networking techniques (multiple access, packet/cell switching, and internetworking); end-to-end protocols; congestion control; high-speed networking; network management.

CPE 544 ELECTROMAGNETIC FIELD ANALYSIS (3 Hours)
Maxwell¿s equations; solutions of Laplace¿s equation; Green¿s Function; scalar and vector potentials; energy and momentum in electromagnetic fields; interaction of fields and material media.

CPE 545 ANTENNAS (3 Hours)
Examine the theory and properties of various communication antennas covering the range from RF frequencies to millimeter wavelengths; examine actual antennas and their characteristics.

CPE 551 DIGITAL SIGNAL PROCESSING (3 Hours)
Signals and systems; sampling continuous-time signals and reconstructions of continuous-time signals from samples; spectral analysis of signal using the discrete Fourier transform; the fast Fourier transform and fast convolution methods; z-transforms; finite and infinite impulse response filter design techniques; signal flow graphs and introduction to filter implementation.

CPE 552 COMPUTER VISION (3 Hours)
Examination of information processing approaches to computervision; algorithmsand architectures for artificial intelligence and robotic systems capable of vision; inference and robotic systems capable of vision; inference of three-dimensional properties of a scene from its images, such as distance, orientation, motion, size and shape, acquisition and representation of spatial information for navigation and manipulation in robotics.

CPE 555 CONTROL SYSTEMS (3 Hours)
Analysis and design of control systems with emphasis on modeling and dynamic response; transform and time domain methods for linear control systems; stability theory; root locus, bode diagrams and Nyquist plots; design specification in time and frequency domains; state-space design with computer solutions; compensation design in the time and frequency domain; modern design principles.

CPE 557 ROBOTICS (3 Hours)
Fundamentals of robotics; rigid motions; homogenous transformation; forward and inverse kinematics; velocity kinematics; motion planning; trajectory generation; sensing; vision; and control.

CPE 560 EMBEDDED DESIGN W/MICHROPROCES (3 Hours)
Microcomputer system design and use of microprocessors and single chip microcomputers as basic system components; basic microcomputer design and the interface between microprocessor and external devices; course examines the software aspects of microcomputers using assembly language and C programming; single chip microcomputers for embedded and power efficient applications; direct memory access, memory design and management, cache memory, fault tolerance issues, parallel processing with emphasis on hardware issues.

CPE 610 PARALLEL COMPUTING AND PROGRAM (3 Hours)
Introduction to processing in parallel and distributed computing environments, general concepts of parallel machine models, processes, mutual exclusion, process synchronization, messing, passing, and programming languages for parallel computing and scheduling; design and analysis of parallel algorithms, parallel programming environments: P threads for shared memory multiprocessor systems and PVM/MPI for distributed networks computers.

CPE 618 HIGH PERFORMANCE COMPUTING (3 Hours)
The class will study a variety of algorithms, their applications, and tradeoffs between different solutions. Issues such as performance analysis, evaluation and prediction will be addressed. There will also be discussions on topics such as parallel computer architectures (memory hierachy, interconnection networks, latency and bandwidth, parallel I/O), and software systems, with the aim of understanding their capabilities, costs and limitations. Students will make use of recent technology through a number of software packages and programming environments appropriate to the topics addressed. High performance computing tools will be used to compare and evaluate the performance of different implementations through a variety of criteria. Students will draw conclusions regarding preferred algorithms, methods, programming paradigms, and programming environments and tools for parallel distributed computing.

CPE 635 ADVANCED CIRCUIT THEORY (3 Hours)
CMOS technology; structured digital circuits; VSLI systems; computer-aided design automation tools and theory for design automation; chip design and integration; microelectronic systems architecture; VLSI circuit testing methods; advanced high-speed circuit design and integration.

CPE 693 ADVANCED TOPICS-IC DESIGN (3 Hours)
Graduate standing in engineering. Lectures on advanced topics of special interest to students in various areas of computer engineering are introduced. This course number is used to offer and test new courses.

CPE 697 INTERNSHIP (1-3 Hours)
Prerequisite: permission of Department.
Supervised graduate internship or externship in selected areas.

CPE 698 INDEPENDENT STUDY (1-4 Hours)
Prerequisite: permission of Department.
Intensive study of a special engineering project including research and literature review selected in accordance with the student¿s interests and arranged in consultations with the advisor. Topics will vary. Student will make periodic reports as well as a paper at the end of the semester.

CPE 699 THESIS (1-6 Hours)
Prerequisite: permission of advisor.
Master's thesis representing independent and original research.

CPE 899 DISSERTATION RESEARCH (1-6 Hours)
Dissertation representing independent and original research.

CSC 506 Graduate Seminar (3 Hours)
Reports on recent advances and problems in computer science by guest speakers, faculty, and students; student participation, presentations, general discussion; exercises in scientific writing format and style, with particular emphasis on writing abstracts and manuscripts for publication in referred archival journals; discussion of program requirements; introductory programming project exercises.

CSC 509 COMPUTERS AND SOCIETY (3 Hours)
History of computing and technology; place of computers in modern society; the computer and individual; survey of computer applications, legal issues; computers in decision making processes; the computer scientist as a professional; futurist¿s view of computing; public perception of computers and computer scientists.

CSC 511 OBJECT-ORIENTED PROGRAMMING (3 Hours)
Discussion of object-oriented languages. Object-Oriented techniques using the C++ language, classes, objects, constructors, destructors, friend functions, operator overloading, inheritance, multiple inheritance, and polymorphism. Reusability is emphasized.

CSC 512 COMPUTER ARCHITECTURE (3 Hours)
An advanced introduction to computer design and architecture. Topics include instruction set architecture, RISC computers, control unit design, pipelining, vector processing, memory system architecture, and classification of computers.

CSC 515 DATA STRU ALGORITH ANALY (3 Hours)
Mathematical foundations for complexity theory, asymptotic notation, recurrence relations. Strategies for development of algorithms like divide and conquer, greedy, dynamic programming, backtracking. Exposure to some typical and important algorithms in computer science. Introduction to the theory of NP-completeness.

CSC 518 PRIN OPRTNG SYST CMP ARC (3 Hours)
Emphasizes the concepts of process communication and synchronization, protection, performance measurement, and evaluation. Problems associated with mutual exclusion and synchronization, concurrent processes, information, process, device, and memory management are examined. Implementation of I/0 and interrupt structure is also considered.

CSC 519 PRIN PROG SYSTEMS & LANG (3 Hours)
Important programming language concepts including, representation of data and sequence control, data abstraction and encapsulation; procedural and non-procedural paradigms: functional, logic, and object-oriented languages; distributed and parallel programming issues.

CSC 524 COMP COMM NETWK DIST PRO (3 Hours)
Topologies, media selection, medium access control for local area networks (LANs) including high speed and bridged LANs; circuit switched, ISDN wide area networks (WANs) internetworking issues and standards, 150/051, TCP/IP protocols.

CSC 527 REAL TIME SYSTEMS (3 Hours)
An introduction to the problems, concepts, and techniques involved in computer systems which must interface with external devices. These include process control systems, computer systems embedded within aircraft or automobiles, and graphics systems. The course concentrates on operating system software for these systems.

CSC 530 THEORY OF COMPUTATION (3 Hours)
A survey of formal models for computation. Includes Turing Machines, partial recursive functions, recursive and recursively enumerable sets, abstract complexity theory, program schemes, and concrete complexity.

CSC 537 CLOUD COMPUTING (3 Hours)
The course will present the state of the art in cloud computing technologies and applications as well as providing hands-on project opportunities and experiment with different technologies. Topics will include: telecommunications needs; architectural models for cloud computing; cloud computing platforms and services; security, privacy, and trust management; resource allocation and quality of service; cloud economics and business models; pricing and risk management; interoperability and internetworking; legal issues; and novel applications.

CSC 539 SPECIAL TOPICS (3 Hours)
Prerequisite: Consent of instructor.
Topics and problems of information systems that are of practical importance and current interest. New developments in system concepts, techniques, and equipment.

CSC 541 CRYPTO AND NETWORK SECURITY (3 Hours)
Cryptography and Network Security. This course will focus on graduate-level topics in cryptography and network security, including: Symmetric Key and Public Key encryption algorithms, Digital Signature, Certificates, Cryptanalysis, Key management and distribution, Classical network attacks and their solutions, User authentication protocols, Transport-level security, Wireless network security, g-mail security, Web security, IP security, Distributed system security, Firewalls and Intrusion detection systems.

CSC 542 Digital Forensics (3 Hours)
Digital forensics is a new and emerging field that is becoming increasingly important and visible. The ease with which one can access the internet and commit crimes with and against computers has led to an increase in the need for online protection. As a result, there is a need for computer science graduates with skills needed to investigate these crimes. In this course, topics of computer crimes, system and computer forensics will be introduced. Students will be required to learn the different aspects of computer crime and ways to uncover, protect, and exploit digital evidence. In addition, the lab projects will expose students to different types of tools, both hardware and software, and will enable them to perform fundamental investigations.

CSC 545 ARTIFICIAL INTELLIGENCE (3 Hours)
Efficient and intelligent search techniques. Knowledge representation e.g., logic, and semantic nets. Reasoning techniques including reasoning under uncertainty, e.g., fuzzy reasoning. Exposure to different artificial intelligence systems like planning and learning (including neural networks).

CSC 547 Computer Security (3 Hours)
This course provides an overview of security challenges and strategies of countermeasures in the information systems environment. Topics include definition of terms, concepts, elements, and goals incorporating industry standards and practices with a focus on confidentiality, availability, and integrity aspects of information systems.

CSC 551 PARALLEL & DISTRIBUTED COMPUTI (3 Hours)
The course introduces the concepts and design of parallel and distributed computing systems. Topics covered include: Data versus control parallelism (SIMD/Vector, Pipelines, MIMD, Multi-core, GPU); Shared versus distributed memory (SMP and NUMA), Message passing Interface (MPI) and Topologies; Parallel and distributed algorithms: Paradigms, Models and Complexity, Scheduling, Synchronization, Deadlock detection, Fault tolerance and Load balancing.

CSC 552 APPLIED PROGRAMMING (3 Hours)
Department and advisor approval. This course focuses on the fundamentals of computing and is geared toward non-CS majors going into computational sciences. The course will cover key concepts of data strudtures, data manipulation, algorithms and efficiency, and how they apply to the various application domains specific to computational fields. The course will also provide an introduction to Python for computational sciences. Topics include: an introduction to computational complexity, data structures (arrays, lists, stacks, queues, trees, and graphs), elementary algorithms and their complexity.

CSC 560 SOFTWARE ENGINEERING (3 Hours)
Formal approach to techniques and software design and development. Software cycle encompassed from initial ideas through code design and implementation with emphasis on object-oriented design techniques will be included. Software testing and maintenance will be discussed.

CSC 571 PROGRAMMING FOR BIG DATA (3 Hours)
The course will expose students to three programming paradigms for big dat analytics to cover the three Vs: Velocity, Volume, and Variety. The course will focus on design and development of programs based on the: (1) Supervised and unsupervised machine learning algorithms to perform predictive analytics of Big Data dn implement them using a high-level algorithms such as Octave; (2) Map-reduce parallel programming paradigm for selected data-intensive computational problems; (3) Functional programming paradigm using languages such as OCaml to analyze big data in a recursive fashion. In addition, the course will enable students to be able to configure a distributed file system based on the Hadoop architecture for reliable share storage and develop programs that interface with it, as well as manage large datasets using SQL-like access to unstructured data (Hive) and NoSQL storage solutions (HBase).

CSC 582 SOCIAL NETWORK ANALYSIS (3 Hours)
This course will cover the structure and analysis of large social networks on models and algorithms that abstract their properties. Topics covered include: Nodes, edges, and network measures, structure, and visualization and tools, the tie strength of networks, trust in social media, analyzing and classifying user roles, attributes and behavior, link prediction and entity resolution, epidemic models, location-based social media analysis, social sharing and filtering, aggregation and data mining, and network strategies for the individual and for the government.

CSC 595 INFO SYST & DEVELOP PROJ (1-3 Hours)
Prerequisite: Pass comprehensive examination and consent of advisor. Provide the student with the experience in analyzing, designing, implementing, and evaluating information systems. Students are assigned one or more system development projects. The project involves part or all of the system development cycle.

CSC 597 Internship (1-3 Hours)
Prerequisite: Permission of department.
Supervised graduate internship or externship in selected areas of computer science.

CSC 599 THESIS RESEARCH (1-6 Hours)
Prerequisite: Pass comprehensive examination and consent of advisor. An independent study course for the preparation of a Master's thesis.

CSC 601 COMPUTER ALGORITHMS (3 Hours)
The course focuses on algorithms of different design strategies, and the mathematical concepts used in describing the complexity of an algorithm. Topics covered include: Asymptotic notations; Time complexity analysis of iterative and recursive algorithms; design strategies like Bruite force, Diviide and Conquer, Transform and Conquer,Greedy and Dynamic programming; Space-time tradeoffs in algorithms and NP-completeness - Heuristics and Approximation algorithms. The course will also cover graph theory algorithms and string matching algorithms with respect to the application of the above design strategies for specific problems.

CSC 620 DATABASE MANAGEMENT SYSTEMS (3 Hours)
This course is designed for non-computer science majors entering the Ph.D. in Computational and Data Enabled Sciences and Engineering. It introduces students to the concepts and theories of database systems, necessary in the CDS&E fields. Topics include: information models and systems; the database environment; data modeling; conceptual modeling using the entitiy-relationship approach and mapping to relational tables; the relational model including the relational data structure, integrity rules, relational algebra and relational calculus; normalizaation; data definition and data manipulation in SQL; conceptual, logical, and physical database design; security; transaction management; query processing; and advanced topics in database systems, and how this applies to computational and data enabled sciences and engineering.

CSC 621 MACHINE LEARNING (3 Hours)
This course will deal enable students to understand the underlying algorithms used in varioius learning systems. Topics covered include: Inductive classification, Decision-tree learning, Ensembles, Experimental evaluation, Computational learning theory, Rule learning, Neural network learning, Support vector machines, Bayesian learning, Instance-based learning and Text categorization.

CSC 634 BIG DATA MINING (3 Hours)
This course will focus on data mining of very large amounts of data that is so large enough not to fit in main memory, characteristic of data retrieved from the web. Topics to be covered include: Distributed file systems and Map Reduce, Similarly search techniques, Real-time data-stream processing algorithms, Technology of search engines (PageRank, Link-spam detection, hubs-and-authorities approach) and Frequent-itemset mininig. The course will also expose students to algorithms for clustering very large, high-dimensional datasets.

CSC 641 NETWORK SCIENCE (3 Hours)
Topics covered include the measurement and structure of networks, methods for analyzing network data, including methods developed in physics, and statistics, and sociology, graph theory, computer algorithms, mathematical models of networks, including random graph models and generative models, and theories of dynamical processes taking place on networks.

CSC 651 FNDS OF PROGRAMMING & COMP SYS (3 Hours)
Prerequisite: experience in any object-oriented language.
This course will focus on graduate-levle central concepts in modern programming languages, impact on software development, language design trade-offs, and implementation considerations. Functional, imperative, and object-oriented paradigms. Formal semantic methods and program analysis. Modern type systems, higher order functions and closures, exceptions and continuationsl Modurlarity, object-oriented languages, and concurrency. Runtime support for language features, interoperability, and security issues.

CSC 899 DISSERTATION RESEARCH (1-9 Hours)
Prerequisite: permission of advisor.
Dissertation representing Independent and original research in the area of Computational Science and Engineering.

MATH 501 TOPICS IN GEOMETRY (3 Hours)
Prerequisite: Approval of department.
A survey of geometries and their structures. Emphasis is on both synthetic and analytic methods.

MATH 503 FOUNDATIONS OF MATH I (3 Hours)
The fundamental elements of set theory and finite mathematical structures; cardinals and ordinals; logical deduction, elements of probability; vectors and matrices, linear programming, theory of games and applications.

MATH 504 FOUNDATIONS OF MATH II (3 Hours)
The fundamental elements of set theory and finite mathematical structures; cardinals and ordinals; logical deduction, elements of probability; vectors and matrices, linear programming, theory of games and applications.

MATH 506 BASIC CONCPTS FOR TCHR I (3 Hours)
Prerequisite: Approval of department.
Higher mathematics for teachers, reviewing the fundamental areas of algebra, geometry and analysis, with stress on rigor and validity of ideas.

MATH 507 BASIC CONCPTS FOR TCH II (0.5-3 Hours)
Prerequisite: Approval of department.
Higher mathematics for teachers, reviewing the fundamental areas of algebra, geometry and analysis, with stress on rigor and validity of ideas.

MATH 510 TOPICS & ISSUES IN MATH (3 Hours)
This course is designed for in-service teachers who are interested in the renewal of teaching licenses and the pursuit of graduate studies in the teaching of mathematics. Emphasis is on individualized research dealing with the stages of development of mathematics, new trends in the teaching of mathematics, and the exploration of teaching theories resulting from the work of experimental psychologists such as Piaget, Aushel and Bruner. Because of the individualized nature of the course, students with diverse backgrounds in mathematics can be accommodated.

MATH 511 BASIC ABSTRACT ALGEBRA I (3 Hours)
Groups, (homomorphisms), rings, integral domains, modules and fields, elementary linear algebra, number theory.

MATH 513 LINEAR ALGEBRA I (3 Hours)
Vector spaces, matrices, linear transformations, determinants and linear equations. Selected topics on eigenvalues, canonical forms, inner products, inner product spaces, bilinear and quadratic forms.

MATH 531 BASIC REAL ANALYSIS I (3 Hours)
Prerequisite: Math 511 or approval of department.
Metric spaces, regulated functions and integrals; integrals of Riemann and Lebesgue; trigonometrical and Fourier series; differentiation and Stieltjes Integrals.

MATH 532 BASIC REAL ANALYSIS II (3 Hours)
Prerequisite: Math 511 or approval of department.
Metric spaces, regulated functions and integrals; integrals of Riemann and Lebesgue; trigonometrical and Fourier series; differentiation and Stieltjes Integrals.

MATH 535 INTRO MEAS & INTEGRTN I (3 Hours)
Prerequisite: Mathematics 531 or approval of department.
Lebesgue measure of linear sets, measurable functions, definite integral, convergence, integration and differentiation, spaces of functions, orthogonal expansions, multiple integrals and the Stieltjes Integral.

MATH 536 INTRO MEAS & INTEGRTN II (3 Hours)
Prerequisite: Mathematics 531 or approval of department.
Lebesgue measure of linear sets, measurable functions, definite integral, convergence, integration and differentiation, spaces of functions, orthogonal expansions, multiple integrals and the Stieltjes Integral.

MATH 541 BASIC COMPLEX ANALYSIS I (3 Hours)
Complex numbers, sets and functions; limits and continuity; analytic functions of a complex variable, elementary functions; integration; power and Laurent series, calculus of residues, conformal representation, special topics.

MATH 542 BASIC COMPLEX ANALYS II (3 Hours)
Complex numbers, sets and functions; limits and continuity; analytic functions of a complex variable, elementary functions; integration; power and Laurent series, calculus of residues, conformal representation, special topics.

MATH 543 NUMERICAL ANALYSIS (3 Hours)
This is an introductory course on Numerical Analysis. It is made of five related modules: M1) floating-point arithmetic, M2) root-finding algorithms, M3) numerical solution of systems of equations, M4) interpolation problems and M5) numerical integration.

MATH 551 BASIC GENERAL TOPOLOGY I (3 Hours)
Prerequisite: Mathematics 223 and approval of department.
Elementary set theory, ordinals and cardinals; topological spaces; cartesian products; connectedness; special topologies; separation axioms; covering axioms, metric spaces; convergence; compactness; function spaces; spaces of continuous functions and complete spaces; homotopy; maps into spheres; topology of En; homotopy type; introduction to algebraic topological ideas.

MATH 563 EXPERIMENTAL DESIGN I (3 Hours)
Prerequisite: Mathematics 272.
Experimental Design: Completely randomize design; randomize block designs, factorial experiments split plot design. confounding.

MATH 567 NON-PARAMETRIC STATS I (3 Hours)
Prerequisite: Mathematics 562 and approval of department.
Problems of estimating testing hypotheses when the functional form of the underlying distribution is unknown. Robust methods; sign test, rank test and confidence procedures based on these tests; tests based on permutations of observations. Non-parametric tolerance limits; large sample properties of the tests, multi sample problems; ranking methods in analysis of variance; Bivariate and multivariate procedures, efficiency comparisons.

MATH 571 NUMERICAL ANALYSIS I (3 Hours)
Prerequisite: Approval of department.
Introduction to Matlab, approximate differentiation, local truncation error and order, Euler¿s method, Runge-Kutta methods, embedded Runge-Kutta methods, stiff equations and implicit methods, explicit multi-step methods, implicit multi-step methods, shooting method, finite element method, finite difference methods for partial differential equations.

MATH 577 ORDINARY DIF EQUATIONS I (3 Hours)
Ordinary differential equations: basic theorems of existence, uniqueness, and continuous dependence of the solutions; linear differential equations and systems; stability theory; topology of integral curves; differential equations in the complex domain, asymptotic integration; boundary value problems. Partial differential equations; equations of first order method of characteristics, Hamilton-Jacobi theory; equations of second order-classification according to type; elliptic equations-potential equation, maximum principle, characteristics, and other topics of interest.

MATH 578 ORDINARY DIF EQUATION II (3 Hours)
Ordinary differential equations: basic theorems of existence, uniqueness, and continuous dependence of the solutions; linear differential equations and systems; stability theory; topology of integral curves; differential equations in the complex domain, asymptotic integration; boundary value problems. Partial differential equations; equations of first order method of characteristics, Hamilton-Jacobi theory; equations of second order-classification according to type; elliptic equations-potential equation, maximum principle, characteristics, and other topics of interest.

MATH 579 PARTIAL DIFF EQUATIONS I (3 Hours)
Prerequisite: Mathematics 577 or departmental approval.
Linear equations with constant coefficients in two independent variables, applications, eigenfunction expansions, homogeneous and nonhomogeneous equations. Fourier series, existence, solution uniqueness and representation, Initial boundary value problems, Laplace's equation, and special topics.

MATH 584 INDEPENDENT STUDY (3 Hours)
Prerequisite: Departmental consent.
Intensive study and research of a subject selected in accordance with student needs and arranged in consultation with the staff. Topics will vary. Student will make periodic reports on his/her reading and will-prepare a scholarly paper on a problem.

MATH 599 THESIS (3 Hours)
The candidate for the Master's degree must present a Thesis embodying the results of his research. The candidate chooses his problem, but approval by his adviser is required.

MATH 628 ADVD PARTIAL DIFF EQUATIONS I (3 Hours)
This course covers representation formulas for Laplace's equation, heat equation, and wave equation' theory of general nonlinear first-order partial differential equations; solvability of uniformly second order ellipitc, parabolic, and hyperbolic equations; theory of Sobolev spaces.

MATH 629 ADVND PARTIAL DIF EQUATIONS II (3 Hours)
This course is a continuation of MATH 628 and covers the theory and qualitative analysis techniques for nonlinear higher-order partial differential equations including calculus of variations, monotonicity methods, fixed point methods, methods of sub-solutions and super-solutions, nonexistence, geometric properties of solutions, gradient flows, Hamilton-Jacobi equations, and system of conservation laws.

MATH 670 COMPUTATIONAL METHODS N MATH I (3 Hours)
This course is designed to give an overview of the design, analysis and implementation of the most fundamental numerical techniques of MATH 543 in numerical linear algebra, the interpolation of functions, and the evaluation of integrals. This course in most part will depend on programming with MATLAB and/or C++. While we present many MATLAB examples throughout the course, students are strongly advised to have some previous programming experience in any computer programming language.

MATH 671 COMPUTATNL METHODS IN MATH II (3 Hours)
This course is a continuation of MATH 670. Topics covered includes introduction to mathematical and computational problems arising in the context of molecular biology. Theory and applications of combinatories, probability, statistics, geometry, and topology to problems ranging from sequence determination to structure analysis. The course depends on parallel and distributed programming.

MATH 673 QUANTITATIVE EXPLORATN OF DATA (3 Hours)
This course covers how to analyze and mine data with the Structured Query Language (SQL). Understand SQL fundamentals, and then advance into the uses of SQL data analysis and data mining with real applications. Learn to use Microsoft Excel to further analyze, manipulate and present your data exploration and data-mining findings in tabular and graphical formats. Students will be exposed to Extreme Science and Engineering Discovery Environment (XSEDE).

MATH 700 TPCS N MATH & STATS A N CDS&E (3-6 Hours)
The course may be repeated for credit. It covers current trends and challenges of mathematical and statistical applications in CDS&E.

MATH 827 NUMERICAL SOLUTN OF DIF EQUATI (3 Hours)
Ordinary differential equations:Runga-Kutta and predictor-corrector methods; stability theory, Richardson extrapolation, sitff equations, boundary value problems. Partial equations, boundary value problems. Partial differential equations: stablity, accuracy and convergence, Von Neumann and CFL conditions, finite difference solutions of hyperbolic and parabolic equations. Finite differences and finite element solution of elliptic equations.

STAT 661 PROBABILITY AND STATISTICS (3 Hours)
This course covers multivariate discrete probability distributions, biavriate normal distribution, maximum likelihood estimation, confidence interval, the Dirichlet distribution, Whishartn expectation identities, Hotelling's T2 and distribution of quadratic forms, quintile transformations and moments, Laws of large number, convergence of moments, characteristics functions of standard distributions, error of the Central Limit Theorem, central order statistics, extremes, markov chains, and random walks.

STAT 672 COMPUTATIONAL STATISTICS (3 Hours)
This course covers R, SAS, SPSS, S-Plus, Mathematics, computational statistics packages and other big data statistical computational packages with emphasis on reading, manipulating, summarizing and modeling data and implementations of simulation through random number generating, Monte Carlo method and bootstrapping.

STAT 680 CMPTNL DATA ANLYSIS & VISUAL I (3 Hours)
This course covers basic descriptive statistics, basic probability distributions, simple linear regression, point estimation, comparison of data sets and how to use mathematical and statistical software and packages as well as program to conduct analysis and provide visualized representations.

Computational and Data-Enabled Science & Engineering (M.S.)

Overview

The Master of Science (M.S.) in Computational and Data-Enabled Science & Engineering (CDS&E) program is an interdisciplinary program, which includes the disciplines of Biology, Chemistry, Computer Science, Engineering, Physical Sciences, and Mathematics & Statistical Sciences. Jackson State University already has strong undergraduate and graduate degree programs in these traditional areas. A PhD program in CDS&E started in the Fall of 2014. The M.S. program in Computational and Data-Enabled Science & Engineering requires a minimum of 36 credit hours beyond the bachelor's degree. The M.S. program in CDS&E serves as a feeder program for the PhD program in CDS&E and will provide a foundation for students to successfully pursue the doctoral program and employment outside of the academy. The program shares resources with the existing STEM programs and operates under the College of Science, Engineering, and Technology (CSET). The M.S. in CDS&E can be completed with a thesis or project.

Curriculum

Project Option

Code	Title	Hours
Core Courses		
CSC 620	DATABASE MANAGEMENT SYSTEMS	3
CSC 552	APPLIED PROGRAMMING	3
CSC 601	COMPUTER ALGORITHMS	3
STAT 661	PROBABILITY AND STATISTICS	3
or STAT 672	COMPUTATIONAL STATISTICS	
Required Courses		
Select one of the following tracks: [1]		9
Track 1: Computational Biology and Bioinformatics		
BIO 605		
BIO 619		
BIO 679		
Track 2: Computational Mathematics and Statistical Sciences		
MATH 670	COMPUTATIONAL METHODS N MATH I	
STAT 672	COMPUTATIONAL STATISTICS	
MATH 673	QUANTITATIVE EXPLORATN OF DATA	
Track 3: Computational Physical Science		
PHY 522		
PHY 533		
PHY 561		
Track 4: Computational Science and Engineering		
CSC 551	PARALLEL & DISTRIBUTED COMPUTI	
CSC 571	PROGRAMMING FOR BIG DATA	
CSC 621	MACHINE LEARNING	
Elective Courses		
12 credit hours of Elective courses [2]		12
Project		
Select one of the following from the following disciplines:		3
BIO 600		
CHEM 579		
CSC 595	INFO SYST & DEVELOP PROJ	
MATH 598		
SCI 587		
Total Hours		**36**

[1] A student will choose a particular track for the required courses after consultation with the graduate advisor.
[2] Elective Courses will be approved by the student's graduate committee.

Thesis Option

Code	Title	Hours
Core Courses		
CSC 520		3
CSC 552	APPLIED PROGRAMMING	3
CSC 601	COMPUTER ALGORITHMS	3
STAT 661	PROBABILITY AND STATISTICS	3
or STAT 672	COMPUTATIONAL STATISTICS	
Required Courses		
Select one of the following tracks: [1]		9
Track 1: Computational Biology and Bioinformatics		
BIO 605		
BIO 619		
BIO 679		
Track 2: Computational Mathematics and Statistical Sciences		
MATH 670	COMPUTATIONAL METHODS N MATH I	
STAT 672	COMPUTATIONAL STATISTICS	

MATH 673	QUANTITATIVE EXPLORATN OF DATA	
Track 3: Computational Physical Science		
PHY 522		
PHY 533		
PHY 561		
Track 4: Computational Science and Engineering		
CSC 551	PARALLEL & DISTRIBUTED COMPUTI	
CSC 571	PROGRAMMING FOR BIG DATA	
CSC 621	MACHINE LEARNING	
Elective Courses		
9 credit hours of Elective courses [2]		9
Thesis		
Select one of the following from one of the following disciplines		6
BIO 599	THESIS RESEARCH	
CHEM 580	THESIS RESEARCH	
CSC 599	THESIS RESEARCH	
MATH 599	THESIS	
SCI 599		
Total Hours		**36**

[1] A student will choose a particular track for the required courses after consultation with the graduate advisor.

[2] Elective Courses will be approved by the student's graduate committee.

Elective Courses

Elective Courses will be approved by the student's graduate committee. A list of elective courses is given below (the elective courses can be taken from one or more tracks):

Code	Title	Hours
BIO 623	SYSMS BIO & SIGNALING NETWORKS	3
BIO 689	ADVD TPCS IN COMPUTATIONAL BIO	3
MATH 543	NUMERICAL ANALYSIS	3
MATH 628	ADVD PARTIAL DIFF EQUATIONS I	3
MATH 629	ADVND PARTIAL DIF EQUATIONS II	3
MATH 671	COMPUTATNL METHODS IN MATH II	3
MATH 700	TPCS N MATH & STATS A N CDS&E	3-6
STAT 661	PROBABILITY AND STATISTICS	3
STAT 680	CMPTNL DATA ANLYSIS & VISUAL I	3
CHEM 531	BIOCHEMISTRY	3
CHEM 558	QUANTUM CHEMISTRY	3
CSC 511	OBJECT-ORIENTED PROGRAMMING	3
CSC 537	CLOUD COMPUTING	3
CSC 582	SOCIAL NETWORK ANALYSIS	3
CSC 634	BIG DATA MINING	3
CSC 641	NETWORK SCIENCE	3
CPE 505	ANALYSIS OF ALGORITHMS	3

Special Requirements

To become a candidate for the Master of Science in Computational and Data Enabled Sciences and Engineering, student will have to:

1. Take and pass the Graduate Area Comprehensive Examination (GACE) on the 4 core courses. The eligibility criteria for taking the GACE will be the same as that set by the Graduate School (This requirement is waived for CDS & E Ph.D. students who have passed the Comprehensive Qualifying Examinations). A student will have two chances of passing the GACE exam on the 4 core courses.
2. Additionally, the student will need to present and defend his/her master's Project or Thesis to a committee comprised of the student advisor and committee members.

Computational Data-Enabled Sciences and Engineering (Ph.D.)

The doctoral program in computational and data enabled science & engineering (CDS&E) is a research oriented program that requires a minimum of 72 credit hours beyond the Bachelor's degree or a minimum of 48 credit hours beyond the Master's degree. The program shares resources with the departments and schools offering concentrations in CDS&E and operates under the College of Science, Engineering, and Technology (CSET). The CDS&E Ph.D. program at JSU serves as a model Ph.D. program to the traditional computational and computer science fields Ph.D. programs embodying high performance computing with data science and big data analytics, long in demand by industry, government and private labs and coming into its own as demanded by the nation's need to create knowledge from the overwhelming world of data thrust upon us in today's global world of sensors and its permeation in all disciplines. The CDS&E program seeks to improve our ability to extract knowledge from large and complex digital data as we endeavor to meet the national imperative to accelerate discoveries in science and engineering, strengthen our national security and transform teaching and learning. [1]Transdisciplinary, multidisciplinary and interdisciplinary research is at the core of the CDS&E and hence JSU's CDS&E meets the challenges by:

1. Providing core courses that allow transitioning students from all disciplines
2. Integrating and adapting the Affinity Research Group (ARG) Model a cooperative learning approach involving students with diverse backgrounds and emphasizing the conscious development of students' domain knowledge, research abilities, team skills and professional identity [Such as been demonstrated as an effective means of ensuring student engagement[2]]

[1] https://obamawhitehouse.archives.gov/blog/2012/03/29/big-data-big-deal (https://obamawhitehouse.archives.gov/blog/2012/03/29/big-data-big-deal/)

[2] https://www.computer.org/web/cspress/arg (https://www.computer.org/web/cspress/arg/)

The educational objectives of the CDS&E Ph.D. program are met by:

- Providing students with advanced theoretical, analytical, and applied interdisciplinary research training of high quality at the Ph.D. level.
- Providing the necessary structures, learning opportunities, and experiences beyond the traditional university curriculum required for diversity and interdisciplinary collaborations in areas of Computational Biology and Bioinformatics, Computational Mathematics and Statistical Sciences, Computational Physical Sciences, Computational Public Health Science, and Computational Science and Engineering.

- Producing high quality graduates with terminal degrees in CDS&E capable of joining the workforce in industry, academia and state or federal agencies and of becoming the future leaders in computing-centric and Big Data fields.

Specialized Tracks in CDS&E

The following Specialized Tracks are being offered:

- Computational Biology and Bioinformatics
- Computational Mathematics and Statistical Sciences
- Computational Physical Sciences
- Computational Science and Engineering
- Computational Public Health Science

Admission Requirements

To be considered for admission, the following requirements should be met:

1. Applicants must have completed the Graduate Application for Admission.
2. Applicants must have provided official copies of transcripts from all colleges/universities attended.
   a. The applicant must have a Bachelor's or Master's degree from an accredited college or university in a STEM or Public Health Sciences, and
   b. A minimum GPA of 3.00 (on a 4.00 scale) on the highest degree earned.
3. A satisfactory TOEFL score for international students whose native language is not English.
4. Three letters of recommendation from three professors or professionals knowledgeable of the applicant's professional academic ability, job experiences, and leadership potential.
5. A statement of purpose.

The above listed are the minimal requirements, and do not guarantee acceptance into the program.

Degree Requirements

The requirements for the Doctor of Philosophy Degree in Computational and Data-Enabled Science and Engineering are:

- A minimum of 72 credit hours beyond the Bachelor's Degree or
- A minimum of 48 credit hours beyond the Master's Degree.

These requirements are distributed as follows:

- Common Core = 12 credit hours
- Track Requirement = 12 credit hours
- Track electives = 24 credit hours
- Dissertation = Not more than 24 credit hours

For an applicant with at least a Master's Degree, the course and Dissertation credit hour requirements shall be decided by the Graduate Admissions Committee of the Ph.D. program after evaluating the applicant's transcripts and academic records.

Additional requirements include:

1. Satisfactory performance on the Comprehensive Qualifying Examination (GNST 700 APPS FOR GRAD DEG CAND DOCTORA); and
2. Satisfactory performance on the Graduate Area Comprehensive Examinations (GNST 888 GRAD COMP EXAM(DOCTORAL LEVEL)) and Successful defense of the dissertation research. The final basis for granting the degree shall be the candidate's grasp of the subject matter in a specialized track of CDS&E, and a demonstrated ability to express thoughts clearly and forcefully in both written and oral presentations and publications in peer reviewed journals.

Comprehensive Qualifying Examination

(GNST 700 APPS FOR GRAD DEG CAND DOCTORA)

To ensure that the skills and basic knowledge have been acquired to carry out the research necessary for the dissertation, the student must demonstrate competence in the common core and concentration track areas. Competence will be demonstrated by a comprehensive qualifying examination which shall consist of written examinations in each of these two areas. The two parts comprehensive qualifying examination will consist of 3 of the 4 common core courses (CSC 601 COMPUTER ALGORITHMS, CSC 620 DATABASE MANAGEMENT SYSTEMS, and STAT 661 PROBABILITY AND STATISTICS or STAT 672 COMPUTATIONAL STATISTICS) as Part I, and all the 4 required courses for the chosen track as Part II. A good performance on both Part I and Part II exams will be required for passing. Knowledge of the content of the courses listed in the common core and specialized concentration tracks, such as the typical course sequence listed under each area, should be adequate preparation for the comprehensive qualifying examination. Study guides for each of the examination areas will also be available.

A Comprehensive qualifying examination will normally be scheduled at the beginning of the spring semester and once during the summer. To show satisfactory progress in his/her graduate studies, a student is normally expected to complete his/her comprehensive qualifying examinations by the end of the second full academic year of Ph.D. work or equivalently, completing the common core and concentration track course work. A student will be allowed to repeat an examination only once or as recommended by the faculty advisory committee.

Graduate Area Comprehensive Examination (GACE)

When the comprehensive qualifying examination has been passed, the Graduate Advisory Committee is formed. The Doctoral Committee and mentor are selected with the dissertation research topic chosen, and when all course work on the program of study has been completed, the student may request the Graduate Area Comprehensive Examination [GACE] to be scheduled. The GACE will be an examination in the core courses as well as an in-depth examination in the track. It will be administered by the student's doctoral committee and must contain an oral component. Pass or fail will be determined by majority vote of the committee. The oral component of the examination is open to members of the faculty.

The Dissertation

After the GACE has been passed, the student's doctoral committee will be reconstituted to form the dissertation committee. The student and the major professor of the doctoral committee will select the student's dissertation committee, subject to the approval of the CDS&E Ph.D. Advisory Committee. The dissertation committee will consist of at least five graduate faculty members, including a major professor and at least three additional graduate faculty members from

the other concentration tracks, including an external member. The primary responsibility of the committee will be to supervise the student's research and writing of the dissertation in the chosen concentration track, and its members should be chosen with this mission in mind.

In the early stages of the research effort, the student will make a formal dissertation proposal to the dissertation committee. The dissertation will be an original work that makes a significant contribution to the student's area of specialization. An external person who has expertise in the dissertation area will be enlisted by the student and his/her committee to serve as an external examiner for the dissertation. This person will read the dissertation and submit written comments regarding its quality and significance to the student's committee. It is highly recommended that at least two publications in professionally refereed journals be resulted from the dissertation.

Final Defense Examination

After all other examinations and the dissertation have been completed, the student's committee will schedule the final defense examination for the student. This examination will consist of an oral defense of the dissertation and will be open to the public.

After consultation with the CDS & E Ph.D. program coordinator, the major professor will publicize the time and place that the examination will be held. This announcement should be at least one week prior to the scheduled date of the examination.

A pass or fail on this examination will be determined by a majority vote of the student's committee. In making its decision, the committee will give due consideration to the external examiner's assessment of the dissertation and the refereed publications that resulted from the dissertation.

Requirements for Students Who Hold a Master's Degree (in Mathematics/ Computer Science/Engineering) – A Minimum of 48 Credit Hours

These students will consult with an adviser within their chosen track to develop a degree plan for a minimum of 48 credit hours. The Common Core Course work covering 12 credit hours is required. Students who pass the Admission to the CDS & E Ph.D. Candidacy Exam (The Comprehensive Qualifying Examination) before completing the common core courses can transfer those courses into the developed degree plan.

A student with a Master's degree in a CDS&E discipline can transfer at most 24 credit hours of coursework from their Master's degree transcript to the categories of Common Core, Track Requirements and Track electives (as applicable, decided in consultation with the adviser). This implies, for the PhD degree, a student who already has a Master's degree in a CDS&E discipline should do a minimum of 24 credit hours of additional coursework (to satisfy the overall 12, 12 and 24 credit hour requirements for Common Core, Track Requirements and Track Electives respectively) and at most 24 credit hours of dissertation as well as pass the Comprehensive Qualifying Examination and the Graduate Area Comprehensive Examination.

Progress Towards Earning the CDS&E Ph.D.

To become a candidate for the Doctor of Philosophy Degree in CDS&E, the student must have:

1. Completed the formal coursework with a GPA of 3.0 or better.
2. During the first two semesters of study, students are required to attend CDSE 700 SEM N COMP DATA SCI & ENG (focus on ARG and understanding of the profession)
3. Passed a comprehensive qualifying examination. A good performance (or average of 80% scores) on the Common Core and Concentration track exams will be required for passing. The student entering the program with a bachelor's degree will be required to take the comprehensive qualifying examination, for the first time, no sooner than in their third semester (when the common core and concentration tracks course work has been completed), and within the first 2 years of admission into the program. The student will be required to pass within five (5) semesters of admission and will have two (2) opportunities for passing.
4. Students who pass the Comprehensive Qualifying Examination must immediately meet the **IRB/IACUC** regulations compliance and apply for Graduate Degree Candidacy-and form a doctoral advisory committee in consultation with their chosen faculty advisor or mentor and enroll in CDSE 899 DISSERTATION RESEARCH-continuation of the ARG model implementation engaging student weekly presentations and their faculty advisors.
5. Complete all the required course work with at least 6 credit hours of internship or research experience at a High-Performance Computing Facility or Laboratory, or as on campus training with IT. Obtain the **IRB approval or exemption**, if applicable.
6. Form a dissertation committee and submit a dissertation proposal.
7. Complete the Graduate Area Comprehensive Examination.
8. Follow the guidelines for preparing a Doctoral Dissertation from the Division of Graduate Studies.
9. Submit preliminary copies of the dissertation to the committee.
10. Schedule the Dissertation Defense.
11. Public announcement of Dissertation Defense.
12. Submit Committee Report of Dissertation Defense to Graduate Studies-(Follow Graduate Studies Deadlines).
13. Submit Final Draft of the dissertation to the Chairperson of the committee and committee members.
14. Final Submission of Corrected (or proofed) Dissertation before final graduation clearance deadline.
15. Removal of "Incomplete" or "In-Progress" Grades.
16. Apply for Online Graduation Clearance- Follow the University Deadlines-Registrar.
17. Participate in the Commencement Exercises-Optional.

Transfer of Credits

A course for which transfer credit is sought must have been completed with a grade of "B" or better. Holders of at least the Master's degree can transfer up to 24 credit hours. Please refer to the Division of Graduate Studies guidelines.

Time Limit

Students with adequate computational sciences and concentration area subject disciplines preparation at the undergraduate level can take at

least five years and three years at the master's level to complete the CDS & E Ph.D. program. However, all students must complete their programs within five years of becoming a candidate for the CDS&E Ph.D. degree.

Curriculum

Requirements for Students with a Bachelor's Degree

Code	Title	Hours
Common Core		12
Track Requirements		12
Track Electives		24
Dissertation [1]		24
Total Hours		**72**

[1] At most 24 credit hours.

Total = 72 credit hours: ***Minimum requirements; additional requirements may be recommended by the Doctoral Committee***

Computational Biology and Bioinformatics Track

Code	Title	Hours
Common Core Courses		
CSC 552	APPLIED PROGRAMMING	3
CSC 601	COMPUTER ALGORITHMS	3
CSC 620	DATABASE MANAGEMENT SYSTEMS	3
STAT 672	COMPUTATIONAL STATISTICS	3
or STAT 661	PROBABILITY AND STATISTICS	
Track Requirements		
CSC 651	FNDS OF PROGRAMMING & COMP SYS	3
BIO 509	GENERAL GENETICS	3
BIO 540	CELL BIOLOGY	3
BIO 679		3
Elective Courses		
Select 24 hours of electives. A sample list is as follows: [1]		24
BIO 615	PRINCIPLES OF BIOREMEDIATION	
BIO 623	SYSMS BIO & SIGNALING NETWORKS	
BIO 689	ADVD TPCS IN COMPUTATIONAL BIO	
CDSE 700	SEM N COMP DATA SCI & ENG	
CDSE 701	INT N COMP DATA SCI & ENG	
CDSE 702	CURRENT TRENDS IN CDS&E	
Dissertation		
Select a total of 24 hours of the following:		24
CDSE 899	DISSERTATION RESEARCH	
Total Hours		**72**

[1] Elective Courses will be approved by the students graduate committee. A sample list of elective courses for this track is as follows.

Computational Mathematics and Statistical Sciences Track

Code	Title	Hours
Common Core Courses		
CSC 552	APPLIED PROGRAMMING	3
CSC 601	COMPUTER ALGORITHMS	3
CSC 620	DATABASE MANAGEMENT SYSTEMS	3
STAT 672	COMPUTATIONAL STATISTICS	3
or STAT 661	PROBABILITY AND STATISTICS	
Track Requirements		
MATH 670	COMPUTATIONAL METHODS N MATH I	3
MATH 671	COMPUTATNL METHODS IN MATH II	3
STAT 661	PROBABILITY AND STATISTICS	3
MATH 673	QUANTITATIVE EXPLORATN OF DATA	3
Track Electives		
Select 24 hours of the following. A sample list of elective courses are as follows: [1]		24
CSC 511	OBJECT-ORIENTED PROGRAMMING	
MATH 700	TPCS N MATH & STATS A N CDS&E	
MATH 543	NUMERICAL ANALYSIS	
MATH 571	NUMERICAL ANALYSIS I	
MATH 577	ORDINARY DIF EQUATIONS I	
MATH 578	ORDINARY DIF EQUATION II	
MATH 628	ADVD PARTIAL DIFF EQUATIONS I	
MATH 629	ADVND PARTIAL DIF EQUATIONS II	
STAT 680	CMPTNL DATA ANLYSIS & VISUAL I	
CDSE 700	SEM N COMP DATA SCI & ENG	
CDSE 701	INT N COMP DATA SCI & ENG	
CDSE 702	CURRENT TRENDS IN CDS&E	
Dissertation		
Select a total of 24 hours of the following:		24
CDSE 899	DISSERTATION RESEARCH	
Total Hours		**72**

[1] Elective Courses will be approved by the student's graduate committee. A sample list of elective courses for this track are as follows.

Computational Physical Sciences Track

Code	Title	Hours
Common Core Courses		
CSC 552	APPLIED PROGRAMMING	3
CSC 601	COMPUTER ALGORITHMS	3
CSC 620	DATABASE MANAGEMENT SYSTEMS	3
STAT 672	COMPUTATIONAL STATISTICS	3
or STAT 661	PROBABILITY AND STATISTICS	
Track Requirements		
CSC 651	FNDS OF PROGRAMMING & COMP SYS	3
CHEM 768	MOLECULAR QUANTUM MECHANICS	3
PHY 522		3
PHY 533		3
Track Electives		

Select 24 hours from the following:		24
CHEM 734	PHYSICAL BIOCHEMISTRY	
CHEM 752	ATOMIC & MOLECULAR SPECTROSCRO	
CHEM 758	QUANTUM CHEMISTRY	
CHEM 787	NANOSCIENCE AND NANOTECHNOLOGY	
CDSE 700	SEM N COMP DATA SCI & ENG	
CDSE 701	INT N COMP DATA SCI & ENG	
CDSE 702	CURRENT TRENDS IN CDS&E	
Dissertation		
Select at most 24 hours of the following:		24
CDSE 899	DISSERTATION RESEARCH	
Total Hours		**72**

Computational Science and Engineering Track

Code	Title	Hours
Common Core Courses		
CSC 552	APPLIED PROGRAMMING	3
CSC 601	COMPUTER ALGORITHMS	3
CSC 620	DATABASE MANAGEMENT SYSTEMS	3
STAT 672	COMPUTATIONAL STATISTICS	3
or STAT 661	PROBABILITY AND STATISTICS	
Track Requirements		
CSC 511	OBJECT-ORIENTED PROGRAMMING	3
CSC 571	PROGRAMMING FOR BIG DATA	3
CSC 621	MACHINE LEARNING	3
CSC 641	NETWORK SCIENCE	3
Track Electives		
Select 24 hours of electives. A sample list of elective courses are as follows: [1]		24
CSC 537	CLOUD COMPUTING	
CSC 582	SOCIAL NETWORK ANALYSIS	
CSC 634	BIG DATA MINING	
CDSE 701	INT N COMP DATA SCI & ENG	
CDSE 702	CURRENT TRENDS IN CDS&E	
Dissertation		
Select at most 24 hours of the following:		24
CDSE 899	DISSERTATION RESEARCH	
Total Hours		**72**

[1] Elective Courses will be approved by the student's graduate committee. A sample list of elective courses for this track are as follows.

Computational Public Health Science Track

Code	Title	Hours
Common Core Courses		
CSC 552	APPLIED PROGRAMMING	3
CSC 601	COMPUTER ALGORITHMS	3
CSC 620	DATABASE MANAGEMENT SYSTEMS	3
STAT 672	COMPUTATIONAL STATISTICS	3
or STAT 661	PROBABILITY AND STATISTICS	
Track Requirements		
CSC 751		3
PHS 701	ADV BIOSTATISTICS & COMPTR SCI	3
PHS 707	LEADERSHIP FOR PHS PROFESSNLS	3
PHEP 711	BEHAVIORAL & PSYCHOSOC EPIDEM	3
Elective Courses		
Select 24 hours of electives. A sample list of elective courses are as follows: [1]		24
PHS 505	PRINCIPLES OF EPIDEMIOLOGY	
PHS 506	RESEARCH & QUANTITATIVE MTHDS	
PHS 531	HEALTH BEHAVIOR,PROMOTION & ED	
PHS 703	DESGNG RES STUD ON MIN&SPEC PO	
PHS 705	ADVOCACY AND PUBLIC HLTH POLIC	
PHS 706	PRIN OF ENVMNTAL & OCCU HLTH	
ENV 702	ENVIRONMENTAL HEALTH	
ENV 720	ENVNMNTL & OCCUPATION HEALTH	
ENV 717	INTRO TO REMOTE SENSING	
ENV 718	REMOTE SENSING APPLIED	
ENV 751	WATERQUALITY MANAGEMENT	
ENV 755	AIR QUALITY MANAGEMENT	
ENV 800	ENVIRONMENTAL TOXICOLOGY	
ENV 801	RISK ASSESSMENT&MANAGMNT	
CDSE 700	SEM N COMP DATA SCI & ENG	
CDSE 701	INT N COMP DATA SCI & ENG	
CDSE 702	CURRENT TRENDS IN CDS&E	
Dissertation		
Select at most 24 hours of the following:		24
CDSE 899	DISSERTATION RESEARCH	
Total Hours		**72**

[1] Elective Courses will be approved by the student's graduate committee. A sample list of elective courses for this track are as follows.

Course Descriptions

Course Descriptions

A

- Accounting (ACC) (p. 159)

B

- Behavioral Health Prom&Educatn (PHBS) (p. 160)
- Biology (BIO) (p. 160)
- Biology Lab (BIOL) (p. 162)
- Business & Prof. Development (BPD) (p. 162)

C

- Chemistry (CHEM) (p. 162)
- Civil Engineering (CIV) (p. 164)
- Communicative Disorders (CMD) (p. 168)
- Comp&Data-Enabled Sci and Eng (CDSE) (p. 171)
- Computer Engineering (CPE) (p. 171)

Accounting (ACC)

ACC 501 FINANCIAL ACCTNG AND ANALYSIS (3 Hours)
A study of accounting transaction including the adjusting and closing process, financial statements preparation, and tools and techniques of financial statement analysis relative to financial position, results of operations, and cash flows as reported in corporate annual reports.

ACC 536 ADV & INTERNATIONAL ACCOUNTING (3 Hours)
Prerequisite: ACC 314, 315.
A study of advanced accounting issues concerning partnerships, consolidations, international operations, and International Financial Reporting Standards. Not open to those who completed ACC 436 at the undergraduate level.

ACC 540 ADV MANAGERIAL ACCOUNTNG (3 Hours)
Prerequisite: ACC 211, 212.
Study of managerial uses of accounting information and trends in internal accounting functions.

ACC 541 ADVANCED ACCOUNTING THRY (3 Hours)
Prerequisite: ACC 314.
A brief historical development of accounting thought followed by an intensive investigation of the theoretical framework on which accounting principles and procedures rest.

ACC 545 Financial Statement Analysis (3 Hours)
Prerequisite: ACC 211, 212.
This course offers a study of the tools and techniques utilized to analyze financial positions, results of operations, and cash flows s reported in corporate annual reports.

ACC 557 SEMINAR IN ATTESTATION (3 Hours)
Prerequisite: ACC 314, 315.
Study and refinement of generally accepted auditing standards, procedures and extension of auditing procedures; study of special investigations and audit reports; review of recent auditing trends, research, and pronouncements.

ACC 561 CPA REVIEW I (3 Hours)
Prerequisite: ACC 314.
A review of selected topics as tested on the Uniform CPA Examination.

ACC 565 SEM/N GVNMT & NOT FOR PRFT ACC (3 Hours)
Prerequisite: ACC 211, 212.
A study of generally accepted accounting principles of state and local governments and selected nonprofit entities with an emphasis on current developments in these areas.

ACC 573 ADV INCOME TAX ACCOUNTNG (3 Hours)
Prerequisite: ACC 423.
A study of federal and state income tax laws for fiduciaries, partnerships, and corporations utilizing modern research technology. Not open to those who completed ACC 473 at the undergraduate level.

ACC 575 RESEARCH IN TAXATION (3 Hours)
Prerequisite: ACC 423.
A study of selected tax issues and the application of tax research methodology. Topics include the tax research environment, primary and secondary sources of federal tax law, and implementing tax research tools.

ACC 592 ACCOUNTING INFORMATION SYSTEMS (3 Hours)
Prerequisite: ACC 314.
A study of theory and practice as applied to accounting information systems. The course examines the process for purchasing or designing accounting systems and a variety of topics dealing with the role of technology in building, implementing, controlling, and auditing accounting information systems. A secondary goal of the course is to help students become more comfortable using computer-based tools including e-mail, accounting software and the World Wide Web. Not open to those who completed ACC 492 at the undergraduate level.

ACC 790 SEMINAR IN ACCOUNTING RESEARCH (3 Hours)
This course introduces the students to contemporary issues in accounting education and accounting education research.

ACC 791 SEM IN ACCOUNTING RESEARCH I (3 Hours)
This course offers a study of the application of contemporary research methodology to selected subject areas in accounting including financial accounting and managerial accounting.

ACC 792 SEM IN ACCOUNTING RESEARCH II (3 Hours)
This course offers a continuation of ACC 791 with a focus of the application of contemporary research methodology to auditing and other accounting areas not covered in ACC 791.

ACC 799 DISSERTATION RESEARCH IN ACCOU (1-12 Hours)
Prerequisite: Consent of the chair of the Dissertation Committee.
Students will complete doctoral level research which must culminate in the successful development and defense of the dissertation in the field of Management. Students may register for more than one section in a given semester. A minimum of 21 credit hours of Ph.D. Dissertation is required.

Behavioral Health Prom&Educatn (PHBS)

PHBS 711 ADV THEORIES&SCI PRIN FOR HP (3 Hours)
The course provides an extensive overview of current theories and models of health promotion and education. In addition, it reviews the scientific evidence and principles supporting the foundation of health promotion and educational programs.

PHBS 712 BEHVL & PSYCHOSOCIAL EPIDEMIOL (3 Hours)
Prerequisite: for doctoral students is PHS 702 Disease Pathogenesis and Behavioral Risk Factors.
This course provides an overview of social, personality, and cultural factors influencing behavior. It also addresses stress and related psychosocial factors as determinants of health and disease. Psychosocial and behavior models are also discussed. Doctoral students are required to analyze a specific data set and prepare a research literature report on a specific topic in behavioral and psychosocial epidemiology. A prerequisite for the master¿s students is PHS 505 Principles of Epidemiology.

PHBS 713 QUALITATIVE RESEARCH METHODS (3 Hours)
This course examines major qualitative approaches that are most frequently applied to the study of process in human service settings. Students learn how to conduct systematic investigations of in-depth, non-quantitative studies of individuals, groups, organizations, or communities.

PHBS 714 CLINCL TRLS & INTRVNTNL ST DES (3 Hours)
Prerequisite: include PHS 521 Epidemiological Study Designs and PHS 703 Designing Research Studies on Minorities and Special Populations.
This course reviews in greater detail the design, conduct, and evaluation of clinical trials and cohort studies. In addition it addresses errors and common methodological pitfalls using practical illustrations. The first half of the course addresses clinical trials and the second half focuses on other interventional study designs.

PHBS 715 RES SEM IN HEALTH PROMOTION (3 Hours)
This course exposes graduates to current research methods and practice in health promotion. The course will consist of a series of guest lecturers

PHBS 716 SOC & COGNITIVE BASES OF BEHAV (3 Hours)
This course addresses the theories and research on attitude formation and change, attributional styles, prejudice, interpersonal perception, group dynamics, self-regulation, and cognitive styles.

Biology (BIO)

BIO 501 ENVIRONMENTAL SCIENCE (3 Hours)
An introductory course for non-major graduate students dealing with the science of the environment and man's relationships through political, social, economic, and ethical processes.

BIO 506 HUMAN ENVIRONMENT & NATURL SYS (3 Hours)
Emphasis placed on fundamental problems that confront man from day to day. Topics among others for discussion are ecology, population, energy, food, transportation and land pollution.

BIO 507 BIOLOGY FOR ELEMENTARY TEACHER (3 Hours)
Prerequisite: None.
The application of biological procedures and techniques at the elementary school level with emphasis on selected topics in biology.

BIO 509 GENERAL GENETICS (3 Hours)
Prerequisite: ; Bio 318.
A study of the principal concepts of heredity to include the application of classical and modem genetics.

BIO 511 BIOSTATISTICS (3 Hours)
This course is designed for students in biological sciences with no advanced training in mathematics. Basic concepts in statistical methods and experimental techniques and their general applicability in biology will be stressed.

BIO 512 NATURAL RESOURCES & CONS (3 Hours)
A study of our natural resources with emphasis on their origin, properties, use and misuse and good conservation practices.

BIO 513 HUMAN NUTRITION (3 Hours)
Prerequisite: Bio 233 or 218 and CHEM 241.
Review of nutrient sources, requirements and deficiency diseases of man. Emphasis on nutritional metabolism under normal and pathological conditions, and current research.

BIO 515 MOLECULAR BIOLOGY (3 Hours)
Study of the structure, synthesis, isolation and interactions of macromolecules of biological interest.

BIO 517 MAMMALIAN PHYSIOLOGY (3 Hours)

BIO 523 ECOLOGY (3 Hours)
Prerequisite: Senior standing or consent of instructor.
A study of the tropic relationships and energy transfer in ecosystems.

BIO 530 ADVANCED MICROBIOLOGY (3 Hours)
Prerequisite: BIO 313; CHEM 242.
Special techniques for culturing microorganisms. Includes a survey of some of the important microbes in medicine, industry and public health.

BIO 531 INVERTEBRATE ZOOLOGY (3 Hours)
Prerequisite: BIO 114, CHEM 142.
Intended for students who wish to obtain a comprehensive knowledge of the invertebrates.

BIO 532 ADVANCED PARASITOLOGY (3 Hours)
Prerequisite: BIO 331; CHEM 142, 242.
The physiology of specific parasite and host-parasite relationships will be studied in great detail. Clinical specimens will be studied.

BIO 540 CELL BIOLOGY (3 Hours)
Prerequisite: BIO 111, 119 or 121, 313, and CHEM 241.
Study of cell anatomy as revealed by electron microscopy. Emphasis on bioenergetics, cell metabolism and current cell research.

BIO 550 IMMUNOLOGY & SEROLOGY (3 Hours)
The study of antibodies that are elicited in response to antigens and the difference between the protoplasm of one organism and another as reflected in the blood.

BIO 561 MOLECULAR VIROLOGY (3 Hours)
An introduction to the types of viruses that infect humans, animals, plants, and bacteria, their mode of replication, mode of swiping cellular functions, human viral diseases and viral vaccines, and drug development, and the medical and economic significance of viral diseases in public health.

BIO 570 HUMAN PHYSIOLOGY (3 Hours)
Prerequisite: BIO 115, CHEM 242.
The study of physiological processes related to the human. The physiological systems to be examined are: gastro-intestinal, renal, endocrine, neural, and reproductive.

BIO 575 ENDOCRINOLOGY (3 Hours)
Prerequisite: BIO 115, 218; CHEM 142, 242.
The basic fundamentals of endocrinology. The role of the endocrine glands and their products (hormones) in the maintenance of a constant internal environment in living organisms.

BIO 576 HISTOPATHOLOGY (3 Hours)
Prerequisite: BIO 115, 218, and 441.
Provides general consideration of the principal concepts of tissues and cellular pathology, with emphasis on human tissues and pathology. The course prepares students for further studies in medicine, dentistry, and allied health fields.

BIO 587 INDEPENDENT STUDY (2-4 Hours)
Prerequisite: Graduate standing in biology.
Students will elect a specific topic that is not covered in other biology courses. The student, working independently, will be required to submit a research paper that includes an exhaustive review of literature.

BIO 589 GRADUATE SEMINAR (1 Hour)
A course designed for survey of biological literature. The student will be required to prepare and present reports and assigned projects. Required of all students.

BIO 599 THESIS RESEARCH (1-6 Hours)
Thesis representing original research. (Required for M.S. students)

BIO 610 ENVIRONMENTAL MICROBIOLOGY (3 Hours)
The study of the roles of microorganisms in natural systems with attention given to the examination of nutrient cycles, methods of analysis of microbial biomass and activities as well as the functional roles of microorganisms.

BIO 615 PRINCIPLES OF BIOREMEDIATION (3 Hours)
This course uses modern knowledge in life sciences, as well as new developments in biotechnology to address important issues related to environmental clean-up of hazardous wastes. The nature of environmental pollution is reviewed, and basic concepts in molecular biology, biochemistry, and microbiology and plant physiology are applied to demonstrate the significance of bioremediation and phytoremediation in pollution control. Therefore, an emphasis is put on the use of biological methods and processes for the remediation of contaminated soils and water resources.

BIO 620 INDEPENDENT STUDY (1-6 Hours)
Students will elect a specific topic that is not covered in other biology courses. The student, working independently, will be required to submit a research paper that includes an exhaustive review of literature.

BIO 623 SYSMS BIO & SIGNALING NETWORKS (3 Hours)
The objectives of the Systems Biology course is to prevent methods for modeling and analyzing biological systems, in particular cellular systems. It is designed to cover intracellular processes, including enzymatic reactions, polymerization processes, gene expression, gene-environment interactions, and signal transduction. Also the course introduces mathematical modeling fundamentals, including deterministic models, includinglinear regression methods, explains the differences between linear and nonlinear regression, and illustrates how to determine input variables to improve estimation accuracy during experimental design. The material covers the process-function-behavior sequence in cells and illustrates how modeling and analysis of signal transduction units play a mediating role between process and function.

BIO 650 ANALYSIS OF HORMONE ACTION (3 Hours)
Prerequisite: Graduate status and consent of the instructor.
An analysis of the cellular mechanisms of hormone action. The role of target tissues, receptors, hormone analogs and, metabolic inhibitors in studies of hormone action will be discussed.

BIO 689 ADVD TPCS IN COMPUTATIONAL BIO (3 Hours)
The Advanced Topics in Computational Biology will introduce the students to data-driven models of molecular interaction networks and applications of discrete algorithms, data mining, and machine learning to the modeling and analysis of molecular interactions and computational disciplines in systems biology networks.

Biology Lab (BIOL)

BIOL 506 HUMAN ENVIRONMNTL & NAT SYS LA (1 Hour)
Selected laboratory exercises, visiting lectures and field trips are designed to provide a broad view of applications and concepts in environmental science.

BIOL 507 BIOLOGY ELEMENTARY TCHRS LAB (1 Hour)
Laboratory designed to expandand illustrate subject-matter areas stressed in Bio 507.

BIOL 515 MOLECULAR BIOLOGY LAB (1 Hour)
Prerequisite: Must be taken concurrently with Bio 515.
Laboratory techniques used to purify proteins, DNA, and RNA and the methods used to analyze these macromolecules.

BIOL 523 ECOLOGY LAB (1 Hour)
This lab course is designed to be, and should be, taken concurrently with the Ecology lecture course (BIO 523). The ecology laboratory sessions are structured to reinforce topics discussed in lecture and provide a treatment of technical topics not covered in the lecture. Methods common to the laboratory and field will be taught. Students will 1) gain a deeper, understanding of the main concepts of ecology and ecological processes and 2) develop critical and analytical thinking skills along with reasoning and logical thinking skills, and apply them to ecological - concepts.

BIOL 530 ADVANCED MICROBIOLOGY LAB (1 Hour)
Teaches the student special methods in isolating, culturing, and identifying certain microorganisms of medical and industrial importance. Must be taken concurrently with BIO 530.

BIOL 540 CELL BIOLOGY LAB (1 Hour)
Prerequisite: BIO 112,119, 313.
Must be taken concurrently with Bio 540. Laboratory activities which develop techniques for isolation of cellular organelles and quantitative analyses of biomolecules.

BIOL 576 HISTOPATHOLOGY LAB (1 Hour)

BIOL 610 EVIRONMENTAL MICRO LAB (1 Hour)
Laboratory is designed to acquaint students with modern techniques for measuring microbial biomass and microbial degradative activities of natural and xenobiotic chemicals in natural environments. Specific projects of microbial analysis will be assigned to students.

Business & Prof. Development (BPD)

BPD 790 TEACHING METHODS OF BUSINESS (3 Hours)
This course offers the student an introduction to the principles and philosophy of teaching. Selected topics include concepts and techniques relating to various instructional strategies used by colleges and university teachers, and the development of media-based courses for web courses and distance learning instruction.

Chemistry (CHEM)

CHEM 523 ADVANCED ANALYTICAL CHEMISTRY (3 Hours)
Prerequisite: Courses in Analytical Chemistry and Physical Chemistry.
Principles and application of selected analytical methods including electrochemistry, spectroscopy and selected topics of unusual current interest.

CHEM 531 BIOCHEMISTRY (3 Hours)
Prerequisite: One year of Organic Chemistry.
The chemical composition of living matter and the chemical mechanics of life processes.

CHEM 532 BIOCHEMISTRY (3 Hours)
Prerequisite: One year of Organic Chemistry.
The chemical composition of living matter and the chemical mechanics of life processes.

CHEM 536 PHYSICAL ORGANIC CHEMISTRY (3 Hours)
Prerequisite: Physical Chemistry and Organic Chemistry.
A study of organic molecular structure, Woodward Hoffmann Rules, substituents effects, intra- and intermolecular forces, kinetics and stereochemistry.

CHEM 541 ADVANCED INORGANIC CHEMISTRY (3 Hours)
Prerequisite: An undergraduate course in Physical Chemistry.
A study of inorganic compounds with the application of Physical Chemistry principles to thermodynamic, kinetic and structural problems.

CHEM 558 QUANTUM CHEMISTRY (3 Hours)
Prerequisite: Physical Chemistry.
Principles and applications of quantum theory.

CHEM 580 THESIS RESEARCH (1-6 Hours)
Prerequisite: Permission of adviser.
Selected topics arranged in consultation with the staff; includes literature, research, and laboratory investigation of a problem.

CHEM 711 CHEMISTRY SEMINAR (0.5 Hours)
Presentation and discussion of current chemical topics and research by visiting speakers, faculty and students.

CHEM 721 ADVANCE INSTRUMENTAL ANALYSIS (3 Hours)
Prerequisite: Analytical Chemistry and Physical Chemistry (two semesters).
Theoretical principles and laboratory techniques involved in characterization of chemical systems using instrumental methods. This one semester course will present the following topics of interest: absorption and emission spectrometry, mass spectrometry, liquid and gas chromatography, and electrophoresis. A laboratory series on spectro-photometry, fluorometry, atomic absorption spectrometry, inductively coupled plasma atomic emission spectrometry, FT-IR, gas chromatography-mass spectroscopy, and high performance liquid chromatography are included in this course.

CHEM 723 ADVANCE ANALYTICAL CHEMISTRY (3 Hours)
Prerequisite: Analytical Chemistry and Physical Chemistry (two semesters).
Principles and application of analytical methods including acid-base titrations, redox titrations, titrations which involve metal-ligand complexes, gravimetric analysis, separation methods (chromatography), and electroanalytical chemistry.

CHEM 729 SPECTROSCOPIC METHODS (3 Hours)
Using of modern spectroscopic methods, mainly Nuclear Magnetic Resonance, Mass Spectrometry, X-Ray Crystallography, and infrared Spectroscopy, for elucidation of simple to complex structures of organic compounds. Topics on new developments in modern NMR, X-Ray, MS, and IR will be updated and included.

CHEM 731 ADVANCED BIOCHEMISTRY (3 Hours)
Prerequisite: Organic Chemistry (two semesters).
Comprehensive coverage of major areas of biochemistry. Topics covered include proteins, enzymology, bioenergetics, the chemistry and intermediary metabolism of carbohydrates, lipids, proteins and nucleic acids.

CHEM 734 PHYSICAL BIOCHEMISTRY (3 Hours)
Characterization of macromolecules, hydrodynamic methods, multiple equilibria, maromolecule-ligand interactions.

CHEM 736 PHYSICAL ORGANIC CHEMISTRY (3 Hours)
Prerequisite: Organic Chemistry (two semesters).
A study of organic molecular structure, Woodward Hoffmann Rules, substituents effects, intra- and intermolecular forces, kinetics and stereochemistry.

CHEM 738 ORGANIC SYNTHESIS (3 Hours)
Prerequisite: Organic Chemistry (two semesters).
The course covers the formation of carbon-carbon and carbon-heteroatom bonds, functionalization and interconversion of functional groups, reactions of organic reagents, protective groups, total synthesis and asymmetric synthesis in organic synthesis.

CHEM 741 ADVANCED INORGANIC CHEMISTRY (3 Hours)
Prerequisite: Advanced Inorganic Chemistry (CHEM 441).
A study of symmetry and group theory, bonding and structures of inorganic compounds, coordination chemistry and acid-base chemistry.

CHEM 744 RADIOCHEMISTRY (3 Hours)
A study of natural radioactivity, nuclear systematics and reactions, radioactive decay processes, the transuranium elements, nuclear reactors and nuclear power energy, radiation detection and measurement, radiation biollogy/medicine, radiation safety and security, and nuclear forensics, etc.

CHEM 745 NUCLEAR WASTE CHEMI & SAFETY (3 Hours)
This course studies chemistry of radioactive waste, advanced separation chemistry, and nuclear safety. It covers radioactive sources, decay, radiation shielding, separation chemistry, and emerging and innovative treatment techniques for fuel reprocessing and radioactive waste treatment. Handling and disposal of nuclear waste, and technical and regulatory aspects of waste management will be reviewed. It will also study nuclear countermeasures and nuclear security, nuclear event and incidents, radiological incidient management and planning, medical treatment of radiological injures, cleanup and decontamination after a radiological incident.

CHEM 746 RADIATN DECTN AND MEASUREMENT (3 Hours)
This course studies the principals of radiation detection, instrumentation systems and their application. This prepares our students to seek job opportunities on nuclear energy, radiological sciences, nuclear medical science and pharmacy, industrial safety and control systems, and radiation protection etc.

CHEM 748 ACTINIDE CHEMISTRY (3 Hours)
This course studies the fundamental chemistry of actinide elements from Ac through Lr: the structures, physical and chemical properties. This course examines their chemistry (speciation/transport) in the environment including geological, biological metrics as well as nuclear wastes. Finally the separation chemistry and safe handling and storage are reviewed. This better prepares students to seek job opportunities on nuclear energy/radiological/sciences/nuclear medical science/pharmacy/industrial safety and control systems etc.

CHEM 750 PRACTICUM IN COLLEGE CHEM TEAC (1 Hour)
This course is designed to provide Graduate Teaching Assistants (TAs) with information which can be used to enhance and improve their teaching effectiveness and to learn about teaching approaches that are effective at the college level and to practice and discuss aspects of their teaching assignments.

CHEM 752 ATOMIC & MOLECULAR SPECTROSCRO (3 Hours)
Prerequisite: Physical Chemistry (two semesters).
A comprehensive course covering concepts and methods of modern atomic and molecular spectroscopy. Subjects covered include electric phenomena, absorption and emission of radiation, atomic spectroscopy, rotational spectroscopy, vibrational spectroscopy, electronic spectroscopy, and magnetic resonance spectroscopy.

CHEM 758 QUANTUM CHEMISTRY (3 Hours)
Prerequisite: Physical Chemistry (two semesters).
(Computational Chemistry) Important concepts of quantum chemistry at the intermediate level, including angular momentum, perturbation theory, electronic structure of molecules, and radiation matter interaction. Applications will vary from year to year.

CHEM 768 MOLECULAR QUANTUM MECHANICS (3 Hours)
Prerequisite: Quantum Chemistry (CHEM 758) or equivalent.
Theoretical, algorithmic, and practical aspects of the methods of molecular quantum mechanics and their application to chemical systems. Topics covered include Hartree-Fock theory, perturbation theory, configuration interaction, coupled cluster theory, and density-function theory.

CHEM 780 DISSERTATION RESEARCH (1-9 Hours)

CHEM 782 SPCL TOPICS IN ANALYTICAL CHEM (3 Hours)
Selected topics not covered in regularly scheduled courses, and current research topics in analytical chemistry.

CHEM 783 SPECIAL TOPICS IN BIOCHEMISTRY (3 Hours)
Selected topics not covered in regularly scheduled courses, and current research topics in biochemistry.

CHEM 784 SPCL TPCS IN ORGANIC CHEMSTRY (3 Hours)
A course in a specific area of organic chemistry such as structure determination in organic chemistry, or current research subject not covered in regularly scheduled courses presented to fit the interests of advanced students.

CHEM 786 SPCL TPCS IN PHYSICAL CHEM (3 Hours)
Topics vary from year to year will include subjects such as photochemistry, solid state, surface chemistry, and radiation chemistry.

CHEM 787 NANOSCIENCE AND NANOTECHNOLOGY (3 Hours)
This course will provide a comprehensive introduction to the rapidly developing field of Nano-science and Nano-technology with the special emphasis on bio, physical and material chemistry. This is a three credit hour course in nano-science and will cover many of the recent topics in this new and exciting field including, synthesis, characterization and properties of individual nano particles, nanotubes, wires and dots; and their applications in biological and environmental science.

CHEM 788 MEDICINAL CHEMISTRY (3 Hours)
This course will introduce students to in-depth description of organic and biological compounds used as medicinal agents. The principles and practice of contemporary drug discovery and design will be emphasized. Sources, chemical properties, structure-activity relationships, molecular modeling, structure-based drug design, drug-like properties, compound library generation, optimization of high-throughput screening (HTS) hit using efficient synthetic reactions/transformations, metabolism, molecular target, modern chemical biology methods used to study drug actions, and specific mechanism of action studies will be covered.

Civil Engineering (CIV)

CIV 520 ADVANCED ENGINEERING ANAYLS I (3 Hours)
A comprehensive course to familiarize engineering professionals with advanced applied mathematics as it relates to solving practical engineering problems. The course of intensive study blends the theoretical underpinnings of advanced applied mathematics with an understanding of how these powerful tools can be used to solve practical engineering problems. The material covered includes Ordinary Differential Equations; Linear Algebra, Vector Calculus; Fourier Analysis and Partial Differential Equations.

CIV 521 ADVD ENGINEERING ANALYSIS II (3 Hours)
A comprehensive course to familiarize engineering professions with advanced applied mathematics as it relates to solving practical engineering problems. The course of intensive study blends the theoretical use of advanced applied mathematics with an understanding of how these powerful tools can be used to solve practical engineering problems. The material covered includes Complex Analysis; Numberical Methods; Optimization; Graphs, and Probability and Statistics.

CIV 531 TRAFFIC ENGINEERING (3 Hours)
Prerequisite: CIV 390 or permission of Department.
Study of fundamentals of traffic engineering; analysis of traffic stream characteristics; capacity of urban and rural highways; design and analysis of traffic signals and intersection; traffic control; traffic impact studies; and traffic accidents.

CIV 535 PAVEMENT DESIGN (3 Hours)
Aggregate, binder systems. Theory and design of pavement structures, rigid and flexible pavement designs, subgrade materials, pavement management, nondestructive testing, pavement maintenance, design constraints, infrastructure maintenance, major design project.

CIV 536 HIGHWAY ENGINEERING (3 Hours)
Analysis of factors in developing highway transportation facilities; traffic estimates and assignment; problems of highway geometrics and design standards; planning and location principles; intersection design factors; street systems and terminal facilities; programming improvements; drainage design; structural design of surface; concepts of highway management and finance; and highway maintenance planning.

CIV 538 COASTAL STRUCTURES (3 Hours)
The types and functions of coastal structures studied include, seawalls, groins, revetments, bulkheads, dikes, detached breakwaters, reef breakwaters, storm surge barriers and others. A coastal structure will be designed to each student to provide the class a lecture and to prepare a term paper on the coastal structure assigned. Determination of the design wave climate for coastal structures is investigated as it pertains to the functional types of coastal structures. Invited guest lecturers will appear as available.

CIV 539 ADVANCED COASTAL ENGNRG DESIGN (3 Hours)
This course provides a comprehensive advanced investigation of the coastal engineering design process. It includes the Planning and Design Process, Site Characterization, Shore Protection Projects, Beach Fill Design, Navigation Projects, Sediment Management at Inlets and Environmental Enhancement. A design project will be assigned to each student to provide the class a power point presentation and to prepare a term paper on the design project assigned. Invited guest design professionals will appear and present lectures as available.

CIV 542 ADVND DESIGN OF CONCRETE STRUC (3 Hours)
Prerequisite: CIV 420.
Theory and design of reinforced concrete continuous beams, slender columns, two-way-slabs, footings, retaining walls, shear walls and multistory buildings. Design for torsion and design constraints. Framing systems and loads for buildings and bridges, design constraints and a major design project. (Cross reference: CIV 477)

CIV 544 ADVD DESIGN OF STEEL STRUCTURE (3 Hours)
Prerequisite: CIV 360.
Behavior and design of members subjected to fatigue, dynamic, combined loading. Methods of allowable design stress, and load resistance factor design. Design of continuous beams, plate girders, composite beams, open-web joists, connections, torsion and plastic analysis and design. Framing systems and loads for industrial buildings and bridges, design constraints and a major design project. (Cross reference: CIV 476)

CIV 550 ENGINEERING HYDROLOGY (3 Hours)
Prerequisite: CIV 370 or permission of Department.
Principles and theory of surface water and groundwater flow and quality; understanding and determination of water budget, hydrologic cycle, Darcy¿s law, and water resources management at the watershed scale. Water quality parameters including data analysis and interpretation, laboratory tests, and maintenance of water quality. Applications in engineering design,

CIV 560 ENVIRONMENTAL ENGINEERING II (3 Hours)
Prerequisite: permission of Department.
The physical, chemical, and biological environmental engineering systems that are used to protect health and the environment. Examples include drinking water treatment, wastewater treatment, hazardous waste treatment, and air pollution control.

CIV 561 CHEMISTRY FOR ENVIRNL ENGINEER (3 Hours)
Prerequisite: CIV 340, or CIV 560, or permission of Department.
The principles of physical, equilibrium, inorganic, and organic chemistry as they apply to drinking water treatment, wastewater treatment, natural water quality, air quality, and air pollution control. Applications in engineering design.

CIV 562 HAZARDOUS WASTE ENGINEERING (3 Hours)
Prerequisite: CHEM 241, CHML 241, CIV 340, CIVL 340, or permission of Department.
Comprehensive study of the complex, interdisciplinary engineering principles involved in hazardous waste handling, collection, transportation, treatment, and disposal. Also covered are waste minimization, site remediation, and regulations important for engineering applications. Design constraints, engineering judgment, and ethical responsibility are covered. Contemporary hazardous waste issues and urban issues are also addressed. (Cross reference: CIV 468)

CIV 564 SURFACE WATER (3 Hours)
Prerequisite: permission of Department.
Water quantity, water quality, regulation of, and management of rivers, lakes, and wetlands. Applications in engineering design.

CIV 566 AIR POLLUTION (3 Hours)
Prerequisite: permission of Department.
The sources of and engineering principles to prevent or control air pollution and to design and operate processes. Topics include the risks of air pollution to which the public is exposed, the principle and factor underlying the generation of pollutants, physical principles describing how pollution affects the atmosphere and human well-being, regulations which engineers will be expected to understand and comply with. The engineering aspects including principles governing pollutant production from stationary and mobile combustion systems, modeling of the generation and transport of pollutants in the atmosphere, methods for separation and removal of gases and particulates from a process gas stream.

CIV 567 ENVIRONMENTAL REMEDIATION (3 Hours)
Prerequisite: permission of Department.
The course covers current engineering solutions for the remediation of soils and waters contaminated by hazardous waste or spills. The technologies to be covered include bioremediaton, oxidation, soil vapor extraction, soil washing, surfactant-enhanced remedy, thermal treatment, air stripping, solidification/stabilizations, electro kinetic decontamination, underground barriers, permeable reactive treatment walls, and other newly-emerging technologies. The engineering principles behind the remediation technologies are emphasized. Examples of successful applications of the remediation technologies are emphasized. Examples of successful applications of the remediation technologies are discussed.

CIV 568 LAND DISPOSAL OF WASTE (3 Hours)
Prerequisite: permission of Department.
Theoretical, regulatory, and practical aspects of the disposal of waste on lands. Decontamination and reclamation of lands contaminated by industrial activities and spills of industrial chemicals. The usefulness and environmental impact of the disposal of municipal and industrial wastes via land treatment and land filling. Design considerations and engineering problems associated with the land disposal of septic tank effluent, municipal garbage, sewage sludge, sewage effluent, industrial and hazardous waste, and radioactive wastes.

CIV 569 ADVD TPCS IN WATER RESOU ENGNE (1 Hour)
Prerequisite: permission of Department.
Mathematical modeling of environmental systems, including rivers, lakes, estuaries, and air.

CIV 573 ENVRNMNTL GEOLOGY FOR ENGNS (3 Hours)
Defines the role of Environmental Geology in the engineering design of remedial activities dealing with a wide range of geotechnical engineering problems. Fundamental concepts of environmental unity and the rising human population will be addressed. Topics will range from earthquakes to coastal processes with particular emphasis on landslides and water problems.

CIV 574 HYDROGEOLOGY (3 Hours)
Prerequisite: permission of Department.
Defines the role of Hydrogeology in the engineering design of activities dealing with the interaction of ground and surface water. The course will address a wide range of topics including the role of water in earthquakes and landslides, land subsidence, swelling clay foundations, geothermal energy, engineered wetlands, cave and karst formation, contaminant transport, and water resources with emphasis in engineering design.

CIV 580 Advanced Construction Engineering & Management (3 Hours)
Prerequisite: CIV 452 or permission of the department
Skills and knowledge required for sound project management in a variety of management settings, discussion of corporation structures, risk management concepts, labor, safety, and finance. Elements of sound project management. Advanced knowledge of planning, scheduling, and monitoring of construction projects. Contracting issues facing project managers in the engineering world are discussed.

CIV 581 Construction Scheduling (3 Hours)
Prerequisite: Department permission.
This course aims to increase and improve the working knowledge of students in project scheduling and to train them as professional construction managers as stated in the program mission. Students will be provided an understanding of planning, scheduling, and monitoring of construction projects including development of critical path networks, Gantt bar charts and construction cost control and reporting practices. The students will also learn how to use the software tools to accurately prepare and analyze the project schedule and to effectively communicate the schedule to the management team. (Cross-referenced: CIV 454)

CIV 582 Construction Estimating, Cost Analysis & Control (3 Hours)
Prerequisite: CIV 453 or department permission.
This course presents a broad study of estimating methodology, including detailed unit pricing, labor, equipment, materials, subcontracts, job conditions, preconstruction costs, indirect costs, and profit. Detailed Work Breakdown Structure in the estimating process and preparation of a sound bid estimate are presented. Methods for cost control are discussed.

CIV 583 Construction Engineering Equipment & Methods (3 Hours)
Prerequiste: Permission of the department. This course provides an understanding of the various construction methods and equipment employed in the construction industry. The International Building Code, as well as fundamental principles of green building and sustainable design are presented. This course presents a detailed study of typical building materials, design details, and various construction methods, and materials including soil, steel, concrete, wood, and composites. Deployment of equipment, materials, personnel, and subcontracts using a variety of building material and system types are presented.

CIV 584 Construction Contracts, Laws, & Claims (3 Hours)
Prerequisite: Departmental permission.
This course provides an overview of the fundamental aspects of the laws that affect construction and engineering companies, subcontractors as well as the project owners. Construction contracts including contract forms, provisions related to the liability for engineering design and construction, contract language negotiations, as well as key contract terms and how to apply them when managing an active construction project will be discussed. In addition, the course will focus on understanding how to manage claims and disputes, such as claims related to schedule delays and productivity losses.

CIV 585 Building Information Modeling and Integrated Project Delivery (3 Hours)
Prerequisite: Permission of the department
This course covers the Building Information Modeling (BIM) and Integrated Project Delivery (IPD) approaches that address and resolve the perceived inefficiencies in the construction industry. BIM covers geometry, spatial relationships, geographic information, quantities, and properties of building components and can be used to demonstrate the entire building lifecycle including the processes of construction and facility operation. IPD deals with the integration of people, systems, business structures and practices into a single process and collaboratively harness the talents and insights of all participants on a particular construction project in order to optimize project results, increase value to the owner, reduce waste, and maximize efficiency through all phases of design, fabrication, and construction. (Cross reference: CIV 455);

CIV 586 Construction Economic Analysis (3 Hours)
Prerequisite: CIV 355 or permission of the department.
Foundation in Life Cycle Cost Analysis computation within the context of current issues in environmental sustainability and evidence-based thinking; lean construction as a strategy to overcome the hurdle of first cost. Topics covered include the time value of money, and the importance of Cash Flow Diagrams.

CIV 587 Computer Integrated Construction Engineering (3 Hours)
Prerequisite: Permission of the department.
This course educates the emerging design and construction engineering, related work processes, and the contractual relationships for a successful project to the student. The Building Information modeling (BIM), virtual design & construction (VDC), and reality capture will be presented to the students, and various software will be taught.

CIV 588 Decision & Risk Analysis in Construction Engineering (3 Hours)
Prerequisite: Permission of the department
This course provides an overview of the concept of risk analysis including probability, and uncertainty, including probabilistic theories and models, data sampling, hypothesis testing, and the basics of Bayesian Decision Theory. Components of a risk event such as source and impact, and risk reward structure, in construction engineering projects are presented. Decision making process based on risks analysis in construction industry is presented. Sound approaches to support "go" or "no go" decision-making, project financing choices, and project risk mitigation are discussed.

CIV 589 Productivity in Construction Engineering (3 Hours)
Prerequisite: Permission of the department
This course provides an overview of the construction productivity and methods to reduce waste. Lean history concepts and methods, optimization, deduction of basic training modules in lean project delivery, and application of lean management in construction projects are presented. Applications of methods improvement techniques such as time-lapse photography, flow charts, process charts and time standards to improvement of construction productivity are discussed.

CIV 590 Sustainable Construction (3 Hours)
Prerequisite: CIV 453 or departmental permission
Sustainable development includes reducing the impacts of human activities on natural ecosystems and understanding the role these ecosystems have in the economy and on human welfare. The course covers the environmental ethics and environmental justice; ecological/environmental economics including Life Cycle Costing; building assessment (frameworks) and ecolabels. The course develops basic knowledge about energy systems, exergy, entropy, energy conservation and renewable energy; Life Cycle Assessment, embodied energy, energy, and materials.

CIV 631 LINEAR THEORY OF OCEAN WAVES (3 Hours)
Governing equations in free surface flow, deterministic and probabilistic wave theories, wave transformation, wave-induced coastal currents. The formulation and solution of the governing boundary value problem for small amplitude waves are developed and kinematic and pressure fields for short and long waves are explored.

CIV 632 TIDES AND LONG WAVES (3 Hours)
Prerequisite: permission of the Department.
A systematic development of the theory of ocean tides, tidal forcing functions, near shore tidal transformations and tidal propagation in harbors and estuaries. An introduction to the response of harbors to long waves and the study of the generation of long ocean waves.

CIV 636 SPECTRAL WAVE ANALSIS (3 Hours)
Prerequisite: CIV 330, CIV 631 or permission of the Department.
Measurement techniques of ocean waves. Introduction and basic concept of wave spectrum. Harmonic analysis and mathematical formulation of wave spectrum. Maximum entropy and maximum likelyhood methods. Idealized wave spectral models. Wave energy balance equation and its application. Nonlinear wave-wave interaction and diffraction. Wave hindcast and forecast modeling in coastal waters.

CIV 637 ADVD DESIGN FOR BRKWATER REHAB (3 Hours)
Advanced analysis and design considerations for breakwaters are investigated for the most complex challenges. These challenges are associated with rehabilitation and/or reconstruction of damaged breakwaters. Design considerations are explored from an analysis of breakwater failures at Sines, Nawilliwilli, Kahului and others. Toe design, crest elevation, crown design, core alternatives, runup, overtopping, design waves, head design, constructability and functionality are explored.

CIV 640 FINITE ELEMENT METHODS (3 Hours)
Prerequisite: CIV 540 or permission of Department.
Theory and application of the finite element method; stiffness matrices for triangular, quadrilateral, and isoparametric elements; two- and three-dimensional elements; algorithms necessary for the assembly and solutions; direct stress and plate bending problems for static, nonlinear buckling and dynamic load conditions; displacement, hybrid, and mixed models together with their origin in variational methods.

CIV 642 PRESTRESSED CONCRETE DESIGN (3 Hours)
Study of strength, behavior, and design of prestressed reinforced concrete members and structures, with primary emphasis on precast, prestressed construction; emphasis on the necessary coordination between design and construction techniques in prestressing.

CIV 650 SMALL WATERSHED HYDROLOGY (3 Hours)
Prerequisite: CIV 550 or permission of Department.
The role of land conditions in dealing with engineering problems of applied hydrology with emphasis on the small watershed, limited data, and land management situations; gain a physically-based understanding of hydrologic processes that define the functions of small watersheds; Effects of natural and human disturbances on the components of the hydrologic cycle; Investigate special characteristics of small watersheds; Approaches for dealing with limited data; Use the understanding of applied hydrology to predict the impacts of various land use activities on terrestrial and aquatic ecosystems; Develop analytic tools to integrate land use and catchment characteristics to predict catchment response and guide watershed management. Topics include stream flow generation, hill slope hydrology, stream channel hydraulics, hydrograph separation, evapotranspiration, hydrologic tracers, riparian zone hydrology, and hyporheic zone hydrology. Applications in engineering design.

CIV 653 ADVD DESIGN OF HYDRAULIC STRUC (3 Hours)
Prerequisite: CIV 370 or permission of Department.
Analysis and characteristics of flow in open channels (natural and artificial); channel design considerations including uniform flow (rivers, sewers), flow measuring devices (weirs, flumes), gradually varied flow (backwater and other flow profiles, flood routing), rapidly varied flow (hydraulic jump, spillways), and channel design problems (geometric considerations, scour, channel stabilization, sediment transport); analysis and design of hydraulic structures such as dams, spillways etc. based on economic, environmental, ethical, political, societal, health and safety considerations. (Cross-Reference: CIV 466)

CIV 659 ADVD TPS IN WATER RESOURCE ENG (1-4 Hours)

CIV 660 PHYCML PROCESSES IN WATER & WT (3 Hours)
Prerequisite: CIV 561 or permission of Department.
Fundamental principles, analysis, modeling, and design considerations of physical and chemical processes for water and wastewater treatment processes and operations. Drinking water treatment processes will be focused on while parallel wastewater treatment schemes also being discussed. Relevant water quality characteristics, standards, and regulations in engineering design will be reviewed.

CIV 661 BIOL PROCESS IN WASTEWATER ENG (3 Hours)
Prerequisite: CIV 660.
Theory and applications of the biological processes available for the treatment of wastewaters. Fundamentals of biological degradations and transformation of pollutants. Microbial growth kinetics and modeling. Wastewater treatment processes, both aerobic and anaerobic, including suspended growth biological processes and attached growth processes. Emphasis on engineering design considerations and parameters.

CIV 666 ADVND WASTE TRTMNT PROC IN ENV (3 Hours)
Prerequisite: CIV 661 or permission of Department.
An in-depth study of the biological processes used to treat wastewater, with an emphasis on recently published information.

CIV 669 ADVND TPC IN ENVRNML ENGINEERG (3 Hours)
Prerequisite: permission of Department.
Course will focus on a variety of topics in the field of environmental engineering. May be repeated for credit.

CIV 670 ROCK MECHANICS (3 Hours)
Prerequisite: permission of Department.
Classification of rock masses, stress and strain in rock, elastic and time-dependent behavior of rock, state of stress in rock masses, failure mechanisms, construction applications, geological and engineering applications.

CIV 672 ADVANCED GEOMECHANICS (3 Hours)
Prerequisite: CIV 380 or permission of Department.
Theoretical and quasi-theoretical approaches for advanced soil mechanics including stress analysis, consolidation theory, immediate settlement, and saturated and partially saturated soils; problem idealization; introduction to rock mechanics; engineering judgment.

CIV 673 ADVD FOUNDATION ENGINEERING (3 Hours)
Prerequisite: CIV 430 or permission of Department.
Advanced topics in foundations design, special cases of shallow foundations; horizontal load capacity of pile foundations; battered piles, load calculation of pile groups. Drilled caissons; design and construction of sheet piles including cantilever and anchored sheet piles; earth pressures and stability of retaining structures; design of braced supports, cofferdams; design examples.

CIV 675 EARTH DAMS AND SLOPES (3 Hours)
Prerequisite: CIV 380 or permission from the Department.
Stability of natural and man-made slopes under various loading conditions, slope protection. Selection and measurement of pertinent soil parameters. Engineering design and construction of earth dams and embankments. Practical aspects of seepage effects and ground water flow. Flow net and its use; wells; filters; total and effective stress methods of slope analysis.

CIV 680 UNSATURATED SOIL MECHANICS (3 Hours)
Introduction of unsaturated soil, stress-state variables, soil water suction and soil water characteristics curves, hydraulic function curves, flow in unsaturated soil, shear strength and slope stability analysis, lateral earth pressure and retaining structures, design, and compressibility and volumne change analysis for unsaturated soils.

CIV 681 EXCAVATION SUPPORT SYSMS & R S (3 Hours)
Earth pressure theory used in the design of temporary and permanent earth retaining structures, guidelines for the selection of retention method, retaining wall design and associated construction issues of gravity walls, concrete retaining walls,MSE wall, sheet pile wall, soldier pile and diaphragm walls, braced and tie back excavation support systems.

CIV 682 COMPUTATIONAL GEOTECHNICS (3 Hours)
Introduction to numerical and finite element modeling, analyses of embackments, earth dams, slopes, excavation support systems including soldier pile and diaphragm walls, shallow and deep foundation systems, and other geo-structures using advanced geotechnical software.

CIV 683 SOIL STRUCTURE INTERACTION (3 Hours)
Introduction to geotechnical earthquake engineering and fundamental understanding of soil behavior under dynamic loading, finite element analysis of soil structure interaction due to dynamic loading and structural response, seismic slope stability analysis, seismic design of retaining wall and buried structures, case studies.

CIV 684 ADVND SITE CHARACTER & INSTRUM (3 Hours)
In situ test methods, advantages and limitations,SPT, CPT, DCPT, CPTU or piezoncone, DMT, pressure meter, shear vane and other field testvmethods, non-destructive seismic, resistivity, electromagnetic methods, soil property interpretation procedures, geotechnical instrumentation types, monitoring and applications.

CIV 696 SEMINAR (1 Hour)
Presentation of papers, projects and reports by visiting lecturers, graduate students, engineers, and community leaders.

CIV 697 INTERNSHIP (1-3 Hours)
Prerequisite: permission of Department.
Supervised graduate internship and externship in various ares.

CIV 698 INDEPENDENT STUDY (1-4 Hours)
Prerequisite: permission of Department.
Intensive study of a special engineering project including research and literature review selected in accordance with student interests and arranged in consultation with the adviser. Topics will vary. Student will make periodic reports, and will prepare a scholarly paper at the end of semester.

CIV 699 THESIS RESEARCH (1-3 Hours)
Prerequisite: permission of adviser.
Master's thesis representing an independent and original research.

CIV 899 DISSERTATION RESEARCH (1-6 Hours)
Dissertation representing independent and original research.

Communicative Disorders (CMD)

CMD 510 ADV. ARTICULATION & PHONOL DIS (3 Hours)
Prerequisite: Course in phonetics.
Students will develop the skills to effectively assess, plan, and implement appropriate intervention strategies for persons presenting with articulation and/or phonological disorders (including with functional or organic etiology) as well as regional or cultural dialectal variations of speech sound production.

CMD 515 COUNSELING IN SPEECH-LANG PATH (1 Hour)
Prerequisite: Permission of instructor and academic advisor.
This course will explore the social, emotional, cultural and vocational effects a communication disorder may have on individuals, their families and significant others. Students will learn appropriate techniques and strategies for counseling children, adolescents and adults presenting with conditions impacting communication. Students will also learn how to counsel and interact with families (immediate and extended), case managers and other service providers.

CMD 519 AUDIOLOGY FOR SPEECH-LANG PATH (3 Hours)
Prerequisite: Course in speech/hearing science or permission of instructor.
Students will learn the etiology, signs, symptoms, and differential audiological findings in infants, children and adults with a variety of auditory disorders. The theory, methodology and procedures in differential diagnosis and test interpretation, including the appropriate modification of test procedures to accommodate the patient¿s chronological age, intellectual age, cultural differences, physical and emotional states will be examined. The assessment and management of persons with central auditory processing disorders will be explored.

CMD 525 DYSPHAGIA (3 Hours)
Prerequisite: Course in anatomy and physiology of the speech mechanism.
Students will learn the normal anatomy and physiology of swallowing in infants, children and adults. The etiology, signs and symptoms of dysphagia, as well as screening, instrumental assessment and non-instrumental evaluation procedures will be explored. Management, including counseling and sensitivity to cultural differences, models of service delivery, indications and methods of oral and non-oral feeding, nutritional issues, and prevention of complications will be investigated. The student will learn to assess the effectiveness of treatment by using relevant outcomes.

CMD 527 SEM IN CHILD LANG DISORDERS I (3 Hours)
Prerequisite: Course in normal language development.
This course will address normal communication development in children from birth to age three. Students will develop an understanding of the major etiologies of language disorders in infants and toddlers across cultures. Assessment and strategies, including the infusion of technology, for those presenting with disorders as well as for the at-risk child will be discussed. Skills to informally and formally determine the present communicative level of an infant or toddler using non-standard methods, such as play-based assessment will be addressed. Strategies for helping families from diverse backgrounds participate in the successful implementation of speech and language services to infants and toddlers will be shared. Policies impacting service delivery to this population and their families will be explored.

CMD 528 SEM IN CHILD LANGUAGE DISO II (2 Hours)
Prerequisite: Course in normal language development.
Students will develop an understanding of the etiologies of language delay and disorders in children, and the impact of language impairment on the learning process. Formal and informal assessment and intervention strategies as well as treatment outcomes will be discussed. Students will develop awareness of issues pertinent to service delivery including cultural diversity, preparation of individualized educational programs, literacy, assessment of progress, behavior management, collaboration and infusion of technology. Various group processes and structures required for successful service delivery will be recognized. Legislation and policies impacting services to school aged children will be explored.

CMD 530 SEM IN ACQUIRED LANG DISORDERS (3 Hours)
Prerequisite: CMD 537 or equivalent.
This course will explore the incidence, ethnocultural differences and etiology of impairments that jeopardize acquired language as a result of insult to the central nervous system. The characteristics of different types of aphasias, as well as the effects of right hemisphere damage, including neglect, attention, linguistic, communicative, cognitive and affective deficits will be explored. Students will acquire knowledge of standardized and functional assessment of communication to ascertain the individual¿s abilities and impairments. Treatment approaches and strategies (including the infusion of technology) that promote compensation for deficits and promote recovery of function will be explored. Issues including counseling and educating patients, family members, significant others and care givers specific to the patient¿s diagnosis, management plan, prognosis and discharge will be discussed.

CMD 531 SEM ACQUIRED DISORDERS OF LAN (3 Hours)
Prerequisite: CMD 537 or equivalent.
This course will address the incidence, pathophysiology, as well as communicative, mood and behavior changes in persons with dementia (including Alzheimer¿s disease), and those with traumatic brain injury across various cultures. The physiologic, cognitive, auditory and motor speech characteristics, as well as the language, pragmatic and discourse abilities of these individuals will be investigated. The social impact on the individual and the family will be reviewed. Professional services provided to the individual and care giver, including differential diagnosis, assessment and rehabilitation, and the infusion of technology will be discussed. Direct and indirect communication management approaches, including individual and group therapy, stabilization strategies, the use of assistive and augmentative devices, and collaboration with other health care professionals will be explored. Educational intervention and transition to school/work after traumatic brain injury, as well as efficacy, ethical and legal issues pertaining to both disorders will be examined.

CMD 532 METHODS OF RESEARCH (3 Hours)
The student will learn to read critically and evaluate research in normal and disordered speech, language, hearing and swallowing processes. The principles of research, research designs, issues in conducting unbiased research, types of research, observation, measurement, statistical treatment and reporting of data will be explored. The student will be guided in developing an intuitive understanding of clinical research methodology and integrating it with core statistical concepts and techniques.

CMD 535 AUGMENTATIVE & ALTERNATIVE COM (3 Hours)
This course focuses on approaches to the development of augmentative and alternative modes of communication for individuals of all ages with limited oral communication. The skills to effectively evaluate, select, and properly use a variety of gestural and symbol-based communication systems will be developed. Factors that affect assessment and treatment, such as, severity, age, cultural differences, nature of disorder, etc. will be discussed.

CMD 537 NEUROANATOMY & NEUROPHYSIOLOGY (3 Hours)
The neuroanatomy and neurophysiology of the central and peripheral nervous systems will be discussed with emphasis on structures that control language, speech and swallowing. The student will learn about the normal embryonic development of the nervous system, and the critical periods of susceptibility to teratogenic agents. The neurological examination and pertinent diagnostic issues including variations in different countries and cultures will be investigated. Signs, symptoms and sequelae of pathological agents will be correlated with clinical implications. Rehabilitation issues will be addressed.

CMD 540 ADVD CLIN PRAC IN SPCH-LANG PA (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 541 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 542 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 543 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 544 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 545 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 546 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 547 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 548 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 549 ADV CLIN PRAC IN SPCH-LANG PAT (1 Hour)
The student will provide supervised screening, diagnostic and treatment services to persons of all ages, from culturally diverse backgrounds, presenting with speech, language, cognitive, swallowing, or hearing disorders. Clinical experiences will include assessment and treatment planning, report writing, oral and written communication with other professionals and family members, client/family education, and counseling. Clinical sites will vary depending on student needs, interest, competency, and availability.

CMD 550 PROF ISSUES IN SPEECH-LANG PAT (1 Hour)
Prerequisite: Permission of instructor and academic advisor.
This course will focus on topics such as professional standards, quality improvement, outcome measures, ethical considerations, funding sources, third party reimbursement, work force issues, health care legislation, as well as the role of professional organizations in developing policies that impact speech-language pathology. Approaches to planning, managing and marketing speech-language pathology services in various communities, cultures and practice settings will be discussed.

CMD 558 SEMINAR IN MULTICULTURAL ISSUE (2 Hours)
This course will focus on the historical origins, rules and features of nonstandard English dialects. Normal language and speech acquisition in speakers from culturally/ethnically and linguistically diverse groups will be examined. Strategies to distinguish individuals with communication differences from those with communication disorders will be identified. Students will learn about current clinical standards and practices associated with service delivery to speakers from different backgrounds in respect to race or ethnicity, age, gender, national origin, sexual orientation and disability.

CMD 565 SEMINAR IN FLUENCY DISORDERS (2 Hours)
Prerequisite: Permission of instructor and academic advisor.
Current as well as historically relevant theories of stuttering and its etiology will be considered. Students will develop skills to identify and classify various types of dysfluencies as well as the social, emotional, cultural, vocational, and economic impact of stuttering. Assessment and intervention strategies for children, adolescents and adults who stutter will be presented.

CMD 570 SEMINAR IN AURAL REHABILITATIO (3 Hours)
Prerequisite: Courses in audiology and normal language development.
This course is an advanced exploration of the critical role of hearing in normal language, speech and psychosocial development. The effects of hearing loss on communication across the life span, and the importance of early intervention and counseling will be investigated. Assessment of oral, signed and written language, speech and voice production, auditory discrimination and perception, and speech reading skills will be discussed. Scales used to assess specific communication breakdown and resultant attitudes will be identified. Treatment options and communication strategies, including the use of amplification systems, assistive listening devices, sensory aids and cochlear implants will be explored. Pertinent legislative and multicultural issues will be reviewed. Assessment and management of auditory processing disorders will be addressed.

CMD 572 COMM BEHAVIOR & AGING PROCEDUR (2 Hours)
Current research and theory concerning age-related changes in communication and swallowing due to anatomical, physiological and cognitive changes will be reviewed. The influence of attitudes and expectations, the effects of cultural, psychological and pharmaceutical variables, the role of genetic factors and deleterious environmental influences will be analyzed. Appropriate modifications in assessment and management procedures to meet individual needs in different health care settings, including the use of group treatment and a collaborative management approach will be discussed. Counseling and assistance provided to caregivers and members of the extended social support network will be explored.

CMD 575 SEM IN ORGANIC SPEECH DISORDER (3 Hours)
Prerequisite: Courses in anatomy and physiology of the speech mechanism, neuroanatomy, neurophysiology and articulation disorders or permission of instructor.
This course is a comprehensive study of the theory and research related to underlying neurological pathology, salient features, confirmatory signs, diagnosis and treatment of motor speech disorders across the life span. The etiology and classifications of congenital orofacial anomalies and dentofacial growth problems, genetics of clefting and associated syndromes, including those typically associated with specific racial and ethnic groups will be explored. Acoustical, perceptual and instrumental measures in assessment, as well as models of service delivery and management procedures will be discussed. Pediatric care and feeding of the newborn with a cleft, and complications associated with clefting and craniofacial disorders will be reviewed.

CMD 578 SEMINAR IN VOICE DISORDERS (3 Hours)
Prerequisite: Courses in anatomy and physiology of the speech mechanism and speech science.
This course includes a comprehensive study of the models of voice production, as well as organic and functional voice disorders across the life span in culturally diverse populations. Etiology, signs, symptoms, and perceptual correlates of vocal pathologies and management will be discussed. The art of assessment including perceptual ratings and the use of contemporary equipment will be explored. Interdisciplinary collaboration in planning and monitoring treatment will be investigated. Communication and swallowing management of tracheotomized and ventilator dependent children and adults, as well as assessment and rehabilitation of head/neck cancer patients will be examined.

CMD 580 BUS & MGNT ASPECTS OF SLP PRAC (2 Hours)
This course provides business and practice management principles and procedures for starting and managing a speech-language pathology practice, or in buying/selling an existing private practice. Topics of discussion include market analysis, marketing plan, operation and organizational plan, financial analysis, risk management, office automation, and personnel issues. Procedures for proper bookkeeping and accounting, strategies in pricing, and financial planning will be examined. Issues such as reimbursement, negotiating service contracts, continuous quality improvement, and risk abatement will be discussed.

CMD 582 SPEC PROBLMS IN SPCH LANG PATH (2-4 Hours)
Prerequisite: Permission of academic advisor and instructor.
This course has varying content dealing with issues, trends and topics of current interest. Content will be developed based on assessed needs, interests and goals of a group(s) of students.

CMD 585 INDEPENDENT STUDY (1-6 Hours)
Prerequisite: Permission of academic advisor and instructor.
This course allows for the exploration of topics and/or issues based upon assessed needs, interest and goals of the individual student under the guidance of a faculty member. Typically, such a study will concentrate on an area not covered in other courses, or an area in which the individual student has developed particular interest and wishes to explore beyond what was covered in another course(s).

CMD 589 MASTER'S PROJECT (3-6 Hours)
Candidates for the Master of Science degree in Communicative Disorders may choose to complete a creative project within the student's professional area under the supervision of a graduate advisor within the Program. It is expected that this project will contribute to the knowledge base of the profession.

CMD 590 THESIS (3-6 Hours)
Candidates for the Master of Science degree in Communicative Disorders may choose to present a thesis that embodies independent research. The topic must be within the student¿s major professional area and must be approved by the student¿s thesis advisor within the Department. It is expected that the research will contribute to the knowledge base of the profession.

Comp&Data-Enabled Sci and Eng (CDSE)

CDSE 700 SEM N COMP DATA SCI & ENG (1-3 Hours)
Prerequisite: CDSE Ph.
Computational Data-enabled Science & Engineering (CDS&E). Covers Trends and challenges in Computational Data-Enabled Science and Engineering (CDS&E) and occupational outlook. A student seminar forum on contemporary topics and issues in CDS&E designed for survey of CDS&E literature. The student will be required to prepare and present reports and assigned projects. D, students.

CDSE 701 INT N COMP DATA SCI & ENG (1-3 Hours)
Prerequisite: CDSE Ph.
Internship in Computational Data-Enabled Science and Engineering (CDS&E). Covers Industrial Internships training in Computational Data-Enabled Science and Engineering (CDS&E) and occupational outlook in a specific concentration track of the CDS&E Ph.D. program. This include summer (or an academic term(s) of internship or research participation with industry, research laboratories or other academic research centers. The student will be required to prepare and present reports and assigned projects based on the activities of the internships. D. students.

CDSE 702 CURRENT TRENDS IN CDS&E (1-3 Hours)
Prerequisite: CDSE Ph.
Current Trends in Computational Data-Enabled Science and Engineering (CDS&E). Covers Topics in Computational Data-Enabled Science and Engineering (CDS&E) specific to a concentration track of the CDS&E Ph.D. program that are not covered in the regularly listed courses to fit the research interest of the student. D. students.

CDSE 899 DISSERTATION RESEARCH (1-9 Hours)
Prerequisite: permission of advisor.
Dissertation representing independent and original research in the area of Computational Data-Enabled Science and Engineering (CDS&E) Ph.D. disciplinary program concentration tracks.

Computer Engineering (CPE)

CPE 500 SOFTWARE ENGINEERING (3 Hours)
Examination of the software development life cycle; requirements elicitation; system design; Unified Modeling Language (UML) focus on design; risk analysis; configuration management; testing; maintenance; software project management; team building.

CPE 503 COMPUTATIONAL METHODS (3 Hours)
Computational methods for solving problems in engineering analysis; variational methods; finite-difference analysis; optimization methods; finite-difference analysis; matrix methods; focus is on real-world engineering problems; techniques and algorithms for simulating large-scale digital and analog circuits.

CPE 505 ANALYSIS OF ALGORITHMS (3 Hours)
Mathematical foundations of algorithms and algorithm analysis; sorting and searching algorithms, graph algorithms, algorithm design techniques, lower bound theory, fast Fourier transforms, NP-completeness.

CPE 508 OPERATING SYSTEMS (3 Hours)
Examination of concepts of process communication and synchronization; protection; performance measurement; study of mutual exclusion; concurrent processes; device and memory management; I/O and interrupt structures.

CPE 512 COMPUTER ARCHITECTURE (3 Hours)
Study of architectural features of modern processors, including cache memories and memory systems, pipeline designs, branch prediction techniques; design of superscalar, multithreaded VLIW processors, code optimization for such systems will be studied; quantitative evaluation of architectural features.

CPE 515 ADVANCED LOGIC DESIGN (3 Hours)
Advanced concepts in Boolean algebra; use of hardware description languages as a practical means to implement hybrid sequential and combinational designs; digital logic simulation; rapid prototyping techniques; design for stability concepts; focuses upon the actual design and implementation of sizeable digital design problems using a representative set of Computer Aided Design (CAD) tools.

CPE 520 ADVANCED ENGINEERING ANALYSIS (3 Hours)
A comprehensive course to familiarize engineering professionals with advanced applied mathematics as it relates to solving practical engineering problems. The course of intensive study blends the theoretical underpinnings of advanced applied mathematics with an understanding of how these powerful tools can be used to solve practical engineering problems. The material covered includes Ordinary Differential Equations; Linear Algebra, Vector Calculus; Fourier Analysis and Partial Differential Equations.

CPE 521 ADVD ENGINEERING ANALYSIS II (3 Hours)
A comprehensive course to familiarize engineering professions with advanced applied mathematics as it relates to solving practical engineering problems. The course of intensive study blends theoretical and advanced applied mathematics with an understanding of how these powerful tools can be used to solve practical engineering problems. The material covered includes Complex Analysis; Numerical Methods; Optimization; Graphs; and Probability and Statistics.

CPE 530 VLSI DESIGN (3 Hours)
Theory of MOS transistors: fabrication, layout, characterization; CMOS circuit and logic design; circuit and logic simulation, fully complementary CMOS logic, pseudo-NMOS logic, dynamic CMOS logic, pass-transistor logic, clocking strategies; sub system design; ALUs, multipliers, memories, PLAs; architecture design: data path, floor planning, iterative cellular arrays, systolic arrays; VLSI algorithms; chip design and test; full custom design of chips, possible chip fabrication by MOSIS and subsequent chip testing.

CPE 532 DIGITAL INTEGRATED CIRCUITS (3 Hours)
Design methodologies for digital systems using a modern hardware description language; algorithmic, architectural and implementation aspects of arithmetic processing elements; design of Complex Instruction Set (CISC), Reduced Instruction Set (RISC), and floating point processors; synthesis, simulation and testing of processors with computer-aided design tools.

CPE 541 COMPUTER NETWORK (3 Hours)
Study of computer network architectures, protocols, and interfaces; OSI reference model; Internet architecture; networking techniques (multiple access, packet/cell switching, and internetworking); end-to-end protocols; congestion control; high-speed networking; network management.

CPE 544 ELECTROMAGNETIC FIELD ANALYSIS (3 Hours)
Maxwell¿s equations; solutions of Laplace¿s equation; Green¿s Function; scalar and vector potentials; energy and momentum in electromagnetic fields; interaction of fields and material media.

CPE 545 ANTENNAS (3 Hours)
Examine the theory and properties of various communication antennas covering the range from RF frequencies to millimeter wavelengths; examine actual antennas and their characteristics.

CPE 551 DIGITAL SIGNAL PROCESSING (3 Hours)
Signals and systems; sampling continuous-time signals and reconstructions of continuous-time signals from samples; spectral analysis of signal using the discrete Fourier transform; the fast Fourier transform and fast convolution methods; z-transforms; finite and infinite impulse response filter design techniques; signal flow graphs and introduction to filter implementation.

CPE 552 COMPUTER VISION (3 Hours)
Examination of information processing approaches to computervision; algorithmsand architectures for artificial intelligence and robotic systems capable of vision; inference and robotic systems capable of vision; inference of three-dimensional properties of a scene from its images, such as distance, orientation, motion, size and shape, acquisition and representation of spatial information for navigation and manipulation in robotics.

CPE 555 CONTROL SYSTEMS (3 Hours)
Analysis and design of control systems with emphasis on modeling and dynamic response; transform and time domain methods for linear control systems; stability theory; root locus, bode diagrams and Nyquist plots; design specification in time and frequency domains; state-space design with computer solutions; compensation design in the time and frequency domain; modern design principles.

CPE 557 ROBOTICS (3 Hours)
Fundamentals of robotics; rigid motions; homogenous transformation; forward and inverse kinematics; velocity kinematics; motion planning; trajectory generation; sensing; vision; and control.

CPE 560 EMBEDDED DESIGN W/MICHROPROCES (3 Hours)
Microcomputer system design and use of microprocessors and single chip microcomputers as basic system components; basic microcomputer design and the interface between microprocessor and external devices; course examines the software aspects of microcomputers using assembly language and C programming; single chip microcomputers for embedded and power efficient applications; direct memory access, memory design and management, cache memory, fault tolerance issues, parallel processing with emphasis on hardware issues.

CPE 610 PARALLEL COMPUTING AND PROGRAM (3 Hours)
Introduction to processing in parallel and distributed computing environments, general concepts of parallel machine models, processes, mutual exclusion, process synchronization, messing, passing, and programming languages for parallel computing and scheduling; design and analysis of parallel algorithms, parallel programming environments: P threads for shared memory multiprocessor systems and PVM/MPI for distributed networks computers.

CPE 618 HIGH PERFORMANCE COMPUTING (3 Hours)
The class will study a variety of algorithms, their applications, and tradeoffs between different solutions. Issues such as performance analysis, evaluation and prediction will be addressed. There will also be discussions on topics such as parallel computer architectures (memory hierachy, interconnection networks, latency and bandwidth, parallel I/O), and software systems, with the aim of understanding their capabilities, costs and limitations. Students will make use of recent technology through a number of software packages and programming environments appropriate to the topics addressed. High performance computing tools will be used to compare and evaluate the performance of different implementations through a variety of criteria. Students will draw conclusions regarding preferred algorithms, methods, programming paradigms, and programming environments and tools for parallel distributed computing.

CPE 635 ADVANCED CIRCUIT THEORY (3 Hours)
CMOS technology; structured digital circuits; VSLI systems; computer-aided design automation tools and theory for design automation; chip design and integration; microelectronic systems architecture; VLSI circuit testing methods; advanced high-speed circuit design and integration.

CPE 693 ADVANCED TOPICS-IC DESIGN (3 Hours)
Graduate standing in engineering. Lectures on advanced topics of special interest to students in various areas of computer engineering are introduced. This course number is used to offer and test new courses.

CPE 697 INTERNSHIP (1-3 Hours)
Prerequisite: permission of Department.
Supervised graduate internship or externship in selected areas.

CPE 698 INDEPENDENT STUDY (1-4 Hours)
Prerequisite: permission of Department.
Intensive study of a special engineering project including research and literature review selected in accordance with the student¿s interests and arranged in consultations with the advisor. Topics will vary. Student will make periodic reports as well as a paper at the end of the semester.

CPE 699 THESIS (1-6 Hours)
Prerequisite: permission of advisor.
Master's thesis representing independent and original research.

CPE 899 DISSERTATION RESEARCH (1-6 Hours)
Dissertation representing independent and original research.

Computer Science (CSC)

CSC 506 Graduate Seminar (3 Hours)
Reports on recent advances and problems in computer science by guest speakers, faculty, and students; student participation, presentations, general discussion; exercises in scientific writing format and style, with particular emphasis on writing abstracts and manuscripts for publication in referred archival journals; discussion of program requirements; introductory programming project exercises.

CSC 509 COMPUTERS AND SOCIETY (3 Hours)
History of computing and technology; place of computers in modern society; the computer and individual; survey of computer applications, legal issues; computers in decision making processes; the computer scientist as a professional; futurist¿s view of computing; public perception of computers and computer scientists.

CSC 511 OBJECT-ORIENTED PROGRAMMING (3 Hours)
Discussion of object-oriented languages. Object-Oriented techniques using the C++ language, classes, objects, constructors, destructors, friend functions, operator overloading, inheritance, multiple inheritance, and polymorphism. Reusability is emphasized.

CSC 512 COMPUTER ARCHITECTURE (3 Hours)
An advanced introduction to computer design and architecture. Topics include instruction set architecture, RISC computers, control unit design, pipelining, vector processing, memory system architecture, and classification of computers.

CSC 515 DATA STRU ALGORITH ANALY (3 Hours)
Mathematical foundations for complexity theory, asymptotic notation, recurrence relations. Strategies for development of algorithms like divide and conquer, greedy, dynamic programming, backtracking. Exposure to some typical and important algorithms in computer science. Introduction to the theory of NP-completeness.

CSC 518 PRIN OPRTNG SYST CMP ARC (3 Hours)
Emphasizes the concepts of process communication and synchronization, protection, performance measurement, and evaluation. Problems associated with mutual exclusion and synchronization, concurrent processes, information, process, device, and memory management are examined. Implementation of I/0 and interrupt structure is also considered.

CSC 519 PRIN PROG SYSTEMS & LANG (3 Hours)
Important programming language concepts including, representation of data and sequence control, data abstraction and encapsulation; procedural and non-procedural paradigms: functional, logic, and object-oriented languages; distributed and parallel programming issues.

CSC 524 COMP COMM NETWK DIST PRO (3 Hours)
Topologies, media selection, medium access control for local area networks (LANs) including high speed and bridged LANs; circuit switched, ISDN wide area networks (WANs) internetworking issues and standards, 150/051, TCP/IP protocols.

CSC 527 REAL TIME SYSTEMS (3 Hours)
An introduction to the problems, concepts, and techniques involved in computer systems which must interface with external devices. These include process control systems, computer systems embedded within aircraft or automobiles, and graphics systems. The course concentrates on operating system software for these systems.

CSC 530 THEORY OF COMPUTATION (3 Hours)
A survey of formal models for computation. Includes Turing Machines, partial recursive functions, recursive and recursively enumerable sets, abstract complexity theory, program schemes, and concrete complexity.

CSC 537 CLOUD COMPUTING (3 Hours)
The course will present the state of the art in cloud computing technologies and applications as well as providing hands-on project opportunities and experiment with different technologies. Topics will include: telecommunications needs; architectural models for cloud computing; cloud computing platforms and services; security, privacy, and trust management; resource allocation and quality of service; cloud economics and business models; pricing and risk management; interoperability and internetworking; legal issues; and novel applications.

CSC 539 SPECIAL TOPICS (3 Hours)
Prerequisite: Consent of instructor.
Topics and problems of information systems that are of practical importance and current interest. New developments in system concepts, techniques, and equipment.

CSC 541 CRYPTO AND NETWORK SECURITY (3 Hours)
Cryptography and Network Security. This course will focus on graduate-level topics in cryptography and network security, including: Symmetric Key and Public Key encryption algorithms, Digital Signature, Certificates, Cryptanalysis, Key management and distribution, Classical network attacks and their solutions, User authentication protocols, Transport-level security, Wireless network security, g-mail security, Web security, IP security, Distributed system security, Firewalls and Intrusion detection systems.

CSC 542 Digital Forensics (3 Hours)
Digital forensics is a new and emerging field that is becoming increasingly important and visible. The ease with which one can access the internet and commit crimes with and against computers has led to an increase in the need for online protection. As a result, there is a need for computer science graduates with skills needed to investigate these crimes. In this course, topics of computer crimes, system and computer forensics will be introduced. Students will be required to learn the different aspects of computer crime and ways to uncover, protect, and exploit digital evidence. In addition, the lab projects will expose students to different types of tools, both hardware and software, and will enable them to perform fundamental investigations.

CSC 545 ARTIFICIAL INTELLIGENCE (3 Hours)
Efficient and intelligent search techniques. Knowledge representation e.g., logic, and semantic nets. Reasoning techniques including reasoning under uncertainty, e.g., fuzzy reasoning. Exposure to different artificial intelligence systems like planning and learning (including neural networks).

CSC 547 Computer Security (3 Hours)
This course provides an overview of security challenges and strategies of countermeasures in the information systems environment. Topics include definition of terms, concepts, elements, and goals incorporating industry standards and practices with a focus on confidentiality, availability, and integrity aspects of information systems.

CSC 551 PARALLEL & DISTRIBUTED COMPUTI (3 Hours)
The course introduces the concepts and design of parallel and distributed computing systems. Topics covered include: Data versus control parallelism (SIMD/Vector, Pipelines, MIMD, Multi-core, GPU); Shared versus distributed memory (SMP and NUMA), Message passing Interface (MPI) and Topologies; Parallel and distributed algorithms: Paradigms, Models and Complexity, Scheduling, Synchronization, Deadlock detection, Fault tolerance and Load balancing.

CSC 552 APPLIED PROGRAMMING (3 Hours)
Department and advisor approval. This course focuses on the fundamentals of computing and is geared toward non-CS majors going into computational sciences. The course will cover key concepts of data strudtures, data manipulation, algorithms and efficiency, and how they apply to the various application domains specific to computational fields. The course will also provide an introduction to Python for computational sciences. Topics include: an introduction to computational complexity, data structures (arrays, lists, stacks, queues, trees, and graphs), elementary algorithms and their complexity.

CSC 560 SOFTWARE ENGINEERING (3 Hours)
Formal approach to techniques and software design and development. Software cycle encompassed from initial ideas through code design and implementation with emphasis on object-oriented design techniques will be included. Software testing and maintenance will be discussed.

CSC 571 PROGRAMMING FOR BIG DATA (3 Hours)
The course will expose students to three programming paradigms for big dat analytics to cover the three Vs: Velocity, Volume, and Variety. The course will focus on design and development of programs based on the: (1) Supervised and unsupervised machine learning algorithms to perform predictive analytics of Big Data dn implement them using a high-level algorithms such as Octave; (2) Map-reduce parallel programming paradigm for selected data-intensive computational problems; (3) Functional programming paradigm using languages such as OCaml to analyze big data in a recursive fashion. In addition, the course will enable students to be able to configure a distributed file system based on the Hadoop architecture for reliable share storage and develop programs that interface with it, as well as manage large datasets using SQL-like access to unstructured data (Hive) and NoSQL storage solutions (HBase).

CSC 582 SOCIAL NETWORK ANALYSIS (3 Hours)
This course will cover the structure and analysis of large social networks on models and algorithms that abstract their properties. Topics covered include: Nodes, edges, and network measures, structure, and visualization and tools, the tie strength of networks, trust in social media, analyzing and classifying user roles, attributes and behavior, link prediction and entity resolution, epidemic models, location-based social media analysis, social sharing and filtering, aggregation and data mining, and network strategies for the individual and for the government.

CSC 595 INFO SYST & DEVELOP PROJ (1-3 Hours)
Prerequisite: Pass comprehensive examination and consent of advisor.
Provide the student with the experience in analyzing, designing, implementing, and evaluating information systems. Students are assigned one or more system development projects. The project involves part or all of the system development cycle.

CSC 597 Internship (1-3 Hours)
Prerequisite: Permission of department.
Supervised graduate internship or externship in selected areas of computer science.

CSC 599 THESIS RESEARCH (1-6 Hours)
Prerequisite: Pass comprehensive examination and consent of advisor.
An independent study course for the preparation of a Master's thesis.

CSC 601 COMPUTER ALGORITHMS (3 Hours)
The course focuses on algorithms of different design strategies, and the mathematical concepts used in describing the complexity of an algorithm. Topics covered include: Asymptotic notations; Time complexity analysis of iterative and recursive algorithms; design strategies like Bruite force, Diviide and Conquer, Transform and Conquer,Greedy and Dynamic programming; Space-time tradeoffs in algorithms and NP-completeness - Heuristics and Approximation algorithms. The course will also cover graph theory algorithms and string matching algorithms with respect to the application of the above design strategies for specific problems.

CSC 620 DATABASE MANAGEMENT SYSTEMS (3 Hours)
This course is designed for non-computer science majors entering the Ph.D. in Computational and Data Enabled Sciences and Engineering. It introduces students to the concepts and theories of database systems, necessary in the CDS&E fields. Topics include: information models and systems; the database environment; data modeling; conceptual modeling using the entitiy-relationship approach and mapping to relational tables; the relational model including the relational data structure, integrity rules, relational algebra and relational calculus; normalizaation; data definition and data manipulation in SQL; conceptual, logical, and physical database design; security; transaction management; query processing; and advanced topics in database systems, and how this applies to computational and data enabled sciences and engineering.

CSC 621 MACHINE LEARNING (3 Hours)
This course will deal enable students to understand the underlying algorithms used in varioius learning systems. Topics covered include: Inductive classification, Decision-tree learning, Ensembles, Experimental evaluation, Computational learning theory, Rule learning, Neural network learning, Support vector machines, Bayesian learning, Instance-based learning and Text categorization.

CSC 634 BIG DATA MINING (3 Hours)
This course will focus on data mining of very large amounts of data that is so large enough not to fit in main memory, characteristic of data retrieved from the web. Topics to be covered include: Distributed file systems and Map Reduce, Similarly search techniques, Real-time data-stream processing algorithms, Technology of search engines (PageRank, Link-spam detection, hubs-and-authorities approach) and Frequent-itemset mininig. The course will also expose students to algorithms for clustering very large, high-dimensional datasets.

CSC 641 NETWORK SCIENCE (3 Hours)
Topics covered include the measurement and structure of networks, methods for analyzing network data, including methods developed in physics, and statistics, and sociology, graph theory, computer algorithms, mathematical models of networks, including random graph models and generative models, and theories of dynamical processes taking place on networks.

CSC 651 FNDS OF PROGRAMMING & COMP SYS (3 Hours)
Prerequisite: experience in any object-oriented language.
This course will focus on graduate-levle central concepts in modern programming languages, impact on software development, language design trade-offs, and implementation considerations. Functional, imperative, and object-oriented paradigms. Formal semantic methods and program analysis. Modern type systems, higher order functions and closures, exceptions and continuationsl Modurlarity, object-oriented languages, and concurrency. Runtime support for language features, interoperability, and security issues.

CSC 899 DISSERTATION RESEARCH (1-9 Hours)
Prerequisite: permission of advisor.
Dissertation representing Independent and original research in the area of Computational Science and Engineering.

Counseling (COUN)

COUN 504 CLINICAL MENTAL HEALTH COUNCLG (3 Hours)
This course is a survey of theoretical and applied information for counselors working in community settings. Course content include history and philosophy, roles of workers, organizational and delivery systems, program development and consultation, specific populations, interviewing, prevention and intervention strategies and current issues related to agency counseling.

COUN 506 INTRO TO PROFSNL COUNSELING (3 Hours)
Includes goals and objectives of professional organizations, codes of ethics, legal considerations, standards of preparation, certification, licensing, role identity of counselors and other personnel services specialists, and overview of services.

COUN 510 ORGAN & ADM OF GUIDANCE PROGS (3 Hours)
An orientation to guidance and counseling services; the setting in which they are offered and the needs of special populations. Introduction to history, philosophy, legal and ethical issues of guidance and counseling.

COUN 514 ANALYSIS OF THE INDIVIDUAL (3 Hours)
A study of the means by which information is gathered about a student and the most productive methods of interpreting the materials. Types of cumulative records are examined. The uses of tests, reports of interviews, anecdotal records, school grades, and autobiographies are studied.

COUN 517 LIFESTYLES & CAREER DEVELOPMNT (3 Hours)
Includes such areas as vocational choice theory, relationship between career choice and lifestyle, sources of occupational and educational information, approaches to career decision-making processes and career development exploration techniques.

COUN 520 PRINCIPLES & TECHNQ OF CNSLNG (3 Hours)
Introduction to the underlying principles, dominant theories and application of techniques of counseling with individuals and selected groups.

COUN 522 COUNSELING CHILDREN (3 Hours)
This course is designed to provide specialized instruction and knowledge related to the topic of counseling children. This course is a fundamental course for aspiring school counselors and other professionals interested in counseling children. This course offers didactic instruction and discussion of counseling techniques useful in various settings, with an emphasis of working with children in school settings.

COUN 524 SPIRITUALITY IN COUNSELING (3 Hours)
This course provides specialized instruction and knowledge related to the topic of spirituality and its relationship to counseling.

COUN 525 SP TPS N INTGRATD BEH HE CARE (3 Hours)
The primary goal of this course is to expose clinical mental health and school counseling students to practical behavioral health skills in multiple settings.

COUN 526 DYNAMICS OF GROUP PROCESSING (3 Hours)
Includes theory and types of groups, as well as descriptions of group practice, methods, dynamics, and facilitative skills. This also includes supervised practice.

COUN 527 INDIVIDUAL TESTING (3 Hours)
) Study of the Wechsler Scales including history, standardization, and usage. Supervised practice in administration, scoring, interpretation and report writing.

COUN 528 COUNSELING GIFTED (3 Hours)
Counseling the gifted and creative individuals is a three hour graduate level course for mental health professionals in school, community, and private sector settings. This course provides an advanced knowledge and necessary skills required to provide guidance and counseling services for children, adolescence and adults. Additionally, this course reviews different theories in creativity and giftedness to facilitate the therapeutic approach and academic management.

COUN 530 FOUNDATIONS OF TEST DEVELOPMEN (3 Hours)
To prepare psychometry students to understand the procedures of psycho-educational test development. The course covers measurement principles; standards of test worthiness such as validity, reliability and cross-cultural fairness; ethical issues in test building; standardization; and theoretical and historical basis for assessment techniques. An over view of psychometric and statistical relevance such as measurement of central tendency, indices of variability, standard error and correlation are explored. Additionally, gender, ethnicity, language, disability and cultural factors relaed to the test development and evaluation are covered.

COUN 561 PSYCHOLOGICAL ASPECTS HUM DEV (3 Hours)
Presents a broad understanding of the nature and needs of individuals at all developmental levels. Emphasis is placed on biological, cognitive, and socioemotional approaches. Also, included are such areas as human behavior (normal and abnormal), personality theory, and learning theory.

COUN 571 SUPERVISED LAB IN COUNSELING (3 Hours)
Supervised practical experiences in using counseling techniques.

COUN 578 INTERNSHIP IN COUNSELING (1-9 Hours)
Prerequisite: COUN 504, 506, 514, 517, 520, 526, 561, 611, 631, 658, 671 and 691).
The student is placed at an agency/institution under the supervision of a university coordinator and an approved onsite practitioner. A minimum of 600 clock hours with 10 hours for small group activities are required for 9 hours of credit. (

COUN 585 RESEARCH IN GUID & COUNSELING (3 Hours)
Systematic investigation of factors and procedures relevant to research in counseling.

COUN 589 GRIEF COUNSELING (3 Hours)
This course is designed to familiarize students, teachers, counselors and other professionals with the reactions of individuals to death and dying. This course also focuses on developing a personal perspective of the grief process associated with death and dying.

COUN 606 BEHAVIORAL ASSESSMENT (3 Hours)
Overview of behavioral assessment including critical appraisal for educational practices and counseling interviews.

COUN 611 PSYCHODIAGNOSIS AND TREATMENT (3 Hours)
Prerequisite: COUN 514, 520).
This course will introduce students to psychodiagnostics using the Diagnostic and Statistical Manual of Mental Disorders. Emphasis will be placed on consultation and developing a working knowledge of the organizational structure and the professional terminology used in the manual and subsequent treatment plan development including an introduction to psychopharmacology. (

COUN 621 COUNSLNG ADOLES FEMALES & WOM (3 Hours)

COUN 627 INDIVIDUAL TESTING II (3 Hours)
Study of Stanford-Bine and achievement tests including history, standardization and usage, supervised practice in administration, scoring, interpretation and report writing. Recommend COUN 527 be taken before this course.

COUN 631 SOCIAL & CULTRL FNDTN OF CNSLG (3 Hours)
Includes studies of change, ethnic groups, subcultures, changing roles of women, sexism. urban and rural societies, population patterns, cultural mores, use of leisure time and differing life patterns. Such disciplines as the behavioral sciences, economics and political science are involved.

COUN 648 Trauma and Crises Intervention in Counseling (3 Hours)
This course addresses issues related to trauma and crisis encountered by most counselors and educators at some point in their careers. The course also explores some effective crisis and intervention strategies and techniques that can be employed both during and after traumatic events and situations, as well as viable prevention methods.

COUN 658 MARRIAGE & FAMILY COUNSELING (3 Hours)
This course will identify individual and family life cycles, describe healthy and dysfunctional characteristics of families; steps and stages in family therapy; identifying strategies for working with single-parent families, blended families, culturally diverse families; substance-related disorders, domestic violence and child abuse; and legal, ethical and professional issues in family therapy.

COUN 660 Individual Testing III (3 Hours)
The purpose of this course is to develop skill and competency to demonstrate how to craft a scientifically grounded profile of each child's strengths and difficulties, make a formal diagnosis of Autism Spectrum (AS), Attention Deficit/Hyperactivity Disorder (ADHD), and Dyslexia, and use assessment data to guide individualized intervention in clinical and school settings. The majority of the emphasis of the course will be on the practical aspect of the assessment process such as selection, administration, scoring, and interpretation of the different tests for autism and dyslexia.

COUN 671 PRACTICUM IN SUPRVSD EXP & CNS (3 Hours)
Prerequisite: COUN 571.
Strategies and processes in counseling and consultation will be presented. 100 clock hours of experience required and one hour individual supervision per week.

COUN 673 PRACTICUM IN SCHOOL PSYCHOLOGY (3 Hours)
Prerequisite: COUN 672 and consent of instructor.
Field experience of 20 hours a week for one term in a school setting under the supervision of a school psychologist.

COUN 675 INTRNSHP IN SCHOOL COUNSELING (3-6 Hours)
Prerequisite: COUN 506, 510, 514, 517, 520, 526, 561, 631, 671 and 691.
The student is placed at a school setting under the supervision of a university coordinator and an approved onsite practitioner. A minimum of 300 clock hours are required.

COUN 676 COUNSELOR SUPERVISION AND THEO (3 Hours)
This course provides an overview of models and approaches to counselor supervision and legal and ethical issues of counselor supervision.

COUN 678 INTERNSHIP IN COUNSELING (1-6 Hours)
Prerequisite: COUN 506, 510, 514, 517, 520, 526, 571, 671, and 561 or 631).
The student is placed at a school under the supervision of a university coordinator and an approved onsite practitioner. A minimum of 600 clock hours are required for 6 hours of credit. (

COUN 687 ADV RESEARCH & INDEPNDNT STUDY (1-3 Hours)
Topic chosen by the specialist student and his or her thesis committee. The course may be repeated two or more times until 6 hours have been accumulated.

COUN 691 SEM ON ETHCL & LGL ISS IN CNSL (3 Hours)
An analysis of current topics, ethical issues, consultation, programs, literature and research in professional counseling.

Criminal Justice (CJ)

CJ 500 SYS DYNAMICS OF ADM OF JUSTICE (3 Hours)
This course is designed for students without a criminal justice or closely related discipline background. Students will examine the components of the criminal justice system and their impact on the lives of offenders and non-offenders. This course does not count toward degree credit.

CJ 502 THEORIES OF DELINQUENCY (3 Hours)
An intense overview of the major theories of crime and delinquency from the 18th century to the present

CJ 513 STATISTICS (3 Hours)
Quantitative techniques of data analysis are introduced in the context of their application in sociological research. Research design, measurement theory, data collection, coding, machine use, and statistical analysis and interpretation are stressed.

CJ 515 RESEARCH METHODS (3 Hours)
This course is designed to assist the student to understand and execute the basic research processes and judge the worthiness and usefulness of research as a knowledgeable consumer. (F)

CJ 520 LEG&ETH ISS IN CRIM JUST (3 Hours)
An analysis of the impact of federal and state laws, court decisions and moral and ethical factors associated with the delivery of service in the criminal justice system. (S)

CJ 525 DSGNG NW CRM JST SR DL S (3 Hours)
This course focuses on creating new approaches to the delivery of human services. Special consideration will be given to the history of human service work, the process of getting services to people in need, helping consumers to function more effectively and the management of work to deliver effective and efficient services. (S)

CJ 526 CRIMINAL JUSTICE ORGN AND MNGT (3 Hours)
Prerequisite: CJS/SOC 502.
Theories of Crime and Delinquency. This course focuses on the application of organization and administration principles to law enforcement, courts, and correctional settings. There will also be a review of theories and an assessment of trends.

CJ 530 IMP BEHAV&STRAT-PLNND CH (3 Hours)
This course is designed to develop a system for organizing and conceptualizing crime prevention efforts. Special consideration is given to crime prevention planning, programming and assessment. (S)

CJ 535 ASSES&EVAL-CRM JST PL&PR (3 Hours)
This course will focus on developing assessment skills and conveying the evaluative information to the appropriate audience. Special consideration is given to the ability of the learner to determine and judge the value and effectiveness of a particular policy or system relative to its purpose and goals. (F)

CJ 540 COMPARATIVE JUSTICE SYSM (3 Hours)
This course is a survey of various international criminal justice systems. Special emphasis will be placed on historical, geographical, and cultural perspectives that impact the systems unique and/or similar to those in the United States.

CJ 580 SPECIAL TOPICS (3 Hours)
An exploration of critical issues in criminal justice. Course may be repeated for credit, as topics will vary each semester.

CJ 599 INDEPENDENT STUDY (3 Hours)
This course is designed to permit students to research topics not covered in other criminal justice courses. (D)

CJ 600 THESIS (1-6 Hours)
The candidate for the master of arts degree must present a thesis based on research conducted, stipulated, and approved by an advisor. (D)

CJ 601 POLICY PAPER (3 Hours)
Students who select the non-thesis option are required to select a criminal justice policy and research it. The student should provide a thorough analysis of the policy resulting in the policy paper.

CJ 602 DEPARTML COMPREHENSIVE EXAM (1 Hour)
This course is for students that need to take the comprehensive examination that have completed all other degree requirements.

CJ 620 COMMUNITY ANALYSIS (3 Hours)
Various approaches to community; types of community; the structural and functional aspects such as leadership, social stratification, subgroups, values and norms.

CJ 622 RESEARCH AND STATISTICS (3 Hours)
Descriptive and inferential statistics will be reviewed and used to explore contemporary sociological issues. Methods of collection, maintaining, analyzing and reporting data will be addressed.

CJ 635 CRIME IN THE URBAN COMMUNITY (3 Hours)

Curriculum and Instruction (EDCI)

EDCI 500 INTRO TO TEACHING INTERNSHIP (3 Hours)
An exploration of the teaching profession to include historical perspectives, current issues and practices, influences of legislation and future projections. Through the field-based mentorship component of the course, students will have the opportunity to test theories of teaching and learning, to plan and guide learning experiences for elementary and secondary learners, and to analyze functions of different levels of schools.

EDCI 501 PARENTNG ROLES N ERLY CHDHD ED (3 Hours)
An investigation of the theories concerning parent-teacher-child intrapersonal and interpersonal relationships to give a broader understanding of diverse families from different socioeconomic levels, nationalities, and ethnic backgrounds. Requires 10 hours of field-based experiences.

EDCI 502 LITERACY DEVLOPMENT AND THE YC (3 Hours)
An investigation of the techniques used to help young children use language skillfully, to listen, speak, read, and write. Requires 10 hours of field based experiences.

EDCI 503 PRN OF CHLD DEV IN EARLY YEARS (3 Hours)
An investigation of the methods and research in child growth in social, emotional, psychological and physiological development of children from birth through eight years of age. Requires ten (10) hours of clinical and field-based experiences.

EDCI 504 METHODS & MTRLS IN ELYCH (3 Hours)
A critical analysis of methods and materials for teachers working with children in nursery schools, day-care centers, kindergarten and primary grades. Requires fifteen (15) hours of clinical and field-based experiences

EDCI 505 ASSESSING THE YOUNG CHILD (3 Hours)
An investigation of the theories and developmentally appropriate practices relative to group and individual evaluation procedures for early childhood education. Requires ten (10) hours of clinical and field-based experiences.

EDCI 507 ORGANIZATION& ADM OF ECE (3 Hours)
An investigation of the theories and developmentally appropriate practice for the organization, supervision, and program management of programs for young children from infant through eight years of age. Requires ten (10) hours of clinical and field-based experiences.

EDCI 508 CHILDREN'S LITERATURE (3 Hours)
This course is designed to provide a comprehensive study of children's literary selected from the preschool level through junior high school level, with emphasis on book selection, historical perspectives, types of literature, and creative ways to use books with children.

EDCI 509 PRACTICUM IN ECE (3 Hours)
An investigation of early childhood philosophy, practice, and theory through research and hands-on experience in childcare settings. Requires 30 hours of field-based experiences.

EDCI 556 SPECL TOPICS IN ECE/ELED (1-6 Hours)
This course deals with topics which may be treated more effectively as a mini-course, institute, or as a workshop instead of as a regular scheduled course.

EDCI 564 CURRENT TRENDS IN MATH (3 Hours)
This course will address relevant research, contemporary mathematics curriculum content and methodology, relationship between mathematics and other subject areas, improvement of skills and concepts, and the major historical, philosophical, and psychological antecedents of today's elementary school mathematics curriculum. Requires ten hours of clinical and field- based experiences.

EDCI 568 SEM IN ELE CURR: MOD TRDS & RE (3 Hours)
Intensive analysis of the research on educational content and methodology of the elementary school curriculum: Consideration given to factors influencing curriculum development.

EDCI 569 THE DEVEL APPRO EARLY CHILDHOO (3 Hours)
An investigation of developmental theories designed to help present and future kinds of curriculum Experiences that are appropriate for bridging and making transitions from one stage into another. Requires 10 hours of field-based experiences.

EDCI 587 RESEARCH & INDEPND STUDY IN ED (1-6 Hours)
Opportunity for students to undertake independent study and research under the direction of a faculty member; the student will submit a written report and may be asked to stand a comprehensive examination on his work. Requires twenty-five hours of clinical and field-based experiences.

EDCI 589 TCH ED PROG & TECHNOLOGY (3 Hours)
Current development in college programs for the preparation of teachers for elementary and secondary schools; analysis of technological developments in teacher education - simulation situations, video tapes and film feedback, models of teaching, interaction analysis and micro-teaching systems in teacher education.

EDCI 590 THESIS (3 Hours)
Candidates for the Master of Science Degree in Education may choose to present a thesis embodying the results of their research; approval of the candidate's problem by his adviser is required.

EDCI 603 EDUCATION FOR PARENTING (3 Hours)
Provides a comprehensive examination of the theory and research in the parenting process. Requires fifteen (15) hours of clinical and field-based experiences.

EDCI 687 ADV RES & INDEPENDENT STUDY (1-6 Hours)
Supervised exploration of special topics. Requires forty-five (45) hours of clinical and field-based experiences.

EDCI 703 SEM I:URBAN STUDIES N/EC (3 Hours)
This course is an introductory course in the Urban Education Curriculum Development Program for the Doctoral Degree in Early Childhood Education. The course content consist of five introduction, modules: (1) Urban studies in Early Childhood Education, (2) Early Childhood Education, (3) Natural Science/Computer Sciences for Early Childhood Education, (4) Special Education for Early Childhood Education, and Global/international Studies for Early Childhood Education. Requires ten (10) hours of clinical and field-based experiences.

EDCI 712 MODELS OF CURRICULUM DEVELOP (3 Hours)
Emphasis is placed on trends in the various subject matter areas of early childhood curriculum. Contemporary, social issues of potential impact on the early childhood curriculum are included. Models of curriculum development, implementation, and evaluation are studied. Requires ten (10) hours of clinical and field-based experiences.

EDCI 713 INSTRUCTIONAL THEORY AND DESIG (3 Hours)
Study of alternative models of teaching including cooperative learning, inductive thinking, concept development, cognitive growth, nondirective teaching, contingency management, inquiry training, and whole-class instruction. The student is involved in the development, execution, and evaluation of instruction. Works of theorists who have provided the impetus for the development of instructional systems are reviewed. Requires thirty (30) hours of clinical and field-based experiences.

EDCI 714 ORIENT & ADM OF ECE (3 Hours)
This course is designed mainly for directors, administrators, and supervisors of programs for young children (nursery-kindergarten through grades 3). Requires ten (10) hours of clinical and field-based experiences.

EDCI 715 SEM IN URBAN STUDIES IN ECE (3 Hours)
Survey of research comparison and evaluation of programs, design and development of projects in current issues through individual study. Intensive examination of a particular area of urban/global studies in early childhood education. In-depth study of research problem in education. Student must be able to demonstrate critical and analytical skills in dealing with a problem in early childhood education. Introductory examination of issues, trends, topics and activities in urban/global studies in early childhood . Requires ten (10) hours of clinical and field-based experiences.

EDCI 716 LRNG THEORIES&STYLES-ECE (3 Hours)
Study of contemporary, learning theories and individual learning styles in the context of early childhood curriculum, planning and implementation. Requires ten (10) hours of clinical and field-based experiences.

EDCI 717 PSY OF YNG CHILD IN URBAN ENVI (3 Hours)
Designed to prepare graduate students to teach young children who come from urban and/or culturally different backgrounds. Through use of multimedia source materials, students gain knowledge of background and culture of culturally different learner, determine role of teacher, explore techniques of discipline and classroom management, Survey motivational and instructional techniques and examine, prepare and adapt a variety of instructional materials for individual, small group and large group instruction. Requires ten (10) hours of clinical and field-based experiences.

EDCI 718 SEM III: UR STDS IN ECHD (3 Hours)
Prerequisite: Admission into the 1994 ECED Pilot Project) Requires ten (10) hours of clinical and field-based experiences.
Opportunity for students to investigate problems and issues related to Early Childhood Education and to develop ability to clarify research problems, review and analyze secondary data. Students select an interest area and complete activities that culminate in a major paper as foundation for their dissertation. (

EDCI 720 RES APPS IN,SCI,MATH,SE FOR EC (3 Hours)
In-depth, advanced study of the application of theoretical knowledge and principles in science, mathematics, or special education to the development of a theoretical framework, problem identification, data collection/ analysis procedures in early childhood education.

EDCI 788 TEACHING ED PROGS AND TECHNOLO (3 Hours)
Current development in college programs for the preparation of teachers for elementary and secondary school; analysis of technological development in teacher education- simulation situations, video tapes and film feedback, models of teaching, interaction analysis and microteaching systems in teacher education. Requires ten (10) hours of clinical and field-based experiences.

EDCI 798 INTERNSHP & FIELD STDS DOCTORA (5 Hours)
Prerequisite: Permission of advisor and director of field experience. Intensive job-related experience pertinent to students' needs. Student must be able to demonstrate skills and leadership abilities in an on-the-job situation. A topic of current interest and need will be emphasized. The student will develop extended competence with contemporary measurement and evaluation techniques which will be generated into a research study. Requires a minimum of three hundred sixty (360) hours of clinical and field-based experiences.

EDCI 799 DOCTORAL DISSERTATION (1-12 Hours)
(Variable Credit)

Economics (ECO)

ECO 511 MACROECONOMICS THEORY (3 Hours)
Macroeconomic concepts relating to the theory of income and employment. analysis of changes in the level of econoimc activity, economic growth and inflation.

ECO 512 MICROECONOMICS THEORY (3 Hours)
Detailed analysis of traditional microeconomic theory, including consumer behavior theories, theories of production, cost curves, market structure and factor price determination.

ECO 530 MANAGERIAL ECONOMICS (3 Hours)
Economic tools of analysis in the operation of a business; applied microeconomic, to solve selected business problems and to aid decision making in business firms and other organizations.

ECO 570 ECONOMICS SEMINAR (3 Hours)
Guided individual research in current economic problems, including research methodology.

ECO 711 ADVANCED MACROECONOMIC THEORY (3 Hours)
This course offers an analysis of static and dynamic theories of income, employment, and the price level. Other topics include analysis of real and monetary influences on economic growth, theories of investment and consumption, money demand, and stabilization theory and policy.

ECO 712 ADVANCED MICROECONOMIC THEORY (3 Hours)
This course offers an advanced analysis of microeconomic theory. Topics include consumer and producer behavior and determination of market prices, resource markets analysis, analysis of game theory, theories of uncertainty, general equilibrium, and welfare economics.

ECO 713 ADVANCED MONETARY & FISCAL ANA (3 Hours)
This course offers a comprehensive study of various aspects of monetary theory and fiscal economics, as well as the development and implementation of monetary and fiscal policies and their implications for economic growth and stability.

ECO 716 HISTORY OF ECONOMIC THOUGHT (3 Hours)
This course offers a review and analysis of major theories and current econoimc philosophy. Topics of coverage include the study of the contributions of the classical school, the marginalists, the neo-classicists, the institutionalist, the keynesians, the neo-keynesians, the modern school, and the new classical school.

ECO 725 METHODS OF URBN & REGIONL ANAL (3 Hours)
This course offers an analysis of the theory of urban and regional development and growth; economic analysis of urban problems and their solutions, analysis of land use, transportation, industrial development and urban planning models.

ECO 730 MANAGERIAL ECONOMICS (3 Hours)
This course offers an analsis of microeconomic theory as it applies to business operations. Topics include demand theory and estimation; production and cost theories and estimations, capital budgeting theory and analysis, pricing policies, and production under uncertainty.

ECO 735 SEM IN ECO HOUSING & URBAN TRA (3 Hours)
This course offers an analysis of selected problems of contemporary cities in housing, transportation and industrial development. Topics include analysis of costs and benefits of housing programs, distribution and use of transportation facilities and services, and analysis of economic implication of public policy initiatives pertaining to urban transportation.

ECO 746 SEMINAR IN INT'L TRADE & FINAN (3 Hours)
This course offers an analysis of theory and practice of international trade and finance. Topics of discussion include advantages and disadvantages of foreign trade, analysis of effects of tariffs and other restrictions on the flow of trade, and analysis of international commercial and monetary policies between countries.

ECO 760 ECONOMETRICS I (3 Hours)
This course offers exposure to the fundamental elements of economic modeling, construction, estimation and testing. It will cover; simple and multiple regression analysis, use of dummy variables, testing for multicollinearity, autocorrelation, heteroscedasticity, etc. Extensive use of statistical software is required.

ECO 762 ADVANCED ECONOMETRICS (3 Hours)
This course offers a continuation of Econometrics (ECO 760). Topics of discussion include multicollinearity, autoregressive and distributive lag models, autocorrelation problems and their correction, measurement errors problems, simultaneous equations models, identification problems, etc. Extensive use of statistical software is required.

ECO 799 DISSERTATION (1-12 Hours)
Prerequisite: Consent of the chair of the Dissertation Committee. Sutdents will complete doctoral level research which must culminate in the successful development and defense of the dissertation in the field of Economics. Students may register for more than one section in a given semester. A minimum of 21 credit hours of Ph.D. Dissertation is required.

Educational Admin&Supervision (EDAD)

EDAD 512 INTRO TO SCH LDRSHP THEO & PRA (3 Hours)
This is an introductory course in educational leadership. It is designed to introduce candidates to theories, concepts, and effective leadership practices in educational organizations. Candidiates will examine various leadership styles and strategies, ethical and moral behaviors, the roles and responsibilities of effective school leaders, and the social, political, economic, and legal contexts impacting schools. Additionally, this course will analyze the history, philosophy, and social aspects of school leadership. The accountability of school leaders in educational settings, historical aspects of educational leadership, and effective research-ased practices that impact student achievement, teacher effectiveness and school improvement will also be addressed. Candidates in this course will engage in 15 hours of field-based activities.

EDAD 513 SCHOOL-BASED PRGM EVAL & IMPRO (3 Hours)
This course is designed to provide candidates with a thorough knowledge of the theoretical underpinnings of different approaches to school-based program evaluation. This course will afford candidates the opportunity to evaluate school-based programs at diverse partner schools. In addition, the use of evaluation data for program improvement will be explored. This course requires 20 hours of clinical experience in diverse settings and the integration of technology.

EDAD 514 LEADING CHNGE TO SUP SCH IMPRO (3 Hours)
This course will build on the organizational theory and practices that require educational leaders to implement and manage change in the school environment. Students will examine change models to increase organizational effectiveness and create a vision for leading change, setting an innovative climate for learning, and negotiating situations involving conflict. Students will examine research on effective negotiation skills; demonstrate an understanding of the Interstate School Leaders Licensure Consortium Standards for School Leaders related to school culture, and diagnose problem areas created by the effects of a changing environment. The fundamental goal is for students to develop a clear and compelling vision for positive change that is standards based, data-driven, and focused on a consistent conflict-free environment that will contribute positively to student achievement. Specifically, students will be expected to develop an organizational diagnostic and a strategic plan for renewal and change in a k-12 setting. There is a 20 hour field component in this course.

EDAD 515 LEGAL ISSUES FOR SCHOOL LEADRS (3 Hours)
This is an introductory course that is designed for those educators and laypersons interested in legal issues affecting k-12 education that have little or no knowledge of or background in school law. This course will address selected school law issues with an emphasis on those having a direct impact at the school building level. Commonly disputed concerns receiving special emphasis include: equal access to education; violence, safety, and discipline; faculty hiring, promotion and tenure; discrimination and sexual harassment; individual educational plans for special needs students; local school governance; curricular issues such as intelligent design vs. evolution; and public support of extracurricular activities. When appropriate, a historical perspective is provided in addition to case and statutory law. External influences on educational policies and operations will be investigated in the context of ethical considerations. There is a 30 hour field component in this course.

EDAD 516 LEADING & MANAGING HUMAN RESOU (3 Hours)
This course provides the foundation for school leaders to lead and manage human resources within educational organizations. Candidates will examine strategies that attract, motivate, and retain human resources within educational organizations. Candidates will examine strategies that attract, motivate, and retain human resources in educational settings to support student achievement. Emphasis is placed on the role of the school leader in developing and maintaning an effective and conducive teaching and learning environment necessary for student achievement and the professional growth of the staff. Other foci are adult learning theories, organizational climate and culture, effective oral and written communication (both within and external to the organization), recruitment, selection, orientation and induction practices, group facilitation skills, and team building. The candidates will exmaine various leadership styles that support healthy schools, and develop dispositions which demonstrate an understanding of how their attitudes and behaviors impact the educational setting. In addition, the course examines the school leader's ethical and moral behaviors as critical factors in which stakeholders in organizations. Candidates will exit this course with an understanding of effective building skills, group dynamics, successful management practices, time management strategies, techniques for conducting productive meetings, effective communication skills, guidelines in recruiting, hiring, supervising, evaluating and planning for the profesional growth of the staff, conflict resolution, employment law and managing change as necessary skills for leading and managing human resources educational organizations. Candidates will engage in 15 hours of field-based experiences.

EDAD 517 RES & ACCT FOR SCHOOL FINANCE (3 Hours)
This course is designed to analyze the responsibilities of school leaders in the area of school finance. Candidates in this course will engage in all aspects of school finance, through action research, field-based experiences, and lectures from guest practitioners. This course will also require research into state and local finance laws, current legislation, state and local taxation, bonds, and the entire budgeting process. There is a 20 hour field component in this course.

EDAD 518 INTERSHIP I (3 Hours)
This coufse provides candidates with opportunity to engage in field-based learning activities related to school leadership at the building level. This is a "hands-on" course that provides the opportunity for the candidate to practice administative and leaderhsip skills under the guidance of a practicing administrator (mentor). Seminar activities will complement the on-going field-based tasks by allowing candidates to reflect on their field experiences. This course will provide opportunities to examine their own administrative and leadership behaviors, gain insight about different leadership styles, understand the contextual factors that can influence admininstative actions, and finally, to analyze how different administrative actions affect various aspects of the educational environment. Candidates are placed in an elementary, middle or high school for the entire semester. This course is supervised by the site supervisor and university supervisor. The intern is required to conduct 9-12 hours per week of sustained activities. Documentation must be complied in a portfolio.

EDAD 519 Instructional Leadership and Professional Development (3 Hours)
This course provides candidates with opportunities to critically analyze and apply various theories in instructional leadership. Candidates will research-based practices that support teaching and learning at the building level. Candidates will examine the role of the school leader in responding to the curriculum, instruction and assessment. This course is aligned with the Interstate School Leaders Licensure Consortium (ISLLC) standards, Educational Leadership Constitute Council (ELCC) standards and the Mississipppi Standards for School Leaders. The course focuses on the performance aspects of effective leadeship including empowering others, building collaborative organizational cultures, makuing informed decisions and communicating effectively. The course provides a foundation for creating professional learning communities, applying research-based professional development, targeting best practices as a process to enhance classroom practice, improve student learning and overall school success. Candidates will engage in 15 hours of field-based experiences.

EDAD 520 PROF DEV TO PROMOTE STUD ACHIE (3 Hours)
This course is concerned primarily with the view of dominating ideas and institutions that have affected the course of educational development in the Western Urban World setting. Special emphasis is placed on the views of leading philosophies of education and the implications of these philosophies for modern educational practices. The students will gain an understanding of relationships between major historical, political, sociological, and philosophical shifts and the way, we "do" schooling and education. The students will compare and contrast teaching practices that are influenced and be able to analyze, discuss, and evaluate the implications of a personal set of philosophical beliefs about teaching and learning as well as administration.

EDAD 521 INTERNSHIP II (3 Hours)
This course provides students with the opportunity to engage in field-based experiential learning activities related to school administration. This is a "hands-on" course that gives the opportunity for students to practice administrative and leadership skills under the guidance of a practicing administrator (mentor). Seminar activities will complement the ongoing field-based experiences, to document administrative and leadership activities, and to assess the usefulness of the internship experiences on their personal educational development as leaders. Students will gain support, guidance, and wisdom from the cohort administrative interns. This course will provide opportunities to examine their own administrative and leadership behaviors, gain insight about different leadership styles, understand the contextual factors that can influence administrative actions, and finally, are able to discuss how different administrative actions affect various aspects of the educational environment. A total of 9 semester hours is required.

EDAD 522 Equity and Culturally Responsive Leadership (3 Hours)
This course is designed to introduce the candidates to the study of diversity, multicultural, social justice, and their link to school leadership, cultural understanding concepts, explore social justice for educational leadership, theoretical and practical and critical issues and problems that are related to the organization.. Additionally, this course will focus on the preparation of school leaders who can transform schools by understanding the theoretical, sociological, political and historical elements that are related to ethnicity, race, socio-economic status, gender, exceptionally, language, religion and sexual orientation. Candidates will engage in 15 hours of clinical experience.

EDAD 523 Building Community Partnerships (3 Hours)
The focus of this course is an investigation and study of the principles, skills, tasks, practices and communication ability of the school administrator to help maintain open communication between the school and the community. This course is designed to help administrators manage information about their schools and to receive or disseminate it properly. Also, to work collaboratively with all stakeholders effectively create a positive learning environment. The study of various media and constituents, as well as a variety of experiences relating to the public relations function of the school and district, is treated as a function of collaborative leadership. Participants will explore the practical advice on communicating with students, staff, and community stakeholders and identify the components of creating and implementing a step-by-step school-community relations program. This course will incorporate the requirements for working with diverse audiences and the role and power of new technology in school community relations.

EDAD 524 INTERNSHIP (3 Hours)

EDAD 586 STRENGTHENING LIT FOR ED LEADE (3 Hours)

EDAD 602 COMPARATIVE EDUCATION (3 Hours)

EDAD 603 Leadership in Organizational Change and Human Resources (3 Hours)
The course examines the organizational change process and how it entails human resources in educational organizations. Specific attention is given to organization change, process for implementation, personnel supervision and administrative responsibilities, including human resource planning, recruitment and selection, implementation and evaluation of impact of change.

EDAD 604 Organization of Effective Professional Development (3 Hours)
This course examines effective steps in designing professional development for all stakeholders in educational organizations. Candidates will examine research based practices proven successful in planning, implementing and evaluating professional development for educators.

EDAD 609 ADMN OF SCH FINANCE (3 Hours)
Prerequisite: EDAD 560.
An examination of school finance theory and its application in P-16 schools.

EDAD 611 THEORIES OF ADMINISTRATN (3 Hours)
Topics include: Nature of theory, theory building, and current theories of administration.

EDAD 615 LEGAL ISSUES IN EDUCATIONAL AD (3 Hours)
This course focuses on legal issues in education and of the statutory, regulatory and case law as related to the provision of educational programs. It entails research/lectures on issues that impact learning in k-12 schools; advocacy for urban education; specific past legal cases that can be referenced for present legal issues; and successful approaches to implement change based on new legislation than are mandated.

EDAD 625 ORGAN. ADMIN. OF HIGH EDUCATIO (3 Hours)
The purpose of this course is to study the problems in the organization and administration of institutions of higher learning. The focus will include administrative functions of planning, organizing, staffing, budgeting, evaluation, school accountability, accounting and auditing procedures, maintenance and operation of plant, and auxiliary services.

EDAD 626 SCHOOL SUPERINTENDENCY (3 Hours)
This course provides candidates with knowledge of the duties and responsibilities of district leaders for day-to-day operations, as well as complex situations that learners encounter; and encompasses activities that allow candidates to engage in research and interpret data from districts' academic performance levels that impact leaders' decision-making that impacts k-12 district wide operations.

EDAD 630 COLLEGE TEACHING (3 Hours)
This course is designed to provide students with an overview of the various instructional strategies that are utilized by teachers on the college level.

EDAD 634 COMPUTERS IN EDUCATION (3 Hours)
This course is designed to cover theory, techniques, and practices of using computers and computer-assisted instruction (CAI) in education No previous background in computers and programming is assumed.

EDAD 638 THE COMMUNITY COLLEGE (3 Hours)
This course is designed to provide the graduate student with a comprehensive overview of the community/junior college. Emphasis will be placed on the development, function, curriculum, and issues, regarding the community/junior college.

EDAD 686 SPEC TPCS IN EDUC ADMINS (3 Hours)
The study of current educational Issues in terms of curricula, personnel, finance, facilities, services, operation, transportation, management and law. Content will be developed around assessed needs, interests, goals or objectives of the group(s) involved.

EDAD 687 RESEARCH & IND STU IN ED ADMIN (1-3 Hours)
Opportunity for students to undertake independent study and research under the direction of a faculty member. At the close of the period of study, the student will submit a written report.

EDAD 688 CURRENT ISSUES/N HIGHER EDUCTN (3 Hours)
This is a three-hour graduate course designed to provide mid-level professionals working in postsecondary educational institutions with an understanding of current issues ih higher education. This course will introduce students to historical, contemporary, and current issues impacting higher education and best practices and solutions for solving issues.

EDAD 689 Strengthening Literacy for School and District Leaders (3 Hours)

EDAD 690 ADVANCED THESIS WRITING (1 Hour)
A candidate for the Specialist in Education degree may choose to present a Thesis embodying the results of the individual¿s research. The candidate chooses his problem but approval by his adviser and committee is required.

EDAD 697 INTERNSHIP IN EDUCATIONAL ADMINISTRATION (3 Hours)
This course provides students with the opportunity to engage in field-based experiential learning activities related to school and district administration. This is a "hands-on" course that gives the opportunity for students to practice administrative and leadership skills under the guidance of a practicing administrator (mentor). Seminar activities will complement the ongoing field-based experiences, to document administrative and leadership activities, and to assess the usefulness of the internship experiences on their personal development as educational leaders. Students will gain support, guidance, and wisdom from the cohort administrative interns. This course will provide opportunities to examine their own administrative and leadership behaviors, gain insight about different leadership styles, understand the contextual factors that can influence administrative actions, and finally, are able to discuss how different administrative actions affect various aspects of the educational environment This course has a program assessment of performance in the field; an assessment of the MS Code of Ethics; and an assessment of NELP and PSEL Standards. The course is designed to help prospective and practicing administrators develop effective decision-making skills through hands-on experiences and/or the use of open-ended case studies. As interns, students will be provided opportunities to engage in field-based learning activities related to the duties of educational leadership. The site-supervisor or district supervisor (mentor) provides guidance and support for the interns in the school (building) or district office setting. Interns will be required to assume, to the extent possible, real leadership roles. In addition to enhancing the student's preparation for educational leadership, the internship is one of the requirements that a candidates must complete as a program requirement. The NELP standards also require candidates participate in sustained field experiences at the building level or district level under the mentorship of a qualified school or district leader. The sites can include an elementary school, a middle school, senior high school, and/or school district office. The course objectives are reflective of the college's outcomes and are designed around the National Educational Leadership Preparation (NELP) building-level standards and the Professional Standards for Educational Leaders (PSEL). Both NELP and PSEL were designed for institutions undergoing Council for the Accreditation of Educator Preparation (CAEP) accreditation and NELP program review. These standards building-level standards are appropriate for advanced programs at the master, specialist, or doctoral level that prepare assistant principals, principals, curriculum directors, supervisors, and other educational leaders in a school environment.

EDAD 698 LAW AND HIGHER EDUCATION (3 Hours)
Will deal with the constitution and the case law that has developed in applying the constitution to the public policy issues involved in the Higher Education institutions.

EDAD 699 RESEARCH IN INSTRUCTIONAL LEADERSHIP AND CURRICULUM (3 Hours)

EDAD 700 Research Writing for Educational Leaders (3 Hours)
Prerequisite: Official admission to the Ph.
D. program in Educational Administration. An advanced course in writing which examines the written communication skills required of educational leaders. Extensive exercises in writing clearly and persuasively in technical and specialized forms to include abstracts, formal reports, memoranda, performance evaluations.

EDAD 701 Implementation of Organizational Change (3 Hours)
Prerequisite: Official admission to the Ph.
D. program in Educational Administration. Comparative studies of traditional and nontraditional educational programs and services Field based observations in traditional and nontraditional agencies and institutions with emphasis on organizational structure, operations, clientele, and resources required.

EDAD 702 Equity and Culturally Responsive Leadership (3 Hours)
Prerequisite: Official admission to the Ph.
D. program in Educational Administration. Designed to provide educational leaders insights and background into the lifestyles, values, and aspirations of culturally different Americans as related to the administration process. Emphasis upon the culturally different in urban environments and their educational and human resource needs as well as responsive program models.

EDAD 703 EDU POL ANAL&RES URBAN EDUCATI (3 Hours)
Prerequisite: Official admission to the Ph.
D. program in Educational Administration. Analysis of readings and research on problems related to urban education, learners, environments, institutions educational leadership.

EDAD 704 EDU FUTURES PLAN & DEVELOPMENT (3 Hours)
Prerequisite: Official admission to the Ph.
D. program in Educational Administration. Concepts and skills to prepare educational leaders to anticipate and manage the future. Includes systems theory. futures methodology, planning models, scenario writing and designing educational programs and services for the 21st century.

EDAD 705 Educational Government & Corporate Partnerships (3 Hours)
Prerequisite: Official admission to the Ph.
D. program in Educational Administration. Analyzes urban institutions as policy systems and the educational role of leaders. Discusses relationship of the institutions to state policy processes, the constraints imposed by Federal law and court decisions. Evaluates the implications of federal and state systems for local control program coordination and resource allocation. Examines the effects of community expectations and participation on policy-making in urban institutions.

EDAD 710 ADV STAT CONCPT& COMP AN (3 Hours)
Prerequisite: EDAD 534 or EDAD 634 and EDFL 515 and EDFL 514 or their equivalent.
Official admission to a doctoral level program. A study of advanced statistical procedures: analysis of variance; randomized block, factorial, and repeated measurement designs; analysis of co-variance; non-parametric tests: simple, multiple, and curvilinear regression; introduction to path analysis canonical correlation, discriminate, and factor analyses; emphasis on educational research problems.

EDAD 711 STU&PRACT IN ED ASS&EVAL (3 Hours)
Prerequisite: Official admission to a doctoral level program.
Current models and issues in educational assessment and evaluation as a professional practice are explored. Students must design, develop, and implement comprehensive needs assessment and evaluation plans which include specification of a theoretical framework, problem identification, date collection/analysis procedures, report writing format, and dissemination plans. Students are assigned to institutions, offices or agencies engaged in educational research.

EDAD 712 QUAL RES DESGN&METH-EDUC (3 Hours)
Prerequisite: EDAD 534 or EDAD 634 and EDFL 515 and EDFL 514 and EDAD 710 or their equivalent.
Official admission to the doctoral level program. Exploration of qualitative research designs and methods, the analysis of qualitative data and the uses of qualitative research in education. Field research techniques will be reviewed and utilized in projects by students.

EDAD 713 INFO MNGT SYS/EDUC LDRS (3 Hours)
Prerequisite: EDAD 534 or EDAD 634 or equivalent demonstration of computer competency or one computer course.
Official admission to a doctoral level program. Theory, design, and analysis of computer systems for the management of educational information systems. Survey of information requirements, construction and evaluation of systems, and operation of statistical packages necessary for developing educational management information systems.

EDAD 714 EXPERIMENTAL DESIGNS EDU (3 Hours)
Prerequisite: EDAD 534 or EDAD 634 and EDFL 515 and EDFL 514 and EDAD 710 or their equivalent.
Official admission to a doctoral level program In-depth, advanced study of statistical techniques and experimental designs most appropriate for solving specific problems in the work place; emphasis on applied multivariate analysis, multiple regressions and factor analysis.

EDAD 715 LEGAL ISSUES IN EDUCATIONAL ADMINISTRATION (3 Hours)

EDAD 720 Leadership and Professional Development (3 Hours)
Prerequisite: Official admission to a doctoral program.
Explores the processes, structures and procedures which facilitate inservice performance improvement. Examines the utilization of needs assessment data, the design of experiences, the selection of consultants, scheduling and other related issues for consideration by administrators.

EDAD 721 MNGT OF ORG CHNG&HUM REL (3 Hours)
Prerequisite: Official admission to a doctoral level program.
Emphasizes relationships among individual and group behaviors; role of administrators; on-site analysis or organizations and change principles; enhances understanding of organizational theory and the appropriate techniques in decision making, communication and human relations required by the educational leader.

EDAD 723 ACCOUNTABILITY FOR SCHOOL & DISTRICT FINANCE (3 Hours)

EDAD 726 DISTRICT SUPERINTENDENCY (3 Hours)

EDAD 786 STRENGTHENING LITERACY FOR SCHOOL AND DISTRICT LEADERS (3 Hours)

EDAD 787 RESRCH&INDEPENDENT STUDY (1-6 Hours)
The purpose of this course is to provide the opportunity for students to undertake independent study research under the direction of a faculty member and focused toward the student¿s goal.

EDAD 798 INTERNSHP/MENTORSHP EXPERIENCE (3 Hours)
Prerequisite: Consent of Program Coordinator.
A well planned exercise of at least a 360 clock hour, semester long, supervised, administrative internship of uninterrupted and concentrated work in the area of specialization. Students who lack significant administrative experience prior to entering may be required to spend up to one full year on internship at the discretion of the doctoral committee. Locations for internships may include elementary, middle or secondary school settings, central offices or other educational settings. A written report and an evaluation of the internship are required at the end of the field experience.

EDAD 799 DISSERTATION (1-15 Hours)
Prerequisite: Consent of Major Professor.
A dissertation showing power of independent research and skill in organization and presentation must be prepared on some topic in the major field. It must comprise a definite contribution to knowledge. Satisfactory completion of the dissertation requirement includes the passing of an oral examination on the dissertation.

English (ENG)

ENG 500 ADVANCED LAB WRITING (3 Hours)
A practical course for graduate students who wish to improve their writing and to be informed about modern grammar and usage. (Cannot be used for graduate degree credit.)

ENG 501 RESEARCH & BIBLIOGRAPHY (3 Hours)
An intensive study of sources for research in literature and of representative problems and techniques of literary research.

ENG 503 SUR OF GRAMMAR PRINCIPLE (3 Hours)
A course for teachers of English surveying the concept of grammar and its working principles.

ENG 505 CRITICAL ANALYSIS OF LITERATUR (3 Hours)
A study of the literary genres in terms of their conventions, and analysis of literature using methods of explication de texte and structural analysis.

ENG 506 SEMINAR IN ENGLISH LITERATURE (3 Hours)
A detailed study of major figures or a genre in English literature.

ENG 507 COMPARATIVE LITERATURE (3 Hours)
Cross- cultural study of a selected period, theme or genre in world literature.

ENG 514 WORLD AND CLASSICAL LITERATURE (3 Hours)
Part I Undergraduate 430. This course will acquaint the students with a wide variety of genres from the classical, medieval, and renaissance periods of Western Literature.

ENG 515 CLASSICAL & WORLD LIT SE (3 Hours)
Part II Undergraduate 431. This course is a continuation of 514. Beginning with the late Renaissance, students will read a wide variety of genres from Western Literature. The course concludes with contemporary writers.

ENG 520 AMERICAN FICTION BEFORE 1900 (3 Hours)
A study of major writers such as Hawthorne, Melville, and the novelists of the Gilded Age.

ENG 521 AMER FICTION AFTER 1900 (3 Hours)
A study of major writers of fiction in the twentieth century.

ENG 530 MODERN DRAMA (3 Hours)
A course on recent trends in drama, particularly Theatre of the Absurd, including Ibsen, Strindberg, fonescom Leroi Jones, Beckett.

ENG 531 MODERN POETRY & POETICS (3 Hours)
A study of the major poets, of the aesthetic principles which govern literary form, and of the principles and rules of poetic composition.

ENG 541 PUB PROC POETRY & PROSE (3 Hours)
A course which acquaints the student with the basics of how to get creative works, as well as other kinds of writing, into print. Several authorities in these fields will be available to share their expertise with the students.

ENG 555 HUMANITIES WORKSHOP (3 Hours)
An interdisciplinary course which deals with man's ideas about what it means to be human and with the ways in which he has expressed these ideas. Specifically, the workshop integrates the study of literature, art, music in the context of an examination of various fundamental concepts.

ENG 560 SEMINAR IN AMERICAN LITERATURE (3 Hours)
A research course in which the subject varies from semester to semester; one or more term papers with complete bibliographies and a reading list are required.

ENG 570 TECHNICAL WRITING (3 Hours)
A writing course for students in business and industry; emphasis on letters, formal and informal reports, technical instructions, description and technical articles.

ENG 575 THE SHORT STORY (3 Hours)
An in-depth study of the development of the short story from Chaucer's The Canterbury Tales to the twentieth century. Students will explore the influence of myth, legend, folklore and fairy tales on the evolution of the short story and examine how the literary traditions of Romanticism, Realism, Naturalism, and Modernism have shaped the literary expression of short fiction.

ENG 586 PRACTICUM IN TCHNG COMPO (3 Hours)
This graduate course in teaching composition is a prerequisite for all graduate assistants in English; but it is also open to in-service teachers. Content of course will include writing papers based on principles which freshman papers are based on, reading about teaching freshman English, reading materials for the JSU freshman course and discussing ways of presenting it, grading papers, observing composition classes, and teaching freshman classes.

ENG 589 Comprehensive Exam Practice (1-6 Hours)
This course can be taken during the semester of a student's comprehensive exam. Students will use the course to review and take practice exams. After the exam date, students will use this course to prepare for the thesis proposal.

ENG 590 THESIS WRITING (1-6 Hours)

ENG 591 INDEPENDENT STUDY (3 Hours)
For students working on projects.

ENG 599 ENGLISH COMPETENCY EXAMINATION (0 Hours)

ENG 608 SEMINAR IN 19TH CENTURY LITERA (3 Hours)
A study of Romanticism and Realism in English, American and other national literatures.

ENG 609 SEM IN CONTEMPORARY LITERATURE (3 Hours)
A study of a specific theme, genre, or style exemplified in American, English and other contemporary literature.

ENG 611 SEM. IN AFRICAN-AMERICAN LITER (3 Hours)
In-depth study of selected works by African-American writers.

ENG 613 SEMINAR IN AFRICAN LITERATURE (3 Hours)

ENG 615 Seminar in Film (3 Hours)
A study of special topics in film, such as directors, genres, historical periods, film and literature, film theories, and film movements.

ENG 619 SEMINAR IN CREATIVE WRIT (3 Hours)
A course designed for the advanced writer of poetry, fiction, essay, and drama in which publication, readings, and presentations are required.

ENG 620 CLASSICAL RHETORIC (3 Hours)
A study of persuasive discourse applying the system set up by Aristotle, Cicero, and Quintilian with analysis of writings and application of effective strategies to the students' own writing.

ENG 622 SEMINAR ON WRITING PROB (3 Hours)
A course for teachers of composition in junior and senior high schools. Students will analyze problems, devise corrective exercises and appropriate writing assignments, and write model essays.

ENG 625 THE NOVEL AND BLACK AMERICA (3 Hours)
ENG 625 explores how the literary tropes of black characters and the realities of the black American experience have influenced the development of the American novel. Students will study the literary traditions of Romanticism, Modernism, and Post-modernism as they explore how representations of blackness have impacted the evolution of the epistolary novel, the bildungsroman, the psychological novel, detective fiction, and historical fiction.

ENG 690 INDEPENDENT STUDY (3 Hours)

English as a second language (ESL)

ESL 501 READING AND WRITTEN APPLICATIO (0 Hours)

ESL 502 READING AND WRITTEN APPLICATIO (0 Hours)

ESL 503 ENGLISH COMMUNICATIONS (0 Hours)

ESL 504 ENGLISH COMMUNICATIONS (0 Hours)

ESL 505 ADVANCED GRAMMAR (0 Hours)

ESL 506 ADVANCED GRAMMAR (0 Hours)

ESL 507 iBT-TOEFL READING (0 Hours)

ESL 508 iBT-TOEFL READING (0 Hours)

ESL 509 iBT-TOEFL LISTENING (0 Hours)

ESL 510 iBT-TOEFL LISTENING (0 Hours)

ESL 511 iBT-TOEFL SPEAKING (0 Hours)

ESL 512 iBT-TOEFL SPEAKING (0 Hours)

ESL 513 iBT-TOEFL WRITING (0 Hours)

ESL 514 iBT-TOEFL WRITING (0 Hours)

Entrepreneurship Studies (ENTR)

ENTR 580 ENTREPRENEURSHIP (3 Hours)
A finance seminar on investment environment, various developments in investment theory, and the principles and practices of valuation of various assets for the graduate/MBA level students. It covers the skills to conduct fundamental and technical analyses of investment vehicles. The analyses of fixed-income securities, equity securities, and other types of investment vehicles will be discussed. The topics also include the investment process, asset allocation, investment performance evaluation. Throughout the course, a global perspective will be emphasized.

Environmental Science (ENV)

ENV 700 ENVIRONMENTAL SYSTEMS (3 Hours)
A groundwork of environmental science, environmental awareness and ecological literacy for the incoming Ph.D. students is presented. The environment and its living and non living components, and the interactions of these component areas studied. The course is set in a thermodynamic perspective and is based on a nested hierarchy of systems. Key concepts and principles that govern how we think the environment works are presented while learning how to apply these concepts to possible solutions of various environmental degradation, pollution and resource problems.

ENV 701 ENVIRONMENTAL CHEMISTRY (3 Hours)
Prerequisite: One year of general Chemistry and one year of organic chemistry.
Studies of the basic concepts of environmental chemistry; the nature of chemical compounds; organic and inorganic; chemical reactions; their effects, and fate of chemical species, in aquatic systems. This include: Studies of equilibrium phenomena of acids, bases, salts, complex compounds, and oxidation/reduction reactions. Studies of water pollution, environmental chemistry of water and its properties.

ENV 702 ENVIRONMENTAL HEALTH (3 Hours)
This course focuses on the impact of environmental problems on human health. Health issues related to water pollution/contamination by physical, chemical and biological agents; wastewater discharges; radiations; air pollution; municipal, and industrial wastes; food contamination; pesticides; occupational hazards; and vector-borne diseases are discussed.

ENV 710 ENVIRONMENTAL MICROBIOLOGY (3 Hours)

ENV 711 APPLIED ENVIRONMENTAL BIOSTATS (3 Hours)
Prerequisite: Biostatistics (Bio 511) or equivalent.
This course is designed as an applied, advanced biostatistics course for students in the Environmental Science Ph.D. Program. Students will learn how to apply important concepts and principles of environmental biostatistics in the conduct of their research, from the initial designing of experiments to proper data collection and analysis, inferences, interpretation of results in applied terms, reporting and presentation of the results. The statistical computer software (SAS) will be used to analyze and interpret results.

ENV 715 PRINCIPLES OF BIOREMEDIATION (3 Hours)
This course uses modern knowledges in life sciences, as well as new developments in biotechnology to address important issues related to environmental clean-up of hazardous wastes. The nature of environmental pollution is reviewed, and basic concepts in molecular biology, biochemistry, microbiology, and plant physiology are applied to demonstrate the significance of bioremediation and phytoremediation in pollution control. Therefore, an emphasis is put on the use of biological methods and processes for the remediation of contaminated soils and water resources.

ENV 717 INTRO TO REMOTE SENSING (3 Hours)

ENV 718 REMOTE SENSING APPLIED (3 Hours)

ENV 720 ENVNMNTL & OCCUPATION HEALTH (3 Hours)
This course explores the relationship and impact of the environment to health and illness in human populations. An exploration of man-made and natural environmental hazards will be discussed. Environmental health and risk assessment will be discussed as well as interventions. Environmental policy and practices will be viewed from the public health perspective and include the study of energy, waste, environmental justice, and regulation.

ENV 721 SOLID WASTE MANAGEMENT & TREAT (3 Hours)
This course emphasizes on waste control methodologies for both municipal and industrial wastes including hazardous and nonhazardous waste under the Resource Conservation and Recovery Act (RCRA). The students are familiarized with environmental legislation regulating these wastes at state and federal levels. A thorough review is done on waste handling, transport, treatment technologies including chemical, physical, biological and thermal treatments, and disposal options such as land disposal of wastes. Waste minimization techniques such as source reduction and recycling are also discussed.

ENV 751 WATERQUALITY MANAGEMENT (3 Hours)
This course provides students with basic concepts and principles in Water Quality Management. The effects of organic, inorganic, biological and thermal pollutants/contaminants in various systems of the hydrologic cycle including streams, reservoirs, and estuaries; eutrophication; water quality criteria and standards; monitoring concepts; methods in water quality management; regulatory considerations; and non point source pollution control, are discussed.

ENV 755 AIR QUALITY MANAGEMENT (3 Hours)
This course provides students with basic concepts and principles of air quality management. Contaminant classification, pollutant sources, criteria pollutants, health effects, exposure and risk assessment are discussed. Pollutant measurements and air quality assessment techniques are considered with regard to atmospheric effects on dispersion and transport. Identification of, and control strategies for, stationary and mobile sources, and environmental regulations are studied, and indoor air quality considered.

ENV 780 ENVIRONMENTAL EPIDEMIOLOGY (3 Hours)
This course is designed to provide students with the basic knowledge and skills required to develop and apply epidemiologic principles and concepts to the study of adverse effects of various environmental factors on both human and ecological health. Emphasis is put on the study of the health effects of physical, chemical and biologic factors in the external environment, broadly conceived from the epidemiologic point of view. As such, it enables students to interpret epidemiological data and understand the approaches used in the epidemiologic investigations of acute and chronic diseases. The course also covers the basic methods and issues involved in epidemiologic investigation of disease conditions in human populations.

ENV 800 ENVIRONMENTAL TOXICOLOGY (3 Hours)
Prerequisite: ENV 701, ENV 702.
This course is designed to provide an overview of the basic principles and concepts of toxicology including : exposure characterization, dose-response relationship, kinetics and distribution of toxicants in a biological system; to understand the fate, behavior and toxicities of xenobiotic chemicals, and the mechanisms by which they affect cells and organs; and to identify the sources and discuss the effects of various groups of environmental toxicants including heavy metals, pesticides and other industrial byproducts.

ENV 801 RISK ASSESSMENT&MANAGMNT (3 Hours)
Prerequisite: ENV 800, MATH 700.
This course is designed to provide students with qualitative and quantitative skills necessary to evaluate the probability of injury, disease and death in humans and other life forms, from exposure to various environmental contaminants. Hazard identification, exposure assessment, dose-response evaluation and risk characterization are emphasized. Regulatory and technical aspects of risk assessment in the promulgation of public and environmental safety standards are discussed.

ENV 802 ENVIRONMENTAL PHYSIOLOGY (3 Hours)
This course provides students the basic concepts of homeostasis and adaptation to the environment. Discussions are designed to provide an understanding of the physiological responses to various types of pollutants in the different environmental systems including aerospace, hyperbaric, marine and terrestrial environments. Emphasis is placed on homeostatic responses at cellular, organ and organ system levels to various environmental stresses.

ENV 803 WETLAND ECOLOGY (3 Hours)
This course is designed to provide scientific knowledge for a better understanding of interactions between biological, physical and chemical components of wetlands. The structure and function of various types of wetlands; their biodiversity, biogeochemistry, and the impact of pollution on their ecological characteristics are discussed. Discussions are also done on how constructed wetlands can be used as water quality enhancers.

ENV 805 MEDICAL GEOLOGY (3 Hours)
This course is designed to provide students with qualitative and quantitative skills necessary to examine and understand the impacts of the natural geologic materials and processes on the prevalence, incidence and distribution of human (and other animal) diseases. The course focuses on the understanding of the nature and behavior of geological factors, and the examination of their impacts on health. Hence, the course will encompass major local, national and global health issues impacted by geological materials and/or processes. It will also encompass the interactions between human activities, geological factors, environment and health, as well as the innovative technologies that are used for the characterization and impact assessment of geologic materials on health.

ENV 900 SEMINAR (0.5 Hours)
This course focuses on contemporary issues in environmental health science. The student is expected to review, discuss, and present orally a report on a topic related to contemporary environmental issues. Topic areas for selection include (but not limited to): environmental biology, environmental chemistry, environmental microbiology, environmental toxicology, atmospheric science, water quality management, solid and hazardous waste management, computer modeling and remote sensing. Students are required to attend all scheduled seminars.

ENV 989 RESEARCH PROBLEMS (6 Hours)

ENV 999 DISSERTATION RESEARCH (1-6 Hours)
Original research in one of several subdisciplines in Environmental Science. Credit per academic session allowable is 1-6 hours. Student must produce, present and defend a document of publication quality.

Environmental Science Lab (ENVL)

ENVL 701 ENVIRONMENTAL CHEMISTRY LAB (1-3 Hours)
Experiments done for the purpose of water quality control and assessment, such as the determination of alkalinity, acidity, water hardness, biochemical oxygen demand (BOD), and other important parameters. The laboratory is coordinated to go with the lecture material.

ENVL 710 ENVIRONMENTAL MICROBIOLOGY LAB (1 Hour)

ENVL 717 INTRO TO REMOTE SENS ENV SC LA (1 Hour)

ENVL 800 ENVRNMNTL TOXICOLOGY LAB (1 Hour)
This course is designed to familiarize the students with important laboratory and field procedures and methods used in toxicological testing of environmental toxicants; and to discuss the strengths and weaknesses of major methodologies including acute, subacute, subchronic and chronic bioassays.

ENVL 803 WETLAND ECOLOGY LAB (1 Hour)
Emphasis is placed on field works designed to evaluate the physical, chemical and biological characteristics of wetlands.

ENVL 999 DISSERTATION RESEARCH LAB (1-6 Hours)

Executive Ph.D. (EDHE)

EDHE 768 History and Foundation of Higher Education (3 Hours)
This is a three-hour hybrid graduate course designed to provide administrators, community leaders, directors, coordinators and other mid-level professionals working in postsecondary education institutions with an overview and understanding of the historical, cultural foundations and development of the American system of higher education. Responsive Educators (RE) will review origins, philosophical and historical events, major characteristics, distinctive features and trends that have contributed to challenges in rural, urban and metropolitan communities The course is required for educators who are seeking a specialist/ doctoral degree with a concentration in higher education administration or a certificate in higher education administration. Others may take this course with written permission from the professor.

EDHE 800 PHIL & HIST OF URBAN HIGHER ED (3 Hours)
This course is designed to meet the needs of administrators, community leaders, directors and other students to review, and analyze the philosophical and historical events and occurrences that have contributed to challenges in urban and metropolitan communities.

EDHE 802 HIGHER ED LDSHP & ORG IN CC EN (3 Hours)
Designed to provide educational leaders with insight and a background into the life styles, values, and aspirations of culturally different Americans as related to the administrative process. Emphasis upon the cultural differences in urban environments and their educational and human resource needs as well as responsive program models.

EDHE 804 EDUCTNL FUTURES:PLANG & DVLPMT (3 Hours)
Concepts and skills to prepare educational leaders to anticipate and manage the future, includes systems theory, futures methodology, planning models, scenario writing and designing educational programs and services for the 21st century.

EDHE 805 GLOBALIZATION OF HIGHER EDUCAT (3 Hours)
Analyzes urban institutions as policy systems and the educational role of leaders. Discusses relationship of the institutions to state policy processes, and the constraints imposed by federal law and court decisions. Evaluates the implications of federal and state systems for local control program coordination and resource allocation. Examines the effects of community expectations and participation on policy- making in urban institutions.

EDHE 812 QUANTITATIVE RESEARCH METHODS (3 Hours)
This course provides an exploration of current models and issues in educational assessment and evaluation as a professional practice. Students must design, develop and implement comprehensive needs assessment and evaluation plans which include specification of a theoretical framework, problem identification, data collection/analysis procedures, report writing format and dissemination plans. Students will research, summarize and present current multivariate journal publications about issues, practices, and innovations in higher education related assessment and evaluation.

EDHE 813 QUALITATIVE RESEARCH METHODS (3 Hours)
Exploration of qualitative research designs and methods, the analysis of qualitative data and the uses of qualitative research in higher education. Field research techniques will be reviewed and utilized in projects by students.

EDHE 814 LEADERSHIP IN HIGHER EDUCATION (3 Hours)
In this course students will examine the theory and practice of professional ethics. The principles of ethical thinking and behavior in the planning profession are covered extensively. The human aspect of problem arising in technical, social and organizational areas will be explored as change occurs and thorough analysis of organizations as systems.

EDHE 820 ADVANCED STATISTICAL METHODS (3 Hours)
A study of advanced statistical procedures: analysis of variance; randomized block, factorial, and repeated measurement designs; analysis of co- variance; non-parametric tests: simple, multiple, and curvilinear regression; introduction to path analysis, canonical correlation, discriminate, and factor analyses; emphasis on higher educational research problems.

EDHE 824 STUDENT AFFAIRS ADMINISTRATION (3 Hours)

EDHE 825 MTHDS OF URBN & REG ANL & PLAN (3 Hours)
This course analyzes microeconomic theory as it applies to business operations. Topics include demand theory and estimation; production and cost theories and estimations; capital budgeting theory and analysis; pricing policies, and productions under uncertainty.

EDHE 829 SEM IN LEGAL ASPS OF HIGHER ED (3 Hours)
The course focuses on the role of law in the governance and management of American higher education institutions. It will use universities and colleges as a lens to better understand non-profit organizations more generally, what constitutes the law, how litigation works, the roles of counsel, employment relationship between organizations and individuals, particularly the relationship between faculty and higher education institutions with a concentration on higher education, the students in academic and social settings.

EDHE 830 ADVD QUALITATIVE RESEARCH METH (3 Hours)
By reviewing theoretical and practical grounds for knowledge management, this seminar will help students understand emerging issues, provide present and prospective leaders with elements for leveraging intellectual capital as a human resource.

EDHE 833 RESEARCH DESIGN (3 Hours)
This course is an introduction to the principles and philosophy of teaching. Selected topics include concepts and techniques relating to various instructional strategies used by colleges and university teachers, and the development of media-based courses for web courses and distance instruction.

EDHE 865 HIGHER EDUCATION FINANCE (3 Hours)
A study of generally accepted accounting principles of state and local governments and selected nonprofit entities with an emphasis on current developments in these areas.

EDHE 877 PUBLIC POLICY FORMULATION (3 Hours)
This course focuses on problems of policy formulation, implementation, and evaluation. The participants will be exposed to policy issues, thinking through goals and objectives, policy adoption, problems of implementation (including perceptive and real gaps between congressional intent and bureaucratic interpretations of congressional intent), and evaluation.

EDHE 882 SEM IN PROG DVLPMNT, IMP & EVA (3 Hours)
This course is to teach class participants the principles of program development and provide an understanding of how evaluators can help make government more effective by producing timely information on the promise and performance of existing programs.

EDHE 899 DISSERTATION (1-7 Hours)
Students in the EPhD Program in Urban Higher Education will begin to define and develop a quantitative and/or qualitative dissertation upon entrance into the program. Credit per academic session allowable is 1 hour. The dissertation will address issues of substantive concern in the students ¿home¿ institution, agency and/or community. The completed dissertation will offer evidence of significant independent research ability, and will contribute to knowledge in the chosen area. Satisfactory completion of the dissertation requirement includes passing an oral examination in defense of the dissertation.

Finance (FIN)

FIN 515 MANAGERIAL FINANCE (3 Hours)
Prerequisite: GB 320 or equivalent.
A study of capital budgeting techniques, methods of determining a firm's cost of capital, valuing stocks and bonds, and international finance.

FIN 547 INVESTMENTS (3 Hours)

FIN 561 SEM N BUS ADMN & RESEARCH PROJ (3 Hours)
Prerequsite: 24 hours of MBA course work. Requirement: Supervised individual research relative to the student's research project required for completion of the degree program.

Foundation & Leadership (EDFL)

EDFL 511 HISTORY & PHILOSOPHY OF EDUC (3 Hours)
This course is concerned primarily with the review of dominating ideals and institutions that have affected the course of educational development in the western world. Special emphasis is placed on the review of the leading philosophies of education and their implications for modern education.

EDFL 512 EVOLUTION OF AMERICAN EDUCATIO (3 Hours)
This course is concerned primarily with the review of dominating ideas and institutions that have affected the course of educational development in urban settings. Special emphasis is placed on the views or leading philosophies of education and the implications of these philosophies for modern education practices. The student will gain an understanding of relationships between major historical, political, and sociological, and philosophical shifts and the way we "do" schooling and education. The students will compare and contrast teaching practices that are influenced by these historical and political forces. At the conclusion of this course the student will understand and be able to analyze, discuss, and evaluate the implications of a personal set of beliefs on teaching and learning.

EDFL 514 ELEMENTARY STATISTICS (3 Hours)
This course is designed to enable students to determine appropriate statistical procedures for data analysis, to utilize the computer, and to have sufficient confidence in their understanding and not be intimidated by statistical experts.

EDFL 515 METHODS OF EDUCATIONAL RESEARC (3 Hours)
Prerequisite: EDFL 514, PSY 531 or its equivalent; Elementary Statistics or its equivalent.
An introductory course which will consider the nature of problems in the field of educational research and the various techniques used in the solution of these problems. Emphasis will be placed on selecting appropriate statistical treatments in experimental and descriptive research. The applicability of the computer to educational research will be introduced.

EDFL 516 BECMNG SKILLFUL CONS OF ED RES (3 Hours)
The emphasis in this course will be placed on identifying problems and on selecting the appropriate methodologies used for the various research investigations. The student will produce and develop research proposals which will aid in the solution to present day problems within the American school system. The student will exit the course as consumers of research and critical readers of research related to education and with the tools to make sound judgments on the appropriateness of transporting the research into practice.

EDFL 566 TCHNG MULTI-CULTURAL PRO (3 Hours)
This course will provide training in interaction analyses. Communication skills, discipline in the classroom, behavior modification and competency based education. The participants will be introduced to concepts through role playing, confrontations and simulation exercises and through the use of outside consultants.

EDFL 568 CURRICULUM METHODS (3 Hours)
This course is designed to provide "educators" with a comprehensive understanding of Curriculum Methods. Special emphasis will be placed on the philosophical and historical antecedents of the various curricula in practice at the present time and possible future curriculum developments as related to specific disciplines.

EDFL 569 APPRCH TO TCHNG & LRNG N/URB S (3 Hours)
This course is designed to provide educational leaders with a comprehensive understanding of curriculum methods their design, implementation, assessment, improvement, and evaluation in urban settings. It will provide practical approaches to curriculum development and curriculum management. Special emphasis will be placed on the historical and philosophical influences on curriculum from the early stages to the present. It is also an assumption that students in this course are familiar with Mississippi State Curriculum Structures in the various disciplines and the curriculum standards from the different academic disciplines and can apply them. The student will become familiar with and skilled in the process of curriculum alignment-which is the correlation of the curriculum with state and national standards, state and national assessment programs and resources.

EDFL 581 PRINCIPLES OF MEASUREMNT (3 Hours)
A study of theoretical principles of measurement which are applicable to both teaching and research. Part of the course will be devoted to current issues in measurement and to practical applications of these theoretical principles.

EDFL 587 RES & INDPDT STDY SEC SC (1 Hour)
Prerequisite: Graduate standing.
Research work in any area of secondary education. Approval of adviser is required.

EDFL 592 SEM IN SUPRVN OF STD TCH (3 Hours)
Prerequisite: Approval of instructor.
Designed to assist supervising teachers in guidance of student teachers. In addition to rationale, and dominant ideas in the literature of supervision, the following topics will be studied: trends in teacher education, orientation of student teachers to student teaching, responsibilities of the supervising teacher and college personnel conference with student teachers and evaluation of student teaching.

EDFL 593 ADV SEM IN SUPV STD TCHN (3 Hours)
A practicum for in-service teachers who are preparing to be master teachers, interns, beginning teachers, or a teaching team.

EDFL 596 SPEC TOPICS IN EDUCATION (1 Hour)
This course is designed to meet the needs of teachers, students, administrators, community leaders and other personnel who have special needs and interests in selected areas of education. Content will be developed around assessed needs, interests, and goals or objectives of the group(s) involved. This course will deal with special topics which may be treated more effectively as a mini-course, institute seminar or as a workshop instead of as a regular course.

EDFL 598 THE PUPIL AND THE LAW (3 Hours)
The Pupil and the Law will deal with the constitution and the case law that has developed in applying the constitution to the broad public policy issues involved in public school education. We will deal with topics such as the legal foundations of American Public education, student¿s rights and responsibilities, the power of public school authorities, discrimination in public education, and the rights and responsibilities of public school teachers.

EDFL 599 URBAN EDUCATION (3 Hours)
This course is concerned with factors that have contributed to the present crisis in urban life and the status of urban schools. Attention is given to public school support, school organizational patterns, teaching personnel and staff, students, curriculum design, discipline, instructional and physical facilities.

EDFL 601 ADV RESRCH & STATISTICS (3 Hours)
Prerequisite: EDFL 514, EDFL 515 or their equivalent.
This course is designed to promote understanding of research designs, the spirit of research, and the relationship that research bears to statistical trends and techniques. The computer is used extensively in the solution of statistical problems.

EDFL 602 COMPARATIVE EDUCATION (3 Hours)
A study of the historical and philosophical developments of the world¿s different educational systems. Major emphasis is placed on the role of these systems in the development and continuation of the social and governmental structure and their effect upon the educational process within different countries.

EDFL 610 SCHOOL&COMMUNITY RELATNS (3 Hours)
A study of the relationships of school administration to the community. The community school concept, public opinion, community analysis, public relations practiced, community characteristics affecting the quality of education, and public participation in educational planning.

EDFL 634 COMPUTERS IN EDUCATION (3 Hours)
This course is designed to cover theory, techniques, and practices in using computers and computer-assisted instruction (CAI) in education. No previous background in computers and programming is assumed.

EDFL 668 HISTORICAL FNDTNS OF HIGHER ED (3 Hours)
This Course is designed to provide an overview of the historical and cultural foundations of higher education in America. Emphasis will be placed upon the development of higher education in America. This is a required course for students who are in seeking a certificate in higher education administration.

EDFL 687 RESEARCH & INDPNDT STUDY (1 Hour)
Opportunity for students to undertake study and research under the direction of a faculty member. At the close of the period of study, the student will submit a written report.

EDFL 691 PROJECT WRITING (3 Hours)

EDFL 696 SPEC TOPICS IN EDUCATION (1 Hour)
This course is designed to meet the needs of teachers, students, administrators, community leaders and other personnel who have special needs and interests in selected areas of education. Content will be developed around assessed needs, interests, and goals or objectives of the group(s) involved. This course will deal with special topics which may be treated more effectively as a mini-course, institute seminar or as a workshop instead of as a regular scheduled course.

EDFL 732 NONPARAMETRIC METH/STATS (3 Hours)
Prerequisite: EDFL 514; EDFL 515 and 601 or their equivalent.
Confidence intervals and tests of hypothesis when no functional form is postulated for the population Sign, orn, spread tests, tolerance limits, tests of independence, rank correlation, non-normal analysis of variance, consistency and power of various tests.

EDFL 797 RESEARCH DESIGN (3 Hours)
Prerequisite: EDFL 514; EDFL 515 and 601 or their equivalent.
Theory and research in education, potentials and limitations of research, research design, tools and approaches used in inquiry, methods of research regarding educational decision making, Introduction to automated data processing, critical analysis of research studies in education.

General Business (GB)

GB 500 Business Principles (3 Hours)
An effective way to prepare for the MBA program, via an interactive series of pre-MBA courses, designed by experts in their respective fields of study. Academic study modules incorporate text and interactive applications to teach the concepts while quizzes and tests assess students' understanding of the substantive materials presented. The MBA Primer Comprehensive Edition is utilized in the course. This primer includes the following individual academic subject areas: Finance, Financial Accounting, Managerial Economics, Business and Ethics. The course is particularly necessary and beneficial for students that did not major in or take a substantial number of undergraduate business courses. However, the course proves to be an excellent reference source for undergraduate business majors. The course is instructor-led at an accelerated pace.

GB 561 SEM: BUS ADMIN & RESEARCH PROJ (1-3 Hours)

General Science (SCI)

SCI 502 GENERAL SCIENCE FOR TEACHERS (3 Hours)
A study of topics in astronomy, chemistry, geology, meteorology and physics.

SCI 513 COMPUT APPS N THE TCHNG OF SCI (3 Hours)
This course includes computer concepts; programming in the Basic language; building modules for computer assisted instruction and computer aided instruction; problem solving on a microcomputer system.

SCI 515 EARTH AND SPACE SCIENCE (3 Hours)
This course is the study of Earth Science, Geology, and Meteorology.

SCI 516 PHY SCI I FOR MIDDLE SCH TEACH (3 Hours)
This course is the study of properties and reactions of matter.

SCI 522 ENVIRONMENTAL SCIENCE (3 Hours)
A general study of environmental problems created by various kinds of pollution and the effects of man's bio-physical environment.

SCI 563 PROBLEMS & ISSUES IN SCIENCE (3 Hours)
Content in elementary science; aims and methods of instruction, new curricular developments.

SCI 581 OPERATIONS PHYSICS I (3 Hours)
This course is the study of mechanics that includes: measurement, force and motion, simple machines and forces, and fluids.

SCI 583 OPERATION PHYSICS III (3 Hours)
This course addresses the conceptual understanding and teaching of topics related to physics, space science and meteorology. The curriculum reflects the broader effort to be more inclusive of all the topics that teachers cover in the K12 area. Objectives for the course are correlated to the Mississippi Science Curriculum Structure.

SCI 584 OPERATION SCI OF TEACHERS II (3 Hours)

SCI 603 SPECIAL TOPICS IN SCIENCE (3 Hours)
Topics of current interest, both theoretical and experimental.

General Science Lab (SCIL)

SCIL 502 GEN. SCIENCE FOR TEACHERS I LA (0 Hours)

General Studies (GNST)

GNST 500 APPS FOR GRAD DEG CAND MASTERS (0 Hours)

GNST 510 DISTANCE LEARNING ORIENTATION (0 Hours)

GNST 555 GRAD AREA COMP EXAM (MS LEVEL) (0 Hours)

GNST 600 APPS FOR GRAD DEG CAND SPECIAL (0 Hours)

GNST 666 GRAD AREA COMP EXAM (SPEC LVL) (0 Hours)

GNST 700 APPS FOR GRAD DEG CAND DOCTORA (0 Hours)

GNST 888 GRAD COMP EXAM(DOCTORAL LEVEL) (0 Hours)

Hazardous Waste Management (ITHM)

ITHM 500 GRADUATE RESEARCH/THESIS (1-4 Hours)
The student is required to select an appropriate topic with approval from advisor and do a presentation.

ITHM 520 INTRO TO HAZARDOUS MATERIALS (3 Hours)
(For Non-hazardous Materials Management Majors). An introduction to contemporary national problems of air and water pollution, environmental monitoring, toxicology, hazardous waste; general problems of environmental contamination; legal and political aspects of current regulations; general scientific principles applied to the evaluation and control of specific problems.

ITHM 521 SYSTEM MODELING (3 Hours)
Practical application of simulation to diverse environmental systems including air, land, surface, sub-surface, water systems and also, the hazardous materials management models.

ITHM 522 CHEMISTRY OF HAZ MATERIALS (3 Hours)
Prerequisite: Chemistry 135 235.
This course shows how chemistry can be applied to hazardous materials. The course is designed to introduce and train students' awareness of the unique requirements involved in handling hazardous materials when they are encountered in different situations, thus reducing the loss of lives and property.

ITHM 523 STATISTICS/DATA ANALYSIS (3 Hours)
Prerequisite: Math 111, CSC 115, 203.
This course is designed for the development and maintenance of proficiency in statistical interface. It contains a comprehensive overview of how statistics work in actual cases and how it can be applied in hazardous materials management.

ITHM 524 PUBLIC ISSUES/N HAZARDOUS MATR (3 Hours)
This course is an overview of the strategies, tactics and techniques regarding environmental affairs, both public and private.

ITHM 525 NATURAL RESOURCE & CONSERVATIO (3 Hours)
This course is designed to give students pertinent information of our natural resources with emphasis on their origin, properties, use, misuse, and conservation practices.

ITHM 526 ENVIRONMENTAL REGULATION (3 Hours)
A study of Federal Laws and Regulations concerning hazardous materials and wastes. This course will introduce students to laws and regulations in Mississippi and the nation. The course emphasizes how to implement and comply with laws.

ITHM 527 WATER/WASTE WATER TREATMENT (3 Hours)
Prerequisite: BIO 115 and CHEM 142.
Students will be given an overview on waste/wastewater treatment through discussions of various selected topics. The primary focus of these topics will be to introduce students to treatment methods.

ITHM 528 WASTE MINIMIZATION (3 Hours)
This course is designed to make students aware of the vast number of problems encountered as a result of disposing waste. Also, students will be given lectures on methods of recycling, reuse and reducing our waste.

ITHM 529 ENV TOXICOLOGY & RISK ASSESSME (3 Hours)
This course will involve studying chemicals and harmful actions of chemicals on biological issues. This will include understanding chemical reactions and interactions of biological organisms. Students will also be introduced to scientific data and methods currently used to access human risk to environmental chemicals.

ITHM 530 INDUSTRIAL WASTE TREATMENT (3 Hours)
Prerequisite: ITHM 302.
This course is an advanced course for hazardous waste treatment technology. It includes training in pretreatment of hazardous materials, chemical/physical process, stabilization, recovery processes, final disposal of, and secured landfill stabilization. EPA requirements for each process will be addressed in this class.

ITHM 532 EMERGEN MNGT OF HAZA MATER (3 Hours)

ITHM 533 APPLIC OF GIS IN HAZA MAT MNGT (3 Hours)

ITHM 534 INDEPENDENT STUDY (1-3 Hours)

ITHM 535 OCCPTNL SAFETY & INDU HYGIENE (3 Hours)

ITHM 536 HAZARDOUS RISK MANAGEMENT (3 Hours)
This course will introduce students to the basic models, theories, and concepts that underlie modern emergency management's understanding of hazards and disasters. Students will examine the hazard-scope, using varous hazard models, with a focus on hazard mitigation and emergency management issues. The interdependence of physical,l and social and economic characteristics in determing vulnerability will be considered in past disasters and for future planning. The importance of hazard and risk management in a comprehensive emergency management program will also be presented.

ITHM 537 SOC & ECO IMPACT OF DISASTERS (3 Hours)
This course is to introduce key terms associated with sustainable disaster recovery, describe the individual, social economic, and environmental impacts of disasters, and begin to describe the complexities of recovery utilizing case studies.

ITHM 538 NATURE HAZARDS AND TERRORISM (3 Hours)
This class introduces the students to all kinds of disaster caused by nature, man-made disasters and terrorist attacks. How the different levels of governments handle the disaster. Ghe governments' policy and continue operation. The classes will us different nature and terrorism cases happened in past years for study.

ITHM 539 RADIATION,PREPARDNESS & EXERCI (3 Hours)
This class introduces the students to the radiation safety, preparedness and emergency response, principles of probabilistic risk assessment. The exercises include case studies, survey, detection and population monitoring.

Health (HE)

HE 500 DRUG ABUSE EDUCATION (3 Hours)
A comprehensive study of the history of drug and alcohol abuse, drug addiction and drug therapy. The course covers the economic and social impact of drug abuse on the country and the world. Consultants from various fields such as medicine, law enforcement, social agencies and education are utilized in an attempt to relate to participants all facets of the drug problem including possible solutions. The course is open primarily to graduate students, in-service teachers, counselors, guidance directors, and school and other institutional administrators.

HE 501 FOUNDATIONS OF HEALTH ED (3 Hours)
This course is designed to be used as an introduction to students in health education. This course outlines the historical development of health education as a profession and examines critical issues facing health educators today. The philosophy of health education and health promotion serve as a common cornerstone to subsequent coursework. Competencies of health educators will be examined. This course explores the foundation of health education in school, community, clinic and worksite settings.

HE 502 METH/MATLS IN HEALTH EDU (3 Hours)

HE 503 ORGA OF SCHOOL & COMM HE (3 Hours)
This course explores the school health education community health programs with emphasis on organization and administration of school, public health, voluntary, and private health programs.

HE 600 PUBLIC & COMM HEALTH (3 Hours)
This course is designed to communicate an understanding in the area of public and community health. It traces the beginning of public health and community health and studies the relationship between public and community health.

Health Policy & Management (PHPM)

PHPM 711 STRATGC LDRSHP N/MGNT OF HM RE (3 Hours)
This course provides theoretical and practical knowledge for managing the human resources of public health organizations. Topics include cultural and psychological factors affecting recruitment, selection, placement, and promotion; training and development processes; performance appraisal methodologies; and job evaluation methods and compensation practices. Factors promoting employee productivity and job satisfaction are explored. Legal concerns, including the requirements for the validation of selection tools, are covered.

PHPM 712 PUBLIC HEATH ECONOMICS (3 Hours)
This course examines factors determining the supply and demand for healthcare services. Markets for professional services, drugs, and insurance are discussed. Competitive effects on efficiency, effectiveness, and access are examined. The class discusses relevant theories of production, cost curves, market structure, and factor price determination.

PHPM 713 ANALYSIS OF HLTH LEGSLTN & REG (3 Hours)
This course identifies and analyses legislation and regulations that determine and/or influence healthcare access, delivery and practice. It focuses on the factors that influence policy formulation and implementation. Students are expected to analyze laws and regulations affecting the health of populations at risk for major health problems. Examples of current issues covered are Medicaid, Medicare, HIV/AIDS, family planning, and cardiovascular disease.

PHPM 716 ADMN OF INTEGR HLTH & HOSP SYS (3 Hours)
The course focuses on the complex and essential interrelationships that exist within and among healthcare entities. This course will 1) identify and study components of the healthcare system (hospitals, clinics, home care agencies, hospice care, emergency medical services, etc.) as well as the interrelationships necessary for their survival. 2) It will explore the variety of arrangements (networks, systems, alliances, etc.) used for integrating and managing these entities. This course will also illustrate the fact that survival within the healthcare industry is largely predicated upon an entity¿s ability to partner with other healthcare providers.

PHPM 717 MNGD CARE NETWORKS & PUB HLTH (3 Hours)
This course introduces the dynamic impact of managed care on the delivery of healthcare services and the cost containment features of health plans that thrived in the 1990s. The student will become familiar with all aspects of managed care (HMOs, PPOs, and POS) from effectiveness including of these healthcare plans medical/loss ratios, profit margins and outcomes measurements to their effects on access to quality of healthcare services.

History (HIST)

HIST 500 EARLY AFRICA (3 Hours)
A study of pre-colonial African History. The course emphasizes African Civilizations before the coming of Europeans.

HIST 501 SEMINAR IN COLONIAL AFRICA (3 Hours)
The study of the European scramble for Africa and the subsequent division of the continent¿s societies into colonies. The course explores as well the emergence of nationalism in Africa and the struggle for independence that it wrought.

HIST 502 COMTEMPORARY AFRICA (3 Hours)
A study of the emergence of Africa since 1945 with emphasis on the role of nations of the continent in both regional and world affairs.

HIST 505 INTRO TO PUBLI HIST STUD (3 Hours)
An introduction to selected subjects and skills related to the use of history in the public and private sectors.

HIST 506 INTRODUCTION TO MUSEOLOGY (3 Hours)
A survey of the history of American museums and the principles of museum management.

HIST 507 ARCHIVES AND RECORDS MANAGEMNT (3 Hours)

HIST 510 DISCOVRY&PRESNTN OF L,S,N HIST (3 Hours)
Survey of techniques and methodologies for researching and writing the histories of various political and cultural subdivisions. The subdivisions that will serve as venues for the historical studies include and range from local municipalities, small towns and counties to the state, region and nation.

HIST 513 BIRTH OF THE AMERICAN REPUBLIC (3 Hours)
The course chronicles and analyzes the origins of the United States via the American Revolution and the nation¿s post-revolutionary constitutional developments.

HIST 514 ANTEBELLUM AMERICA (3 Hours)
A survey of America¿s Antebellum era. The course emphasizes the major historical developments of the epoch which included various social reform movements, sectionalism, slavery, Indian Removal, manifest destiny, a religious awakening movement and the nation¿s drift toward Civil War.

HIST 515 CVL WAR RECONSTR &NT DEV (3 Hours)
The course provides a broad and yet penetrating overview of many developments, social, economic, and political, that defined what was surely the most tumultuous era in American History.

HIST 519 HISTORY OF BLACK WOMEN I (3 Hours)
An in depth exploration of the historical experience of black women from settlement through the Civil War.

HIST 520 HISTORY OF BLACK WOMEN II (3 Hours)
An examination of the development and evolution of American foreign policy since1776. America¿s transition to active participation in world affairs between the 18th and end of the 20th century will be emphasized.

HIST 521 HISTORY OF WOMEN IN AMER (3 Hours)
An examination of the problems, challenges and experiences of American women from the colonial period to the 21st century.

HIST 522 EARLY AFRICAN-AMERICAN HISTORY (3 Hours)
Early African-American History (3 Hours) An examination of African-descended people's nistorial participation in American Life from the Atlantic slave trade Reconstruction.

HIST 523 MODERN AFRICAN AMERICAN HIST (3 Hours)
An examination of African descended people's historical participation in modern American life since Reconstruction.

HIST 524 SEXUALITY IN THE UNITED STATES (3 Hours)
Students will examine the changes in sexual morals, the regulation of sexual behavior,and the construction of sexual identifies from the colonial period to the present.

HIST 525 HISTORY OF THE FRONTIER (3 Hours)
The concept of the Frontier is perhaps the most important idea in U.S. History. Is the Frontier a process, a place, or perhaps both? This question has been a source of endless debate. In this course we will examine the concept of the Frontier and the corresponding region of the United States it is most often associated with: the American West. Together, the Frontier and the West have a long, complex history that is often difficult to have a long, complex history that is often difficult to separate from myth - a history this course will explore from many different angles.

HIST 526 CONSTITUTIONAL HIST OF THE U.S (3 Hours)
An analysis of the major developments in American constitutional history from the founding of the nation to the present.

HIST 527 EMERGENCE OF MODERN AMERICA (3 Hours)
Emergence of Modern America, 1875-1917. An analysis of American society emphasizing political, economic, and social change between the end of Reconstruction and our entry into World War I.

HIST 528 War, Depression, and Recovery (3 Hours)
The period from World War I to World War II was a time of great contrasts for the people of the United States. The horrors of World War I gave way to the Roaring Twenties. The prosperous decade of the 1920s ended with the Crash of '29, leading to the Great Depression of the 1930s. The decade of the 1930s ended with a new World War on the horizon. This course will examine the cultural, social, economic, and political issues of this era.

HIST 529 CONTEMPORARY U.S. 1941-PRESENT (3 Hours)
The Postwar Era in the United States has been marked by social upheaval. Marginalized people, including Africa Americans, Mexican Americans,Native Americans, women, and homosexuals, fought for theircivil rights. TheCold War pushed the world to the brink of annihilation. Vietnam divided the nation. The Counterculture challenged the status guo. The contrast between the Rust Belt and thev Sun Belt signified economic, demographic, and political changes. Liberals launched a political revolution and Conservatives a countervolution in response. This course will address these social, cultural, and political developments, and others, that have taken place over the last 75 years.

HIST 530 HISTORY OF THE SOUTH (3 Hours)
An examination of the social, political, and economic development of the American South from Jamestown to the present with a particular focus on the history of race relations.

HIST 531 HISTORY OF THE CARRIBEAN (3 Hours)
A study of Caribbean historical development from the 17th century to the end of the 20th century. Socio-cultural, economic and political developments in the region will be emphasized.

HIST 532 SEMIN IN LATIN AMER HIST (3 Hours)
A readings and research centered course focusing on the historical development of Latin America in the Western Hemisphere. Primary emphasis will be given to the impact of Spanish culture in the region, patterns of political, economic, social and intellectual ferment as well as historic and enduring problems specific to Latin America.

HIST 533 ADVANCED HISTORICAL RESEARCH (3 Hours)
A research intensive course devoted to the study of special topics in post-Civil War, late 19th and 20th century Mississippi History.

HIST 543 SEMNR IN EUROPEAN IMPERIALISM (3 Hours)
A course offering reading and research intensive study of 19th and 20th century European imperialism, beginning with the scramble for Africa.

HIST 544 WORLD WAR II (3 Hours)
An examination of World War II from its origins in a policy of appeasement to wartime events and the dropping of the atomic bomb.

HIST 545 HIST CRITIC & HIST-GRAPH (3 Hours)
A course devoted to the studies of theories of historical criticism and their application in the analysis and writing of history. Selected works of historical scholarship are used for analysis, illustration and comparison. (Required)

HIST 546 HISTL RESEARCH FOR THE THESIS (3 Hours)
A course designed to assist students, especially those completing a thesis, in honing both their research and writing competencies. (Required)

HIST 547 HISTORICAL RESEARCH PROJECT (3 Hours)
A course designed to assist students completing a project in honing both their research and writing competencies.

HIST 550 ORAL HISTORY (3 Hours)
Designed to expose students with the techniques, methodologies and preparation of advanced projects in oral history.

HIST 551 SPECIAL TOPCS IN WORLD HISTORY (3 Hours)
Designed to provide coverage of specialized topics in Latin American, European, African, or Asian history.

HIST 552 PROBLEMS IN AMER HISTORY (3 Hours)
Designed to allow students to perform creative research in strategic areas and on topics such as women, reform movements, history of ideas, urban and regional planning, African-American experience, and American economic history.

HIST 554 RENAISSANCE AND REFORMATION ER (3 Hours)
A survey of the political, economic, social, scientific, intellectual, and ecclesiastical developments in Europe during the fourteenth and fifteenth centuries, culminating with the Reformation and counter-Reformation movements of the sixteenth century.

HIST 556 CONTEMPORARY MIDDLE EAST (3 Hours)
Surveys of the modern near east beginning with the dissolution of the Ottoman Empire, the rise of Zionism and Arab Nationalism, the pre-World War II Palestine conflict, the establishment of the State of Israel in 1948 and the subsequent Arab-Palestinian wars of the past half century.

HIST 560 UNITED STATES MEDIA HISTORY (3 Hours)
This course examines the history of media in the United States and its relationship to American society and culture. It will trace the role media has played in portraying historical events, developments in technology and the creation of new forms of media, the uses of media, and the connection between media and American culture.

HIST 561 FILM AND HISTORY SEM:FILMAKERS (3 Hours)
Film and History Seminar: Filmakers' Responses to Political Debates and Policies in the United States, 1900-Present. Students will examine the ways in which films engaged with selected political debates and policies in the United States between 1900 and the present. Topics may include the World Wars, Cold War, War on Terror, Great Depression, immigraton, Prohibition, the Red Scares, and urban development.

HIST 562 FILM AND HIST SEM: FILMMAKERS' (3 Hours)
FILM AND HISTORY SEMINAR: FILMMAKERS' RESPONSES IN SOCIALCHANGE AND CONFLICT IN THE UNITED STATES, 1900-PRESENT. (3 Hours) Students will examine the ways in which films reflected and engaged with selected social issues in the United States from the beginning of the twentieth century to the present. Topics may include African American, Mexican American, and Native American civil rights; the Feminist Movement; Gay and Lesbian civil rights; sexual revolutions of the 1920s and postwar era; and class conflict.

HIST 563 Film and History Seminar: Filmmakers' Interpretations of the War Experience (3 Hours)
Film and History Seminar: Filmmakers' Interpretations of the War Experience. Students will examine the ways in which films from around the world reflected and engaged with the political, social, and military issues of a selected war or of multiple wars during and since the war(s).

HIST 590 THESIS (1-6 Hours)
Prerequisite: Twenty-four hours of graduate credit.
The research and writing of a thesis under the direction of a major professor and advisor.

HIST 591 PROJECT WRITING (1-6 Hours)
The research and writing of a project under the direction of a faculty advisor.

HIST 593 INDEPENDENT STUDY (3 Hours)
Students will work independently with a faculty member of their choosing (with consent) on a topic agreed to by the student and faculty member and complete assignments jointly developed by the student and faculty member. This course can be taken twice for different topics and with different faculty.

International Program Elective (IPE)

IPE 501 EDUCATION ABROAD (3 Hours)

Linguistics (LING)

LING 501 FUNDMNTLS OF LINGUISTICS (3 Hours)
Introduction to the scientific study of language; topics include language and linguistics, philology, phonology, morphology, and syntax with emphasis on the linguistic features of English.

LING 508 PRIN OF SOCIOLINGUISTICS (3 Hours)
Prerequisite: LING 501, 503.
A study of language in society: its social settings, and its speech communities. Topics include dialects, language variation, and bilingualism.

LING 512 SECOND LANGUAGE TEACHING (3 Hours)
Prerequisite: LING 501.
A course designed to give methods and techniques for teaching English as a Second Language, English as a Second Dialect and English as a Foreign Language. The primary focus is the linguistic discovery of individual differences in language learning, language aptitude, and the natural and unnatural methods of language teaching. (Restricted Elective).

LING 514 LINGUISTICS IN EDUCATION (3 Hours)
Prerequisite: LING 501, 504.
A course that demonstrates the role of linguistics and language in education. A variety of topics are analyzed and discussed to determine the best approaches to the development of skills in the language arts. There is a brief survey of general linguistics and of the nature and functions of language. (Restricted Elective).

LING 651 BLK DIALECT IN LITERATUR (3 Hours)
Prerequisite: LING 506, 650.
A study of the forms of dialect and their expressive power in the literature of America and other regions where blacks adapt the dialect to standard language. [Cross reference: FR 551, FR 552].

Management (MNGT)

MNGT 502 HUMAN RELATIONS & ORGAN BEHAVI (3 Hours)
Prerequisite: MNGT 330 or equivalent.
A study of organizational theory, group behavior, motivation, and systems applications to organizational management.

MNGT 516 STATISTICS BUSINESS DECS (3 Hours)
Prerequisite: MATH 231 and/or MNGT 510, ECO 357, 358 or equivalent.
A study o data collection, presentation, and analysis including interval estimation, hypothesis testing, Bayesian analysis, regression, and correction techniques.

MNGT 520 ADVANCED PRODUCTION MANAGEMENT (3 Hours)
Planning, organizing, and controlling production with emphasis upon contemporary quantitative techniques and their applications.

MNGT 555 BUSINESS & ETHICS (3 Hours)
The task of business ethics is the systematic study of ethical values that ought to guide human conduct; the study of what constitutes the obligations and responsibilities of agents and institutions; the examination of predictable outcomes in human costs and benefits; the study of character traits or dispositions--all in the interest of promoting human welfare.

MNGT 560 BUSINESS POLICY (3 Hours)
Requirement: This course is to be taken after the student has completed at least 27 hours in the MBA Program. Business policy is an interdisciplinary capstone course which focuses on all aspects of business.

MNGT 710 ADVANCED STATISTICAL METHODS I (3 Hours)
Prerequisite: MNGT 516 or equivalent.
This course offers a thorough coverage of univariate statistical inference. Topics include simple regression, analysis of variance, multiple regression and correlation, and moving average time-series models.

MNGT 711 ADVNCD STATISTICAL METHODS II (3 Hours)
Prerequisite: MNGT 710 or equivalent.
This course offers a continuation of MNGT 710. Topics to be covered include concepts and techniques of non-parametric statistics, advanced topics in regression, time series analysis, autocorrelation, auto-regressive moving average models, identification, fitting and forecasting.

MNGT 712 APPLIED MULTIVARIATE ANALYSIS (3 Hours)
Prerequisite: MNGT 710 or equivalent.
This course offers the doctoral students a thorough analysis of the theory and applications of multivariate methods. Topics to be covered include matrix algebra, factor analysis, canonical correlation, discriminant analysis and multivariate analysis of variance.

MNGT 714 RESEARCH METHODS (3 Hours)
This course focuses on social and behavioral research methods to explore business and organizational problems. The course provides the student with theory, research, and techniques associated with the investigation of specific research problems in functional areas of business.

MNGT 721 ADVANCED ORGANIZATION BEHAVIOR (3 Hours)
This course offers alternative theoretical approaches useful for analyzing organizational environment and intra-organizational relations. The course emphasizes understanding of macro-organizational behavior concepts and empirical research related to design, structure, and functioning of organizations.

MNGT 722 SEM IN DECIS. SUPPORT SYSTEMS (3 Hours)
This course offers an analysis of techniques involved in the development of computer-based systems designed to help managers in decision making and problem solving processes. Topics include assessment of technology available, discussion of the design and implementation of such systems.

MNGT 723 SEMINAR IN STRATEGIC MANAGEMEN (3 Hours)
This course offers special topics dealing with important isses in strategic management. The course emphasizes global and technological perspectives of strategic management issues.

MNGT 724 ADV. INTERNATIONAL MANAGEMENT (3 Hours)
This course offers an in-depth study of problems of operating across multiple political and cultural boundaries. Topics include theory and practice of the international business, global competition, organizing for global operations, market entry, innovations, and comparative management.

MNGT 725 SEM IN ORGANIZATIONAL CHANGE (3 Hours)
This course focuses on the human aspects of problems arising in technical, social, and organizational arenas faced with the need to change. The course includes detailed analyses of organizations as systems, organizational leadership and change.

MNGT 726 SEM IN ORGNZATNL STRAT DEC MKG (3 Hours)
This course offers an overview of the theory and research in strategic management with a scholarly research orientation on issues of both strategic content and process. The empirical study of these issues is emphasized.

MNGT 727 SEMINAR IN SPECIAL TOPICS (3 Hours)
This course offers discussions of special topics dealing with important issues pertaining to efficient management of organizations. Issues dealing with production and inventory management, and the development of leadership skills are to be addressed. Specific topics are to be selected by the instructor and may vary each semester.

MNGT 799 DISSERTATION RESEARCH IN MANGM (1-12 Hours)
Prerequisite: Consent of the chair of the Dissertation Committee.
Students will complete doctoral level research which must culminate in the successful development and defense of the dissertation in the field of Management. Students may register for more than one section in a given semester. A minimum of 21 credit hours of Ph.D. Dissertation is required.

Marketing (MKT)

MKT 530 MANAGERIAL MARKETING (3 Hours)
Prerequisite: MKT 351, ECO 357, 358, ACC 211, 212, and ECO 211, 212 or equivalent.
Integration of the concepts of marketing with decision-making relative to marketing management situations.

MKT 540 CONSUMER BEHAVIOR (3 Hours)
Prerequisite: MKT 530.
This course is designed to introduce the student to "The State of the Art" in buyer research and theory. Contemporary issues such as Consumerism (E.G. Consumer Behavior, Regulation and Consumer Liabilities, redress, etc.); Black Buyer Behavior; Regulation and Consumer Behavior; and Consumer Thought Processes (e.g. perceptions, attitudes, cognitions, conations, opinions, interest, intentions and pre and post purchase behaviors) will be the major focal areas for this course.

MKT 566 INTERNATIONAL MARKETING (3 Hours)
Prerequisite: MKT 530.
Study of the similarities and differences between domestic marketing and international marketing, an examination of strategic international marketing for developing a complete marketing plan for a product and a country of their choice.

Math (MATH)

MATH 501 TOPICS IN GEOMETRY (3 Hours)
Prerequisite: Approval of department.
A survey of geometries and their structures. Emphasis is on both synthetic and analytic methods.

MATH 503 FOUNDATIONS OF MATH I (3 Hours)
The fundamental elements of set theory and finite mathematical structures; cardinals and ordinals; logical deduction, elements of probability; vectors and matrices, linear programming, theory of games and applications.

MATH 504 FOUNDATIONS OF MATH II (3 Hours)
The fundamental elements of set theory and finite mathematical structures; cardinals and ordinals; logical deduction, elements of probability; vectors and matrices, linear programming, theory of games and applications.

MATH 506 BASIC CONCPTS FOR TCHR I (3 Hours)
Prerequisite: Approval of department.
Higher mathematics for teachers, reviewing the fundamental areas of algebra, geometry and analysis, with stress on rigor and validity of ideas.

MATH 507 BASIC CONCPTS FOR TCH II (0.5-3 Hours)
Prerequisite: Approval of department.
Higher mathematics for teachers, reviewing the fundamental areas of algebra, geometry and analysis, with stress on rigor and validity of ideas.

MATH 510 TOPICS & ISSUES IN MATH (3 Hours)
This course is designed for in-service teachers who are interested in the renewal of teaching licenses and the pursuit of graduate studies in the teaching of mathematics. Emphasis is on individualized research dealing with the stages of development of mathematics, new trends in the teaching of mathematics, and the exploration of teaching theories resulting from the work of experimental psychologists such as Piaget, Aushel and Bruner. Because of the individualized nature of the course, students with diverse backgrounds in mathematics can be accommodated.

MATH 511 BASIC ABSTRACT ALGEBRA I (3 Hours)
Groups, (homomorphisms), rings, integral domains, modules and fields, elementary linear algebra, number theory.

MATH 513 LINEAR ALGEBRA I (3 Hours)
Vector spaces, matrices, linear transformations, determinants and linear equations. Selected topics on eigenvalues, canonical forms, inner products, inner product spaces, bilinear and quadratic forms.

MATH 531 BASIC REAL ANALYSIS I (3 Hours)
Prerequisite: Math 511 or approval of department.
Metric spaces, regulated functions and integrals; integrals of Riemann and Lebesgue; trigonometrical and Fourier series; differentiation and Stieltjes Integrals.

MATH 532 BASIC REAL ANALYSIS II (3 Hours)
Prerequisite: Math 511 or approval of department.
Metric spaces, regulated functions and integrals; integrals of Riemann and Lebesgue; trigonometrical and Fourier series; differentiation and Stieltjes Integrals.

MATH 535 INTRO MEAS & INTEGRTN I (3 Hours)
Prerequisite: Mathematics 531 or approval of department.
Lebesgue measure of linear sets, measurable functions, definite integral, convergence, integration and differentiation, spaces of functions, orthogonal expansions, multiple integrals and the Stieltjes Integral.

MATH 536 INTRO MEAS & INTEGRTN II (3 Hours)
Prerequisite: Mathematics 531 or approval of department.
Lebesgue measure of linear sets, measurable functions, definite integral, convergence, integration and differentiation, spaces of functions, orthogonal expansions, multiple integrals and the Stieltjes Integral.

MATH 541 BASIC COMPLEX ANALYSIS I (3 Hours)
Complex numbers, sets and functions; limits and continuity; analytic functions of a complex variable, elementary functions; integration; power and Laurent series, calculus of residues, conformal representation, special topics.

MATH 542 BASIC COMPLEX ANALYS II (3 Hours)
Complex numbers, sets and functions; limits and continuity; analytic functions of a complex variable, elementary functions; integration; power and Laurent series, calculus of residues, conformal representation, special topics.

MATH 543 NUMERICAL ANALYSIS (3 Hours)
This is an introductory course on Numerical Analysis. It is made of five related modules: M1) floating-point arithmetic, M2) root-finding algorithms, M3) numerical solution of systems of equations, M4) interpolation problems and M5) numerical integration.

MATH 551 BASIC GENERAL TOPOLOGY I (3 Hours)
Prerequisite: Mathematics 223 and approval of department.
Elementary set theory, ordinals and cardinals; topological spaces; cartesian products; connectedness; special topologies; separation axioms; covering axioms, metric spaces; convergence; compactness; function spaces; spaces of continuous functions and complete spaces; homotopy; maps into spheres; topology of En; homotopy type; introduction to algebraic topological ideas.

MATH 563 EXPERIMENTAL DESIGN I (3 Hours)
Prerequisite: Mathematics 272.
Experimental Design: Completely randomize design; randomize block designs, factorial experiments split plot design. confounding.

MATH 567 NON-PARAMETRIC STATS I (3 Hours)
Prerequisite: Mathematics 562 and approval of department.
Problems of estimating testing hypotheses when the functional form of the underlying distribution is unknown. Robust methods; sign test, rank test and confidence procedures based on these tests; tests based on permutations of observations. Non-parametric tolerance limits; large sample properties of the tests, multi sample problems; ranking methods in analysis of variance; Bivariate and multivariate procedures, efficiency comparisons.

MATH 571 NUMERICAL ANALYSIS I (3 Hours)
Prerequisite: Approval of department.
Introduction to Matlab, approximate differentiation, local truncation error and order, Euler¿s method, Runge-Kutta methods, embedded Runge-Kutta methods, stiff equations and implicit methods, explicit multi-step methods, implicit multi-step methods, shooting method, finite element method, finite difference methods for partial differential equations.

MATH 577 ORDINARY DIF EQUATIONS I (3 Hours)
Ordinary differential equations: basic theorems of existence, uniqueness, and continuous dependence of the solutions; linear differential equations and systems; stability theory; topology of integral curves; differential equations in the complex domain, asymptotic integration; boundary value problems. Partial differential equations; equations of first order method of characteristics, Hamilton-Jacobi theory; equations of second order-classification according to type; elliptic equations-potential equation, maximum principle, characteristics, and other topics of interest.

MATH 578 ORDINARY DIF EQUATION II (3 Hours)
Ordinary differential equations: basic theorems of existence, uniqueness, and continuous dependence of the solutions; linear differential equations and systems; stability theory; topology of integral curves; differential equations in the complex domain, asymptotic integration; boundary value problems. Partial differential equations; equations of first order method of characteristics, Hamilton-Jacobi theory; equations of second order-classification according to type; elliptic equations-potential equation, maximum principle, characteristics, and other topics of interest.

MATH 579 PARTIAL DIFF EQUATIONS I (3 Hours)
Prerequisite: Mathematics 577 or departmental approval.
Linear equations with constant coefficients in two independent variables, applications, eigenfunction expansions, homogeneous and nonhomogeneous equations. Fourier series, existence, solution uniqueness and representation, Initial boundary value problems, Laplace's equation, and special topics.

MATH 584 INDEPENDENT STUDY (3 Hours)
Prerequisite: Departmental consent.
Intensive study and research of a subject selected in accordance with student needs and arranged in consultation with the staff. Topics will vary. Student will make periodic reports on his/her reading and will-prepare a scholarly paper on a problem.

MATH 599 THESIS (3 Hours)
The candidate for the Master's degree must present a Thesis embodying the results of his research. The candidate chooses his problem, but approval by his adviser is required.

MATH 628 ADVD PARTIAL DIFF EQUATIONS I (3 Hours)
This course covers representation formulas for Laplace's equation, heat equation, and wave equation' theory of general nonlinear first-order partial differential equations; solvability of uniformly second order ellipitc, parabolic, and hyperbolic equations; theory of Sobolev spaces.

MATH 629 ADVND PARTIAL DIF EQUATIONS II (3 Hours)
This course is a continuation of MATH 628 and covers the theory and qualitative analysis techniques for nonlinear higher-order partial differential equations including calculus of variations, monotonicity methods, fixed point methods, methods of sub-solutions and super-solutions, nonexistence, geometric properties of solutions, gradient flows, Hamilton-Jacobi equations, and system of conservation laws.

MATH 670 COMPUTATIONAL METHODS N MATH I (3 Hours)
This course is designed to give an overview of the design, analysis and implementation of the most fundamental numerical techniques of MATH 543 in numerical linear algebra, the interpolation of functions, and the evaluation of integrals. This course in most part will depend on programming with MATLAB and/or C++. While we present many MATLAB examples throughout the course, students are strongly advised to have some previous programming experience in any computer programming language.

MATH 671 COMPUTATNL METHODS IN MATH II (3 Hours)
This course is a continuation of MATH 670. Topics covered includes introduction to mathematical and computational problems arising in the context of molecular biology. Theory and applications of combinatories, probability, statistics, geometry, and topology to problems ranging from sequence determination to structure analysis. The course depends on parallel and distributed programming.

MATH 673 QUANTITATIVE EXPLORATN OF DATA (3 Hours)
This course covers how to analyze and mine data with the Structured Query Language (SQL). Understand SQL fundamentals, and then advance into the uses of SQL data analysis and data mining with real applications. Learn to use Microsoft Excel to further analyze, manipulate and present your data exploration and data-mining findings in tabular and graphical formats. Students will be exposed to Extreme Science and Engineering Discovery Environment (XSEDE).

MATH 700 TPCS N MATH & STATS A N CDS&E (3-6 Hours)
The course may be repeated for credit. It covers current trends and challenges of mathematical and statistical applications in CDS&E.

MATH 827 NUMERICAL SOLUTN OF DIF EQUATI (3 Hours)
Ordinary differential equations:Runga-Kutta and predictor-corrector methods; stability theory, Richardson extrapolation, sitff equations, boundary value problems. Partial equations, boundary value problems. Partial differential equations: stablity, accuracy and convergence, Von Neumann and CFL conditions, finite difference solutions of hyperbolic and parabolic equations. Finite differences and finite element solution of elliptic equations.

Meteorology (MET)

MET 801 ENVIRONMENTAL METEOROLOGY (3 Hours)
Principles of atmospheric science as applied to gaussian modeling of pollutants. Includes source review and receptor identification and modeling, National Ambient Air Quality Standards and human health and welfare impacts, plume behavior, and access of EPA models, running of EPASCREEN, and web site information. Special topics covered include: scavenging; acid precipitation; weather modification, green house enhancement; stratospheric ozone; scrubbers; and indoor air quality.

Music (MUS)

MUS 513 BIBLIOGRAPHY&RESRCH MTHD (3 Hours)
Survey of fields of historical and systematic investigation in music; bibliographical studies and research analysis.

MUS 514 ADVANCED CONDUCTING (3 Hours)
Conducting the concert band, the symphony orchestra, and the chorus in the larger musical forms. Analysis of scores, recordings, and live performances. Emphasis on style, technique and interpretation.

MUS 515 CHORAL LIT & TECHNIQUES (3 Hours)
Survey and analysis of choral literature from Palestrina to the present, using scores, records, and class performance. Techniques of teaching and conducting unfamiliar styles.

MUS 516 INSTRUMNTL LIT & TECHNIQ (3 Hours)
Specific and intensive research in each student's major instrument, covering: (1) history of the instrument, (2) texts, methods and periodicals, (3) orchestral studies, (4) solo and ensemble techniques and literature, and (5) listening and performance.

MUS 517 MARCHING BAND TECHNIQUES (3 Hours)
Organization, developing system, equipment and facilities, personnel, planning the show, basic styles and fundamentals, continuity and pace, rehearsal and drill techniques, charting, instrumentation, selecting and arranging music.

MUS 518 HIST & PHIL OF MUSIC EDU (3 Hours)
Examination of the historical and philosophical foundations which underlie the curricula and instructional programs in music.

MUS 519 SUR OF RESRCH IN MUS EDU (3 Hours)
Designed to help students to develop the scientific method of educational research in music, to define areas of need, and to develop potential research problems.

MUS 520 INTRO TO MUSIC TECHNOLOGY (3 Hours)
An introduction to computers and computer software used to teach, compose and arrange music. This course will cover the tools essential for success as a music educator in today's secondary school systems. Topics to be examined will include in-depth discussions and hands on experience with MIDI sequencing, notation, history, music theory and marching band drill software. The history of music technology and its' relevance to today's musician will be given priority.

MUS 521 CURR DEV MUS IN ELEM SCH (3 Hours)
Study and appraisal of curricula, plans and materials for the sequential development of musical learnings in children; contemporary techniques for implementing; relationships to other areas of instruction.

MUS 522 CUR DEV MUS IN SEC SCHL (3 Hours)
Study of general and specialized curricula in the junior and senior high school; interrelationships, goals, and implementation techniques in the light of musical growth in the adolescent years.

MUS 523 CUR DEV FOR MUS IN 2 & 4 (3 Hours)
Study of curricula, plans, materials, and implementation procedures for general and specialized curricula in junior and senior colleges. Emphasis on theories and practices, student development, administrative processes, and teacher competency.

MUS 530 JAZZ MUSIC WORKSHOP (2 Hours)
Discussions and demonstrations relative to the historical, theoretical, and performance areas of jazz. The various styles and the music of a variety of composers will be explored. Sessions on career opportunities and recording studio techniques.

MUS 531 VOICE PEDAGOGY (3 Hours)
Processes in voice production. Psychological, physiological, and acoustical problems. Study of voice classification, quality, diction, breath support and breath control.

MUS 533 INSTRUMENTAL PEDGAGOGY (3 Hours)
Teaching techniques and materials for string, woodwind, brasswind and percussion instruments. Individual and group instruction for various age levels. Teaching under faculty supervision.

MUS 534 MUSIC IN SPECIAL EDUCATN (3 Hours)
Survey of materials for teaching music to the handicapped. Analysis of psychological principles and procedural concepts, development of pilot programs for music teaching and learning in special education.

MUS 539 INDEPENDENT STUDY (2 Hours)
Individual program of study in major area of interest, under the direction of the faculty. Opportunities to broaden knowledge and develop further skills in special areas of music.

MUS 540 THEORY REVIEW (2 Hours)
Designed to prepare students for graduate level theory. Aural techniques, triads, choral structure, modulation, analysis, harmonic and contrapuntal techniques. Credit not applied to degree requirements.

MUS 544 ANALYTICAL TECHNIQUES (3 Hours)
Techniques of analysis of style and structure of music from all periods of music history. Analytical concepts in learning, teaching, and performing music.

MUS 545 PEDAGOGY OF THEORY (3 Hours)
Teaching materials, text, classroom procedure, methods, and sequence. Introduction to the contemporary music project (CMP) approach. Study of the theoretical systems and theoretical bibliography.

MUS 549 COMPOSITION (3 Hours)
Advanced study of contrapuntal forms, study of contemporary melodic and harmonic practices; original work in advanced composition.

MUS 553 JAZZ ANALYSIS I (3 Hours)
Analysis of scale systems and harmonies used in jazz improvisational techniques and stylistic analysis of major artists in the 1940's and the 1950's.

MUS 554 JAZZ IMPROVISATION (3 Hours)
Continuation of Jazz Analysis I with emphasis on improvisational techniques and stylistic analysis of major jazz artists of the 1960's and 1970's.

MUS 557 ORFF TEACHER CERTF LVL I (3 Hours)
Basic knowledge and pedagogic foundations in the Orff-Schulwerk approach. A complete introductory course based on Level I course outlines as published by the American Orff-Schulwerk Association which includes the use of the pentatonic, the simple bordun, the ostinato, basic elemental forms, basic body movements and application to the Schulwerk; soprano recorder; vocal and rhythmic training; and improvisation.

MUS 558 ORFF TEACH CERTI LEV II (3 Hours)
Satisfactory completion of Orff-Schulwerk Level I course. Study of all the pentatonic scales; review of simple and moving borduns; I-V and I-IV-V accompaniments; explanation of rhythmic training and continuation into irregular rhythms and meters; vocal, movement and instrumental improvisation; soprano and alto recorder. Level II includes in- depth study of Volumes II and IV of the Schulwerk.

MUS 560 GENERAL HISTORY OF MUSIC (2 Hours)
Study and review of forms, styles, literature and composers from Middle Ages to modern period. To prepare students for graduate level history. Credit not applied to degree requirements.

MUS 561 BAROQUE MUSIC (3 Hours)
The age of the basso continue 1580-1750; opera and oratorio, instrumental forms, keyboard music, and performance practices.

MUS 562 CLASSICAL MUSIC (3 Hours)
Rococo and Pre-classical music in England, France, Italy, Spain, and Germany. The Viennese classical tradition.

MUS 563 ROMANTIC MUSIC (3 Hours)
The development of romanticism in music from late Beethoven through Mahler.

MUS 564 MEDIEVAL MUSIC (3 Hours)
The history of music from classical antiquity to C. 1400.

MUS 565 RENAISSANCE MUSIC (3 Hours)
The history of music from 1400 to 1600.

MUS 566 MUSIC IN 20TH CENTURY (3 Hours)
The history of music from the turn of the century to the present. Forms, styles, idioms, media, composers, and performance practices.

MUS 567 STUDIES IN MUSIC HISTORY (3 Hours)
Topics may be selected from the following: Sonata History; Opera History; l9th Century Art Song; Cantata History; Symphony History; Brahms; Mozart; Bach; Beethoven; Debussy-Ravel; Jazz History; Ethnomusicology.

MUS 568 INTRO TO ETHNOMUSICOLOGY (3 Hours)
A comprehensive survey of concepts, problems and methods of research in non-Western and folk music.

MUS 571 VOCAL LITERATURE (3 Hours)
Study of solo song in larger works, and solo art song. Analysis, performance and collateral reading.

MUS 573 JAZZ HISTORY (3 Hours)
Study of the development of jazz from African origins to its present status as an organized art form. Contributions of selected jazz musicians. Relationship to rock and pop music.

MUS 574 Introduction to Thesis/Project Writing (1 Hour)
Seminar in research design and method with emphasis on identification of problems in music instruction and interpretation of data. Application of findings to classroom settings. Students will begin the thesis/project writing process.

MUS 575 THESIS WRITING (2 Hours)

MUS 576 PROJECT WRITING (2 Hours)

MUS 581 MARCHING BAND (1 Hour)
Designed to give graduate students lab experience in dealing with contemporary marching band techniques. Open to all students upon audition.

MUS 582 CONCERT BAND (1 Hour)
An organization designed to provide a graduate medium the aim of which is to broaden the graduates' realm of experiences in performing in large performance organizations and to enhance understanding and knowledge of the literature and concert performance practices.

MUS 585 ORCHESTRA (1-3 Hours)
Designed through performance to instill in students a knowledge of musical literature from all periods and idioms, basic music patterns and usages, musical vocabulary and meaning, music's development as an art, and the principal forms and composers.

MUS 586 ORCHESTRA (1 Hour)
Designed through performance to instill in students a knowledge of musical literature from all periods and idioms, basic music patterns and usages, musical vocabulary and meaning, music's development as an art, and the principal forms and composers.

MUS 588 CHOIR (1 Hour)
Study and performance of selected choral literature from all stylistic periods, both accompanied and a cappella. Emphasis on increased skill in reading, development of basic voice techniques and interpreting the score.

MUS 589 CHOIR (1 Hour)
Study and performance of selected choral literature from all stylistic periods, both accompanied and a cappella. Emphasis on increased skill in reading, development of basic voice techniques and interpreting the score.

MUS 591 APPLIED PIANO (1 Hour)

MUS 592 APPLIED PIANO (1 Hour)

MUS 593 APPLIED PIANO (1 Hour)

MUS 594 APPLIED PIANO (2 Hours)

MUS 595 APPLIED PIANO (1-3 Hours)

MUS 596 APPLIED PIANO (1-3 Hours)

MUS 597 RECITAL (1-3 Hours)
Graduate level technical study, continued development of repertoire, stylistic interpretation and performance skills. Preparation and presentation of graduate recital.

Music-band (MUSK)

MUSK 583 CONCERT BAND (1 Hour)

Music-chorale (MUCH)

MUCH 588 CHORALE (1 Hour)

Music-clarinet (MUSC)

MUSC 591 APPLIED CLARINET (1 Hour)

MUSC 592 APPLIED CLARINET (1 Hour)

Music-euphonium (MUSE)

MUSE 592 APPLIED BARITONE HORN (1 Hour)

Music-flute (MUSF)

MUSF 591 APPLIED FLUTE (1 Hour)

MUSF 593 APPLIED FLUTE (1 Hour)

Music-jazz ensemble (MUJE)

MUJE 598 JAZZ ENSEMBLE I (0.5 Hours)

MUJE 599 JAZZ ENSEMBLE I (0.5 Hours)

Music-percussion (MUSP)

MUSP 591 APPLIED PERCUSSION (1 Hour)

MUSP 592 APPLIED PERCUSSION (1 Hour)

MUSP 595 APPLIED PERCUSSION (1 Hour)

Music-saxophone (MUSX)

MUSX 591 APPLIED SAXOPHONE (1 Hour)

MUSX 592 APPLIED SAXOPHONE (1 Hour)

MUSX 593 APPLIED SAXOPHONE (1 Hour)

MUSX 594 APPLIED SAXOPHONE (2 Hours)

MUSX 595 APPLIED SAXOPHONE (2 Hours)

MUSX 596 APPLIED SAXOPHONE (3 Hours)

Music-stringbass (MUSS)

MUSS 591 APPLIED STRING BASS (1 Hour)

MUSS 592 APPLIED STRING BASS (1 Hour)

MUSS 593 APPLIED STRING BASS (1-3 Hours)

MUSS 595 APPLIED STRING BASS (2 Hours)

Music-trombone (MUSR)

MUSR 591 APPLIED TROMBONE (1 Hour)

MUSR 592 APPLIED TROMBONE (1 Hour)

MUSR 593 APPLIED TROMBONE (1 Hour)

MUSR 596 APPLIED TROMBONE (2 Hours)

Music-trumpet (MUST)

MUST 591 APPLIED TRUMPET (1 Hour)

MUST 592 APPLIED TRUMPET (1 Hour)

MUST 595 APPLIED TRUMPET (2 Hours)

MUST 596 APPLIED TRUMPET (3 Hours)

MUST 597 RECITAL (2 Hours)

Music-tuba (MUSU)

MUSU 591 APPLIED TUBA (1 Hour)

MUSU 592 APPLIED TUBA (1 Hour)

MUSU 593 APPLIED TUBA (1 Hour)

Music-violin (MUSN)

MUSN 591 APPLIED VIOLIN (1 Hour)

MUSN 593 APPLIED VIOLIN (1 Hour)

MUSN 595 APPLIED VIOLIN (2 Hours)

Music-voice (MUSV)

MUSV 588 OPERA WORKSHOP (1 Hour)

MUSV 591 APPLIED VOICE (1 Hour)

MUSV 592 APPLIED VOICE (1 Hour)

MUSV 593 APPLIED VOICE (1 Hour)

MUSV 594 APPLIED VOICE (1 Hour)

MUSV 595 APPLIED VOICE (1-3 Hours)

MUSV 596 APPLIED VOICE (2 Hours)

MUSV 597 RECITAL (2 Hours)

Music-woodwind ensemble (MUWE)

MUWE 588 WOODWIND ENSEMBLE (1 Hour)

MUWE 598 WOODWIND ENSEMBLE (1 Hour)

Physical Education (PE)

PE 505 PRACTICUM IN LIFETIME SPORTS (3 Hours)
Designed to study lifetime sports such as tennis, archery, golf, swimming, badminton, and many others in which one may participate throughout life.

PE 522 MOTOR LEARNING & HUMAN (3 Hours)

PE 540 ORG & ADM OF 2 & 4 YR CO (3 Hours)
Study of the organizational structure of physical education in two and four year colleges. The course will cover theory, professional preparation and practices and administration. The course will show how administrative theories are developed. It will dwell on the broad process of administration that might be designed as decision making, communicating, activating, planning and evaluating.

PE 550 RESEARCH IN PHYSICAL EDU (3 Hours)
Study and application of research techniques to selected problems in health, physical education, and recreation.

PE 552 BIOMECHANICS (3 Hours)
In-depth study of the application of mechanical principles to athletic performance. The study will make application of laws of balance, motion, force, work and energy, to track and field, baseball, football, swimming, diving, gymnastics, basketball, golf, and tennis.

PE 553 ADV PHYSIOLOGY OF MUS AC (3 Hours)
Prerequisite: Human Physiology and/or Introductory Course in Exercise Physiology.
Lectures, discussions and experiments dealing with the structure, function and metabolism of skeletal and cardiac muscles Emphasis on correlating muscle function with metabolic events. The biochemical basis of adaptation of muscle function is considered.

PE 587 INDEPENDENT STUDY IN P E (1 Hour)
Implementation of individual student research project under the guidance of an advisor.

PE 589 INDEPENDENT STUDY IN P E (1-3 Hours)
Opportunity for students to undertake independent study and research under the direction of a faculty member. The student will submit a written report and may be asked to stand a comprehensive examination of his work.

Political Science (PS)

PS 506 METH & APPRCH TO POL SCI (3 Hours)
A review of traditional, behavioral and post behavioral approaches to political science, methods of research and explanation. A required course.

PS 507 POLITCL INQUIRY & RESEAR (3 Hours)
An inquiry into concepts and methods of social science in general and of political science in particular; the philosophy of science; presuppositions, aims and history of procedures and methods, research techniques, sources, bibliography and the presentation and publication of investigative results. A required course.

PS 509 AFRICAN POLITICAL SYSTEMS (3 Hours)
This course includes traditional African political systems and their developments; the impact of colonialism on the systems, African nationalism, and the politics of independent Africa.

PS 512 BLACK POLITICAL THOUGHT (3 Hours)
A study of Black political theory that has developed since the end of the civil rights period with an evaluation of new concepts in Black political theory and the links between these concepts and the historical problems considered in Afro-American political theory.

PS 515 MODERN POLITICAL PHILOSOPHY (3 Hours)
A history of political philosophy in which attention is given to the dilemma of democracy with emphasis on liberty and equality, liberalism, Marxism, colonialism, feminism, nationalism, and post-modernism. The impact of historical events will be explored. Attention will be given to the works of Tocqueville, Wellstonecraft, Mill, Hegel, Marx, Nietzsche, Fanon, Martin Luther King,l and Rawls.

PS 524 American Political Behavior (3 Hours)
The purpose of this course is to examine the economic, philosophical, political, religious, and social discourse of American political behavior. It will explore essential topics in the study of behavior including, but not limited to, suffrage, voting, the Constitution, the role of democracy, rules, relative power, notions of freedom, and the elusiveness of equality.

PS 532 African American Politics (3 Hours)
The purpose of this course is to examine the economic, philosophical, political, religious, and social discourse of African Americans. It will explore essential topics in African American politics including, but not limited to, social justice, the role of democracy, identity politics, relative power, notions of freedom, and the elusiveness of equality.

PS 537 URBANIZTN SOC CHG & POLI (3 Hours)
This course will explicitly examine the political effect of urbanization and its attendant social changes as reflected in the political culture of different parts of the United States and the world.

PS 539 Urban Political Structures (3 Hours)
This course examines the rise of Black politics in urban areas, relations between whites and Blacks in the urban city, as well as the concept of community, and particularly, the changing political process.

PS 556 American Political Institutions (3 Hours)
The purpose of this course is to examine the economic, philosophical, political, religious, and social discourse of American political institutions. It will explore essential topics in the study of institutions including, but not limited to, the Constitution, the role of democracy, rules, relative power, notions of freedom, and the elusiveness of equality.

PS 565 INTERNATIONAL RELATIONS (3 Hours)
The nation-state system and conceptions of the national interest in modern world politics, forms and distribution of power and the adjustment of international conflict.

PS 581 Metropolitan Areas and Community Power Analysis (3 Hours)
An examination of the national and urban power structures in the United States, community power structures, studies, models of urban political process. Elitism and pluralism and the implications for the Black community, the politics of metropolitan reorganization and its impact on Black politics, the metropolitan areas in the American federal system, and suburban-central city conflicts.

PS 583 SPECIAL TOPICS SEMINAR (3 Hours)
An indepth examination of a particular subfield or topic of interest to political scientists through a detailed examination of the literature and/or original research.

PS 596 INDEPENDENT STUDY (1-6 Hours)
The student is allowed to select research which will be beneficial to his/her program. The topic must be approved by the adviser and the instructor selected by the student for the research.

PS 597 INTERNSHIP (3 Hours)
Prerequisite: Core Courses.
Individual work experience in government agencies.

PS 598 THESIS (3 Hours)
The candidate for the Master of Arts degree presents a Thesis embodying the results of his research. The candidate chooses his problem but approval by his adviser is required.

Psychology (PSY)

PSY 512 ABNORMAL PSYCHOLOGY (3 Hours)

PSY 528 Psychology of Disaster (3 Hours)
The goal of this course is to introduce students the psychological and physiological human response to disasters. Using clinical research and case histories, students will examine normal and abnormal psychological reactions, the recovery process and principles of mental health care for victims of mass disasters. Differences between natural and man-made disasters are examined and factors that mitigate post-traumatic effects are reviewed. The class will also address the psychological factors-cognitive biases, heuristics, risk perception, social influences, and past experiences-that together help explain why people tend to underprepare for potential natural and man-made disasters.

PSY 700 RESEARCH SEMINAR (1 Hour)
Reviewed and discussion of ongoing department research project; literature review of research topics of interest. The seminar is intended to assist the student in developing research ideas for implementation.

PSY 710 THEORIES OF PERSONALITY (3 Hours)

PSY 711 LEARNING AND COGNITION (3 Hours)

PSY 712 ADVND DEVELPMENTAL PSYCHOLOGY (3 Hours)
A study of the biological, social, and cultural factors affecting life-span human development. A cross cultural perspective will be emphasized.

PSY 713 BIOLOGICAL PSYCHOLOGY (3 Hours)
Physiological bases of learning and motivation; nervous system structure, function, and disorder in relation to behavior.

PSY 714 SOC AND CGNTVE BASES OF BEHAVR (3 Hours)
Theory and research on attitude formation and change, attributional styles, prejudice, interpersonal perception, group dynamics, self regulation and cognitive styles.

PSY 715 HISTORY AND SYSTEMS (3 Hours)
Historical evolution of psychology from philosophical antecedents to the development of major systems and theories.

PSY 720 CROSS CULTURAL PSYCHOLOGY (3 Hours)
An examination of research and practice regarding assessment and treatment of culturally diverse populations with particular emphasis on the cultural context of etiology and course of psychological disorders.

PSY 721 PSYCHOLGY OF AFRICAN-AMERICANS (3 Hours)

PSY 722 PSYCHLGY IN THE URBAN ENVIRNMT (3 Hours)
The city as an environment, personal space and territoriality, crowding, noise, crime, drugs, and other urban hazards. Special problems of minorities in urban settings.

PSY 723 PSYCHOLOGY OF GENDER (3 Hours)

PSY 730 RESEARCH METHODS (3 Hours)
An in depth study of research methodology with emphasis on experimental approaches. The course covers basic within and between group experimental designs, mixed designs, single subject experiments, non experimental research (correlational methods, case studies, meta-analysis) and program evaluation. Research ethics are stressed. Further, students are encouraged to begin developing a topic for their second year paper.

PSY 731 ADVANCED STATISTICS I (3 Hours)
Elements of probability theory, discrete and continuous random variables and their distributions, principles of estimation, hypothesis testing, introduction to regression and analysis of variance, computer applications.

PSY 732 ADVANCED STATISTICS II (3 Hours)
Advance topics in regression and analysis of variance, analysis of covariance, non-parametric procedures, computer applications.

PSY 733 MULTIVARIATE METHODS I (3 Hours)
Multivariate analysis of variance and covariance, canonical correlation, factor analysis, discriminant analysis, selected advanced topics.

PSY 734 PSYCHOMETRICS (3 Hours)
Theories of measurement; evaluation of psychological assessment processes; test construction, validation, uses, problems and social implications.

PSY 735 RESEARCH PRACTICUM I (1 Hour)

PSY 736 RESEARCH PRACTICUM II (1 Hour)
Continuation of PSY 735.

PSY 740 PSYCHOPATHOLOGY (3 Hours)
Etiology, epidemiology and dynamics of behavior and personality disorders: Theory, research, diagnosis and treatment. Introduction to DSM IV as a diagnostic tool.

PSY 742 COGNITIVE ASSESSMENT (3 Hours)
Administration and interpretation of major intelligence tests and other cognitive instruments. Training in test interpretation and report writing are emphasized.

PSY 743 PERSONALITY ASSESSMENT (3 Hours)
Theoretical, conceptual and methodological aspects of objective and projective personality assessment, integration of results into the written psychological test report.

PSY 745 FORENSIC PSYCHOLOGY (3 Hours)
Competency to stand trial, crimiinal responsibility, expert witnesses, jury dynamics, and other applications of psychology within the legal system.

PSY 750 ETHICS IN PSYCHOLOGY (3 Hours)
Professional and ethical issues affecting the practice of psychology. Focus will be on the development of sound ethical and professional standards in psychology psychology practice, teaching, and research.

PSY 751 PSYCHOTHERAPY (3 Hours)
Critical examination of principles, techniques, research,l and theoretical models in psychotherapy and behavior change.

PSY 752 BEHAVIOR THERAPY (3 Hours)
Principles of behavior modification and their application in psychotheraphy.

PSY 753 GROUP THERAPY (3 Hours)
Therapeutic procedures for small clinical groups, dynamics of clinical groups.

PSY 755 PSYCHOPHARMACOLOGY (3 Hours)
Physiological, psychological, and behavioral effects of psychoactive drugs with attention to those prescribed for psychiatric disorders. Role of the clinical psychologist in approaches combining medication and psychotherapy.

PSY 760 CLINICAL PRACTICUM I (3 Hours)
Supervised training and in interviewing and cognitive assessment.

PSY 761 CLINICAL PRACTICUM II (3 Hours)
Supervised training and experience in personality assessment and Psychotherapeutic procedures.

PSY 762 CLINICAL PRACTICUM III (3 Hours)
Supervised training and experience in psychodiagnostics and psychotherapy. This course requires a minimum of ten clock hours per week. The student is expected to become competent in interviewing, assessment, therapy, and case conceptualizaton.

PSY 765 EXTERNSHIP I (3 Hours)
Supervised clinical experience in approved community, institutional, or hospital settings.

PSY 766 EXTERNSHIP II (3 Hours)
Continuation of PSY 765.

PSY 767 EXTERNSHIP III (1-3 Hours)
Continuation of PSY 766.

PSY 768 EXTERNSHIP IV (1-3 Hours)

PSY 769 Externship V (1-3 Hours)
Prerequisite: Externship IV.
Continuation of Externship IV.

PSY 772 HEALTH PSYCHOLOGY (3 Hours)
Psychological, social and cultural factors related to physical health and illness: impact of life style on health: significance of cultural values in health promoting and health-damaging: clinical psychology in community health and medical settings.

PSY 773 THEORY & TREATMNT OF ADD DISOR (3 Hours)
Psychology of addition: techniques and procedures for intervention and treatment.

PSY 775 MARITAL AND FAMILY THERAPY (3 Hours)

PSY 777 LGBTQ+ Psychology (3 Hours)
A study of LGBTQ+ people from an intersectional, affirmative perspective that includes consideration of the developmental, cultural, and interpersonal contexts that impact LGBTQ+ people's identities, lives, and mental health. Empirically based clinical practice information, including affirmative psychotherapy and supervision, will be explored.

PSY 790 DISSERTATION RESEARCH (1-9 Hours)
Corequisite: approved dissertation proposal.
May be repeated.

PSY 799 INTERNSHIP (1-12 Hours)
Prerequisite: All coursework, comprehensive exam, clinical-competency exam, and dissertation proposal.
Residency in an APA-accredited mental health setting. May be repeated.

Public Health Science (PHS)

PHS 500 INTRO TO PUBLIC HEALTH DSCPLNS (1-3 Hours)

PHS 501 PUBLIC HEALTH & BEHAVIORAL SCI (3 Hours)
This course introduces public health organization and practice, including history, concepts, legal basis, purposes, programs and trends in the evolving of public and private sectors of social and preventive medicine in America. It discusses various behaviorally-related health determinants, and presents a number of theories/models to change behaviors at individual and group levels.

PHS 502 PUBLIC HEALTH POLICY & ADMIN (3 Hours)
This course presents an overarching introduction to national legislative issues and policy processes together with the managerial functions and practices in public and private healthcare organizations. Study emphasis is on the essentials of how executive and supervisory managers professionally perform their roles in the work of leading system-wide teamwork, strategy building, reengineering, resource acquisition, and market effectiveness in competitive environments.

PHS 503 BIOSTATISTICS AND COMPUTER APP (3 Hours)
This course introduces the principles and methods of statistical analysis. Topics include hypothesis testing, confidence limits, sample size, statistical tests of inferences, and simple linear and multivariate analysis. Statistical software packages such as SPSS and Stata will be used in illustrating the basic principles of data analysis.

PHS 504 ENVRNMNTL & OCCUPATIONAL HEALT (3 Hours)
This course introduces major community health concerns and problems in the related fields of environmental and occupational health with an emphasis on disease and disability. Students will review and analyze the policy and ecological change implications of these two public domains.

PHS 505 PRINCIPLES OF EPIDEMIOLOGY (3 Hours)
This course explores the science and practice of epidemiology and its contributions to disease detection, measurement, and prevention in clinical and public health settings. Specific topics include measurement of disease frequency, measurement of disease association, standardization, bias, and study designs. This course also introduces the practical fields of epidemiology.

PHS 506 RESEARCH & QUANTITATIVE MTHDS (3 Hours)
Prerequisite: PHS 503 and PHS 505.
This course introduces students to applied research methods in public health. It emphasizes essential concepts, techniques and methods of research practice. Basic measurement procedures for analyzing health data are examined through SPSS computer software, and the student is required to complete the design of a research study.

PHS 507 APPLIED MASTER'S PROJECT (3 Hours)
Prerequisite: PHS 506 Research and Quantitative Methods.
The Masters¿ Research Project provides a culminating experience of the student¿s scientific and professional practice preparation, including proposal formulation of the problem to be studied or an operational project to be implemented with the evaluating conclusion and defending report of the outcome.

PHS 508 PUBLIC HEALTH INTERNSHIP (3 Hours)
Students conclude their MPH studies with a supervised field experience in their respective specializations. This supervised residency practice operates for the full semester with a student commitment of a minimum of 400 clock hours with the placement organization, recognizing flexible arrangements for the mutual benefit of all parties and including possible compensation. The department, student, preceptor and field setting will abide by a formal affiliation agreement which provides policies and guidelines for the placement expectations and responsibilities. It culminates with an analytical focus on the student¿s concentration area. The report should emphasize the learning objectives and competencies for the internship. Enrollment requires permission of the advisor, the instructor of record, and chair. Completion of the course requires the agency¿s preceptor¿s evaluation.

PHS 511 ORG DESIGN & BEHVR IN PUBLIC H (3 Hours)
This course examines universal organizational theories which adapt to private healthcare and public health services. Students study a framework of analysis looking at the management science explanations of human behavior in these settings from the perspectives of individual worker and patient roles, group and team relationships, and global systems. Topics include professional understanding of organizational culture, conflict, strategic design, change, measuring performance, and creating alliances.

PHS 512 PUB. HEALTH POLICY, LAW & ETHI (3 Hours)
This course provides an overview of principles and policies relating to public health law and ethical applications. This course will explore federal laws and directives, along with state statutes and local ordinances. Recent case law from federal and state courts will be used as illustrations.

PHS 513 FINANCIAL MNGT OF HEALTH SERVS (3 Hours)
Prerequisite: HCA 450 or instructor approvals.
This course explains important financial management techniques applicable to health care settings. Course materials will include the language and function of financial management, analysis of an organization¿s financial position, management of working capital and current assets, budgeting, and the use of financial data for decision making. Students will further their knowledge of computerized information systems through class exercises. Emphasis will be placed on the application of techniques to health services organizations. Students will synthesize techniques through completion of an analysis project and/or research paper in health economic and financing.

PHS 514 HEALTH MNGT INFORMATION SYSTEM (3 Hours)
Prerequisite: Basic knowledge of computing skills.
This course introduces students to systems in managing for-profit and not-for-profit organizations (such as manufacturing, banking, and health care organization) and emphasizes the role of information systems to increase productivity, to improve quality of products and services, and to insure overall effectiveness or organizational operations. Appropriate application software will be used to analyze cases and complete the class project.

PHS 515 MKTG PUBLIC HEALTH & STRATE PL (3 Hours)
This course examines an overview of the strategic planning process and state-of-the-art marketing applications used by community health organizations. Marketing is viewed as a social change opportunity for public health practitioners and the analysis and design of market plans are studied. As an extension of the marketing audit, several key planning strategies and methods are critically reviewed for their relative value to managers and stakeholders in decision making of long-range and short-terms system futures.

PHS 516 HUMAN RESOURCES MNGT IN PUBL H (3 Hours)
This course examines the role of healthcare administrators and supervisors with respect to personnel interviewing, selection, orientation, performance counseling and appraisal; staff development; leadership development; and related functions of human resources management. Issues of job analysis, labor relations, performance appraisal, training and development, and other concerns are studied in relationship to the human resource process system.

PHS 517 MANAGED CARE NETWORKS & PUB HE (3 Hours)
This course introduces the dynamic impact that managed care has had on the delivery of healthcare services and cost containment features of the health plans that thrived in the 1990's. The student will become familiar with all aspects of managed care (HMOs, PPOs, and POS) from effectiveness measurement of these health care plans medical/loss ratios, profit margins and outcomes measurement to the effect on access to quality healthcare services.

PHS 519 HEALTH PROGRAM AND EVALUATION (3 Hours)
This course provides an overview of theories and application of program planning, implementation, and evaluation for public health programs while emphasizing essential components of program planning models and a range or evaluation objectives and designs.

PHS 521 ADVD SEMINAR IN EPIDEMIOLOGY (3 Hours)
Prerequisite: PHS 505.
The hallmark of the course is designing and presenting an epidemiological research study. Emphasis will be placed on the major types of epidemiological study designs: cross-sectional, case-control, cohort, and intervention studies. In addition, diagnostic studies to evaluate screening programs will be discussed.

PHS 522 MULTIVARIATE & PROBABLISTIC BI (3 Hours)
Prerequisite: PHS 503 and PHS 505.
This course addresses modeling and practical application of statistical principals in data analysis. Statistical Software packages such as SAS and SPSS will be used. Topics include probability distributions, simple linear regression, multiple linear regression, log linear modeling, logistic recession, Poisson, and Cox-Proportional Hazard modeling.

PHS 523 CHRONIC AND INFECTIOUS DIS. EP (3 Hours)
Prerequisite: PHS 505.
This course introduces students to various fields of practical epidemiology. This course primarily addresses the epidemiology of cancer, cardiovascular, and infectious diseases.

PHS 524 STAS METHODS FOR APPLIED EPIDE (3 Hours)
Prerequisite: PHS 503 and PHS 505.
This course reviews the basic statistical tools used in epidemiology research. The course includes: sampling and sample size determination, methods to compute confidence intervals and p-values for key epidemiological measures of association, and an overview of regression and statistical methods for analysis of data.

PHS 525 EPIDE. OF MIN. & SPECIAL POPUL (3 Hours)
Prerequisite: PHS 505.
This course introduces the salient features of conducting epidemiological research in special populations with a particular emphasis on African Americans. This course covers the epidemiology of diseases and conditions affecting racial/ethnic minorities, children and the elderly. Other components include psychological and behavioral factors and preventive services.

PHS 528 GENETIC EPIDEMIOLOGY (3 Hours)

PHS 529 PSYCHOSOCIAL EPIDEMIOLOGY (3 Hours)
Prerequisite: PHS 505.
This course provides an overview of the literature incorporating social and personality factors, cultural influences upon individual behavior, stress, and related psychosocial factors as determinants of health. Health and illness determinants are multi-factorial and enmeshed in the social fabric and psychologic constitution of the person and may involve a complex interaction of the person and environment. Psychosocial epidemiological models of chronic disease will be discussed.

PHS 531 HEALTH BEHAVIOR,PROMOTION & ED (3 Hours)
This course provides a comprehensive understanding of health promotion and health education, concepts and applications. It offers students an opportunity to develop a broad understanding of social, cultural and psychological factors as they affect health and health-related behaviors and outcomes at individual, family, and group/community levels. Areas of responsibilities for health educators, as required by the National Commission for Health Education Credentialing (NCHEC) body, are discussed, and students gain competencies essential to pass the Certified Health Education Specialist (CHES) examination. The CHES related skills and competencies in combination with an MPH degree create better job opportunities at state and national levels.

PHS 532 COMMUNITY AND PATIENT HEALTH E (3 Hours)
Prerequisite: Completion of all MPH core courses and PHS 531.
This course examines professional health education practices in most community and individual settings where opportunities exist to acquire and behaviorally deploy personal health knowledge into action. Health risk factors are studied using the socioecological paradigm as applied to a selected community. Furthermore, the roles of the health educator as a community advocate, facilitator and collaborator are explored. Patient education in clinical settings focuses on equipping clinical personnel in the competencies and skills of health promotion techniques.

PHS 533 WELLNESS & MTRNL CHILD HLTH PR (3 Hours)
This course provides the historical perspective, organization and delivery of maternal child health services as well as an analysis of the major health determinants associated with the system of health care and health promotion for this population. Ethical issues, cultural diversity, special and vulnerable populations, disparate health outcomes, environmental health and nutritional issues will be emphasized while highlighted strategies to overcome barriers in health promotion and provision of care.

PHS 534 COMMUNI AND HLTH EDU MARKETING (3 Hours)
Prerequisite: Completion of all MPH core courses, and PHS 531.
This course provides an overview of communication and marketing within a health education context. This course examines communication in health care settings, public health campaigns, and cultural differences in communication.

PHS 535 BEHAVIORAL CHANGE PROG. STRATE (3 Hours)
Prerequisite: PHS 531 Health Behavior Promotion and Education.
This course examines the behavioral science theories which underpin the fundamental ingredients of most change strategies in continuous health program development. Several models/theories that are designed to alter behaviors are discussed. Theories and models of health perception, health promotion and education along and program planning, research and evaluation are explored. Theories of individual health behavior (e.g., Health Belief Model); interpersonal theories (e.g., Social Cognitive Theory), and models for community level behavioral change (e.g., PRECEDE-PROCEDE Model) are discussed; and their applications are shown through research, practices, and actual projects that students undertake in targeted populations. Students also evaluate both classroom case studies and the actual community implementation of health behavior change programs.

PHS 541 ENVL MNGT AND INDUSTRIAL HYGIE (3 Hours)
Prerequisite: PHS 504.
This course introduces students to the basics of Environmental Management and Industrial Hygiene. The course will be divided into two parts. Part I will help students understand the regulatory approaches, effects of pollution and the source of pollutants, and the various environmental management issues. Part II will place an emphasis on control of occupational health hazards that arise as a result of work or during work.

PHS 542 ENVNL & OCPTNL HLTH RISK ASSMT (3 Hours)
This course assists the student in developing the skills necessary to assess, evaluate and recommend control measures to reduce environmental and occupational risks. This course will involve the study of chemical exposures and the harmful actions of chemicals on humans. Students will study scientific methods currently employed to assess human risks to environmental and occupational contaminants.

PHS 543 OCCUPATIONAL HLTH & SAFETY MNG (3 Hours)
This course introduces the field of safety, prevention management, and issues in occupational health. This course will provide the opportunity for the student to apply public health principles and decision making skills with relation to prevention of injury and disease, health promotion, and protection of worker populations from occupational hazards.

PHS 544 ENVL AND OCCUPATIONAL TOXICOLO (3 Hours)
This course examines the basic concepts of toxicology and demonstrates how the basic principles are applied in occupational and environmental regulations. Toxicology, the study of the adverse effects of chemical or physical agents on biological systems, is a pillar of both clinical medicine and public health. Students will acquire the armament to develop, interpret, and utilize toxicological data for solving environmental and occupational health problems.

PHS 545 ENVL PLCY & OCCUP HLTH REGULAT (3 Hours)
Prerequisite: PHS 543.
This course examines Federal laws and regulations concerning environmental and occupational health. This course will introduce students to State environmental policies and occupational health regulations while and emphasize implementation and compliance with environmental and occupational health regulations and laws.

PHS 555 MATERNAL AND CHILD NUTRITION (3 Hours)
This course presents important aspects of growth and development, nutritional requirements and concerns, and dietary recommendations from conception to adulthood. Emphasis is on the special nutritional concerns of minorities and the medical, psycho-social, and environmental factors influencing nutritional status. Topics in current controversies, chronic disease prevention, nutrition education, and health promotion are also covered.

PHS 556 CULTURAL NUTRITION & HLTH DISP (3 Hours)
This course addresses food and its role in the culture and food beliefs and practices of various religious and ethnic groups in the United States. It emphasizes the impact of culture, socio-economic differences, and other factors on food practices and health beliefs to prepare students to provide culturally sensitive services to communities and clients.

PHS 564 COMPARATIVE & INTERTL HLTH SYS (3 Hours)
This course introduces important methodological approaches to comparative analyses. For analytical purposes, the health systems of the world will be classified into four major categories. Important examples from each of these categories will be discussed. Specific objectives of the course are: to discuss the health system categories and their determinants; to identify important components of a health system; and to illustrate the health system categories by selecting country case studies. Health care reform proposals of various countries will also be discussed.

PHS 565 HLTHCARE IN DEVELOPING COUNTRI (3 Hours)
This course introduces the students to health care in settings with severe resource constraints, rapid population growth, critical competing priorities, poor data collection, and high disease burden. Students are prepared for effectiveness in international health by studying infectious disease control, nutrition, environmental health, health practices, and needs for sustainability as they apply to the tropical setting.

PHS 571 STATISTICAL THEORY (3 Hours)
Prerequisite: PHS 503 or an equivalent introductory course in biostatistics.
This course is an introduction to the mathematical foundation of statistics and statistical theory. It provides an in depth coverage that includes probability theory, probability distributions, random variables, theories of statistical testing, interval estimation, and hypothesis testing The course starts with defining a sample space and the random variable then expounds to include distribution and density functions and concludes with applications of hypothesis testing and confidence interval estimation.

PHS 572 STATISTICAL COMPUTER APPS (3 Hours)
The purpose of this course is to teach two statistical computing applications: Statistical Packages for the Social Sciences (SPSS) and Statistical Analysis Software (SAS). This course covers the basic and intermediate applications of these two statistical programming applications. For SPSS, students will learn the following: the basic components of the software (input, analysis and output interfaces), usng the data editor, creating SPSS data file, create and recode variables, and set propertise of variables. For SAS students will learn the following: components to a SAS program, syntax of SAS program, comment statements, the various features of the Data Step, Procedure (PROC) Steps, common features of both Steps, and SAS Utilities will be covered in much detail. Students will apply the knowledge and skills acquired to the generation of statistical reports using descriptive statistics and related charts. The common feature of the PROC Step of statistical methods ranging from Descriptive Statistics through Analysis of Variance.

PHS 587 SPECIAL TOPICS (1-3 Hours)

PHS 598 CONTEMPORARY ISSUES IN PUBL HL (3 Hours)
This course highlights selective topics in public health relevant to today¿s changing public health forum and environment. The topics are designed to encompass a broad range of public health issues. Thus, topics for discussion are addressed within each of the following core areas of public health: Behavioral Health, Biostatics, Environmental Health, Epidemiology and Health-Related Conditions, and Health Care Planning and Organization.

PHS 599 INDEPENDENT STUDY (1-3 Hours)
This is an individual directed study in a specific concentration of public health selected by the student and approved by the professor.

PHS 601 ADVD BIOSTATS & CMPTR SCI APPL (3 Hours)
This course is an advanced, intermediate level course in biostatistics with emphasis on statistical and analytical techniques important to researchers and practitioners within the public health setting. This course provides in depth coverage of bio-statistical methods including statisitcal inference, sample size calculation, and multivariate regression techniques. This course is offered as an advanced PSH 701 with modification in the theoretical exercises and course expectations for examinations.

PHS 602 SAS PROGRAMMING (3 Hours)

PHS 701 ADV BIOSTATISTICS & COMPTR SCI (3 Hours)
This is an advanced course in biostatistics with emphasis on statistical inference, sample size calculations, and multiple regression techniques. The course emphasizes the use of computer software packages in conducting statistical procedures. The software packages include SPSS, SAS, Epi Info, GIS, and others. Emphasis is placed on selecting the appropriate statistical test and the most appropriate analytical procedure. Advanced Biostatistics Lab I course (PHS 711) must be taken simultaneously with this course.

PHS 702 DISEASE PATHOGENESIS&RISK FCTR (3 Hours)
This course addresses the major behavioral factors causing diseases in the nation. The course focuses on cardiovascular disease, cancer, HIV, and other chronic diseases. Disease pathology and pathogenesis are described, and their major determinants and behavioral risk factors are examined. Current models and theories of disease prevention and health promotion are addressed. Students will learn how to implement effective strategies and interventions to reduce risk factors and diseases.

PHS 703 DESGNG RES STUD ON MIN&SPEC PO (3 Hours)
This course examines unique health problems and concerns among African Americans, rural populations, women, children, other minorities and special populations. It describes basic study designs and their strengths and limitations, and addresses specific cultural competencies, research codes of ethics, and health disparities. It also addresses strategies for designing studies and interventions involving lay community leaders, faith-based organizations, and innovative means to reach special communities.

PHS 704 SURV & QUANT RESEARCH METHODS (3 Hours)
This course explores descriptive research methods and emphasizes the importance of using a mixed approach of qualitative and quantitative techniques. Students are provided with an overview of survey research methodology. Questionnaire and interview design, scale construction, methods of administration, response rate, reliability measurements, scale construction and validity are discussed. Also, specific qualitative methods and techniques such as participant observation, interviewing, focus groups, and use of personal documents and records are discussed.

PHS 705 ADVOCACY AND PUBLIC HLTH POLIC (3 Hours)
This course introduces advocacy and support measures for the promotion and formation of new legislation and the establishment of public health policies. Important federal, state, and international legislation is analyzed. The course also addresses the trends and processes by which public health programs are established in the United States and around the world.

PHS 706 PRIN OF ENVMNTAL & OCCU HLTH (3 Hours)

PHS 707 LEADERSHIP FOR PHS PROFESSNLS (3 Hours)
The purpose of this course is to provide students with a foundation not only in the study of leadership practice and theory, but also for the broader concept of leading people and health organization across multiple and interconnected disciplines. It is important for leaders to work collaboratively and appreciate all areas of public health and the important roles that all disciplines play, such as social work, urban planning, anthropology, and education.

PHS 711 ADVANCED BIOSTATISTICS LAB I (1 Hour)
These laboratory courses accompany the Advanced Biostatistics and Computer Applications courses. The computer laboratory courses provide practical experience with the computer software programs discussed in the class. The biostatistics course (PHS 701) and Lab I must be taken at the same time. Lab II and Lab III are taken during the following semesters. Each lab course is a one-hour credit.

PHS 712 Advanced Biostatistics Laboratory II (3 Hours)
SAS statistical software is used for research analysis of public health and clinical data. This course provides hands-on programming approaches to programming and statistical computing skills. It include techniques for entering, data management, and manipulating data combined with step-by-step instruction for analyzing the data using SAS.

PHS 713 ADVANCED BIOSTATISTICS LAB III (1 Hour)
These laboratory courses accompany the Advanced Biostatistics and Computer Applications courses. The computer laboratory courses provide practical experience with the computer software programs discussed in the class. The biostatistics course (PHS 701) and Lab I must be taken at the same time. Lab II and Lab III are taken during the following semesters. Each lab course is a one-hour credit.

PHS 750 COMMUNITY RESEARCH PRACTICUM (1-3 Hours)
This is a supervised community experience where students participate in a community-oriented service or practice to gain first hand knowledge of community issues and decision-making processes. In the context of this experience, the student begins developing a research agenda that should be relevant to community needs and/or practices. Students are required to register for the 1-credit hour practicum during the second semester and maintain enrollment each semester for three consecutive semesters, with the third semester culminating as the capstone experience. A final paper of publishable quality is required for completion of the course and registering for the dissertation.

PHS 755 INDEPENDENT STUDIES IN PUB HLT (1-3 Hours)
This is an individually directed study in a specific concentration in public health selected by the student and approved by the professor.

PHS 798 DISSERTATION (1-15 Hours)
Prerequisite: Consent of the Chair of the Dissertation Committee each semester of enrollment.
Students will complete doctoral level research that demonstrates the ability to conduct a rigorous project within a specific concentration. The research topic, approved by the dissertation committee, should reflect the candidate¿s interest in a problem unique to public health. The completion of a minimum of 45 semester credit hours is required before enrolling in this course. Enrollment must be continuous until the research experience culminates in the successful defense of the dissertation.

Public Health-Biostatistics (PHBI)

PHBI 711 CATEGORICAL DATA ANALYSIS (3 Hours)
Prerequisite: PHS 503 Introduction to Biostatistics and Computer Applications, PHS 701 Advanced Biostatistics and Computer Applications, and a multiple regression analysis course.
This course provides an in-depth review of the appropriate biostatistical techniques for analyzing categorical data. Included will be chi-square statistics, log-linear analysis, and logistic regression. SPSS and/or SAS statistical software packages will be utilized.

PHBI 712 MULTIVARIATE ANALYSIS I (3 Hours)
Prerequisite: PSY 502 may be substituted for MNGT 712.
This course covers multivariate analysis of variance and covariance, canonical correlation, factor analysis, discriminant function analysis, and selected advanced topics.

PHBI 713 MULTIVARIATE METHODS II (3 Hours)
Structural-equation models, log-linear models, and selected advanced topics based on student needs and interests.

Public Health-Epidemiology (PHEP)

PHEP 711 BEHAVIORAL & PSYCHOSOC EPIDEM (3 Hours)
Prerequisite: for doctoral students include PHS 505 and PHS 702 Disease Pathogenesis and Behavioral Risk factors.
This course provides an overview of social, personality, and cultural factors influencing behavior. It also addresses stress and related psychosocial factors as determinants of health and disease. Psychosocial and behavior models are discussed. Doctoral students will be required to analyze a specific data set and prepare a research literature report on a specific topic in behavioral and psychosocial epidemiology. A prerequisite for the master¿s students is PHS 505 Principles of Epidemiology.

PHEP 712 CLNCL TRAILS & INTRVNL ST DEV (3 Hours)
Prerequisite: include PHS 521 Epidemiological Study Designs and PHS 703 Designing Research Studies on Minorities and Special Populations.
This course provides an in-depth review of the design, conduct, and evaluation of clinical trials and cohort studies. In addition it addresses errors and common methodological pitfalls using practical illustrations. The first half of the course addresses clinical trials and the second half focuses on other interventional study designs.

PHEP 713 INFECTIOUS DISEASE EPIDEMIOLGY (3 Hours)
Prerequisite: are PHS 505 Principles of Epidemiology, and Disease Pathogenesis and Behavioral Risk Factors.
This course reviews infectious agents of public health importance. Included are vaccine-preventable infectious diseases; diseases spread by personal contact, water, and food; and arthropod-borne diseases and nosocomial infections. In addition, the emergency preparedness system will be discussed and agents involved in bioterrorism will be addressed regarding treatment and (PHS 702) prevention.

PHEP 714 NUTRITION&GENETIC EPIDEMIOLOGY (3 Hours)
Prerequisite: are PHS 505 Principles of Epidemiology, and PHS 702 Disease Pathogenesis and Behavioral Risk Factors.
This first half of the course addresses nutritional factors and their relationship to disease. The second half involves a review of genetics, inheritance, and molecular factors causing disease.

PHEP 717 ENVIRONMENTAL EPIDEMIOLOGY (3 Hours)

Public Policy & Administration (PPAD)

PPAD 504 ADM OF AMBULATORY CARE SYSTEMS (3 Hours)
An analysis of primary health care as delivered in the United States and other countries. Various models of delivery are examined, e.g. via physician's office, Neighborhood Health Center, Health Maintenance Organization, etc.

PPAD 505 PRIN OF PUBLIC ADMINISTRATION (3 Hours)
An analysis of the basic principles and practices of Public Administration in the United States. Problems of structure, organization, administrative power, status and leadership are examined. Major actors in the struggle to control bureaucracy are identified. Value systems, ethics and application of administrative power are explored.

PPAD 507 QUANTITATIVE ANALYSIS (3 Hours)
Students are familiarized with the application of relevant research techniques to the problems of public sector management and policy formulations. Required for entering students without research or computer skills.

PPAD 508 ADVANCED QUANTITATIVE QUAL ANA (3 Hours)
Students are familiarized with the application of relevant research techniques to the problems of public sector management and policy formulations. Required for entering students without research or computer skills.

PPAD 509 SEM IN EXECUTIVE LEADERSHIP (3 Hours)

PPAD 513 INTER GOVERNMNTL RELATNS (3 Hours)
Prerequisite: American Government.
Evolution of the American federal system; consideration of inter-unit cooperation and conflict; review of administrative issues like revenue-sharing, federal grants and regulations.

PPAD 514 PROB OF COUNTY ADMINSTRN (3 Hours)
Prerequisite: State and Local Government.
Administrative operations in county government are discussed; emphasis is placed on understanding purchasing and contracting, personnel and financial administration, reporting and public relations.

PPAD 516 THE ADMINISTRATIVE STATE (3 Hours)
Prerequisite: Introduction to Public Administration.
Political environment of public administration; relation of bureaucracies to public opinion and political pressure; relations among legislators, elected executives, and civil servants are discussed.

PPAD 517 SEMINAR IN STATE POLITCS (3 Hours)
Prerequisite: State and Local Government or American Government.
Special features of Mississippi governmental structure and political process are reviewed.

PPAD 518 SEMINAR IN STATE POLITCS (3 Hours)
Prerequisite: State and Local Government.
Student examination of the organization, function, political dynamics and policy outputs of state governmental systems.

PPAD 519 PROB OF STATE ADMINSTRAT (3 Hours)
Prerequisite: State and Local Government.
Administrative operations in state government are reviewed with emphasis on planning research, purchasing and contracting, personnel and financial administration, reporting and public relations.

PPAD 520 CIVIL RIGHTS LAW-AFFIRM ACTION (3 Hours)
This course is designed to introduce the students to civil rights laws passed in America since the 1960s. As such this course examines the national government's response to the claims of racial/ethnic and language minorities. Every effort is made to relate changes in civil rights laws to the general nature of incremental policy making in the U.S.

PPAD 521 BLACK PERSPECTV & PUBL ADM SYS (3 Hours)
Public Policy problems, perceptions and experiences of Blacks are examined along with the policy process. Broader questions concerning systemic change, structural transformation and historical built-in dilemmas are examined. The relationship between bureaucracy and the Black client is explored.

PPAD 525 URBAN POLITICS (3 Hours)
Prerequisite: American Government and Urban Government.
Community power and decision-making; political leadership; the relationship of citizens of their government; the urban bureaucracy, citizen participation; and delivery of services are discussed.

PPAD 536 ADMIN OF HEALTH AGENCIES (3 Hours)
A general overview of health care systems, especially the free enterprise system utilized in America, is discussed, including a review of empirical studies of demand for health services; behavior of providers, and relationship of health services to population health and how public input into health care organizations helps form public policy for health care issues.

PPAD 538 COMMUNITY POLITICAL PROC (3 Hours)
Students analyze the political consequences of the underlying socio-economic forces operating in urban areas.

PPAD 548 PUBLIC PERSONNEL ADMINST (3 Hours)
Procedures and problems of governmental personnel administration are reviewed. Emphasis on staffing, remuneration, career system, motivation, evaluation, collective bargaining, and employee relations.

PPAD 549 PUBLIC FINANCE ADMINSTRA (3 Hours)
Procedures for the control of public funds; assessment and collection of taxes; public borrowing and debt administration; preparation, enactment, and audit of the budget are reviewed.

PPAD 550 STATE & LOC GOVT BUD&FIN (3 Hours)
Prerequisite: Public Finance or equivalent.
Students study the fiscal problems of urban areas and the scope of government fiscal activities, including revenue trends, taxing policies, cash flow management, debt management and pension fund management.

PPAD 551 PUBLIC POLICY (3 Hours)
Politics of the policy process; nature, determinants, and effects of public goods and services; formulation, implementation, and evaluation of public policies.

PPAD 555 CRIMINAL JUSTICE SYSTEMS (3 Hours)
The process of law enforcement from commission of a crime through sentencing, trial, incarceration, and rehabilitation.

PPAD 558 CORRECTIONAL SYSTEM (3 Hours)
Principles of the formal behavior-control devices are examined with an emphasis on legal systems and the philosophical background of criminal justice.

PPAD 559 SEMINAR/N PUBLIC POLICY ANALYS (3 Hours)
Prerequisite: Public Policy.
This course provides a general and conceptual overview of the study of public policy as a major sub-field of public administration. Emphasizes the policy process and include methods and techniques of policy analysis.

PPAD 560 SEM IN POL OF ENVIRN ADM (3 Hours)
Prerequisite: Environmental Law.
The contemporary aspects of environmental problems as reflected in society, politics and business that are faced by administrators are discussed.

PPAD 561 GOV REGULAT NATURAL RESO (3 Hours)
Prerequisite: Environmental Law.
The legal and political problems faced by government when trying to regulate use of natural resources are examined.

PPAD 562 COMPARATIVE PUBL ADMIN (3 Hours)
Prerequisite: Comparative Government.
Students analyze administrative processes and systems in various types of governments including operation of national plans, public enterprises, and rural development.

PPAD 568 LABOR MGNT REL IN PUB SE (3 Hours)
Prerequisite: PS 371.
The course analyzes the development of labor unions at the national, state, and local government levels in the United States. (F)

PPAD 571 PROGRAM DEV & OPERATION (3 Hours)
Prerequisite: Governmental Organization and Administration Theory.
The development, operation, and evaluation of public programs; examination of various problem solving techniques; and problems associated with new programs are discussed.

PPAD 572 HUMAN RELAT IN PUBL EMPL (3 Hours)
Prerequisite: American Government.
The course develops understanding of human problems in public agencies; focusing on collective bargaining, contract administration, personnel efficiency and morale, equal employment and affirmative action procedures.

PPAD 576 THEORIES OF ADMINISTRATION (3 Hours)
Organizational change, effectiveness, and allocation processes in public agencies, are discussed. The theoretical models of open system, rationalist conflict, coalition-building and decision-making are examined, with the aim of presenting a unified set of propositions about organizations.

PPAD 579 ADMINISTRATIVE BEHAVIOR (3 Hours)
The course examines administrative behavior and government management with appropriate comparison to private industry; analysis of principal elements of the public administrator's job, such as planning procedures and work methods; evaluating and control programs and operations.

PPAD 580 ADMINISTRATIVE LAW (3 Hours)
Introduce students to series of important issues in Administrative Law. Issues and problems central to the field are explored by an analysis of relevant literature.

PPAD 581 SEM/N COMM DEV & ECO DEV (3 Hours)

PPAD 585 SEMINAR IN URBAN PROBLEMS (3 Hours)

PPAD 586 URBAN PRBLMS&NON-TRAD OP (3 Hours)
An overview of the strategies, tactics and techniques of municipal administration. Innovative models for approaching political issues unique to municipalities and the impact of urbanization are discussed.

PPAD 595 MPPA Capstone (3 Hours)
The Capstone course marks the culmination of the MPPA Program and is designed to reinforce student learning from core courses and concentration areas utilizing three major strategies: (1) lectures; (2) capstone paper; and (3) project presentation. Students will be required to complete a capstone paper under the supervision of the course instructor and their assigned/selected faculty mentor. The goal of the capstone paper is to allow students to demonstrate their mastery of important public policy and public administration principles gained from the various core and elective courses in the MPPA program as well as coursework in their selected concentration area. Demonstration of mastery includes presentation of the paper to departmental faculty and students.

PPAD 596 RESEARCH FOR PUBLIC MANAGEMENT (3 Hours)
Prerequisite: Quantitative Analysis or equivalent.
Empirical analysis for practical administrative problems and the development of new management techniques, including controlled social experimentation; simulation of policy issues; evaluation of future, alternatives. Diagnostic examination must be passed.

PPAD 597 INTERNSHIP (3 Hours)
Prerequisite: Twelve hours graduate course work in Public Administration prior to this individual work experience in a government agency. (Prior approval in the preceding semester)

PPAD 598 THESIS (1-3 Hours)
Complete coursework and comprehensive.

PPAD 599 INDEPENDENT STUDY (1-3 Hours)
The student selects a research area which may be of benefit to his/her program. Topics must be approved by the faculty advisor and by the instructor selected by the student to supervise the research.

PPAD 700 HEALTH CARE FINANCE AND ADM (3 Hours)

PPAD 705 THE SCOPE OF PUBLIC ADMIN (3 Hours)
This class emphasizes the historical and ecological factors influencing the development of the discipline factors influencing the development of the discipline of Public Administration, as well as contemporary trends. Students will discuss issues such as privatizations, the third sector ethnics, and executive leadership. Some effort is directed toward providing a comparative analysis in the context of public administration.

PPAD 706 QUANTITATIVE METHODS (3 Hours)
This course familiarizes students with quantitative approaches which can be used to solve problems in public sector management.

PPAD 707 MNGT OF INFORMATION SYSTEMS (3 Hours)

PPAD 708 SEM IN CONTEM TPCS IN PUBL ADM (3 Hours)

PPAD 709 SEMINAR IN EXECUTIVE LDRSHP (3 Hours)

PPAD 710 EPDMLGY &TOXICO FOR PUB MNGRS (3 Hours)

PPAD 712 URBAN MNGT AND URBAN SRVCS (3 Hours)

PPAD 714 PROBLEMS OF COUNTY ADMINISTRAT (3 Hours)
Administration operations in county government are discussed; emphasis is placed on understanding purchasing and contracting, personnel and financial administration, reporting and public relations.

PPAD 716 THE ADMINISTRATIVE STATE (3 Hours)
Political environment of public administration, relation of bureaucracies to public opinion and political pressure; relations among legislators, elected executives, and civil servants are discussed.

PPAD 718 SEMINAR IN STATE POLITICS (3 Hours)
The examination of the organization, function, political dynamies and policy outputs of state governmental systems.

PPAD 719 PROBLEMS OF STATE ADMINSTRA (3 Hours)

PPAD 721 BLACK PERSPECT IN PUBLIC ADMIN (3 Hours)

PPAD 725 URBAN POLITICS AND POLICIES (3 Hours)

PPAD 736 THE ADMIN OF HEALTH AGENCIES (3 Hours)
A general overview of health care systems, especially the free enterprise system utilized in America, is discussed, including a review of empirical studies of demand for health services; behavior of providers, and relationship of health services to population health and the method in which public input into health care organization helps form public policy.

PPAD 748 PUB PERSONNEL HUM RES ADMIN (3 Hours)
Procedures and problems of governmental personnel administration are reviewed. Emphasis on staffing, remuneration, career system, motivation, evaluation, collective bargaining, and employee relations.

PPAD 750 STATE & LOC GOVT BUD&FIN (3 Hours)

PPAD 759 SEM IN PUBLIC POLICY ANALYSIS (3 Hours)
This course provides a general and conceptual overview of the study of public policy as a major sub-field of public administration. Emphasizes the policy process and include methods and techniques of policy analysis.

PPAD 760 FINANCIAL MNGT TO PUBLIC ORGN (3 Hours)

PPAD 770 ADMIN OF NON-PROFIT ORGANIZA (3 Hours)

PPAD 776 THEORIES OF PUBLIC ORGNZTN (3 Hours)

PPAD 777 PUBLIC POLICY FORMU & IMPLEMTN (3 Hours)
This course focuses on problems of policy formulaion, implementation, and evaluation. The participants will be exposed to such issues as seeing the need for policy issues, thinking through goals and objectives, policy adoption, and problems of implementation, including perceptive and real gaps between intent and bureaucratic interpretations.

PPAD 781 SEM IN COMMUNITY DEV & ECO DEV (3 Hours)
Provides students with a basic understanding of the broad field of community and economic development as carried out by the federal, state and local levels of government, as well as the impact of neighborhood development organizations. The course exposes students to a variety of readings, and to regular visits by by practitioners.

PPAD 782 SEM IN PROG DEVLPMNT AND EVAL (3 Hours)

PPAD 785 SEMINAR IN URBAN PROBLEMS (3 Hours)
An analysis of major urban problems, strategies and approaches proposed for their resolution, historical and political implications. Reformist efforts of government and private efforts will be examined with special emphasis on Post-New Deal Developments and the impact on the Black community.

PPAD 786 URBAN PROBLMS& NON-TRAD OPTS (3 Hours)
An overview of the stategies, tactics and techniques of municipal administration. Innovative models for approaching political issues unique to municipalities and the impact of urbanization are discussed.

PPAD 796 ADVANCED RESEARCH METHODS I (3 Hours)

PPAD 798 DISSERTATION (3-6 Hours)
This course is for students who are admitted to candidacy so that they may engage in writing of the dissertations. (Prior approval).

PPAD 799 INDEPENDENT STUDY (1-3 Hours)

Reading (RE)

RE 502 WKSHP:CURR PRBLMS IN ISS N LIT (3 Hours)
Designed to meed the needs of teachers, students, administrators, and community leaders who have special interests in selected areas of reading. Content developed around need of specific groups.

RE 503 THEORY & RESEARCH N LITERAC ED (3 Hours)
Designed for candidates to identify controversies in the field of reading and become knowledgeable of research literature and theoretical bases for the issues.

RE 506 FOUNDATIONS OF LITERACY (3 Hours)
This course is an introductory course for advanced reading candidates. It is designed to examine the basic foundations, philosophies, theories and best practices for reading information and development. It includes a field-based component.

RE 510 TCHING LIT SKILS N CONTNT AREA (3 Hours)
A thorough study of techniques for promoting reading growth through teaching content materials.

RE 512 USG LIT TO TEACH LITERACY SKIL (3 Hours)
A thorough study of integrating the teaching of reading skills through literary selections. Special emphasis will be placed on vocabulary and comprehension skills and concepts that are applicable to the teaching and learning of literary content.

RE 550 PSYCH OF LITERACY INSTRUCTION (3 Hours)
A thorough study of psychological principles underlying the teaching of reading.

RE 552 MTHDS/MTRLS FOR TEACH ELEM LIT (3 Hours)
A study of the methods, materials, media, and current approaches for elementary reading instruction.

RE 556 SUPERVISED PRACTICUM IN LIT I (3 Hours)
Procedures for diagnosing and correcting learning problems in reading.

RE 557 SUPERVSD PRACTICUM N LITRCY II (3 Hours)
Provides students the opportunity to apply their knowledge of the reading process by designing and implementing appropriate instructional plans to correct reading difficulties of diverse learners.

RE 559 LEADERSHIP IN LITERACY (3 Hours)
The Leadership in Literacy course is designed to build leadership capacity for candidates (administrators and teachers) by enabling them to actively explore, reflect, synthesize and convey growth and development of leadership in literacy. The portfolio will allow candidates to exhibit leadership skills in professional development as they reflect on planning, implementing, and evaluating professional development efforts at various levels.

RE 600 Diagnosis and Correction of Reading Difficulties I (3 Hours)
Theory, demonstration, and practice in group diagnosis, and procedures for interpreting results for children with unique learning needs.

RE 601 DIAGNOSIS & COR OF RE II (3 Hours)
Prerequisite: RE 600.
Actual experience in diagnosing reading difficulties, prescribing remedial procedures, and carrying through with prescription.

Rehab. Counseling (RHAB)

RHAB 509 INTRO TO REHAB COUNSELNG (3 Hours)
Reviews the foundations of rehabilitation counseling, role and function of the rehabilitation counselor and the vocational rehabilitation process.

RHAB 516 MEDICAL INFORMATION (3 Hours)
A survey of physical malfunctions and medical information needed for effective rehabilitation counseling.

RHAB 519 COMMUNITY RESOURCES (3 Hours)
An exploration of locating and utilizing community resources in helping the rehabilitation client.

RHAB 523 VOCATIONAL APPRAISAL (3 Hours)
To prepare rehabilitation counselors to understand the results of psychological evaluations and to use the information to assist the client in vocational planning. The course covers measurement principles, instruments frequently employed by rehabilitation counselors, and application of test results for persons with disabilities.

RHAB 524 VOCATIONAL EVALUATION (3 Hours)
Course covers history, scope and purposes of vocational evaluation. Enables students to use evaluation techniques, vocational systems in order to develop and implement a vocational plan for rehabilitation clients.

RHAB 531 CASE MANAGEMENT (3 Hours)
Basic procedures in providing and individual needs and the basics of recording and reporting such services.

RHAB 532 VOCAT PLCMT ANAL ADJ DIS (3 Hours)
Job development, analysis, job modifications and accommodations for persons with disabilities.

RHAB 533 PLACEMENT LABORATORY (3 Hours)
This course is designed to provide supervised experiences for students that will enhance independent living and successful job placement for persons with disabilities. Students will assist persons with disabilities by coordinating and finding suitable employment.

RHAB 535 TECHNIQUES OF COUNSELING (3 Hours)
Theories and techniques of counseling applied to individuals and groups in rehabilitation services.

RHAB 560 PSYCH ASPECTS OF DISABLY (3 Hours)
A survey dealing with psychological problems caused by disabilities.

RHAB 577 PRAC IN REHABILITATION I (3 Hours)
Supervised experiences in human services or rehabilitation settings of 104 hours per semester and classload management settings. Related class work emphasizes interpersonal communication and skills.

RHAB 579 INTERNSHIP IN REHABILITATION (1-6 Hours)
Prerequisite: RHAB 577 and RHAB 578.
Supervised internship in counseling and caseload management in rehabilitation services. A 600 hour field placement for one full semester.

RHAB 586 RESEARCH IN REHABILITATION (3 Hours)
Systematic investigation of factors and procedures relevant to research in rehabilitation.

RHAB 594 SEMINAR IN REHABILITATION (3 Hours)
Multicultural counseling, legislative issues, ethical issues and current topical issues.

RHAB 678 SEM N INTNL ISSU & TNDS N RHAB (3 Hours)
This course will review health concerns and issues related to the global community. Epidemiological research, health care policies, disability laws and rehabilitation trends will be discussed. Cultural diversity techniques, cross cultural counseling and strategies for effective multicultural counseling will be addressed. Based upon availability, opportunities for student exchange programs abroad will be explored.

RHAB 691 SEMINAR IN SUBSTANCE ABUSE (3 Hours)
Focus on issues research, techniques, applications, and readings in the rehabilitations of persons who are substance abusers.

Social Science (SS)

SS 500 PHILOSOPHIES OF SOC STUD (3 Hours)
A study of the major philosophies about the teaching of social studies in the high schools, especially the purpose.

Social Work (SW)

SW 515 CHILD ABUSE & NEG: PROTCT SR (3 Hours)
This course focuses on assessment and intervention skill development for social work practice with children and families who have experienced abuse and neglect or are at-risk of abuse and neglect. Clinical intervention strategies and dilemmas in role expectations of social work practitioners are analyzed. Attention is given to evaluation and use of research content in prevention and intervention services and programs.

SW 520 FORENSIC SOCIAL WORK (3 Hours)
This course focuses on issues common to the discipline of social work and the law. The course will include and introductory review of the law, the American justice system, and basic constitutional principles. Family-related issues-such as, the protection of children, education, adoption, custody and support, marriage, divorce, domestic violence, juvenile law, competency and guardianship-will be explored. Experiential components of the course are designed to prepare social work professionals for effective practice vis-a-vis the intersections of social work and the law.

SW 521 CRISIS INTERVENTION (3 Hours)
The theory and methods of crisis intervention and subsequent consultation are examined in this course. Particular attention is given to the various contemporary techniques of intervention, consultation, referral, and resolution. Assessment techniques used in the intervention process are explored and skills practiced.

SW 535 FAMILY VIOLENCE (3 Hours)

SW 545 ADMINISTRATION IN SOCIAL WELFA (2-3 Hours)
This course is designed to enhance the student¿s awareness and understanding of the basic knowledge and principles which guide the administrative process of social welfare agencies. Administrative skills are taught in relation to the clinical practitioner as well as to other administrative roles.

SW 547 INTERVENTN W/THE ELDERLY (3 Hours)
The most important goal for social service professionals is to improve the quality of life for older people through effective intervention on their behalf. This course will focus on skill development and knowledge and understanding of older persons¿ behavior through the public health model of preventive intervention at the primary, secondary, and tertiary levels. Interventive strategies and case studies will be utilized in the course to develop skills for working with the elderly in institutions and in the community. Models of clinical social work practice with the elderly are critically analyzed.

SW 550 SOCIAL GERONTOLOGY (3 Hours)
This course is designed to give students a general overview of social gerontology as a branch of knowledge in the field of gerontology. Social gerontology concerns itself with psychosocial and economic aspects of the aged individual and the social problems encountered from living in both formal and informal societal groupings. The interaction of these aspects and groupings and the services established and considered for the aged through public and social policy will be discussed.

SW 555 RESEARCH METHODS (3 Hours)
Prerequisite: NONE.
The foundation research course provides an introduction to the principles and methods of basic social work research. Students are introduced to concepts of problem formulation, measurement, research design, sampling, data collection, and data analysis as employed in basic research. Particular attention is directed to social work research that addresses the economic, political, and social needs of people of color and populations-at-risk in American society. This course is designed to prepare students to understand and appreciate scientific research as a valuable tool in furthering professional capabilities and in contributing to the development of the growing body of knowledge in social work practice.

SW 556 ADVANCED RESEARCH METHODS II (3 Hours)
Prerequisite: All foundation courses.
This course is designed to assist students in understanding and applying scientific research methods in clinical practice settings. It builds on the research knowledge of the foundation research course. Students in this course are expected to become proficient in the methods and basic principles of conducting and evaluating empirical research related to clinical practice. In this course, students participate in guided research projects which require a review of relevant research, data collection and analysis and implications for social work practice. Emphasis is given to the importance of demographic, biopsychosocial and cultural variables in the conduct of ethically based research.

SW 558 OPPRESSION, POWER, AND CHANGE (3 Hours)
This course examines institutionalized oppresion and its imp;ications for social work practice of all levels, emphasizing the consequences of social inequality and the social worker's responsibility to fight oppression.

SW 562 PSYCHOPATHOLOGY (3 Hours)
This course is designed to provide students with an indepth knowledge of major forms of emotional and mental disorders manifested in children and adults. Students will learn to assess, diagnose, and treat a diversity of clients and client systems. Particular attention will be directed to the Diagnostic and Statistical Manual (DSM- V) as one of the major assessment tools utilized in human service and clinical practice.

SW 565 HUMAN BEHVR & SOCIAL ENVMNT I (3 Hours)
Human and Behavior and the Social Environment I (HBSE I) (3 hours). This course focuses on the development of the individual from conception through middle childhood and the impact of various aspects (i.e., family, groups, organizations, and community) of the social environment on that development. Content includes empirically based theories and knowledge that focus on the interactions between and among individuals, groups, societies, and economic systems.

SW 566 HUMAN BEHVR & SOC ENVRNMNT II (3 Hours)
Human Behavior and the Social Enlvironment (HBSE II). This course focuses on the development of the individual from middle adolescence/young adulthood through very old age and the impact of various aspects (i.e., family, group, organization, and community) of the social environment on that development.

SW 575 SOC WELFARE POLICY, SER, & ANL (3 Hours)
Social Welfare Policy, Services, and Analysis. This course gives an overview of the history of social welfare policy, services and the profession of social work. Additionally, this course will cover assessment of policy as it directly affects service delivery. It examines the responsibilities and roles of a generalist worker in policy development, policy clarification, and change in policy implementation.

SW 580 SOCIAL WORK PRACTICE SKILLS LA (1 Hour)

SW 581 PRACTICE W INDVLS, FAMLS, GRPS (3 Hours)
This course provides an introduction to social work practice methodology and the professional use of self in combination with the generalists practice approach to social work with individuals, families, and small groups, and within the context of communities and organizations.

SW 582 PRAC W COMMUNITIES & ORGANZTNS (3 Hours)
This course prepares students to use professional knowledge, values, and skills in generalist practice with diverse groups, communities, and organizations. Because most social work practice takes place within organizations in the context of one or more communities, understanding and intervening at the group, organization, and community levels are essential for effective social work practice.

SW 583 INTEGRATED SOCIAL WORK PRACTIC (3 Hours)
Prerequisite: Acceptance into advanced standing.
This course is a review and refinement of practice skills and professional knowledge provided in the foundation curriculum content of the MSW program. The course focuses on the application and transformation of generalists knowledge and skills to prepare for entry into the concentration curriculum. This bridging foundation course provides an opportunity for students to develop critical thinking skills and apply empowering practice decisions in professional practice settings with all sizes of client systems. Special emphasis is placed on the reciprocal interactions between individuals and their environments toward the engagement of personal and community strengths.

SW 584 ADVD C:INTERVNTN W CHLDN & YTH (3 Hours)
Prerequisite: All foundation courses.
This course is designed to provide advanced clinical practice knowledge and skills for intervention with children and youth, primarily in the context of the urban environment. Special needs and vulnerabilities of these populations are addressed. Students are given orientations to the human services agencies primarily concerned with the complex issues and difficulties faced by these populations, and the implications of service delivery arrangements for clinical practice. Attention is directed to skills needed for the provision of services to children and youth in the context of their families and communities and to programmatic and advocacy activities on their behalf.

SW 586 ADVD CN: INTERVENTN W FAMILIES (3 Hours)
SW 586 Advanced Concentration: Family Intervention (3 Hours) The focus of this course is intervention with families. Advanced skills are developed in areas of social work practitioner roles, strength based assessment, and specific models of intervention with families. Special attention is given to comparative approaches to couple and family intervention (e.g., Multi Systemic Therapy, Dialectical Behavioral Therapy, and Trauma Informed Care); relevant recent research findings related to family therapeutic approaches; the inluences of environmentals, ethnic, and cross-cultural variables; and ethical dilemmas in work with families.

SW 587 ADV SOCIAL WORK PRACTICE W/GRP (3 Hours)
Prerequisite: All foundation courses.
The advanced social work practitioner is required to demonstrate group skills in a wide range of social situations. The foundation practice courses provide the basic skills for this course while the advanced practice with groups course expands, elaborates, and adds to the student's knowledge and skills. The focus of this course is on the development of knowledge and skills in the delivery of preventive, developmental, and remedial group services for at-risk populations of varying ages and social situations.

SW 588 CHLDRN & FAM INTEGRTV CAPSTONE (3 Hours)
Youth and Families Integrative Capstone (3 Hours) This course is conceptualized as a mechanism for students to draw upon all previous courses content in the MSW Program and connect their learning to the nine advanced program competencies paralleled through case analysis. The course is taken concurrently with the final block field placement. Students demonstrate mastery of the theoretical and empirically-based knowledge from all components of the curriculum, and the ability to apply this knowledge in advanced social work practice with children, youth and families, while demonstrating the nine advanced concentration competencies. Additionally, students will be evaluated among dimensions of their learning (knowledge, values, skills and cognitive and affective processing)l.

SW 589 URBAN POVERTY: INTERVENTION AP (3 Hours)
Prerequisite: All foundation courses and SW 584-Intervention with Children, Youth, and Families, SW 585- Psychopathology, and SW-587-Family Intervention.
This capstone course focuses on developing services and programs especially tailored to meet the needs of the urban poor, who are disproportionately people of color. It addresses the multiple and negative impacts of urban poverty on children, youth and families and their functioning in the social environment. Community-oriented and family-centered services in schools, churches, public housing projects, and neighborhood service centers are examined in regard to their individual and collective potential to improve the lives of at-risk children and their families. Particular attention is given to continuing and contemporary urban problems of substance abuse, violence, teen pregnancy, school dropouts, unemployment and underemployment, and the impact of welfare reform on families and their functioning in the community.

SW 593 FIELD INSTRUCTION (3 Hours)
Prerequisite: Acceptance into the Advanced Standing Program.
The advanced standing field instruction course is taken concurrently with SW 583-Integrated Social Work Practice, the advanced standing bridging course. This course focuses on the application and transformation of generalists practice knowledge and skills to clinical practice knowledge and skills with children, youth and families.

SW 594 FUNDTN FIELD PRACTICUM AND SEM (6 Hours)
This course is designed as a block field placement and is taken in the spring of the first year in which the student is enrolled in the M.S,W. Program. This field instruction course is focused on generalist social work practice with individuals, families, groups, organizations, and communities. Seminar sessions are held monthly and are announced at the beginning of the semester.

SW 595 ADVD CNT: FIELD PRACTICE & SEM (6 Hours)

SW 596 INDEPENDENT STUDY (3 Hours)
This is an individually directed intensive study in an area of social work practice which is selected by the student. The independent study selection is made in accordance with the curriculum plan of the MSW Program and is approved by the student¿s faculty advisor and the Master of Social Work Program Coordinator.

SW 700 DOCTORAL PROSEMINAR (3 Hours)
This seminar is designed to enhance the student¿s matriculation in the doctoral program and their preparation for leadership roles as social work scholars and educators. As a backdrop, it provides an overview for discussion of higher education in general and doctoral education as a major focus of study in social work education. Students engage in dialogue and related activities considered essential to their success in the program and preparedness for their prospective roles as faculty in the academy.

SW 705 SOCIAL WELFARE HISTORY & PHILS (3 Hours)

SW 710 MACRO THEORY (3 Hours)
This course critically examines and assesses macro social science theories and explores how they are applied to social problems in social welfare and social work. Selected theories are identified and examined, conceptual and philosophical assumptions assessed, values considered, and empirical evidence analyzed. Particular attention is given to issues of inequality and oppression in relation to race, gender, and class.
This course prepares students for use of macro theories to guide their research.

SW 711 MICRO THEORY (3 Hours)
This course examines human behavior theories and theoretical approaches to child and family studies in social work. The course traces the development of major theoretical approaches in the social and behavioral sciences and examines emerging schools of thought. Conceptual and philosophical issues related to theory building in clinical practice are explored. Through an analysis of the theoretical knowledge base of social work practice with individuals, families, and other small groups, this course prepares students for subsequent use of theory in practice-focused research.

SW 714 SW EDU SEM: ISSUES & KNOWLED P (3 Hours)
Prerequisite: SW 700)
This course examines content, context, and processes in social work education. It critically analyzes current issues and future trends in social work education. Among the areas covered are accreditation, values and ethics, educational and professional organizations, curriculum development, methods of instruction and ancillary educational roles. (

SW 720 RESEARCH METHODOLOGY (3 Hours)
This research course provides students with a foundation for understanding and conducting scientific inquiry in social work. It covers the research process, critically examining problem formulation, use of the literature, theoretical and conceptual framework development, researchable questions, hypothesis development, research design, sampling procedures, measurement, and data collection. Students also consider the ethical, philosophical, and other dimensions of research that are essential to understanding the role of research in social work.

SW 721 RESEARCH METHODS II (3 Hours)
Prerequisite: SW 720 and SW 722)
This advanced research methods course is a continuation of the first research course. It encompasses an in-depth study of qualitative and quantitative research, including grounded theory, biographical life history, phenomenology, ethnography, content analysis, survey research, and experimental, quasi-experimental, and non-experimental designs. Emphasis is placed on measurement, sampling, data analysis, and other relevant issues. The strengths and weaknesses of both qualitative and quantitative research are examined. The integration of both approaches to build a common body of knowledge is also covered. (

SW 722 STATISTICAL METHODS I (3 Hours)
This course explores data analysis issues at the bivariate level and how data are affected by various statistical problems. It emphasizes the application of both qualitative and quantitative statistical reasoning, description, inference, and theoretical underpinning as well as the interpretation of the procedures used in the context of social work research. The statistical knowledge base is augmented by the use of the computer for statistical analysis procedures.

SW 723 STATISTICAL METHODS II (3 Hours)
Prerequisite: SW 720 and SW 722)
This course builds on the first statistical methods course. It concentrates on the multivariate statistical procedures to provide an integrated and in-depth applied approach to multivariate data analysis and linear statistical models in social work research. Particular emphasis is placed on the procedures involved with multiple independent and dependent variables used simultaneously in a comprehensive design. The course utilizes computer programs for statistical analysis procedures. (

SW 724 POL & PRAC ISS IN FAM & CHILD (3 Hours)
This seminar is designed to provide students with an opportunity to explore policies, programs, services, and related practice issues affecting families and children. It focuses on the nature of selected policies, the policy-making process, factors that influence policy formulation, implementation, and evaluation and approaches to policy analysis. Particular emphasis is placed on critical examination of selected policy and practice issues related to families and children. Students are expected to analyze a major policy affecting families and children and prepare a related policy or practice issue paper. Examples of current issues covered are the impact of welfare reform, medicaid coverage, managed care, permanency planning for children at risk, and research on the prevention of family and/or youth violence.

SW 725 STATS MTHDS III: ADV QUNTV ME (3 Hours)

SW 732 INDEPENDENT STUDY (3 Hours)
Prerequisite: SW 720, SW 721, SW 722 and SW 723).
This course builds on the previous methods courses. It concentrates on advanced quantitative statistical procedures to provide an integrated and in-depth applied approach to data analysis and linear statistical models in social work research. Particular emphasis will be placed on higher level statistical methods involved with multiple independent and dependent variables used simultaneously in a comprehensive design. Familiarity with the use of SPSS for data analysis is required. (

SW 742 QUALITATIVE RESEARCH METHODS (3 Hours)
Prerequisite: SW 720 and 721)
This course examines major qualitative approaches that are most frequently applied to the study of process in human services settings. Students learn how to conduct systematic investigations of in-depth, non- quantitative studies of individuals, groups, organizations, or communities. (

SW 760 RESEARCH PRACTICUM (3 Hours)
Prerequisite: SW 720 and 722)
This individualized learning experience is designed to provide students with "hands on" research experience prior to the dissertation project. Students work with their advisors in selecting an ongoing research project and principal investigator for supervision of their work. Students develop and submit a work plan to the practicum supervisor, advisor, practicum director, and doctoral program chair for approval. (

SW 770 DISSERTATION (1-15 Hours)
Students will complete a major conceptually and methodologically rigorous research project of interest that contributes to social work knowledge. The topic of the dissertation is approved by the dissertation committee.

Sociology (SOC)

SOC 502 THEORIES OF CRIME DELING (3 Hours)
An intense overview of the major theories of crime and delinquency from the 18th century to the present. (F)

SOC 503 HIST&PHIL OF ALCOHOLISM (3 Hours)
Background information on society¿s management over time of alcohol and other substances and the effects of their use, with emphasis on philosophical orientations underlying the management strategy.

SOC 504 SOCIOLOGICAL JURISPRUDENCE (3 Hours)
Intensive study of the historical development of current status of constitutional doctrine in relation to the administration of justice by utilizing the options of the U.S. Supreme Court as the basis for equal protection, police practices and the fundamental rights guaranteed in the Bill of Rights. Federal and State constitutional laws as they relate to the criminal justice system. (F)

SOC 505 HISTORY OF SOCIOLOGY (3 Hours)
Analysis of the works of major contributors to functionalism, e.g., Durkheim, Weber, Merton, Parsons, and an examination of the ways in which their work converges to form a cumulative body of sociology theory. (F)

SOC 506 SEM IN JUSTICE ADMN MGNT (3 Hours)
Administrative, management, supervisory, policy, and legal aspects of the juvenile justice system; problems of manpower training and development; planning, program evaluation, and management strategies related to juvenile courts; community diversion and correctional programs and institutions; recent court decisions and legal standards. (S)

SOC 507 RECENT SOCIAL THEORY (3 Hours)
Nineteenth and 20th century sociological theory. Present-day currents in sociology are studied and related to political and psychological contemporary thought. (S)

SOC 512 MTHDS OF SOCIAL RESEARCH (3 Hours)
A course which covers methodology and techniques for selection and formulation of a research problem, research design, questionnaire and schedule construction, proposal writing. (F)

SOC 513 ELEM SOCIAL STATISTICS (3 Hours)
Quantitative techniques of data analysis are introduced in the context of their application in sociological research. Research design, measurement theory, data collection, coding, machine use, and statistical analysis and interpretation are stressed. (S)

SOC 526 SEM IN RACE RELATNS & MINORITI (3 Hours)
Sociological examination of relationship between and within racial groups; analysis of social causes of prejudice and discrimination. (F)

SOC 538 SOC PSY OF DEVIANT BEHAV (3 Hours)
An intensive examination of the concept of deviant behavior and associated concepts, e.g., alienation, abnormality, anomie, pathology, marginality. (Su, D)

SOC 588 INTERVENTIVE METHODS I (3 Hours)
Strategies, techniques and approaches to the intervention, redirection and amelioration of substance misuse behavior with special emphasis on individual, group and community organization foci. (F)

SOC 589 INTERVENTIVE METHODS II (3 Hours)
Prerequisite: SOC 588.
Advanced study of interventive methods with focus on use of games, simulation, role-playing, etc. in intervention. (S)

SOC 590 PRACTCM&INTERGRATV SEMIN (5 Hours)
The practicum experience will be obtained at one of the local agencies or at an agency in another city or state. The internship will include: supervised leadership assignments, administrative and supervisory functions in a public or private agency or institution with emphasis on services for alcoholics or other substance abusers. A bi-weekly integrative seminar during the practicum allows students to share their field experiences with each other. (D)

SOC 591 SEM POLICE ADM PRAC PROB (3 Hours)
The study of police practices and problems, functional and organizational dilemmas of law enforcement, role and interaction of police and community, examination of police subculture and public policy implications on police practices. Includes an analysis of police organization, management and operations, issues and problems of contemporary law enforcement. (S)

SOC 592 CRIME & SUBSTANCE ABUSE (3 Hours)
This course will examine concepts of crime and substance abuse in our society and issues and consequences. It will relate to the differential association, differential social organization theories, and their underlying assumptions and propositions. Criminal substance abuse behavior causation as well as other factors will be discussed during course and crime and substance abuse. Attention will also focus on typologies of criminal substance abuse and the criminal justice system. (D)

SOC 599 SPECIAL TOPICS (3 Hours)

SOC 600 MASTERS THESIS (1-6 Hours)
The candidate for the Master of Arts degree must present a thesis based on research conducted on a topic that is approved by his/her advisor. (D)

SOC 602 DEPARTMNL COMPREHENSIVE EXAM (1 Hour)
This course is for students that need to take the comprehensive examination that have completed all other degree requirements.

SOC 620 COMMUNITY ANALYSIS (3 Hours)
Various approaches to community; types of community; the structural and functional aspects such as leadership, social stratification, subgroups, values and norms. (E, Sum)

SOC 622 RESEARCH AND STATISTICS (3 Hours)
Nonparametric statistics will be emphasized. Scales, charts, tables, and data collecting methods will be examined. (S)

SOC 635 CRIME IN THE URBAN COMMUNITY (3 Hours)
) This course will cover a wide array of topics on crime in the urban community. Most importantly, this course will seek to find solutions to ¿why¿ the crime rate is steadily rising in the urban community and what measures are taken to curb the crime rise.

Spanish (SP)

SP 501 SPANISH GRAMMAR FOR TCHR (3 Hours)
Prerequisite: SP 101-102, 201-202 or equivalent.
Emphasis on those elements required for the effective presentation of syntactical structure in the classroom on all levels. Cannot count toward any undergraduate degree program except by special departmental arrangement.

SP 506 SPAIN&LAT AMER:PEOP&CULT (3 Hours)
Prerequisite: SP 101-102, 201-202 or equivalent.
Study of the Spanish culture with emphasis on geographical and historical introduction, aesthetic, linguistic and philosophical insights into Spanish civilization and culture. Cannot count toward any undergraduate degree program except by special departmental arrangement.

SP 507 READNG FROM SPAN CULT MT (3 Hours)
Prerequisite: SP 101-102, 201-202 or equivalent.
Acquaints teachers and prospective teachers with such works as may be used effectively in the classroom. Selections from the writings of outstanding literary figures are read and discussed. Cannot count toward any undergraduate degree program except by special departmental arrangement.

SP 511 STD IN SPANISH CULTURE I (3 Hours)
The presentation of Spanish Culture and History as expressed in its art, architecture, music and philosophy.

SP 512 STUDIES IN SPNSH CULTURE (3 Hours)
The presentation of Spanish American culture and history as expressed in its art, architecture, music and philosophy.

SP 520 ADV COMPOSITN IN SPANISH (3 Hours)
Practice in written Spanish designed to give the student mastery of grammar and composition.

SP 521 ADV CONVERSTN IN SPANISH (3 Hours)
Practice in spoken Spanish designed to give the student mastery of and confidence in his/her use of spoken Spanish. Will also include contemporary changes in the sounds and vocabulary of Spanish.

SP 580 INDEPENDENT STUDY (1-3 Hours)
Intensive study of a subject selected in accordance with student needs. Topics will vary. May include civilization, techniques of literary analysis and criticism, study of major literary movements, individual authors and their works. Students will make periodic reports on their work and will prepare a substantial paper.

SP 588 MAT PROJECT (1-3 Hours)

SP 599 SEMINAR IN LATIN-AMER LT (3 Hours)
Investigation of a particular geographical area, literary period, or movement.

Special Education (SPED)

SPED 500 SUR OF EXCEP CHILD & YTH (3 Hours)
Prerequisite: SPED 503)
A study of definitions, characteristics, educational programs and problems of exceptional individuals. (

SPED 504 ADMIN & ORG PROC FOR SPE (3 Hours)
Prerequisite: SPED 500, 530, 532, 550, 599, 528, 507, and 586.
A study of administrative and organizational structures, programmatic procedures, policies, resources, and guidelines essential to the delivery of educational services for exceptional learners. ()

SPED 507 Advanced Methods in Behavioral Management (3 Hours)
Observational methodology in behavioral assessment, behavioral management and a review of principles and procedures of behavior change from social learning and applied behavior analysis perspectives. Particular attention will be given to the design, implementation, and evaluation of behavioral interventions with children and families. Emphasis will be placed on effective school-based interventions to include current techniques and tools for understanding and handling behaviors in the classroom.

SPED 520 ASSISTIVE TECHNOLOGY FOR DIS (3 Hours)
Prerequisite: SPED 500)
A survey of assistive technology/devices, legislation and issues related to assistive technology. Hands-on demonstration experiences of technology and software that facilitate new ways of teaching individuals with disabilities is provided. (

SPED 522 ASS TECH FOR I W VISUAL IMPAIR (3 Hours)
This course gives an overview of assistive technology, devices, services, legislation, computer literacy and other issues related to assistive technology specifically for individuals who are visually impaired. Participants will also learn how to: (a) identify resources, (b) funding sources, and (c) the fundamentals of assessing and adapting the latest technology appropriate for students with visual impairments.

SPED 528 AD ED ASSM PRE PLN SPE E (3 Hours)
Prerequisite: SPED 500, 530, 532, 550, and 599)
Special diagnostic procedures with exceptional learners with implications for prescriptive planning. (

SPED 529 ASSESSMENT PROCEDURES FOR THE (3 Hours)
Prerequisite: SPED 543, 540, 542)
Introduction to the concepts, issues, instruments and procedures involved in assessment of visually impaired children and adolescents. (

SPED 540 INTRO CHILDREN W VISUAL IMPAIR (3 Hours)
Introduction to Children with Visual Impairments. (3) An introductory course providing a comprehensive, life-span overview of the field of visual impairments. Examines the legal, demographic, historical, and psychosocial perspectives, as well as the various services and programs available. Through demonstration, simulation, and practical experiences, students will be exposed to a variety of adaptive skills, techniques, and devices used by persons with visual impairments.

SPED 541 METH & MAT TCH VIS HNDCP (3 Hours)
Prerequisite: SPED 543, 540, 542, 529)
The students will design appropriate educational environments, plan instructional programs for low vision students, which will include: functional vision assessment, Braille literacy, learning media assessments, instructional strategies for activities of daily living, concept development, social skills, and subject content. (

SPED 542 STRUC & FUNCT OF THE EYE (3 Hours)
Prerequisite: SPED 543, 540)
This course provides an overview of normal and abnormal development of the human eye. Included are topics of ocular anatomy and physiology; pathological conditions affecting the human eye, and clinical and functional vision assessments. A strong component of low vision is provided within this course, which includes functional vision assessments, environmental vision assessments, optics, the use of optical devices, and the principles of optimizing visual efficiency. (

SPED 543 INTRODUCTION TO BRAILLE (3 Hours)
Emphasis will be placed on reading and writing Unified English Braille, educational strategies, and tools that will aid the teacher in learning to read embossed Braille visually; and write Unified English Braille using a Perkins Braille Writer, computer keyboard for six-key entry, a and slate and stylus. Understanding and addressing: (1) behavior related problems of students visual and multiple disabilities, and (2) issues related to the influence of additonal disabilities of students who have visual impairments will also be addressed.

SPED 544 INTRO TO ORIENTATION & MOBILIT (3 Hours)
Prerequisite: SPED 543, 540, 542, 529, 541, 508)
This course is designed to give practical applications of orientation and mobility techniques to be used by teachers of students that are blind and visually impaired. This class will offer instruction and experiences through supervised blindfold activities in indoor and commercial environments; includes special travel situations, shopping malls, and in store travel. (

SPED 545 ADVANCED BRAILLE (3 Hours)
Course is designed to amplify basic knowledge and proficiency of Braille. An in depth study of tools and teaching strategies used in mathematics to include the Nemeth Code, Sciientific Notebook software and the abacus will be taught to include a review of te Unified English Braille code.

SPED 569 ADV. STRA. FOR MANAGING AGGRE (3 Hours)
Prerequisite: SPED 550, 530, and 532).
Emphasizes prevention and crisis management models, verbal intervention and personal safety skills applicable with verbal aggressive and physically violent behavior. (

SPED 586 PRACTICUM IN SPECIAL EDUCATION (3 Hours)
Prerequisite: SPED 500, 530, 532, 550, 599, 528, and 507)
Supervised practicum; application of methods and techniques appropriate to various exceptionalities. SPED 587 Practicum: Mildly Moderately Handicapped, SPED 588: Practicum: Visually Handicapped, SPED 589 Practicum: Behavior Disorders, Practicum: Gifted and Talented. (

SPED 599 SEMINAR IN SPECIAL EDUCA (3 Hours)
Prerequisite: SPED 500, 530, 532, and 550)
Currents problems, issues, and trends in the field of special education. (Assignments are made according to area(s) of specialization - SPED 521 Seminar: Mildly/Moderately Handicapped, SPED 523 Seminar: Visually Impaired, SPED 524 Seminar: Behavior Disorders, SPED 526 Seminar: Gifted and Talented. (

SPED 600 GUID EXCE CHILDREN YOUTH (3 Hours)
Study of the problems of personal, social, educational, and vocational adjustment of exceptional children and youth.

SPED 601 BEHV MGNT W/EXC CLDR YTH (3 Hours)
Prerequisite: SPED 600, 607, 605, 699, and 606)
Classroom application of strategies for managing behavioral problems in the school, emphasis on research in classroom behavior modification. (

SPED 602 COGNITIVE PROC & EX CHLD (3 Hours)
Study of cognitive development of exceptional children with emphasis on the impact of exceptionality on cognition.

SPED 603 PSY EDUC EVAL OF EXC CHD (3 Hours)
Procedures in assessing exceptional children and youth with special attention given to interpretation and application of diagnostic instruments for the purpose of planning prescriptive programs.

SPED 604 ADM & SUPERV IN SPEC EDU (3 Hours)
Prerequisite: SPED 600, 607, 605, 686, and 679)
Analysis of organizational and administrative principles and practices for diverse programs in special education. (

SPED 606 CONSUL ITIN & RESOURSE T (3 Hours)
Prerequisite: SPED 600, 607, 605, 699)
Role responsibilities, and problems of consulting, itinerant, and resource teachers in special education. (

SPED 679 INDIVIDUAL RESEARCH (1-3 Hours)
Prerequisite: Permission of Advisor, Pass English Competency, Pass Area Comprehensive Examination; SPED 600, 607, 605, and 686)
Special attention given to design, application, and evaluation of student research projects (to be conducted under the supervision of an adviser). (

SPED 686 PRACTICUM SPECIAL EDUCATION (3 Hours)
Prerequisite: SPED 605)
Supervised practicum; application of methods and techniques appropriate to various exceptionalities. (Assignments are made according to area (s) of specialization SPED 670 Practicum: Mildly/ Moderately Handicapped, SPED 671 Practicum: Visually Handicapped, SPED 672 Practicum SPED 674 Practicum: Gifted and Talented. (

SPED 699 SEMINAR IN SPECIAL EDUCATION (3 Hours)
Prerequisite: SPED 600, 607, and 605)
Intensive study and analysis of contemporary issues and trends in the area of special education with implications for curriculum planning and teaching methodology. (Assignments are made according to area (s) of specialization SPED 608 Seminar: Mildly Moderately Handicapped, SPED 609 Visually Handicapped, SPED 610 Seminar, SPED 612 Seminar: Gifted and Talented. (

Sports Management (SPM)

SPM 510 SPORT MARKETING (3 Hours)

SPM 512 FACILITY DESIGN & MAINTENANCE (3 Hours)

SPM 513 Sport Nutrition (3 Hours)
This Course is intended to develop knowledge of current concepts and trends in sport and exercise nutrition, as well as the ability to plan and implement a nutrition program designed to meet the unique needs of all individuals.

SPM 515 GOVERNING BODIES & THE LAW (3 Hours)

SPM 516 Sport Statistics and Analytics (3 Hours)
This course is intended to introduce a study of measurement theory, instruments used to collect data, and procedures for data analysis specific to athletic performance. The use of statistical software (Excel, SPSS, R) for data analysis is involved.

SPM 530 SPORTS FINANCE (3 Hours)

SPM 543 SPORT ADMINISTRATION AND ORGN (3 Hours)

SPM 560 ETHICS OF SPORT (3 Hours)

SPM 590 INTERNSHIP (3-6 Hours)

SPM 600 THESIS (3-6 Hours)

Statistics (STAT)

STAT 661 PROBABILITY AND STATISTICS (3 Hours)
This course covers multivariate discrete probability distributions, biavriate normal distribution, maximum likelihood estimation, confidence interval, the Dirichlet distribution, Whishartn expectation identities, Hotelling's T2 and distribution of quadratic forms, quintile transformations and moments, Laws of large number, convergence of moments, characteristics functions of standard distributions, error of the Central Limit Theorem, central order statistics, extremes, markov chains, and random walks.

STAT 672 COMPUTATIONAL STATISTICS (3 Hours)
This course covers R, SAS, SPSS, S-Plus, Mathematics, computational statistics packages and other big data statistical computational packages with emphasis on reading, manipulating, summarizing and modeling data and implementations of simulation through random number generating, Monte Carlo method and bootstrapping.

STAT 680 CMPTNL DATA ANLYSIS & VISUAL I (3 Hours)
This course covers basic descriptive statistics, basic probability distributions, simple linear regression, point estimation, comparison of data sets and how to use mathematical and statistical software and packages as well as program to conduct analysis and provide visualized representations.

Strength & Conditioning (SC)

SC 501 STRENGTH & CONDITIONING (3 Hours)

SC 513 Sport Nutrition (3 Hours)
This Course is intended to develop knowledge of current concepts and trends in sport and exercise nutrition, as well as the ability to plan and implement a nutrition program designed to meet the unique needs of all individuals.

SC 545 SPORT PSYCHOLOGY AND SOCIOLOGY (3 Hours)

SC 550 INTERNSHIP (3-6 Hours)

SC 600 THESIS (3-6 Hours)

Strength & Conditioning Lab (SCL)

SCL 501 STRENGTH & CONDITIONING LAB (1 Hour)

Technology Education (TE)

TE 500 SEMINAR/WORKSHOP (3 Hours)
) Designed for offering courses on subjects which are current and important to industrial education.

TE 501 CUR LITERATURE AND RESEARCH (3 Hours)
Identification, analysis, and discussion of the periodicals, topical books, major issues, and research in the field of industrial education.

TE 504 LAB PLANNING AND MANAGEMENT (3 Hours)
Designing various industrial education laboratories and facilities. Includes attention to purpose, recommended sizes and other specifications.

TE 505 HISTORY AND PHILOSOPHY (3 Hours)
Factors involved in developing the trends and leaders in industrial and vocational education. Analysis of objectives, current concepts, practices and anticipated policies in industrial education.

TE 511 TECHNICAL EDUCATION (3 Hours)
Emphasis on trends, community surveys, curricula, definitions, and needs of post-secondary technical education programs.

TE 512 ADMINISTRATION & FUNDING (3 Hours)
Identifying current legislation and funding practices concerning industrial education. Function and relationship of directors, supervisors and instructors in all fields of industrial education.

TE 513 INSTRUCTIONAL AIDS (3 Hours)
Studying the many instructional aids available for teaching industrial subjects. The course includes instruction in the common audio-visual aids but also making models, cutaways and other industrial teaching aids.

TE 515 CAREER EDUCATION (3 Hours)
Current career education programs and their relationship to industrial education. Emphasis on integrating career education goals in industrial education with attention to the goals of each field.

TE 516 CURRICULUM DEVELOPMENT (3 Hours)
Principles and techniques of designing and writing industrial education curricula. Attention will be given to goals, behavioral objectives, designing programs to meet objectives and evaluating results.

TE 521 PROBLMS IN ELE/ELECTRONICS (3 Hours)
Opportunity to study problems related to the area of electricity/electronics. Problems based on needs of students with approval of the advisor and the Dean of the School.

TE 522 PROBLEMS IN DRAFTING (3 Hours)
Opportunity to study problems related to the area of drafting. Problems based on needs of students with approval of the Dean of the School and his advisor.

TE 599 INDEPENDENT RESEARCH (1-3 Hours)

TE 601 Selection and Organization of Subject Matter (3 Hours)
Analysis and selection of materials for junior and senior high school, and also, adult industrial technical education.

TE 602 EVALUATION OF PROGRAMS (3 Hours)
Evaluation principles and practices in the specialized areas of industrial arts, technical and industrial education.

TE 621 COORDINATION IN OCCUP TRNG PRO (3 Hours)
Analysis of objectives and scope of trade and industrial cooperative education program, apprenticeship, and general education work experiences.

Urban and Regional Planning (URP)

URP 500 HISTORY OF PLANNING (3 Hours)
Introduction to the historical roots, periods, and personalities that have shaped the profession. A study in the development of the profession within the context of urban American history.

URP 502 PLANNING THEORY & PRACTICE (3 Hours)
Overview of theories that have contributed to the development of contemporary urban planning; theories introduced include rationality, advocacy, and critical. Also studied are issues related to professional ethics, race and class, and urban development.

URP 504 QUANTITATIVE ANALYSIS &COMPUTE (4 Hours)
Introduction to the use of quantitative reasoning and statistical techniques to solve planning and policy problems. This course focuses on application of descriptive and inferential statistics, sampling, regression analysis and modeling.

URP 506 LEGAL ASPECTS OF PLANNING (3 Hours)
Introduction to the basis in constitutional, common, and statutory law for the authority of plan effectuation. This course delineates the legal and legislative bases for planning at the local, state, and federal levels.

URP 508 INTRODUCTION TO URBAN DESIGN (3 Hours)
This course provides an understanding of the dynamics that created contemporary urban and regional spatial patterns, elements of physical planning in relation to social, economic, and political forces as well as the role of the urban designer in the planning process.

URP 520 HOUSING POLICY (3 Hours)
Thorough review of the problems and issues related to housing planning and policy dealing primarily with inter-relationships and interdependencies among socio-cultural, economic and physical aspects of housing. This course focuses on the social, political, and economic aspects of housing policy in the United States.

URP 521 AFRICAN AMERICAN COMMUNITY (3 Hours)
Investigates processes of community development for their application in community building in African American communities. Explores the development of a model for development and discusses various roles of participants in the community development process.

URP 522 INTRO. TO COMMUNITY DEVELOPMEN (3 Hours)
Overview of the elements of the community development process including housing, economic development, education, public safety, social services, transportation, infrastructure, the environment, citizen participation and leadership. This course places an emphasis on the application of planning methods and theory to the resolution of community problems.

URP 524 NEIGHBORHOOD REVITALIZATION (3 Hours)
Exploration of planning and political activities that contribute to the restoration of older neighborhoods. Impacts of economic, social, and political processes that govern decision making and funding for revitalization efforts.

URP 525 LAND DEVELOPMENT DYNAMICS (3 Hours)
Emphasizes private decision making and development, public/private relationships, and regulatory activities. This course explores patterns of land utilization from the perspectives of the neighborhood, city, and metropolis.

URP 526 CITIZEN PARTICIPATION (3 Hours)
Introduction to the issues, policies, and techniques related to the role of citizens in the public decision making process. Consideration will be given to legislative requirements for public involvement as well as the role of survey research in the citizen participation process. Techniques for developing local capacity through citizen mobilization and a focus on community building are explored.

URP 527 PUBLIC FINANCE PLANNING (3 Hours)
Overview of the principle of public budgeting, capital budget planning and public finance strategies. This course considers issues surrounding local development and fiscal decision making as they relate to project planning, revenue sources and project evaluation.

URP 528 ECONOMIC DEVELOPMENT PLANNING (3 Hours)
Strategies and tools for developing employment, business ownership, and investment in local, state, and regional economies. This course focuses on contemporary economic development patterns and practices in central cities and urban areas in the South.

URP 529 PLANNING IN LOCAL GOVERNMENT (3 Hours)
Examination of the role of local government in the city planning process. Special consideration is given to the functional areas of planning such as transportation, housing, neighborhoods, environmental constraints, and land use.

URP 530 INTRO TO ENVIRONMENTAL PLANNIN (3 Hours)
Comprehensive overview of the field and the efforts being made to organize, control, and coordinate environmental, aesthetic, and uses of nature and of man-made substances. This course focuses on the problems, potential solutions, and methodologies of public policy, law, and economics as they affect environmental issues in planning.

URP 531 GROWTH MANAGEMENT (3 Hours)
Techniques employed to manage growth-related change and to implement plans. This course focuses on matters of capital investment, development impact analysis, impact mitigation, ethical implications, and alternative growth potentials.

URP 532 ENVIRONMENTAL PLANNING ETHICS (3 Hours)
Investigation of the issues and affects of decision making related to environmental justice. This course focuses on the history of the development, cases, and advocacies for ethical decision making related to the environment.

URP 533 RURAL LAND USE PLANNING (3 Hours)
Small-town planning, rural populations, and development dynamics are explored. This course focuses on the social, economic, political, and environmental factors that are employed by planners to assist citizens plan for quality futures.

URP 535 COMPREHENSIVE PLANNING STUDIO (3 Hours)
Introduction to the theory and practice of urban and regional planning. Planning as a method of decision making and strategic choice, goal setting, alternative development, and implementation solutions.

URP 536 DVLPNG NATIONS ENVIRONMENTL PL (3 Hours)
Examines urban development issues and impacts in Third World nations. This course explores issues of environmental quality, policy responses, housing production, biological diversity, agriculture, conservation, wildlife management, and socio-economic pressures

URP 537 PLAN IMPLEMENTATION (3 Hours)
Interactive community and governmental dynamics in plan implementation are explored. This course focuses on the use of land-use regulatory tools and community facilities in implementing the plan.

URP 538 ZONING AND LAND USE REGULATION (3 Hours)
The theory, practice, and consequences of zoning as a land use tool in the implementation plans. This course includes the legal and administrative elements employed in zoning law, ordinance preparation, and other regulatory devices.

URP 540 HISTORIC PRESERVATN & CONSERVA (3 Hours)
Issues of revitalizing and preserving historic resources are explored. This course focuses on the history, context, methods, and public policies related to historic preservation movements and programs.

URP 541 TECH SKILLS OF COMP AND COMMUN (3 Hours)
Studio introducing graphic communication (in two and three dimensions) as visual organization and sequencing of the complex and varied information considered in the decision-making process of planning. Exercise of cognitive and aesthetic judgment by selective use and drawing of lines, planes, perspective, solids, shade, shadow and color; including introduction to the examination of aesthetic, symbolic and cultural elements of design.

URP 542 INFRASTRUCTURE & COMMUNITY FAC (3 Hours)
Examines planning and policy issues surrounding public services and facilities. Topics include the distribution of the benefits and costs of various public services and fiscal, traffic, and environmental impacts of land development.

URP 543 COMPUTER-AIDED DESIGN I (3 Hours)
Prerequisite: URP 541)
Studio introducing the concepts, issues and methods of computer-aided design as a tool in the planning and urban design process. A previous knowledge of computers is not required. (

URP 544 DESIGN STUDIO (3 Hours)
Investigates the development of physical form of cities through models, geographic landscape, and intentional human use. This course focuses on the manner in which people exploit land and human experiences that determine design principles.

URP 546 SITE DEVELOPMENT (3 Hours)
Introduction to site analysis, using environmental and engineering principles and modeling exercises to analyze and understand the use of land for development purposes. This course focuses on elements of grading, drainage, and landscape architecture.

URP 547 BEHAVIOR & CULTURAL FACTORS (3 Hours)

URP 550 SPECIAL TOPICS (3 Hours)
Students electing to not pursue the thesis option may enroll in this course to conduct a special project topic. A maximum of three credits are allowed for this course.

URP 551 REGIONAL PLANNING (3 Hours)
This course provides students with an in-depth understanding of regional planning - its historical roots, current practices, regionalism. Regional planning, metropolitan planning, and similar terms are constantly being used by planners. What do these terms mean? How can they influence practice and scholarship in this field?

URP 555 INDEPENDENT STUDY (1-6 Hours)
Students wishing to explore an in-depth study of a topic not directly offered in the curriculum may enroll in this course. A maximum of six credit hours of independent study may be accrued. Permission of the faculty is required.

URP 560 THESIS RESEARCH (3 Hours)
Students pursuing the thesis option must enroll in this course. This course focuses on the methodology and techniques of writing a thesis, including the research and presentation of the document.

URP 566 MASTER'S THESIS (3 Hours)
Students electing the thesis option must obtain approval from the faculty for the prospectus. All requirements of the Graduate School for submission dates must be met.

URP 570 INTERNSHIP (3 Hours)

URP 571 GIS FOR PLANNING (3 Hours)

URP 572 ADVD CONCEPTS IN GIS URB PLNG (3 Hours)

URP 700 HISTORICAL DEVELOPMENT OF CITI (3 Hours)
Intensive investigation and discussion of major contributing factors to the economic, social and ecological development of cities. The course will require students to apply historical research methodologies in the analysis of urban agglomerations.

URP 702 THEORETICAL PERSPECTIVES IN PL (3 Hours)
Study of the advanced theoretical concepts in urban planning and the relationship between planning theory and social science precepts. Comparative analysis of theories that stimulate planning thought and philosophy.

URP 710 ADVANCED STATISTICAL METHODS (3 Hours)
Prerequisite: URP 502 or equivalent.
The course is designed to offer state-of-the-art procedures and paradigms in statistical applications.

URP 712 RESEARCH METHODOLOGY (3 Hours)
Students acquire a foundation in conceptualization, measurement, research design, prospectus preparation, data collection, approaches to data analysis, documentation, and presentation of substantive research.

URP 714 ETHICS IN PLANNING SEMINAR (3 Hours)
In this course students examine the theory and practice of professional ethics. The principles of ethical thinking and behavior in the planning profession are covered extensively.

URP 720 URBAN HOUSING POLICIES (3 Hours)
This course examines the policies that impact housing systems in the United States. Factors contributing to housing shortages and housing costs are analyzed, and programs developed to address these issues are evaluated. Additionally, the role of housing advocacy is studied.

URP 722 COMMUNITY DEVELOPMENT & HOUSIN (3 Hours)
A thorough analysis and evaluation of the principles and practices of community development. Substantive areas of housing, economic development, education, public safety, social services, transportation, infrastructure, the environment, citizen participation and leadership will be selectively covered. This course places an emphasis on the application of planning methods and theory to the resolution of community problems.

URP 724 URBAN REVITALIZATION STUDIO (3 Hours)
Prerequisite: Specialization in community development and housing.
In-depth study of a selected problem related to urban revitalization. Students will be required to prepare a detailed planning document addressing the redevelopment needs of a specific urban neighborhood or area. Topics vary each semester depending on research opportunities.

URP 726 CITIZEN PARTICIPATION (3 Hours)
This course provides an intensive study of the roles of citizen participation influencing the public planning process. Consideration is given to emerging methods and programs for public involvement as well as the role of survey research in the citizen participation process. Techniques for developing local capacity through citizen mobilization and a focus on community building will be explored.

URP 728 LOCAL & REGIONAL ECONOMIC DEVE (3 Hours)
An in-depth examination and evaluation of strategies and tools for developing employment, business ownership, and investment in local, state, and regional economics. This course allows students to conduct research on a specialized interest in the areas of economic development and finance, while gaining a greater understanding of the relationship between local and regional economic development patterns and practices.

URP 729 POLITICS OF PLANNG N LOCAL GOV (3 Hours)
This course will examine the key role of politics and the planning functions that are carried out by local governments within the United States. Key issues in several functional areas will be highlighted such sustainable development that will focus on transportation, environmental concerns, housing, land use, and community economic development.

URP 730 ENVIRONMENT AND LAND USE (3 Hours)
This course investigates the major competing theories and policies related to the built environment and natural world. Methods of classifying and evaluating the effects of pollution upon natural and social systems are discussed.

URP 731 GROWTH DEVELOPMENT (3 Hours)

URP 732 ENVIRONMENTAL PLANNING ETHICS (3 Hours)

URP 733 COUNTRYSIDE DEVEPMT & PLANNG (3 Hours)
In this course, students examine the theory and practice of country side development and planning. The principles of ecological, socio-economic, political elements and development models shaping planning for rural communities in a substainable setting are covered extensively.

URP 735 LAND USE PLANNING STUDIO (3 Hours)
Selective problems related to urban and/or rural issues are presented. Students are required to prepare (individually or in teams) area or comprehensive plans that are designed to provide alternative solutions to identified problems.

URP 736 INTERNATIONAL HUMAN SETTLEMENT (3 Hours)
An overview of conditions, policies, and programs that characterize living patterns in international settings. Students are required to conduct research and make scholarly presentations regarding the diverse settlements found in western and non-western nations.

URP 737 PLAN IMPLEMENTATION (3 Hours)
The theories, practices and rationalizations for planner involvement in the implementation of alternatives are investigated. Students are required to present a formal strategy for the implementation of a planning proposal.

URP 740 FOUNDATIONS IN URBAN DESIGN (3 Hours)
Prerequisite: URP 700 or permission of the instructor.
Examination of the social, physical and cultural determinants of form, pattern, and space that expresses the heritage of urban design and city building; and the role of urban design in the fields of architecture, landscape architecture and urban planning.

URP 742 ANLYL & EVAL MTHDS FOR URBAN D (3 Hours)
Prerequisite: URP 740.
Exploration of the theoretical, methodological and practical issues of urban design, including urban space and morphology, conceptions of place, cognition, perception and information field theory. Students will gain a working competence in at least one of the methods analyzed. Focus on selected contemporary issues in commercial and neighborhood design and planning.

URP 744 URBAN DESIGN STUDIO (3 Hours)
Systematic study of specialized subject matter leading to the design and effectuation of physical improvement plans, program design, and public policies. Synthesis of urban design and planning issues and research methods in a laboratory setting. Topics vary each year, depending on current planning interest and needs.

URP 746 URBAN DESIGN DOCTORAL SEMINAR (3 Hours)
Prerequisite: Completion of Ph.
Discussion and critique of selected research work and analytical methods involving issues of urban design. Presentation and critique of research proposed by members of the seminar. D. core courses and required urban design concentration courses.

URP 750 PROFESSNL PRACTICE ISS N PLANN (3 Hours)
This course is designed to study the most current and effective practices to study the most current and effective practices in the profession. A range of considerations related to the techniques of intervention methods of design, and public involvement in the planning and decision-making process are selectively covered.

URP 751 REGIONAL PLANNING (3 Hours)

URP 760 ADVANCED READINGS (3 Hours)
In this colloquium students read and discuss the assigned books. The instructor facilitates the discussion. Each student will be responsible for at least two readings and weekly discussions.

URP 770 INDEPENDENT STUDY (1-9 Hours)
By arrangement with the advisor and approval with the faculty, students may pursue a topic of special academic or research interest. The independent research must be at an advanced graduate level and related to the field of planning. May be repeated with change of topic.

URP 771 SEM IN GIS FOR URBAN PLANNING (3 Hours)

URP 772 ADVD GIS APPLICATIONS IN URP (3 Hours)

URP 777 DOCTORAL RESEARCH PREPARATION (1-6 Hours)
The course is designed to specifically and exclusively for those students who have completed all required coursework, obtained permission to enroll from the Department Chair, and seek time to prepare for the Comprehensive Examination. The course will permit qualified students to interact with faculty and colleagues to properly prepare for the Comprehensive Examination. Permission from the Department Chair is required.

URP 899 DISSERTATION HOURS (1-9 Hours)
Prerequisite: completion of all Ph.
Working with a faculty approved committee, the student is required to undertake dissertation research. D. course work, approved dissertation proposal, and dissertator status with the Graduate School. Course may be repeated provided progress is being made on the dissertation.

Directory

University Administration

Office of the President
H. P. Jacobs Administration Tower, Ninth Floor (601) 979-2323
https://www.jsums.edu/president2/
president@jsums.edu

Division of Academic Affairs
H.P Jacobs Administration Tower, Seventh Floor (601) 979-2244
https://www.jsums.edu/academicaffairs/
academics@jsums.edu

Division of Business and Finance
H. P. Jacobs Administration Tower, Fifth Floor (601) 979-3060
https://www.jsums.edu/businessfinance2/

Division of Institutional Advancement
H. P. Jacobs Administration Tower, Third Floor (601) 979-2282
https://www.jsums.edu/institutionaladvancement2/

Division of Information Technology
Mississippi e-Center, Second Floor (601) 979-4299
https://www.jsums.edu/informationtechnology2/

Division of Intercollegiate Athletics
Lee E. Williams Athletics and Assembly Center (601) 979-2291
https://gojsutigers.com/index.aspx (https://gojsutigers.com/)

Division of Research and Economic Development
H.P. Jacobs Administration Tower, Sixth Floor (601) 979-2931
https://www.jsums.edu/research/contact-us/

Division of Student Affairs
JSU Student Center, Third Floor (601) 979-2241
https://www.jsums.edu/studentlife/ (https://www.jsums.edu/studentlife/center-for-service-community-engaged-learning/)
studentaffairs@jsums.edu

General Counsel
H.P. Jacobs Administration Tower, Eighth Floor (601) 979-3950
https://www.jsums.edu/counsel/
generalcounsel@jsums.edu

Colleges and Divisions

Division of Graduate Studies
H. P. Jacobs Administration Tower, First Floor (601) 979-2455
https://www.jsums.edu/graduateschool/
graduate@jsums.edu

College of Business
College of Business Building (601) 979-2411
https://www.jsums.edu/business/
collegeofbusiness@jsums.edu

College of Education and Human Development
Joseph H. Jackson Building (601) 979-2433
https://www.jsums.edu/education/

College of Health Sciences –
"A Council on Education for Public Health (CEPH) accredited School of Public Health"
Jackson Medical Mall (601) 979-6387
https://www.jsums.edu/chs/

College of Science, Engineering and Technology
Engineering Building (601) 979-2153
https://www.jsums.edu/cset2/

cset@jsums.edu

College of Liberal Arts
Dollye M.E. Robinson Building (601) 979-7036
https://www.jsums.edu/liberalarts/

Where to Go for Information and Assistance

Admissions and Recruitment
Undergraduate Admissions and Recruitment
B.F. Roberts Hall, Second Floor
1-866-THEEJSU (843-3578)
https://www.jsums.edu/admissions/
futuretigers@jsums.edu

Disability Services & ADA Compliance
Support Services for Student and Employees and Disabilities
JSU Student Center, Second Floor (601) 979-3704
https://www.jsums.edu/disability/
adaservices@jsums.edu

Alumni and Constituency Relations
Jackson State University 101 Building, Downtown Jackson, 1st floor
(601) 979-2281
https://www.jsums.edu/alumni/

JSU Ticket Office
Mississippi Veterans Memorial Stadium
(601) 979-2420
https://gojsutigers.com/news/2021/5/9/fall-2021-football-season-tickets-on-sale.aspx
jsuticketoffice@jsums.edu

Emergencies, Automobile Registration, Lost and Found, and Parking Violations
Department of Public Safety, Public Safety Building (601) 979-2580
https://www.jsums.edu/campuspolice/

Books and Supplies
JSU Campus Store, JSU Student Center, First Floor (601) 979-2021
https://www.bkstr.com/jacksonstatestore (https://www.bkstr.com/jacksonstatestore/)

Career Services Center
Placement Office, Jacob L. Reddix Building, First Floor (601) 979-2477
https://www.jsums.edu/careers/

JSU Online
Jackson State University 101 Building, Downtown Jackson, 5th floor
https://www.jsums.edu/new-jsuonline/
jsuonline@jsums.edu

Financial Aid
Financial Aid, B.F. Roberts Hall, First Floor 1-866-THEEJSU (843-3578)
https://www.jsums.edu/financialaid/
finaid@jsums.edu

Food Services
Campus Dining, JSU Student Center, First Floor (601) 979-0440
https://jsums.sodexomyway.com/

Honors College
Charles F. Moore Building, First Floor (601) 979-2107
https://www.jsums.edu/honorscollege/

Identification
ID Center Building (601) 979-2407
https://www.jsums.edu/campuspolice/id-center/

Health Services/On Campus Medical Attention
Health Services Center Building (601) 979-2260
https://www.jsums.edu/healthservices/
healthservices@jsums.edu

International Programs
JSU Global, C.F. Moore Building, 3rd Floor (601) 979-1611
https://www.jsums.edu/global/
International@jsums.edu

Intramural Sports
34 Walter Payton Drive, Jackson, MS 39217 (601) 979-1368
https://www.jsums.edu/studentlife/intramural/

Latasha Norman Center for Counseling Services
JSU Student Center, Second Floor (601) 979-0374
https://www.jsums.edu/latashanormancenter/
latashanormancenter@jsums.edu

Library (Main Campus)
H.T. Sampson Library (601) 979-2123
https://sampson.jsums.edu/screens/OPAC.html

Student Organizations
The Center for Student Engagement and Leadership, JSU Student Center, Second Floor, Rm #2124
(601) 979-3308
https://www.jsums.edu/studentlife/student-organizations/
jsuengage@jsums.edu

Payment of Tuition and Fees
Financial Services, B.F. Roberts Hall, Second Floor 1-866-THEEJSU (843-3578)
https://www.jsums.edu/finance/businessoffice/bursar/
bursarcares@jsums.edu

Postal Services
Jacob L. Reddix Building, First Floor (601) 979-2031
https://www.jsums.edu/postalservices/
postal@jsums.edu

Registration
Registrar and Records, B.F. Roberts Hall, Second Floor 1-866-THEEJSU (843-3578)
https://www.jsums.edu/registrar/
registrar@jsums.edu

Residential Life
Student Housing, Campbell College Suites North (601) 979-2326
https://www.jsums.edu/housing/
housinginfo@jsums.edu

ROTC (Military Science)
Dollye M. E. Robinson Bldg., Fourth Floor (601) 979-2175
https://www.jsums.edu/arotc/
armyrotc@jsums.edu

AFROTC (Aerospace Science)
J.Y. Woodard Building

https://www.jsums.edu/afrotc/
afrotc@jsums.edu

Student Government Association (SGA)
JSU Student Center, Second Floor (601) 979-0235
https://www.jsums.edu/studentlife/student-government-association/

Student Conduct
Dean of Students, JSU Student Center, Third Floor (601) 979-2329
https://www.jsums.edu/studentlife/avp-dsl/
deanofstudents@jsums.edu

Student Teaching
College of Education and Human Development
Joseph H. Jackson Building, First Floor, Room 103A (601) 979-2335
https://www.jsums.edu/teacherquality/
teacherquality@jsums.edu

Student Newspaper (Blue & White Flash)
Student Publications, MS e-Center@JSU, First Floor (601) 979-2167/8674
https://www.jsums.edu/sjms/media-outlets/
journalism.mediastudies@jsums.edu
theflash@jsums.edu

Campus Tours
JSU Undergraduate Admissions and Recruitment
B.F. Roberts Hall, Second Floor
1-866-THEEJSU (843-3578)
https://futuretiger.jsums.edu/tourpicker.asp
futuretigers@jsums.edu

Veteran and Military Student Support Center
Jacob L. Reddix Building, 3rd Floor (601) 979-1365
https://www.jsums.edu/veteranscenter/
jsuveterans@jsums.edu

Graduate Program Degrees

COLLEGE OF BUSINESS
Accounting, *M.P.A
Business Administration, *M.B.A., Ph.D.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
Clinical Mental Health, M.S.
Early Childhood, *M.S.Ed., Ed.D.
Education, *Ed.S. (Concentrations: Educational Administration and Supervision,
Psychometry, School Counseling, and Special Education)
Educational Administration, Ph.D.
Educational Administration and Supervision, *M.S., *Ed.S.(Concentration Only)
Elementary Education, M.Ed.
Elementary and Special Education, M.S.
Health, Physical Education and Recreation, *M.S.Ed.
Psychometry, *Ed.S.(Concentration Only)
Reading Education, *M.S.Ed.
Rehabilitation Counseling, M.S.
School Counseling, M.S.Ed., *Ed.S.(Concentration Only)
Special Education, *M.S.Ed., *Ed.S.(Concentration Only)
Sport Science, *M.S.
Teaching, *M.A.T.
Urban Higher Education, Ph.D.

COLLEGE OF HEALTH SCIENCES
Communicative Disorders, M.S.
Public Health, M.P.H., Dr.P.H.
Social Work, *M.S.W., Ph.D.
Certificate Program(s): *Biostatistics
Data Analytics
*Epidemiology
Public Health Informatics

COLLEGE OF LIBERAL ARTS
Clinical Psychology, Ph.D.
Criminology & Justice Services, M.A.
English, M.A.
History, *M.A.
Journalism & Media Studies (Mass Communications), M.S.
Music Education, M.M.Ed.
Political Science, *M.A.
Public Administration, Ph.D.
Public Policy and Administration, M.P.P.A.
Sociology, M.A.
Certificate Program(s): *Disaster Preparedness & Community Resilience among Vulnerable Populations

COLLEGE OF SCIENCE, ENGINEERING, AND TECHNOLOGY
Biology, M.S.
Chemistry, M.S., Ph.D.
Computational & Data Enabled Science & Engineering, Ph.D.
Computer Science, M.S.
Data Enabled Science & Engineering, M.S.
Engineering, M.S., Ph.D.
Environmental Science, Ph.D.
Hazardous Materials Management, M.S
Mathematics, M.S.
Technology Education, M.S.Ed.
Urban and Regional Planning, M.A., Ph.D.

***Programs are also offered fully online.**

Programs A-Z

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B

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- Chemistry (M.S.) (p. 114)
- Chemistry (Ph.D.) (p. 114)
- Communicative Disorders (M.S.) (p. 67)
- Computational and Data-Enabled Science & Engineering (M.S.) (p. 153)
- Computational Data-Enabled Sciences and Engineering (Ph.D.) (p. 154)
- Computational Mathematics and Data-Enabled Science & Engineering (Ph.D.) (p. 124)
- Computer Science (M.S.) (p. 120)

Research Organizations, Academic and Community Services

Universities Libraries

University Libraries enhance the research and teaching endeavors of the university community through the acquisition and dissemination of information. University Libraries are comprised of the Henry T. Sampson Library and four branch libraries. Occupying a central location on the JSU campus, the Henry T. Sampson Library is a facility of over 150,000 square feet and houses in excess of one million resource items. Included among the collections in the Sampson Library are the following:

- African-American Collection - a major collection of resources by or about African-Americans and Africa.
- Special Collections - a non-circulating collection of documents with major concentrations of resources detailing the history of Jackson State and African Americans.
- Periodicals - the library currently subscribes to more than 1,500 electronic journals with an additional number in print format.
- Government Documents - the library is presently a selective depository for federal documents.
- Media Resources - a number of audiovisual resources are available to enhance classroom instruction.

Library Services

The Department is a client-oriented agency, and offers some of the following services:

- Information Literacy (IL) Instruction - a major initiative that provides instruction in locating, evaluating, and using resources. IL is provided through formal classroom lectures, as well as through individualized instruction. Electronic and printed guides, handbooks, pathfinders and bibliographies made available to patrons, also contribute to the IL initiative.
- Reference Assistance - librarians are available at all times to help patrons locate, select and interpret the appropriate information and resources.
- Interlibrary Loan - resources not held by the library are made available through this service. Some nominal fees may be incurred.

Facilities

The library is furnished to meet the comfort and needs of library users and is fully accessible for those with disabilities, with most of the library collections housed in open access areas. Additionally, the library also provides these specialized facilities:

- Computer Lab - a workstation computer facility is located on the first floor.
- Auditorium - with seating for approximately 150, the auditorium is located on the second floor and is used for campus-based activities.
- Group Study Sections - sections are provided for groups engaged in study.

Library Technology

Electronic library resources are available from campus as well as from remote locations and may be accessed from the library website at http://sampson.jsums.edu. In addition to the online public access catalog, other electronic resources include, indices, abstracts, full text articles and journals, and online books.

Branch Libraries

The branch libraries listed below support the academic program(s) indicated:

- Public Health Library - located in the Jackson Medical Mall, this library supports the College of Public Service, as well as some of the special programs located in the Medical Mall.
- Cleopatra D. Thompson Curriculum Research and Development Center Library - housed in the College of Education and Human Development, main campus, this library provides general support in the education curriculum and the Early Childhood programs.
- Jake Ayers Research Library - housed at the e-Center, the Ayers Library supports the Executive Ph.D. program.

The general public is invited to use any of the Jackson State libraries. Borrowing privileges, however, are reserved for university students, staff, and faculty. Regulations concerning the use of the facility are on the library website as well as in library handbooks and guides.

JSU Global

JSU Global (formerly known as International Studies) is located in Suite 329 of the Charles F. Moore Building. Since September 1993, JSU Global has been leading Jackson State University's globalization and internationalization efforts. As the central office for Jackson State University's international programs, JSU Global serves an essential role in the university's mission to prepare students for global leadership. The unit is also the headquarters for the English as a Second Language (ESL) Institute, facilitates local programming for the International Visitors Center of Jackson and hosts Fulbright Language Teaching Assistants. Students from other countries are encouraged to share the history and culture of their home countries throughout the year, culminating in our annual International Week. Providing students with study abroad experiences and recruiting students from other countries are major priorities of JSU Global. For more information, please contact JSU Global at (601) 979-1611.

Information Technology

The Division of Information Technology (DIT) is responsible for managing the university's network and communications infrastructure, enterprise resource planning system, and other information technology (IT) services that support all levels of research, learning, teaching, and business. IT consists of three units: Academic IT, Computing and Communications, and Information Systems and Integration, all staffed to deliver customer-friendly support to all JSU sites. DIT offers the following services: campus-wide productivity software, online learning software, desktop support, email, faculty training, wireless, copier, virtual meeting, cybersecurity, mobile apps, and website support. DIT is headquartered at the MS E-center site, 1230 Raymond Rd and has various satellite sites across the campus. For more information, call 601-979-4299 or visit www.jsums.edu/informationtechnology (http://www.jsums.edu/informationtechnology/).

Office of Research and Economic Development

The Office of Research and Economic Development at Jackson State University is the conduit for the university's interactions with the local community, state, nation, and the world in the area of sponsored

programs. The achievements of the university's faculty, staff and students, along with the expertise of the university's scholars are shared with the broader community. The Division creates, promotes and supports a research environment by helping faculty, staff and students identify opportunities and secure externally funded grants, contracts and cooperative agreements.

Sponsored Programs Unit

The Sponsored Programs Unit (USP) is the centralized unit charged to coordinate research and sponsored program activities campus-wide. The Unit strives to maintain a supportive environment for research and scholarly endeavors, and encourages the faculty and staff to seek external funding to support the mission of the university and to explore alternative means to advance their professional interest. USP seeks to ensure that the most up-to-date funding information is available. To that end, the following services are offered:

1. identifying funding opportunities
2. coordinating proposal and budget development and
3. assisting with project implementation and management.

Center of Innovation

The **JSU Center for Innovation and Entrepreneurship** (CIEED) leverages the best of JSU's STEM, business and entrepreneurial capabilities, as well as collaborative potential to provide students with resources to be creative, innovative and inventive. The CIEED takes advantage of expertise co-location and facilitates the intersection of widely disparate learning and idea generation; a place for constant learning, common vision, as well as teamwork, creativity and innovation.

The CIIED allows for students from all disciplines to learn and grow together as they ideate and create the next business or technology. The CIIED's Innovation Fellows Program is opened to students who are eager to learn about the next great invention, and who are willing to be change agents for innovation and entrepreneurship as we work to positively impact the economy and innovation ecosystems of Mississippi, the region, and nationally. Students also have the option to intern or obtain community service in the CIEED.

Services are provided to students free of charge. Visit www.jsums.edu/innovationcenter (http://www.jsums.edu/innovationcenter/) to learn more.

Programming Includes:

- Makerspace (3D Modeling, Prototype Development, Graphic Design and more)
- VR Academy - Virtual Reality and Augmented Reality Immersive Learning
- eSports Academy – Gaming
- Coding Academy (Software Development)
- Production Room
- Collaboration Rooms
- Lean Start Up Training
- Pre-Accelerator Program
- Business Coaching and Mentorship
- Technology Transfer Support (Intellectual Property Protection – Patents, Copyrights, Trademarks)
- Innovation Fellows Program

Equipment/Tools/Software Include:

- 3D Printers
- 3D Scanners
- Glowforge Laser Cutter
- Embroidery/Sewing Machine
- Silhouette Cameo
- Lamination Machine
- One Button Studio
- Music Keyboard
- Button Maker
- iMac and PCs
- Interactive Touch Monitors/Boards
- Whiteboards
- Lots of Software–Adobe Creative Cloud, Abelton, SketchUp, Unreal Engine, Gravity Sketch, Un
- Occulus Quest and Rift, ViVe

Mississippi Urban Research Center

The Mississippi Urban Research Center (MURC) seeks to improve the quality of urban life through the conduct of basic and applied research. The Center collects, analyzes, evaluates and disseminates data on critical urban issues to policy makers, service providers, urban planners, educators and community leaders. Additionally, the MURC conducts instructional and training programs for persons working in or expected to pursue careers in urban public service.

College Centers

College of Business

Small Business Development Center

The JSU – SBDC is part of a network of Small Business Development Centers across the nation bringing expert business knowledge to small businesses at no cost. The Vision and Mission of the JSU-SBDC are as follows:

- **Vision –** "to transform Mississippi one business at a time."
- **Mission** – to provide high quality technical assistance to aspiring business owners with the goal of getting businesses open or expanded on a sound business and financial footing.

The Center has a business library that covers a wide range of business-related topics and other resources. Also, clients can access demographic and industry data to help develop their business plan. Contact: JSU – SBDC at 601-979-1100 or via the website: www.mssbdc.org (http://www.mssbdc.org).

College of Education and Human Development

Cleopatra D. Thompson Curriculum Research and Development Center

The Cleopatra D. Thompson Curriculum Center, located in Room 314 of the Joseph H. Jackson College of Education Building, serves as the bridge for relevant PK-12 curricula, technology, and best practices for instructional delivery. The center has been redesigned to support the seamless transition between higher education and PK-12 for our college faculty, pre-service teachers, and all education majors. Faculty, students, and staff have access to a variety of multi-media resources and curricular materials for PK-12 classrooms. Special appropriations were allocated to completely upgrade all elementary and secondary textbooks, literature from various countries, and a variety or resources used by candidates

in all academic departments. Students and staff have access to tools and materials for designing and constructing two-three dimensional instructional aids. A readily accessible model library of elementary and secondary curriculum materials and textbooks have been collected to assist teacher training courses and to provide practicum experiences for prospective and in-service teachers through simulated classroom experiences.

College of Health Sciences/School of Public Health

The Jackson Heart Study Graduate Training and Education Center

The Jackson Heart Study (JHS) Graduate Training and Education Center (GTEC) is dedicated to increasing the capacity of graduate Public Health and Liberal Arts students from Jackson State University and medical, nursing, and pharmacology students from University of Mississippi Medical Center to develop "the science and art of preventing disease, prolonging life, and promoting health". This is done through the Daniel Hale Williams Scholar program that provides a certificate enrichment curriculum that occurs concurrently with the students' regular academic program. GTEC aspires to improve the science and practice of keeping the public safe and healthy by empowering graduate students to enhance their ability to improve community health as they matriculate through the program with the potential to assume careers in public health or related fields.

Reducing the gap in public health expertise operating in underserved communities, *improving health care delivery,* and eliminating or reducing health disparities are important goals of the GTEC experience. GTEC believes that this can be achieved by recruiting public health professionals to take advantage of the training and resources available from the DHW scholar program. Scholars can upgrade their capacity in academic sessions that cover topics such as epidemiology and basic public health skills, and information relevant to public health practitioners.

Jackson Heart Study Community Outreach Center

The Jackson Heart Study is the first large-scale study of cardiovascular disease in African-Americans. Jackson State University is responsible for developing a data center and mobilization of the community. The primary mission of the center is to assure the validity of research findings, provide comprehensive statistical data, in addition to administrative support.

College of Liberal Arts

COFO Civil Rights Education Center

In 1961, the Council of Federated Organizations (COFO) was established as an umbrella organization to unify and meet the needs of an increasing presence of civil rights organizations in Mississippi, including the Student Nonviolent Coordinating Committee (SNCC), the Congress of Racial Equality (CORE), the Southern Christian Leadership Conference (SCLC), the National Association for the Advancement of Colored People (NAACP), and a host of local organizations. In 1963, COFO made 1017 John R. Lynch Street its home, and this office served as the state headquarters for the modern Mississippi civil rights movement. Making voter registration and education a top priority for the Mississippi movement, COFO was instrumental in organizing the 1963 Freedom Vote, the Mississippi Freedom Democratic Party, and the 1964 Mississippi Summer Project, better known as Freedom Summer.

Institute for Social Justice and Race Relations

The Institute's mission is to cultivate egalitarian leadership to build a more just and equitable future. It facilitates dialogue within and among local communities so that priorities and solutions flow from the bottom-up and not from the top-down. The Institute supports research that lays bare the origins of inequality, systemic racism and injustice and identifies mechanisms by which they might be ameliorated or eliminated. It prepares young people for an egalitarian approach to leadership in which the focus is on the group, not a single leader.

Jackson State reinvigorated the Institute for Social Justice and Race Relations (1) to engage students in critical conversations about issues of social justice, race relations and equity; (2) to support faculty in integrating social justice and race relations in their curricula, teaching methods and research agendas; and (3) to establish viable community partnerships to organize for positive social change. To accomplish these goals the Institute hosts colloquia, forums, symposia and conferences; develops leadership and organizing skills in students and our community; and provides a platform for faculty to share pedagogy, teaching and research ideas. The Institute is partially funded by a Title III grant from the US Department of Education.

Interdisciplinary Alcohol/Drug Studies Center

This Center is an interdisciplinary unit which provides graduate education, research and service delivery in substance abuse. The Center has five program components: education, research, training, prevention and intervention.

Margaret Walker Center

Both an archive and museum, the Margaret Walker Center is dedicated to the preservation, interpretation, and dissemination of African American history and culture. Founded by Margaret Walker in 1968, the Center seeks to honor her academic and artistic legacy by expanding and promoting its manuscript holdings and oral history collections, interpreting African American history and culture through its museum and exhibits, coordinating public programs on campus and throughout the community, preserving historic structures central to the African American experience, and advocating Black Studies at Jackson State University.

The Richard Wright Center for Writing, Rhetoric, and Research

The Richard Wright Center provides an environment for intellectual engagement outside the classroom. At any stage of the creative and research processes, students and faculty have the opportunity to interact with trained tutors using technology as they develop written, oral, and visual representations of their ideas for an academic audience. Support is provided through individual and small-group tutorials, workshops, roundtables, and class presentations.

University Press of Mississippi

The University Press of Mississippi was founded in 1970 to encourage research and the publication of scholarly work. Functioning as the scholarly publishing arm of the state supported universities in Mississippi, the University Press is governed by a Board of Directors made up of one representative from each of the eight state universities, one representative from the Board of Trustees of Institutions of Higher Learning, and the director of the Press.

JSU Bookstore

The JSU Bookstore, located on the first floor of the Jackson State University Student Center, is operated as an educational facility coordinated with the academic program. The Bookstore is the campus center for the ordering and selling of textbooks and supplementary reading materials. The Bookstore also carries school supplies and a limited quantity of office supplies. It sells University jewelry (including class rings and pins), pennants, stickers and other

insignia items. Commencement caps and gowns are ordered through the Bookstore and online. For more information, visit https://www.bkstr.com/jacksonstatestore/home (https://www.bkstr.com/jacksonstatestore/home/).

JSU Post Office

The Jackson State University Post Office is located on the first floor of Jacob L. Reddix Hall. The Post Office is responsible for the postal service requirements of the students, faculty, and staff of the University. Its primary purpose is to provide an efficient and economical mail system, ensuring timely service for incoming and outgoing mail while operating within established University and U.S. Postal Service guidelines and/or procedures. The Post Office is also committed to improving the image, quality, and delivery of mail. The University zip code is 39217. For more information, visit https://www.jsums.edu/postalservices/.

JSU Development Foundation, Inc.

The Jackson State University Development Foundation, Inc., a non-profit organization, was established and incorporated under laws of the State of Mississippi in 1968. Its express purpose is to promote the development of Jackson State University. A Board of Directors composed of eminent community leaders in business, industry and education governs the Development Foundation. The Director of Development serves as the Executive Secretary of the Foundation. Contributions, gifts, and bequests are solicited by the Foundation for the advancement of Jackson State University as an institution of excellence. The accrued interest of funds deposited in the Foundation is expended to provide scholarships for deserving students. Contributions to the Foundation, a tax exempt organization, are deductible.

JSU Alumni Association, Inc.

The Jackson State University National Alumni Association, Inc., is the official body of graduates and former students of the University organized into local chapters and coordinated by a national board. The major purposes of the Association are to perpetuate the memories of University life and to provide a medium through which the interests of the University may be promoted. Active membership in the Association is open to all graduates and former students of the University upon payment of national dues. The Association is responsible for the promotion of a spirit of fellowship and cooperation among graduates and former students for the welfare and benefit of the University. Some of its activities are special projects designed to enhance interest and support, such as presentation of the Alumnus of the Year Award and the Outstanding Educator Award; the publication of the Alumni Newsletter; and fund-raising programs. The Office of Alumni and Constituency Relations cooperates with the National Alumni Association in implementing the policies and programs.

Institutional Advancement

The mission of the **Division of Institutional Advancement** at Jackson State University is to work collaboratively to secure financial resources to support its annual fund, student scholarships, faculty/staff development, the endowment, and other institutional priorities and campaign initiatives, strengthen alumni ties and encourage lifelong support of their alma mater, and foster quality communications, internally and externally, to keep stakeholders accurately informed about institutional achievements and our continued educational excellence.

The **Division of Institutional Advancement** strives to achieve its mission through rigorous fund development, stewardship, alumni and donor relations as well as a university-wide marketing communications focusing on consistent messages and branding, public affairs, publications, and web online communication. *These efforts result in building relationships and securing commitments required to advance and sustain the institution's mission and priorities. Additionally, the division leverages the University's intellectual and programmatic resources by increasing philanthropic investments.*

The **Division of Institutional Advancement** carries out its mission through the following departments:

- Alumni and Constituency Relations
- Major and Planned Gifts
- Event and Visitor Services
- University Communications and Marketing
- Community Engagement
- Development Foundation

University Communications

University Communications uses print, broadcast, multimedia, social media and marketing channels to convey clear and consistent communication about the university's achievements and the JSU experience. University Communications also supports academic and administrative departments in such areas as internal communications, event promotion, media relations, graphic design, photography, videography and social media. We can be reached by phone at 601-979-2272.

- **Public Relations** - Public Relations efforts advance the goals of the university by strengthening awareness, engagement and support among constituents vital to the university's success. We seek positive media coverage of the university, its people and programs. We also communicate externally and internally about the achievements of JSU, its faculty and students through our publications and news site.
- **Marketing** – JSU Marketing is working to better serve the JSU community by reframing their policy and will therefore help the university to better reach their overall goals. Our primary focus will be four key areas that include building brand awareness, increasing enrollment, and promotional support of JSU Athletics and The Division of Institutional Advancement fundraising campaigns. It is our goal and pleasure to work with all departments to ensure university brand consistency. Initiatives that fall outside of these key areas should be submitted to one of the emails below for review, referral, and/or approval.

Other Media Outlets

- **WJSU–FM** - A community resource since June 1, 1976, "Cool and Current" WJSU (88.5 FM) began as a 10-watt station broadcasting from the JSU campus. Now a 24,500-watt entity, the station broadcasts 24 hours daily from the Mississippi e-Center at JSU, reaching Hinds, Simpson, Madison, Rankin and Copiah counties. With membership in National Public Radio, Public Radio International and American Public Media, WJSU offers an intelligent mix of in-depth news, informative talk, jazz and blues. In addition to timely news and timeless music, the station supports community activities and provides practical experience for students majoring in mass communication.

- **JSUTV** – JSUTV, on Comcast Cable Channel 14, offers local programming including Metro Morning Live, JSU events and programs, sports highlights shows, music performances, arts and humanities, community updates, news, public affairs and weather. JSUTV is an affiliate of the America One Network and operates 24 hours a day, seven days a week. The station is broadcast throughout the Jackson Metropolitan area including Hinds, Madison, Rankin, Warren, and Copiah counties. JSUTV reaches approximately 80,000 households.

Financial Services/Bursar

Financial Services is primarily responsible for the assessment of student tuition, fee payments, and processing student refunds. Students can reach a counselor by phone at (601) 979-2216, or by email at bursarcares@jsums.edu. Students also have the option to be seen through the **TIGER QUEUE** . The TIGER QUE is a process whereby students can secure their time slot to speak with a Business Office or Financial Aid Counselor using their own personal mobile device. Students will receive text notifications when it's their turn to be seen. Students may sign into TIGER QUE by:

1. Texting: jackson state univ to 662-233-6473
2. Using the JSU mobile app and clicking "TIGER QUE"
3. Visiting: https://kiosk.qless.com/kiosk/app/home/17713 (https://kiosk.qless.com/kiosk/app/home/17713/)

Housing/Residence Life

The mission of The JSU Housing Department is to create an environment that is conducive to living and learning that fosters an appreciation for diversity in all students, as well as fosters communities that create a sense of belonging and provides active learning environments that stimulate the mind, challenges and encourages academic, personal, cultural and social growth and development by providing, facilities that are technologically sound, well maintained, attractive, functional, clean, safe, economical and adaptable. Currently, seven residence halls accommodate more than 2,000 students who wish to reside on campus. Housing/Residence Life is responsible for the operations and maintenance of the residence halls as well as all activities that occur in residence life, such as learning communities, programming, intramural sports, social activities, and leadership workshops. The Residence Hall Association (RHA) assists with enrichment activities and speaks to the interests and concerns of hall residents. The Housing/Residence Life Office is located in Campbell Suites North.

University Point provides apartment style living for juniors, seniors, and graduate students. This 300 plus bed count residence hall allows students the independence, under supervision, the opportunity to be a part of the campus and the freedom to have their own living area. This suite-style living with build in laundry, kitchen and individual bathrooms. For more information, visit https://www.jsums.edu/housing/.

Important Numbers

Housing/Residence Life Office
601-979-2326

Alexander East Hall
601-979-2656

Alexander West Hall
601-979-2658

Campbell North
601-979-5537

Campbell South
601-979-5134

Dixon Hall
601-979-2691

McAllister-Whiteside
601-979-2085

Transitional Hall
601-979-6029

University Pointe
601-979-6886

Stewart Hall
601-979-2326

JSU Dining Services

SodexoMAGIC@JSU dining services, under Auxiliary Enterprises' auspice, aims to enhance campus life by providing superior food quality, quality customer service, and efficient dining service management. **For meal plan options, please refer to listing under the "Tuition and Fees" heading.**

All residential students must have meal plans that are automatically added to the student's account when Housing is assigned. The default meal assignment for freshman residential students is the Tiger Platinum plan. Freshmen cannot alter meal plans, but upperclassmen (sophomore, juniors, and seniors) can. Commuter Meal Plans are voluntary, meaning that it is not mandated or required. Tigerbucks will not be active on a student's account until their registration has been completed with the Business Office. Tiger Bucks can be used at all Sodexo Magic on-campus eateries. Student meal plans can only be adjusted within the first two weeks of the semester. For more information, visit https://jsums.sodexomyway.com/. For more information about Auxiliary Enterprises and Contractual Services please visit https://www.jsums.edu/auxiliary/ and https://www.jsums.edu/contractual/.

Latasha Norman Center for Counseling Services (LNC)

The Latasha Norman Center for Counseling Services is a short-term student support service and is committed to working with JSU students experiencing certain adjustment challenges as they matriculate through their academic program and college experience. The mission is to provide services and activities that can assist JSU students as they transition and seek assistance with building their problem-solving skills, managing relationships, and becoming more independent and confident. The Latasha Norman Center for Counseling Services does not discriminate based on race, ethnicity, gender, sex, age, sexual orientation, physical and mental abilities, socioeconomic status, or religious choice.

Jackson State University recognizes and accepts its obligations under the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, and the ADA Amendments Act of 2008, which prohibit discrimination on the basis of disability and require the University to provide reasonable accommodations to otherwise qualified disabled students in all University programs and activities.

The LNC practices under the guidance of The American Counseling Association Code of Ethics to ensure ethical counseling practices

including confidentiality. For any reason confidential information needs to be disclosed, the LNC requires students to sign a release of information form.

Upon receipt, the LNC will release essential but limited information. For inquiries about services, please call 601-979-0374, or email latashanormancenter@jsums.edu.

The Graduate School

Division of Graduate Studies

Dr. Preselfannie E. Whitfield McDaniels
Dean
Office: First Floor, Administration Tower
Telephone: (601) 979-2455
e-mail: preselfannie.w.mcdaniels@jsums.edu

Dr. Carlos D. Wilson
Associate Dean
Office: First Floor, Administration Tower
Telephone: (601) 979-2455
e-mail: carlos.d.wilson@jsums.edu

- The Graduate Council
- Graduate Admissions
- Financial Aid and Tuition
- Academic Regulations
- Candidacy and Graduation Requirements
- General Information
- Residence Requirements

The Division of Graduate Studies has supervision of all graduate work at the University. The Division of Graduate Studies is composed of the departments which offer graduate instruction leading to masters', educational specialist, and doctoral degrees. The faculty of the Division of Graduate Studies consists of those faculty members in the departments who are qualified to teach and do research on the graduate level. Members of the graduate faculty engage in scholarly pursuits in terms of research, writing, publishing, and participating in professional organizations.

The Graduate Council

The Graduate Council is responsible for the development and coordination of general policies and procedures for graduate programs and the maintenance of uniform standards for the admission of students and for the awarding of graduate degrees. It is, therefore, the responsible body to recommend, initiate, develop, and approve graduate programs.

Acting with the Graduate Dean, the Graduate Council may initiate plans for improvement of graduate instruction, set standards for the Graduate Faculty, and, in general, oversee the proper functioning of the Division of Graduate Studies.

The Graduate Council consists of a representative, usually the Department Chair, from each department and program offering graduate degrees. An additional representative from each School can be elected for one year by the assembled graduate faculty. The Graduate Dean also appoints for one or two year terms additional members from the faculty at large in order to ensure balanced representation. Two graduate students are appointed from the Graduate Student Association Officers for one year. These representatives act in an advisory capacity and are charged with the transmittance to their departments of the deliberations of the Graduate Council and are also charged to bring recommendations to the Council.

During the academic year, the Graduate Council meets during the following months: October, November, February, and April. Special meetings of the Council may be called by the Dean or by a majority of the Council members.

The Graduate Faculty

The Graduate Faculty consists of the President, Provost, the academic deans and those members of the general faculty who, by their scholarly attainments in their own fields of specialization have demonstrated their competence to offer graduate instruction.

The purpose and functions of the Graduate Faculty, within limits established by the Board of Trustees, are to instruct graduate courses, supervise thesis and dissertation research, and advise the Graduate Council and the Graduate Dean on the establishment of policies relating to graduate education. The major advisory functions of the Graduate Faculty are carried on by committees appointed by the Graduate Dean. Appointment to the Graduate Faculty is made by the Provost.

Graduate Admissions

Admission is granted jointly by Graduate Studies and the program in which the student plans to study. Each program has its own procedures for evaluating applications. Once all required information is received by Graduate Admissions in the Admissions portal, admit decisions can be made at all required levels. Once Graduate Studies receives a recommendation from the graduate faculty of the department, applicants are notified by the Graduate Dean of the decision to admit, conditionally admit, or deny. Admission decisions are valid for 12 months for purposes of initial enrollment.

The Graduate Application can be submitted online by visiting the Jackson State University Graduate Studies website at www.jsums.edu/graduateschool (http://www.jsums.edu/graduateschool/).

It is the applicant's responsibility to ensure that all admission documents are received in the Graduate Studies office on or before the application deadline. All credentials submitted on behalf of an applicant become the property of the University and may be maintained for up to one year. Materials from applicants who do not submit all requested material may be shredded and discarded after one year.

All required information **must** be received by the following deadlines. Required information includes:

1. Application
2. Official Transcripts from all accredited colleges and universities attended.
3. Proof of immunization for measles, mumps and rubella is required of all students in non-JSUOnline programs, and should be submitted to the JSU Health Center at healthservices@jsums.edu. See immunization requirements at www.jsums.edu/healthservices/immunization-requirements/ (http://www.jsums.edu/healthservices/immunization-requirements/).
4. Application Fee, for non-Mississippi residents.
5. Departmental/program documentations and test scores.

6. Official TOEFL score and financial support documentation for international applicants.
7. Evaluation of all international transcripts must be completed by World Evaluation Services (WES), Educational Credential Evaluators (ECE), and Global Credential Evaluators, Inc. (GCE).

General Priority Application Deadlines

Semester/Session	On or Before
Fall	March 1
Summer	March 15
Spring	October 15

Deadlines for Selected Programs

Semester	Program	Deadline
Fall	Ph. D. in Clinical Psychology	**January 15**
Fall	M.A. in Sociology	**March 1**
Fall	M.A. in Criminal Justice	**March 1**
Fall	M.P.H. in Public Health	**March 1**
Fall	D.P.H. in Public Health	**March 1**
Fall	M.S. in Community Counseling	**March 1**
Fall	M.S. Ed. in School Counseling	**March 1**
Fall	M.S. in Rehabilitation Counseling	**March 1**
Fall	M.S.W. (Full-time) and Ph.D. in Social Work	**March 1**
Fall	M.S. in Communicative Disorders	**March 1**
Fall	Ph.D. in Computational & Data Enabled Science	**March 1**
Fall	Ph.D. in Educational Administration	**March 1**
Fall	Ph.D. in Engineering	**March 1**
Fall	Ph. D. in Environmental Science	**March 1**
Fall	Ph.D. in Public Administration	**March 1**
Fall	Ph.D in Urban Higher Education	**March 1**
Fall	Ph.D. in Urban and Regional Planning	**March 1**
Fall	Ed. D. in Early Childhood Education	**March 15**
Fall	Ph.D. in Business Administration	**March 15**
Summer	MSW Program - Advanced Standing and Part-time	**March 15**
Summer	M.S. in Educational Administration & Supervision	**March 15**
Summer/Fall Enrollment	Ed.S. in Education (all concentrations)	**March 15**

Applications received after the enrollment deadline for the desired enrollment period will be processed for the next enrollment period. Selected academic programs only admit once a year. Please refer to the department's section of the catalog, or the departmental website.

Note: *Each program, department or school may have admission requirements and standards above the general standards listed below. The student should consult the catalog section for the program, department and academic school for additional requirements.*

General Admission Requirements for Master's Degrees

Applicants interested in pursuing a master's degree should submit to Graduate Studies, via the online application portal:

1. The online Graduate Application for Admission;
2. Official copies of transcripts from all 4 year accredited colleges/ universities attended;
3. Out-of-state applicants must submit a $25.00 application fee using a money order, or electronically using a debit/credit car; and
4. Proof of immunization for measles, mumps and rubella is required of all students, according to the guidelines of the JSU Health Center.

Other departmental requirements may include the following:

1. Three (3) letters of recommendation.
2. Special application forms and materials required by departments. Please refer to the department's section of the catalog, or the website.
3. Standardized test scores. Please refer to the department's section of the catalog, or the website.

International Applicants must also submit the following:

1. A satisfactory TOEFL (Test of English as a Foreign Language) or IELTS score submitted, or successful completion of ESLI (English as a Second Language).
2. A required $25.00 application fee submitted by a money order, or electronically using a debit/credit card.
3. A certified, translated copy of all transcripts, mark sheets, and diplomas direct from the university/college(s) to Graduate Studies. A minimum GPA of 3.00 (B average) at the undergraduate level for regular admission. A cumulative GPA of at least 2.50 at the undergraduate level (4.0 scale) is required for conditional admission status.
4. Certified Declaration of Financial Support on file in JSU Global.
5. Evaluation of all international transcripts must be completed by World Evaluation Services (WES), Educational Credential Evaluators (ECE), and Global Credential Evaluators, Inc. (GCE).

Once all required information is received by the Graduate Admissions office, the application is forwarded to the department committee for review. The committee members will send a recommendation to the Chair/Director then Dean. Graduate Studies receives a recommendation from the department and the College Dean or designee; applicants are notified by the Graduate Dean of the decision to admit, conditionally admit, or deny. An admission decision is valid for 12 months. Thereafter, the applicant should contact Graduate Admissions for readmission.

Graduate Studies considers admission to degree programs for only those students who have earned degrees (bachelor's, master's, specialist)

from regionally accredited colleges or universities. Students admitted to Graduate Studies are classified as:

1. Regularly admitted status,
2. Qualifying Status,
3. Conditionally admitted status,
4. Non-degree Status.

Regular status is awarded to students who have a minimum GPA of 3.00 (on a 4.00 Scale) at the undergraduate level and are admitted to a degree program.

Qualifying Status is awarded to students who have a minimum GPA of 3.00 (on a 4.00 Scale) at the undergraduate level but require the completion of prerequisites prior to admission to a degree program. The degree program specifies the prerequisites. Please refer to the department's section of the catalog.

Conditional Status may be assigned to students who possess a cumulative GPA of at least 2.50-2.99 at the undergraduate level (on a 4.0 scale) and are admitted to a degree program. Students must earn regular status in the first semester of full time enrollment (i.e. a minimum of 9 **credit** hours during the semester of enrollment), or in the first 12 **credit** hours of part-time enrollment by acquiring a GPA of 3.00 in the first 12 hours of graduate work (i.e. 3.00 semester GPA for first and next semester). During the period of "conditional status", students may not earn a letter grade of "C" or lower.

Non-Degree Status at the Master's Level

Students may be granted special admission to earn certification, update professional skills, earn transfer credit, or to attend a workshop. *Only selected graduate courses are available.* Applicants for non-degree status file only:

1. Application for Admission and Non-degree Enrollment Forms.
2. Official copies of transcript(s) direct from college(s) to the Graduate Admission Office with a cumulative GPA of at least 2.50 at the undergraduate level (on 4.0 scale).

Please note the following:

- Students in Non-Degree status may not enroll in more than six (6) hours per semester.
- Not more than twelve (12) hours may be taken while in Non-Degree status.
- Approval for Non-Degree status does not guarantee subsequent admission to a degree-conferring program.
- Non-Degree students who may wish to continue at a later date must earn a 3.00 average for any graduate courses completed.
- Non-Degree students who wish to earn a degree at a later date must meet all regular admission criteria and earn a GPA of 3.00 for any course completed in non-degree status.
- Credit earned in Non-Degree status is treated as transfer credit. A maximum of 12 hours may be transferred to a degree program.

General Admission Requirements for Specialist Degrees

Applicants interested in pursuing a Specialist in Education (Ed.S.) degree should submit to Graduate Studies **by the January 15 deadline**:

Applicants interested in pursuing a specialist degree should submit to Graduate Studies, via the online application portal:

1. The online Graduate Application for Admission;
2. Official copies of transcripts from all 4 year accredited colleges/ universities attended;
3. Out-of-state applicants must submit a $25.00 application fee using a money order. or electronically using a debit/credit card; and
4. Proof of immunization for measles, mumps and rubella is required of all students, according to the guidelines of the JSU Health Center.

Other departmental requirements may include the following:

5. Three (3) letters of recommendation.
6. Special application forms and materials required by departments. Please refer to the department's section of the catalog, or the website.
7. Standardized test scores. Please refer to the department's section of the catalog, or the website.

International Applicants must also submit the following:

1. A satisfactory TOEFL (Test of English as a Foreign Language), PET-A, or IELTS score submitted, or successful completion of ESLI (English as a Second Language).
2. A required $25.00 application fee submitted by a money order, or electronically using a debit/credit card.
3. A certified, translated copy of all transcripts, mark sheets, and diplomas direct from the university/college(s) to Graduate Studies. A minimum GPA of 3.00 (B average) at the undergraduate level for regular admission. A cumulative GPA of at least 2.50 at the undergraduate level (4.0 scale) is required for conditional admission status.
4. Certified Declaration of Financial Support on file in JSU Global.

Non-Degree Status for the Specialist Level

Students may be granted special admission to earn certification, update professional skills, earn transfer credit, or to attend a workshop. *Only selected graduate courses are available.* Applicants for non-degree status submit only:

1. Application for Admission and Non-degree Enrollment form to the Graduate Admission Office.
2. Transcript(s) direct from college(s) to the Graduate Admission Office indicating a masters' degree and the department-required minimum GPA.

Please note the following:

- Students in Non-Degree status may not enroll in more than six (6) hours per semester.
- Not more than twelve (12) hours may be taken while in Non-Degree status.
- Approval for Non-Degree status does not guarantee subsequent admission to a degree-conferring program.
- Non-Degree students who may wish to continue at a later date must earn a 3.00 average for any graduate courses completed.
- Non-Degree students who wish to earn a degree at a later date must meet all regular admission criteria and earn a GPA of 3.00 for any course completed in non-degree status.
- Credit earned in Non-Degree status is treated as transfer credit. A maximum of 12 hours may be transferred to a degree program.

General Admission Requirements for Doctoral Degrees

Applicants interested in pursuing a doctoral degree (Ph.D., D.P.H., or Ed.D.) should submit to Graduate Studies, via the online application portal:

1. The online Graduate Application for Admission;
2. Official copies of transcripts from all 4 year accredited colleges/universities attended;
3. A Master's degree (or a baccalaureate degree for Chemistry and Clinical Psychology) from an accredited 4 year college or university depending on specific program requirements,
4. A minimum GPA of 3.00 (on a 4.00 Scale) and the program/department required minimum GPA on the highest degree earned,
5. Out-of-state applicants must submit a $25.00 application fee using a money order, or electronically using a debit/credit card; and
6. Proof of immunization for measles, mumps and rubella is required of all students, according to the guidelines of the JSU Health Center.

Other departmental requirements may include the following:

1. Three (3) letters of recommendation.
2. Special application forms and materials required by departments. Please refer to the department's section of the catalog, or the website.
3. Standardized test scores. Please refer to the department's section of the catalog, or the website.
4. A written statement of purpose.

International Applicants must also submit the following:

1. A satisfactory TOEFL (Test of English as a Foreign Language), PET-A, or IELTS score submitted, or successful completion of ESLI (English as a Second Language).
2. A required $25.00 application fee submitted by a money order, or electronically using a debit/credit card.
3. A certified, translated copy of all transcripts, mark sheets, and diplomas direct from the university/college(s) to Graduate Studies. A minimum GPA of 3.00 (B average) at the undergraduate level for regular admission. A cumulative GPA of at least 2.50 at the undergraduate level (4.0 scale) is required for conditional admission status.
4. Certified Declaration of Financial Support on file in JSU Global.
5. Evaluation of all international transcripts must be completed by World Evaluation Services (WES), Educational Credential Evaluators (ECE), and Global Credential Evaluators, Inc. (GCE).

Admission of Faculty and Staff Members

Jackson State University faculty and staff members may be admitted to Graduate Studies through established procedures and meet all admission criteria.

Readmission

Readmission is **not** automatic. Readmission requires approval by the major department, the Academic College Dean or designee, and Graduate Studies.

The student must file a Readmission Application at least three weeks before the beginning of the semester. The student should consult with the major department or academic school before starting this process.

Transfer of Credit at Time of Admission

Graduate credit may be transferred from graduate schools of regionally accredited institutions. Transfer credit is not automatic and is made upon the recommendation of the chairperson of the major department, the academic college dean or designee and approval of the Dean of Graduate Studies. Credits are usually transferred during or at the end of the student's first semester of enrollment. Students should not assume that all graduate credits earned at other institutions will transfer.

Only those hours in which the student has achieved a grade of "B" will be considered for transfer. These credits must be in an area that is the same as, or closely related to, the major field of concentration. Students should consult with the specific degree program for regulations pertaining to the program. Time limits apply to transfer credit. All master's and specialist students must complete their programs within eight years of starting coursework at Jackson State or elsewhere.

A maximum of 15 semester hours of transfer may be applied toward the doctoral degree. Students should consult with the specific degree program for regulations pertaining to the program. Time limits apply to transfer credit.

A student who has previously registered as non-degree seeking in Graduate Studies should note that work taken in this category is treated as transfer credit if the student is later admitted to a degree program. A maximum of 12 semester hours may be transferred to a graduate degree program from non-degree status, subject to approval by the department chairperson and the Dean of Graduate Studies.

Courses taken while a student is registered in other schools of the University are treated as transfer credit if applied later to graduate degrees. Such courses may not be used to meet residency requirements.

International Student Admission

A prospective student who is not a US citizen applying for admission to Jackson State University as a graduate student must apply for admission by March 1, for Fall enrollment; October 1, for Spring enrollment; and March 15, for Summer enrollment. Applicants must submit the following required documents.

1. Application for Admission with $25.00 admission fee using a money order or electronically using a debit/credit card..
2. Three (3) letters of recommendation from former college professors sent directly to the department or program.
3. Master's applicants: A minimum GPA of 3.00 (B average) at the undergraduate level or possess a cumulative GPA of at least 2.50 at the undergraduate level (4.0 scale) for conditional status. Specialist applicants: must hold a masters' degree and the department-required minimum GPA. Doctoral applicants: a minimum GPA of 3.00 (on a 4.00 Scale) and the program or department required minimum GPA on the highest degree earned.
4. A satisfactory TOEFL (Test of English as a Foreign Language) or IELTS Score must be submitted or successful completion of ESLI.
5. A certified, translated copy of all transcripts, mark sheets, and diplomas direct from the college(s) Graduate Studies.
6. Special application forms and materials required by a department or academic college, if required.
7. Certified Declaration of Financial Support on file in JSU Global.

8. Immunization Record showing proof of immunization compliance for measles and rubella, according to the guidelines of the JSU Health Center.
9. International transcripts must be professionally evaluated in order to complete your application. All transcript evaluations must include a "course-by-course" evaluation with a grade for each course, cumulative equivalent grade point average (GPA), U.S. degree equivalency, and translation into English if necessary. We recommend that applicants use the following services:

- World Education Services, Inc. (http://www.wes.org/)
- Global Credential Evaluations, Inc. (http://www.gceus.com/)
- Academic Evaluation Services, Inc. (http://aes-edu.org/website/home/)
- SpanTran: The Evaluation Company (https://spantran.com/web/services/evaluations/?gclid=Cj0KCQiAic6eBhCoARIsANlox87hHC3hiMiput_mPl-VsscZBNNGJZo4GhE7IK0qKWuQMzIlG8rlagsaAhoCEALw_wcB)
- International Education Evaluations (https://myiee.org/)

Evaluations should be sent directly to:

Electronically: gradtranscript@jsums.edu

Or

Division of Graduate Studies
Graduate Admissions
Jackson State University
1400 J. R. Lynch Street
P.O. Box 17095
Jackson, MS 39217 USA

The companies listed above are endorsed by NAFSA: The Association of International Educators. Choosing another evaluation service, or sending transcript evaluations that do not contain the requirements listed above, may delay the application process.

English Language Proficiency Requirements for International Students

All applicants to Jackson State University must show proof of English Language proficiency. For international students, this is most commonly demonstrated through the Test of English as a Foreign Language (TOEFL) or IELTS (International English Language testing System). The minimum English requirement for international graduate admission __ for TOEFL and 6.5 for IELTS. However, JSU accepts additional methods of determining English Proficiency.

International Student Advisor

A student from outside the United States attending Jackson State University on a non-immigrant (F-1 or J-1) student visa is advised through JSU Global. Upon arrival on campus, all international students must report to the International Student Advisor, located at the central office, 1330 John R. Lynch Street. Advisement is offered under the guidelines of the Immigration and Naturalization Service (INS) in the following areas:

1. maintaining student visa status;
2. proper transfer to other school(s);
3. off-campus work authorization;
4. social security card information;
5. health insurance;
6. travel outside the United States;
7. change of visa status; and
8. reinstatement to student status.

The International Student Advisor will issue an I-20 form to new international students who are accepted to attend a full course of study at Jackson State University. Financial documentation must be forwarded to JSU Global prior to an I-20 form being released for the student visa. International students must inform the International Student Advisor of matters such as enrollment status, change of an address, change of major, legal name change, and/or any disciplinary action taken by the university as a result of the student being convicted of a crime. For more information, contact the International
Student Advisor at (601) 979-1611.

Changing Departments or Programs

To transfer from one major department to another during a term in which a student is registered, the student is required to submit a new application.

To transfer from one program to another program located in the same department, the student is required to submit a "Program Transfer form" and submit it to the current major department, requesting transfer. If the department approves, the approval is noted, a current degree evaluation is attached to the form, and forwarded to the Graduate Dean for final action.

Graduate Student Support

Students who wish to apply for graduate student support must be fully admitted to Graduate Studies as a degree-seeking student. Applications for graduate student support can be found on the Graduate Studies website. Interested students should submit a complete application directly to the department chair or academic dean of the desired major field. The department chair or academic dean will submit recommendations to Graduate Studies.

Certain departments and academic colleges have financial support for graduate students; interested students should contact the department chair or the dean of the college for further information.

Graduate Assistantships

Graduate Studies awards assistantships each year with a monthly stipend plus tuition for one academic year—Fall and Spring. To qualify for an assistantship the applicant must have at least a 3.00 average on a 4.00 scale, be able to carry at least 9 semester hours of course work each semester and be able to contribute 20 hours per week of useful service to a department or academic college. The application may be obtained on the Graduate Studies website. Students should apply directly to the department chair or academic dean of the desired major field. The deadline for submitting applications is March 1.

Graduate Tuition Scholarships

Graduate Studies, via the academic department's recommendation, administers a number of tuition waivers. These waivers provide tuition expense only and may vary in amount from partial to full tuition waiver. The application procedure is the same as

outlined under Graduate Assistantships. Tuition-waivers are awarded per academic year. The deadline for submitting applications is March 1.

Remission of Fees

Full-time staff of Jackson State University who qualifies for admission may, with the approval of the immediate supervisor, have tuition and general fees remitted for two courses (including accompanying laboratory) per semester or per summer session. Supervisors are authorized to allow employees to take course work during their lunch hour, whenever possible (provided the course does not exceed the one hour allotted for lunch, which should be taken between the hours of 11:00 a.m. – 2:00 p.m.).

Federal Financial Aid

FINANCIAL AID

The Financial Aid Department at Jackson State University coordinates all financial assistance offered to students. The fundamental purpose of the financial aid program is to make it possible for students to attend school who would normally be deprived of a post-secondary education.

Financial Aid is economic assistance available to help a student meet the difference between what they can afford to pay and what it will actually cost to attend Jackson State University. This economic assistance may be in the form of grants, loans, employment, scholarships, or a combination of any of these programs.

Students seeking federal financial assistance are required to complete the Free Application for Federal Student Aid (FAFSA). The priority deadline date for Jackson State University is April 15 of each year.

Free Application for Federal Student Aid (FAFSA) www.studentaid.gov (http://www.studentaid.gov/)

All aid is contingent upon admission; therefore, a student must apply for admission to the University. Federal Financial Aid Programs fall into one of three categories: grants, loans, and work-study.

Grants are financial aid that students do not have to pay back unless the student withdraws from school and owes a repayment. The type of grant available to some graduate students in educator preparation program is the Teacher Education Assistance for College and Higher Education Grant (TEACH).

The **Teacher Education Assistance for College and Higher Education Grant (TEACH)** provides up to $4,000 a year in grant assistance if the student is completing or plans to complete coursework needed to begin a career in teaching.

As a condition for receiving a TEACH Grant, the student must sign an Agreement to Serve promising to teach full-time in a high-need field at a low- income school or educational service agency after completing the course of study for which the student received the grant.

If the student does not complete the teaching service obligation, the TEACH Grant will be converted to a Direct Unsubsidized Loan that must be repaid with interest charged from the date of each TEACH Grant disbursement.

For detailed information on this grant, visit www.studentaid.gov. (http://www.studentaid.gov./)

Loans

Loans are borrowed money that must be repaid with interest. The types of loans available are as follows:

1. Federal Direct Loans
2. Federal Plus Loans.

William D. Ford Federal Direct Loan Program

Federal Direct Loans (Subsidized and Unsubsidized) are low-interest loans made by the U. S. Department of Education to students enrolled at least half-time. Federal direct loan rates are updated October 1st of each year. Please visit www.studentaid.gov (http://www.studentaid.gov/) for the most current interest rate.

The Federal Direct “Subsidized” Loan is based on financial need, but the Federal Direct “Unsubsidized” Loan is not. The Subsidized and Unsubsidized Federal Direct Loans combined cannot exceed loan maximums set by the Department of Education per academic year. The loan maximums for students are as follows:

Dependent Students:

$3,500 plus ($2,000 unsubsidized) first year;

$4,500 plus ($2,000 unsubsidized) second year, and;

$5,500 plus ($2,000 unsubsidized third or fourth year.

Independent Students:

$9,500 (No more than $3,500 in subsidized) first year;

$10,500 (No more than $4,500 in subsidized) second year, and;

$12,500 (No more than $5,500 in subsidized) third or fourth year.

NOTE: Students enrolled in teacher certification or re-certification programs are considered the same as 5th-year undergraduate students, and may borrow up to the same limits as fourth-year students (Dependent or Independent).

Eligible loan amounts are determined by the Cost of Attendance minus Expected Family Contribution, and minus any other assistance the student may receive.

After the student graduates, leaves school, or drops below half time, they have six months before beginning repayment. This is called a “grace period” if it is a Subsidized Stafford Loan; they will not have to pay any principal or interest during that period. If the student has an Unsubsidized Direct Loan; they will be responsible for the interest from the time the loan is disbursed until the loan is paid in full.

Student Loan Entrance and Exit Interviews are required for all loan borrowers. Students may contact the Financial Aid Office for more information.

The **Federal Direct PLUS Loan** is a loan for the parent of a dependent child who is enrolled at least half-time. In addition, graduate or professional degree students may obtain PLUS Loans to help pay for their own education. This loan is made through the U. S. Department of Education. Credit checks are required. The yearly loan limit is the cost of attendance minus any estimated financial aid for which the student is eligible.

The **Direct PLUS Loan** interest rate updates on October 1st of each year. Please visit www.studentaid.gov (http://www.studentaid.gov/) for the most current information.

Verification Policies and Procedures

The Financial Aid Department conducts verification on all applicants selected for verification by the Department of Education edit checks.

Applicants selected for verification will be placed in one of the five verification groups. The verification group determines which items must be verified. The potential verification items are as follows:

- Adjusted Gross Income (AGI)
- U.S. Income Tax Paid
- Untaxed IRA Distributions
- Untaxed Pensions
- IRA Deductions and Payments
- Tax-Exempt Interest Income
- Education Credits
- Income Earned from Work
- Number in Household
- Number in College
- Supplemental Nutrition Assistance Program (SNAP-Food Stamps)
- Child Support Paid
- High School Completion Status
- Identity/Statement of Education Purpose

Applicants selected for verification must submit the required documents for the student, parents, and/ or spouse, if applicable, to the Financial Aid Office. The acceptable documentation for verification may be the following:

- IRS Tax Return Transcript for the appropriate tax year requested if the IRS Data Retrieval Tool was not used or could not be used, IRS Data Retrieval used but data changed after it was transferred from IRS, or other acceptable documentation (copy of tax return, W-2 form, Form 4868, signed statement, etc.) if applicable. IRS Data Retrieval may be used if IRS request fields) on the ISIR will have a value of "02" when the data is unchanged.
- A completed Verification Worksheet (dependent or independent) for one of the five verification groups with acceptable documentation. The verification worksheets are used to collect data such as household size, number in college, and other untaxed income and benefits non-tax file information, high school completion status, identity/ statement of educational purpose.

The information submitted on the FAFSA is compared with the information contained in the official documents submitted to complete verification (tax returns or other acceptable documents and verification worksheets). The verification process can take four to six weeks from the time all required documents are received.

NOTE: Verification documents requested by the Financial Aid Department must be submitted within sixty (60) days of the request. If the requested information is not received within the sixty (60) days, the application for financial assistance will not be processed until verification is completed.

CORRECTION PROCESS

Once all documents are received, corrections, if any are needed, will be made electronically. If the verification process results in a change in the expected family contribution (EFC), the student will receive an acknowledgment letter from the U.S. Department of Education with the corrected data. The student will also receive notification from the Financial Aid Office via their JSU web account. The electronic correction process takes 10-14 working days. Once the correction is received, the student will be awarded and notified.

Conflicting Information

Conflicting information must be resolved prior to disbursing federal student aid to students. If conflicting information is discovered after disbursing federal student aid, the discrepancies must still be resolved, and the appropriate action must be taken based on specific program requirements. Conflicting information is separate and distinct from verification and must be resolved whether or not the student is selected for verification.

Referrals to the Office of the Inspector General of the Department of Education

The Financial Aid Department will refer to the Inspector General of the Department of Education any credible information indicating that an applicant for Title IV Program assistance may have engaged in fraud or other criminal misconduct in connection with his or her application.

Examples of this information are the following:

1. False claims of independent student status;
2. False claims of citizenship;
3. Use of false identities;
4. Forgery of signatures or certification;
5. False statements of income; and
6. Other illegal conduct involving the administration of Title IV Programs.

Recovery of Funds (Overpayments)

Jackson State University will make every effort to avoid overpayment of Federal funds to financial aid recipients. If a financial aid recipient receives an overpayment as a result of the verification process, the Financial Aid Department will eliminate the overpayment. The overpayment will be eliminated by adjusting subsequent financial aid payments during the award year or reimbursing the Federal Program account within sixty (60) days of the recipient's last day of attendance or the last day of the award year, whichever is earlier. **Applicants who owe a repayment of federal funds are not eligible to receive federal aid until the overpayment is paid in full.**

Standards for Satisfactory Academic Progress

Section 484 of the Higher Education Act (HEA), as amended, requires that a student maintains satisfactory progress in the course of study he or she is pursuing according to the standards and practices of the institution in which he or she is enrolled in order to receive aid under the student financial assistance programs authorized by Title IV of the HEA. These programs include the Federal Pell Grant, Federal Supplemental Education Opportunity Grant (SEOG), Academic Competitiveness Grant (ACG), National Science and Mathematics Access to Retain Talent Grant (SMART), Leveraging Education Assistance Partnership Program (LEAP), Federal Work-Study, Federal Perkins Loan, and the Federal Family Educational Loan Program.

Standards for Academic Progress

Graduate students must meet the Satisfactory Academic Progress Standard as set by Graduate Studies (adequate progress toward completion of degree requirements and cumulative GPA of 3.0 and above). Graduate students must complete a minimum percentage of hours attempted (grades of "F", "W" and "I" are counted as attempted; however, not as completed). Students have a two semester probationary period including the current semester enrolled. Failure to bring the cumulative GPA into compliance and or complete the required hours renders the student ineligible for financial aid and the student is denied Title IV assistance.

Maximum Time Frame

Financial aid eligibility is subject to the maximum time frame limits noted below:

Quantitative Standards

Students are expected to complete the requirements for degree within a reasonable time frame. Students must pass a minimum percentage of JSU courses attempted. For this standard students must pass 67% of hours attempted.

Financial Aid Warning

Students who fail to maintain the above standards at the end of the evaluation period (semester) will be placed on Financial Aid Warning and eligible for Title IV assistance for the subsequent payment period (semester).

Financial Aid Suspension

Students who fail to complete the required hours and maintain the required cumulative GPA for two consecutive semesters will be placed on Financial Aid Suspension. Students who fail to bring the cumulative GPA into compliance and/or complete the required hours, at this point, will be considered 18 as not maintaining Satisfactory Academic Progress (SAP) and will be ineligible for Title IV assistance.

Students placed on financial aid suspension may submit an appeal for reinstatement of aid due to mitigating circumstances that prevented them from maintaining Satisfactory Academic Progress (SAP).

Reinstatement of an Academic Suspension to attend the university does not reinstate financial aid.

Grades

All JSU credit hours attempted are included in the Satisfactory Academic Progress (SAP) calculation. Grades of "F", "W" (withdrawn), and "I" (incomplete) are not counted as hours completed; however, they are counted as hours attempted. Also, all repeated hours are counted as attempted hours. Passed hours may only be repeated ONCE for Title IV assistance.

Satisfactory Academic Progress (SAP) is measured at the end of each payment period (semester) including the summer term.

STUDENTS' ACADEMIC GRIEVANCE PROCEDURE

The objective of the Grievance Procedure is to create and sustain an academic environment that permits students to freely express concerns or reveal complaints about their education and the educational process and to have their concerns and complaints addressed swiftly and forthrightly. Students enrolled at Jackson State University may register a concern or complaint about any academic regulation, the instructional program, delivery of the program, grades received, the academic advisement system, or any other matter related to academic affairs, without any adverse action for expressing the concern or filing the complaint. Concerns and complaints will be received, explored or investigated, and responded to in a fair and timely fashion, though students should understand that the final response by the University may not always be the response that they prefer.

APPEAL PROCEDURES

Students who fail to maintain Satisfactory Academic Progress (SAP) and have been placed on financial aid suspension may submit an appeal due to mitigating circumstances for reinstatement of aid. The appeal must clearly explain what mitigating circumstances caused the student to fail the standards and what has changed that will allow the student to make Satisfactory Academic Progress (SAP) at the next evaluation. The appeal due to mitigating circumstances with supporting documentation must be submitted to the Financial Aid Office by the last published date of registration. The Financial Aid Appeals Committee will render a decision and the results will be posted to the student's JSU P.A.W.S. account and/or written notification approximately seven to ten days after the appeal is received.

Mitigating Circumstances

Mitigating circumstances are unforeseen, special or unusual/ traumatic conditions which cause undue hardship. These circumstances may include serious illness or injury relating to the student, death or serious illness of an immediate family member, significant traumatic occurrence that impaired emotional and/or physical health, or other documented circumstances.

Financial Aid Probation

Students will be placed on Financial Aid Probation for one payment period (semester) after a successful appeal. At the end of the probationary period (semester), the student must be making Satisfactory Academic Progress (SAP) or following an Academic Plan developed by the student's Academic Advisor that ensures the student can complete his educational program within a reasonable time frame.

Reinstatement

Reinstatement of Financial Aid will be based on the strength of the appeal statement, documentation received, and the academic record. Filing an appeal does not guarantee Financial Aid reinstatement. Financial aid will be reinstated for students who reestablish eligibility by maintaining the standards of Satisfactory Academic Progress (SAP).

The Financial Aid Office at Jackson State University does not discriminate against students on the basis of sex, handicap, race, color, religion or national origin, pursuant to the requirements of Title IX of the Educational Amendments of 1972, the Rehabilitation Act of 1973, and other applicable statutes.

Tuition and Fees

Fees are subject to change upon approval of the Board of Trustees of State Institutions of Higher Learning. The Tuition and Fee Sheet 2023 – 2024 (Fall, Spring, Summer) can be found here: https://www.jsums.edu/finance/files/2022/06/FY-22-23-Fees-Sheet.pdf.

Expenses

The matter of expenses while attending Jackson State University is of importance to every student. It is difficult, however, to give specific

information about annual expenses, because they vary according to the nature of the curriculum, the place of residence (whether within Mississippi or outside), and the student's own habits and needs. It is the responsibility of the University to inform students of certain definite expenses they will have and of others that are likely to arise.

The information in this section concerning expenses and financial aid is applicable to all students enrolled at the University. The listing of fees or charges in this catalog does not constitute a contract between the University and the student. Because of rapidly changing conditions, it may become necessary to alter a fee structure before the next edition of the catalog is published. As a condition of registration, each student will pay the fees in effect at the time of registration.

Full-Time Students

State resident students who register for 9.0-13.0 semester hours will pay a flat rate per semester. State resident students that register for more than 13.0 semester hours will pay the flat rate plus a prorated amount for each hour over 13.0 hours. In addition to the regular fees assessed graduate students, out-of-state students will pay an out-of-state fee.

Part-Time Students

A graduate student carrying fewer than 9 hours is considered part time. Part-time students are assessed tuition on a prorated amount per semester hour. Out-of-state students must pay, an additional prorated amount per semester hour.

Auditing Students

A person may audit a course at the University without being officially enrolled as a degree-seeking student. The student must, however, be eligible for admission to the University. A fee is charged per semester hour for each course, and no refund ismade if the course is dropped at any time after registration.

Thesis and Dissertation Fees

Master's students completing a thesis are assessed a thesis fee. Doctoral students are assessed a dissertation fee.

Room Application, Deposit, and Reservation Fee Application Procedure

Each student interested in on-campus housing must complete an online housing application. The Housing Application is available via the student's Personal Access to Web Services (P.A.W.S.) Account, under the student tab for Housing. Students will select the "THD: JSU Housing Self-Service link to complete the housing process. Students applying for housing for the first time will be required to pay a housing processing fee before the application can be processed. Continuing students applying for housing will be required to pay a room reservation fee before the application can be processed. The application fee and room reservation fee are non-refundable. The amount of the current application fee will be communicated to applicants by the Housing and Residence Life Department.

Housing Application Fee

JSU Housing and Residence Life fees are assessed through the Housing Director (THD) Self-Service Portal. New and Transfer Students are required to pay a $100.00 non-refundable housing application fee to reside on campus. This fee is valid for up to eight (8) semesters. New and Transfer Students can make all payments relative to housing on their JSU PAWS account via the THD: JSU Housing Self-Service portal.

Applications for student housing may also be obtained from the Housing Director (THD) Self-Service Portal. Completed applications must be accompanied by the required room reservation fee before a student is assigned housing. The Housing Director (THD) Self-Service Portal only accepts credit or debit cards for payments.

Housing Room Reservation Fee

JSU Housing and Residence Life fees are assessed through the Housing Director (THD) Self-Service Portal. Returning Students are required to pay a
$75.00 non-refundable room reservation fee each year, which serves as a confirmation fee for participation in the selection process for University housing for the following academic year. Additionally, the $75.00 non-refundable room reservation fee must be paid by all continuing students who desire to reside on campus. The room reservation fee must be paid through the Housing Director (THD) Self-Service Portal. Students must be registered as full time before the room selection process and not have an outstanding balance.

Non-Resident Fee

Responsibility for registering as a non-resident student is placed on the student. If a student is in doubt as to his/her legal residence and questions the decision of the Admissions Office, the matter should be referred to the Registrar for a decision before registration or payment of fees. (See Residence Status of Applicants under the section on Admissions.)

Room and Board

Students in good standing who voluntarily withdraw from the University during the semester may receive an adjustment prorated on a weekly basis.

When students withdraw with seven or more days remaining in the room period and/or board period, they will receive adjustments at a rate calculated by dividing the charge for room and board by 14 weeks per semester. There will be no refund for fewer than seven days. When students withdraw with seven or more days remaining in the semester, please contact the appropriate office for a refund schedule.

Late Registration Fee

Any student who fails to complete registration by payment of all fees during the official registration period is charged a later registration fee of $150.00.

Audit Fee

A fee of $345.00 per hour will be charged to undergraduate students. Audit fees for courses taught on campus are the same as credit fees. Please note that fees are subject to change without prior notice.

JSU Virtual Interactive Technology, Books, and Educational Supplies (V.I.B.E.) Fee

The JSU V.I.B.E. program allows students to rent or purchase textbooks at a reduced cost of $28.00 per Credit Hour. The charge is posted directly to students' JSU Bursar account along with tuition and fees (University fees). It can be paid along with their University charges using financial aid or methods of payment. This program aims to improve the overall success of students by ensuring that the required course materials are available on the first day of class. https://www.jsums.edu/auxiliary/jsuvibe/

Tuition Policy Adjustment

Tuition adjustments are based on the date that classes begin and the date a course(s) is dropped or on the date of withdrawal. Students withdrawing from the University before the close of a semester must complete an "Application for Withdrawal" form. This form can be picked up in the University Academic Advisement Center, which is located on the second floor of the library.

Financial aid recipients who withdraw or drop a course may not receive a refund as a result of the tuition adjustment. The refund will be credited to the appropriate source of fee payment which includes the following:

a. Federal Direct Loan;
b. Federal Direct Plus (parent and grad);
c. Federal Supplemental Educational Opportunity Grant;
d. other Title IV aid;
e. other federal sources; and
f. state, private, or institutional aid.

Amount Refunded

Student Withdraws	University	Due to Appropriate Source
Start of Semester to week 2	0%	100%
After Week 2	100%	0%

Refund of Title IV Federal Financial Aid

The Higher Education Amendments of 1998 (HEA98) represent a major shift in the return of Title IV Federal Financial Aid when a student withdraws from the University. This change in policy went into effect at Jackson State University during the Fall 2000 semester. The policy governs all federal grant and loan programs (Pell, SEOG, and PLUS Loans), but does not include the Federal Work-Study Program.

In general, the new law assumes that a student "earns" approved/verified federal financial aid awards in proportion to the number of days in the term prior to the student's complete withdrawal. If a student completely withdraws from the University during a term, the University must calculate, according to a specific formula, the portion of the total scheduled financial assistance that the student has earned and is therefore entitled to retain, until the time that the student withdrew. If a student receives (or the University receives on the student's behalf) more assistance than they earn, the unearned funds must be returned to the Department of Education or parent's Federal PLUS Loans lenders. If a student's charges are less than the amount earned, and a refund is due, the student may be able to receive those additional funds. Students who have not completed the verification process are ineligible to receive any financial aid.

Academic Regulations

Honor Code

I will be honest in all of my academic coursework and will not indulge in or tolerate the academic dishonesty of my counterparts or peers. I will not partake in any type of misconduct, misrepresentation, or immoral behavior that will harm, damage, or endanger any person, property or myself or reflect negatively against me or hinder my academic continuance. I will strive to achieve excellence and to complete degree requirements without hesitation. I am a valuable part of the Jackson State University family and proud of it.

Student Responsibility for Meeting Graduate Requirements

Each student should thoroughly study the **Graduate Catalog** and become completely familiar with the organization, policies, and regulations of the university. Failure to do this may result in serious mistakes for which the student shall be held fully responsible. Only the general academic regulations and requirements governing graduate programs are presented in Orientation. Specific requirements pertaining to individual programs are outlined within the departmental section of the catalog. It is the student's responsibility to keep current on information that may affect their matriculation in graduate school. Whenever a problem occurs, students should contact their major advisor, department chair, college dean, and/or the Graduate Dean's office. Advisors endeavor to provide such assistance in a timely and accurate manner, **but meeting requirements for graduation is the responsibility of the student.**

ACADEMIC STANDING

A graduate student may be classified with the following academic standing categories:

- **Good Standing.** A graduate student is judged to be in good standing when making adequate progress toward completion of degree requirements, has a cumulative GPA of 3.00 on a 4.00 scale and is not on probation or subject to dismissal.
- **Placed on Warning.** A graduate student is placed on academic warning when the student's cumulative grade point average is less than 3.00. The student may be removed from this status when the cumulative grade point average of 3.00 or better is achieved. A graduate student who is placed on warning may be restricted to enrollment which reflects less than full-time status.
- **Probation**. Failure to complete the required hours and maintain the above grade point average will result in a one-semester probationary period. Probation is intended to provide a student whose performance is less than fully satisfactory a period of time to bring his/her performance up to a level consistent with the minimum standards enforced by Graduate Studies and/or the program in which enrolled.

A student may not remain in probationary status for longer than two semesters. When a student is placed on probation, they will be notified of the fact in writing and will have one semester to correct the deficiencies that led to this action. If, at the end of this period, all deficiencies have been removed, and no other circumstances warranting probation have developed in the interim, the student will be returned to good standing. If the deficiencies have not been corrected by the end of this period, the student may become subject to dismissal.

Probation may be initiated by the Graduate Dean or by the recommendation of the Graduate Advisor in the student's major department, school, and college. A student may be placed on probation for one or more of the following reasons:

- Failure to maintain an adequate level of performance, as measured by GPA, course grades, and/or competencies.
- Failure on the departmental preliminary examinations or failure to stand for such exams in a timely manner.
- Failure to proceed to the comprehensive or qualifying exam within a reasonable period of time, relative to the maximum time limit of your specific program (i.e., eight (8) years for the master's degree and ten (10) years for the doctoral degree).
- Failure to make adequate progress in meeting other stated program requirements (e.g., submission of an acceptable

dissertation prospectus, passage of required language examinations, etc.).
- Failure to make adequate progress in thesis or dissertation research or writing, or in the independent study project.

Students on probationary status may not be admitted to examinations (Master's Comprehensive or Doctoral Qualifying), nor advanced to Candidacy, nor receive a graduate fellowship, nor defend a dissertation, thesis or project, nor be eligible to receive a graduate degree.

- **Unsatisfactory Work and Dismissal from a Department or Program.** A graduate student whose academic performance is unsatisfactory may be requested to leave the program. The recommendation for dismissal must be made in writing by the advisor, stating specific examples of unsatisfactory work, and must follow a conference held between the student and the advisor. Dismissal may also be initiated by the Graduate Dean. Academic procedures for dismissal including notification of the Graduate Dean must be followed.

Readmission after Dismissal

Students who are dismissed from their graduate program may be eligible to be readmitted. To be considered for readmission, a former student must submit an Application for Readmission. Official transcripts from all institutions attended since a student was last enrolled at Jackson State University are required by the Office of Graduate Admissions. Unofficial transcripts will not be accepted. Dismissed students who are approved for readmission will be readmitted on probation and must follow the requirements outlined and included with the student's letter from the Division of Graduate Studies, which must be received before the student is permitted to register.

Change of Grade Policy

Grades submitted to the Office of the Registrar and Records by the instructor of record are final and official. A final grade is based on the instructor's evaluation of course work completed as of the official end of the course. Final grades should not be changed as the result of the submission of additional work or the repeating of examinations after the official conclusion of the course for the purpose of improving the final grade. However, a course instructor may change a reported grade if the original was incorrectly assigned due to clerical or computational error, if the student has been successful in a grade appeal, or if a student meets the requirements for the removal of an incomplete grade (I-Incomplete grade). Grade corrections due to clerical or computational errors must be changed within 30 calendar days of its issuance. Grade changes resulting from a grade appeal must be changed within 30 calendar days of the conclusion of the appeal. Any grade changes made after the 30-calendar day period related to clerical or computational errors or a grade appeal must have the written approval of the Provost of Academic Affairs. Incomplete grades assigned in a Fall semester or Fall Intersession must be resolved and the final grade must be entered by the last day of classes of the next Spring semester. Incomplete grades assigned in a Spring semester, Spring intersession, or Summer semester must be resolved and the final grade must be entered by the last day of the next Fall semester.

Procedures

Classroom Concerns or Complaints (e.g., grades received; improper dismissals; unprofessional behavior):

- Student documents the concern or complaint in writing to the instructor.
- Instructor provides a written response to student's concern or complaint (allowing up to five days if investigation is required).
- Complaints unresolved by the instructor or for which the response is unacceptable must be described in writing by the student and submitted to the department chair.
- The chair properly logs and investigates the matter and provides a written response to the student within ten days.
- Issues that are still unresolved must be submitted by the student to the college dean.
- The dean provides the final written response within ten days, which may be done with committee input and/or in consultation with Academic Affairs.

Other Academic Concerns or Complaints (e.g., academic advisement or academic regulations):

- Student documents the concern or complaint in writing with the academic advisor.
- The advisor provides a written response (allow up to five days if an investigation is needed), or refers it to the appropriate official/body, e.g., Department Chair or Academic Standards Committee, for response within 20 days. The appropriate official/body returns the response to the advisor and the advisor returns it to the student.
- Unresolved concerns or complaints must be submitted in writing by the student to the Dean.
- Dean provides a written response within ten days, which may be done with committee input and/or in consultation with Academic Affairs.
- If the complaint remains, the student will submit it to the Provost and Vice President for Academic Affairs for a final response.

TRANSCRIPTS

A university transcript is a legal document. Transcript requests are made in writing and directed to the Office of the Registrar and Records. Transcripts may also be requested online at www.jsums.edu/registrar. (http://www.jsums.edu/registrar/) The transcript is a student's complete and permanent academic record. It shows all undergraduate and/or graduate work completed, results, and degrees awarded at JSU. In addition, a summary of transfer credit is listed and detailed course work may be included. After the last enrollment period, transcript totals are shown. The Office of the Registrar and Records will not release transcripts received from other schools and colleges.

The current cost for each transcript is $10.00. Checks or money orders should be made payable to Jackson State University. Transcripts can only be released for students having no outstanding financial obligations to the University.

GRADES AND QUALITY POINTS

Grade point averages are determined on a 4.00 scale. Students with cumulative grade point averages of 3.00 or better are in good academic standing. Those falling below the 3.00 average are placed on academic probation. Transfer grades are not counted in computing the Jackson State University grade point average.

A–Excellent	4 quality points per credit

B–Good	3 quality points per credit
C–Fair	2 quality points per credit
D–PooR	1 quality point per credit
F–Failure	0 quality points per credit
S–Satisfactory progress	4 quality points per credit
U–Unsatisfactory progress	0 quality points per credit
P–Passed	0 quality points
NP-Failure	0 quality points
IP–In Progress (Graduates only)	0 quality points
R–Repeated Course	0 quality points
I–Incomplete	0 quality points
W-Withdraw	0 quality points
AU-Audit, No Credit	0 quality points
NC-Non-punitive failing grade	0 quality points
PX-Pass equivalent of B, C, or D	0 quality points

- Administrative grade issues when 0 quality points, a drop, or withdrawal did not properly occur.

Z-Grade Unknown	0 quality points

No more than two "C" grades can be counted toward degree requirements. A GPA of 3.00 must be maintained both overall and in the student's major area of concentration at the Master's level. Doctoral students should consult the department chair and academic college dean for specific requirements. Grades of "D", "F", "W"(withdrawn), and "I" (incomplete) do not count towards satisfactory academic progress; however, they are counted as attempted hours.

INCOMPLETES ("I" GRADES)

When special or unusual circumstances occur, the instructor may postpone assignment of the student's final grade in a course by use of an Incomplete grade (i.e., I grade). The I grade may be given only when: the student (a) has completed approximately seventy-five percent of the course requirement but is unable to complete the class work and/or take the final examination because of illness or another extraordinary reason; and (b) has completed work that is of a passing grade; and (c) in the instructor's judgment, can complete the required work without repeating the course.

Provided these conditions are met, the student may request an I grade. Upon the student's formal request, the instructor may elect to give an I grade to allow the student additional time to complete work missed due to extenuating circumstances, but such an I grade does not guarantee a passing grade in the course.

An I grade shall not be assigned in instances solely due to student's procrastination, poor performance, or outside circumstances not related to the student's course load or unexplained absences. An I grade shall not be assigned for thesis or dissertation hours. To assign an I grade, the course instructor submits an I grade for a given student during final grade submission and indicates the alternative grade (i.e., the grade that will be assigned should the course not be completed). If an I grade has not been changed by the last day of classes of the next semester (excluding summer term), it automatically defaults to the alternative grade (or an F, if no alternative grade is indicated).

1. An I grade assigned in a Fall semester or Fall Intersession must be resolved by the last day of classes of the next Spring semester.
2. An I grade assigned in a Spring semester, Spring intersession, or Summer semester must be resolved by the last day of the next Fall semester.

Under extraordinary circumstances that may preclude a student from completion of course requirements during the allotted timeline, an extension of the timeframe for resolution of the I grade may be considered and/or permitted. The student must initiate the petition in writing with the appropriate documentation. This petition must be accompanied by a letter of justification from the instructor of record. The petition must be endorsed by the chairperson of the student's academic department and approved by the dean of the academic college before it is submitted to Academic Affairs. The approved extension will be on file with the student's department, academic college, the Division of Graduate Studies (for graduate students), Academic Affairs, and the Office of the Registrar and Records.

Unresolved I grades assigned to a student prior to Fall 2004 are considered permanent I grades. If a student has an extraordinary circumstance that precludes the student from completion of course requirements, the dean of the student's college may authorize that the I grade become permanent. Such unusual circumstances might include, but would not be limited to, withdrawal of the student from the university because of prolonged medical problems, or death or resignation of the faculty member.

W Authorized Withdrawal–indicates that a student has withdrawn from class during the first 25 days of classes where no basis for evaluation has been established.

AU Audit–indicates that a student registered on an audit basis for which no letter grade or credit hours are given. The course will be recorded on the transcript with the notation of "AU."

- Students are permitted to audit courses provided they have approval from their college dean and have been processed properly through the Office of the Registrar and Records.
- Auditors do not receive grades and are not required to participate in course examinations. Otherwise, conformity to regular classroom decorum is the same as that required for all students. Students choosing to audit courses must be admitted to the University, enroll in the courses using current registration procedures and pay the same tuition fee as regular enrollees. The course will appear on the student's transcript with the notation of "AU." Students may adjust audit status only during the scheduled dates for registration. The deadline for withdrawing from an audit course is the same as the withdrawal for other courses.

Time Limits

All master's and specialist students must complete their programs within eight years of starting coursework at Jackson State or elsewhere.

Doctoral students must complete all degree requirements within ten years from the time of admission into a program.

Residency

For Master's and Specialist students, the residency is one semester; for doctoral students, it is one year.

ACADEMIC HONESTY

Students must be honest in all their endeavors of academic matriculation at Jackson State University. Cheating, plagiarism, or any other act of academic dishonesty will not be tolerated. In cases where evidence is sufficient to establish that a student cheated or was otherwise dishonest in completing a test, paper, report, etc., the penalty will range from repeating the assignment to expulsion from the University.

Procedures:

- The instructor discusses with the student any evidence of dishonesty with tests, assignments, or other requirements and the resulting consequences (e.g., based on documented sound evidence, the instructor may require the student to repeat the assignment, complete an alternate assignment, or record a reduced grade of "F" for the assignment; based on circumstantial evidence, the Instructor may talk with the student about the importance of honesty in the academic environment).
- The student is expected to accept established consequences for acts of dishonesty and hopefully, pledge to refrain from committing any further acts of dishonesty. In the face of circumstantial evidence, it is expected that the student will show the instructor respect in discussing the matter and come to understand the importance of avoiding the appearance of dishonesty.
- If the student disagrees with an instructor's charge of academic dishonesty and the subsequently imposed penalty, the student must make a written appeal to the department chair for relief.
- The chair, in consultation with appropriate individuals or through a committee structure, secures documentation of dishonesty, determines if the charge is valid and/or the penalty is reasonable, or if the evidence is suspect and the charge and penalty should be dropped. The chair submits a written response to the student within ten days.
- If the student disagrees with the chair's decision, the student will submit a written appeal to the college dean within ten days.
- The dean provides the final written response within ten days, which may be done with committee input and/or in consultation with the Vice President for Academic Affairs.
- Students who commit repeated acts of dishonesty may be referred to The Division of Student Life with a recommendation for suspension from the University.

NOTE: In any case of alleged academic dishonesty, the disciplinary process should be initiated within ten days and handled in a professional manner.

Unauthorized/ Illegal Web Use

Jackson State University allows and encourages the use of University owned computer resources. This use is a granted privilege, not a right. Student use must be in accordance with all applicable laws, policies, and standards regarding acceptable use. Areas of concern include, but are not limited to

- Discriminating or libelous statements.
- Copyright infringements ("illegal downloading").
- Obscene, offensive or threatening materials.
- Usage primarily for financial gain or compensation not related to JSU's mission.

Failure to comply with this policy may result in charges being brought within the University's judicial system and in the civil or criminal court system.

REGISTRATION

Students must be admitted officially and pay the fee assessed in order to complete courses at Jackson State University. Registration dates and instructions are shown in the University Calendar. Students are required to report on time for registration and to follow the registration schedule. Students who register late are charged a fee of $150.00 in accordance with the date printed in the registration schedule. In no case is credit allowed for a course in which the student is not officially registered. Students are encouraged to register and pay fees during the registration period.

WITHDRAWAL FROM THE UNIVERSITY AND CLASS

A student is permitted to drop a course without academic penalty up to and including approved dates published on the Registrar's website at www.jsums.edu/registrar/ (http://www.jsums.edu/registrar/) . After the deadline, a student may withdraw from a course with permission of the academic advisor at which time the student will receive a grade of "W". The withdraw grade ("W") will not lower the GPA, but may impact financial aid and an excessive record of withdrawals may reflect poorly on students' application for employment or graduate school.

A student completely withdrawing from the University prior to the deadline for dropping classes without academic penalty will not receive any grades. His or her record will reflect the date of the withdrawal. A student withdrawing after the deadline for dropping courses without academic penalty will receive a grade of "W". Any courses completed before the withdrawal is processed will be awarded grades on the official transcript.

A university transcript is a legal document that provides an accurate account of academic performance. Therefore, transcripts should only be altered if there is a compelling rationale for doing so.

SCHEDULE CHANGES (COURSE ADD/DROP)

The Academic Calendar specifies dates for students to add/drop courses. All students must contact their respective advisor to discuss and complete the Add/Drop form. Once the Add/Drop form is submitted within the timeframe indicated on the Academic Calendar, the requested approved changes will be processed by the respective advisor.

The following weeks/days are designated as Drop/Add:

- Fall & Spring (8 Weeks) – First week of class/5 Business Days
- Fall & Spring (16 Weeks) – First two weeks of classes/10 Business Days
- Intersessions – First three days of class/3 Business Days

- Summer (4 Weeks) – First week of class/5 Business Days
- Summer (8 Weeks) – First week of class/5 Business Days.

CLASS ATTENDANCE POLICY

Objective

To ensure that students attend all class sessions and activities, except in cases of extreme cause, to maximize their learning from the quality instructional experience afforded at the University.

Statement

Students at Jackson State University must fully commit themselves to their program of study. One hundred percent (100%) punctual class attendance is expected of all students in all scheduled classes and activities. Instructors keep attendance records and any absence for which a student does not provide written official excuse is counted as an unexcused absence. Students must understand that even with an official excuse of absence, they are responsible for the work required during their absence.

Remaining on a Course Roster

To remain on a course roster beyond the attendance purge date, students have to demonstrate that they are participating and academically engaged in their courses. Academic engagement, as defined by the U.S. Department of Education, is active participation by a student in an instructional activity related to the student's course of study that includes, but is not limited to:

- Attending (physically or online) asynchronous class, lecture, recitation, or field/laboratory activity where there is an opportunity for interaction between the instructor and students
- Submitting an academic assignment
- Taking an assessment or exam
- Participating in a tutorial, webinar, or other computer-assisted instruction that is interactive
- Participating in a study group, group project, or online discussion assigned by the institution
- Interacting with an instructor about academic matters

Academic engagement is not:

- Logging on to an online class or tutorial without further participation
- Emailing the instructor with a promise to participate and nothing more
- Utilizing university services such as housing, meal plan, counseling, advising, etc.

Within the first 10 calendar days of the semester, all instructors are required to track students' attendance and engagement in all courses. A student is considered as attending an online course (or the online portion of a face-to-face or hybrid course) by demonstrating participation in class or otherwise engaging in an academically related activity. To accurately report attendance, all instructors are required to incorporate at least one participation activity in each course within the first two weeks of the semester. Examples of such activities include but are not limited to:

- Contributing to an online discussion or text chat session
- Submitting an assignment or working draft; working through exercises
- Taking a quiz or exam
- Viewing and/or completing a tutorial
- Initiating contact with a faculty member to ask a course#related question.

Excused Absences

Students may be officially excused from class for attendance at University approved functions, provided the sponsor properly executes a Student Affairs Leave Form. Such excuses shall be accepted by the instructor. Students may also be officially excused by the Dean of their College or the Vice President for Student Affairs for certain campus activities.

Students requesting excuses for absences due to illness or other emergency situations will be issued a Request for an Excused Absence. The Request for an Excused Absence Form will be issued only after proper documentation stating the reason for non-attendance has been submitted and verified. (Proper documentation includes doctor's excuse, official court document, etc.).

Scheduled NCAA athletic competitions and related travel (but not practice) are considered authorized University-sponsored activities for which a student may be officially excused from class. Faculty members should not penalize student-athletes for missing classes due to conflicts with scheduled athletic contests or related travel. Required participation in athletic events which conflict with scheduled classes is verified by the Division of Athletics. Rosters listing students who are excused because of intercollegiate athletic competition are sent to faculty/staff indicating dates of competition/travel at least 24 hours in advance.

Neglecting attendance in classes or merely giving notice to instructors will not be considered as official notice of withdrawal. An unofficial withdrawal may result in failure in the course. Class changes that place a student below full-time status will unfavorably affect veteran subsistence, financial aid, and eligibility for other academic recognition.

Continuous Enrollment

Minimum registration for a graduate student to meet the continuous enrollment requirement is **one (1)** graduate credit a term. It is the student's responsibility to register for the appropriate number of credits **each semester** to meet departmental requirements.

Leave of Absence

Under special circumstances such as illness, family hardship or military service, a student who is a degree candidate may be given a leave of absence. Leaves of absence will be granted for one semester, or longer, as circumstances warrant. No leave is granted for more than one calendar year. To obtain a leave of absence:

1. The student writes a letter outlining in detail the reasons for requesting a leave. This letter should be addressed to the Chairperson of the student's major department.
2. The Chairperson will determine the appropriateness of giving the leave, adding his/her recommendation to the letter and forward it to the Graduate Dean.
3. After action by the Dean, the Division of Graduate Studies will notify the student, the department, and the Registrar (the latter only if the leave is granted) of the decision.

ACADEMIC ADVISEMENT

Jackson State University is committed to providing quality academic advising to all students utilizing a proactive and appreciative approach. Each student is required to contact their assigned academic advisor to obtain academic advisement prior to each registration period in addition to scheduling periodic conferences during the semester to discuss academic programs planning and progress. A student must follow the curriculum of the catalog under which they entered the University.

Student Academic Advisement Responsibilities:

- Familiarize yourself with degree requirements
- Check JSU email often
- Comply with deadlines and policies
- Utilize tools and resources made available to you
- Seek advising frequently to avoid experiencing academic difficulties
- Maintain your own personal academic records, including transcripts, audits, evaluation of transfer work, and notes from previous advising session.

NOTE: Students who at any time are confused about academic requirements or their progress toward a degree are strongly encouraged to meet with their advisor.

Each graduate student pursuing a degree is assigned an advisor within the program in which the student is enrolled. The department chair, in consultation with the student, will appoint this advisor. NOTE: Students are only expected to register for courses that are listed in their admitted program of study. If the student in a degree program chooses to write a thesis or a project, a committee of at least three (3) graduate faculty members will be appointed to help direct the thesis or project. Students writing a dissertation, will be guided by a committee of five, chaired by the major advisor.

Enrollment of Undergraduate Seniors in Graduate Courses

A graduating senior who has an overall 3.00 or better grade point average and who lacks no more than nine semester credit hours for the completion of the baccalaureate degree may, with the approval of the Graduate Dean, register for a maximum of six (6) semester credit hours on the graduate level during the final undergraduate semester. No student may receive graduate credit for any course taken when the student has not formally applied for, and received admission to the Division of Graduate Studies. NOTE: Students should consult with the Office of Financial Aid concerning the enrollment in both undergraduate and graduate courses.

Approval of Research

IACUC Approval of Research

The Institutional Animal Care and Use Committee (IACUC), as mandated by federal law, oversee the institution's compliance with all aspects of the institution's animal care and use program. The IACUC is responsible for reviewing all animal care applications using vertebrate animals, inspecting animal facilities and investigator laboratories, investigating animal concerns, and overseeing educational and training programs. The IACUC assures that animal research conducted at the Jackson State University remains in full compliance with institutional policies, federal, state and local regulations. Contact the IACUC Office if you have any questions regarding protocol application submission and approval at (601) 979-2589/3664. IACUC approval is valid for 12 months.

IRB Approval of Research

The role of the Institutional Review Board (IRB) is to review all the proposed research involving human subjects and to ensure that subjects are treated ethically and that their rights and welfare are adequately protected. The IRB process is administered through the Research Compliance Unit. Investigators and student researchers are not allowed to solicit human subject participation or begin data collection prior to receiving IRB approval in writing. Contact the IRB Office if you have any questions regarding protocol for application submission and approval at (601) 979-4197. IRB approval is valid for 12 months.

Institutional Biosafety Committee (IBC)

The Jackson State University Institutional Biosafety Committee (IBC) has the charge of reviewing and approving recombinant DNA research and biohazard projects. All recombinant DNA research at JSU, regardless of funding source, must be conducted in accordance with the NIH Guidelines for Research Involving Recombinant DNA Molecules and the use of infectious micro-organisms in research, teaching and the handling of infectious waste disposal. The Biosafety website serves as a helpful reference and guide to facilitate compliance with Biosafety related practices, institutional policies, and governmental regulations. All questions pertaining to Biosafety should be directed to Research Compliance at (601) 979-2859.

Candidacy and Graduation Requirements

Students should consult with department chairs or academic dean for specific departmental, school and college requirements.

Master's Degree

Admission to Candidacy

When approximately 12-15 semester hours have been completed the student should make application for advancement to candidacy. Please note that students cannot be advanced to candidacy until:

1. All admission requirements have been met.
2. Notification of the program option the student is electing, or that is required.
3. All incompletes ("I" grades) have been removed.
4. Earned a 3.00 cumulative G. P. A.
5. Registered for Graduate Degree Candidacy with the approval of the Candidacy Committee in his major department.
6. A minimum of 30 required hours of course work (please check with your individual program).

Examinations

Each graduate student who intends to earn a master's degree at Jackson State University must successfully pass qualifying, comprehensive or final examinations or a combination of these. The content and methods of conducting these examinations are the responsibility of the college, school or department.

Graduate Record Examination (GRE)

Candidates for degrees at Jackson State University may be required to take the Aptitude Test and may be required to take the Advanced Test in their field of specialization. Information with regard to dates and

fees may be secured from the JSU Testing Center (www.jsums.edu/dta (http://www.jsums.edu/dta/)) or from the:

Educational Testing Service
20 Nassau Street
Princeton, New Jersey 08540
(www.ets.org (http://www.ets.org)).

Students should consult with the department chair for specific departmental requirements.

Graduate Area Comprehensive Examination, (GACE)

Each graduate student who intends to become a candidate for the master's degree at Jackson State University should take a written comprehensive examination in the student area of specialization after completing 24 semester hours of graduate credit with a cumulative average of "B" or better in courses completed.

No student may appear for the comprehensive examination until the Dean of Graduate Studies has declared him eligible for the examination. The student must be registered for at least one credit hour in the semester in which the examination will be taken. An audited course will not meet this requirement.

The Graduate Area Comprehensive Examination may be given three times a year, once in each semester. The Dean of Graduate Studies will set the date. A student may be permitted to take the Comprehensive Examination twice if the student fails the second time, the student must petition the Academic College Dean or designee for permission to take the examination the third time. The student should register with the assigned adviser or department chair to take this examination in the last semester or summer session of course work.

If the student fails the written examination, the program has the option of administering an oral examination as an immediate second chance attempt to pass the examination. The oral examination must be administered in the same semester the written comprehensive examination is given. Results should be reported to the Division of Graduate Studies within 2 weeks of the examination.

Final Oral Examination

The Final Oral Examination is administered by a committee of at least three graduate faculty to students who write theses. This examination is based chiefly on the candidate's thesis and its relationship to the general field of education. No student is admitted to the oral examination unless he/ she has satisfied all previous requirements. This examination can be taken only after the thesis is in final form ready for final approval, and no earlier than the final term or semester of the candidate's program. Students who fail their oral examination may petition the Academic College Dean or designee for a second examination after an interval of six months has elapsed.

Special Departmental Examinations

Students should consult with department chair or academic college dean or designee.

Graduation Requirements

Minimum requirements for all master's degree students are listed below:

1. Notification of the program option the student is electing, or that is required (thesis, project or extra hours).
2. Completion of the required semester hours of coursework with a "B" average (3.00 GPA).
3. Completion of all departmental requirements.
4. Completion of the Graduation clearance process.

Program Options

Degree programs vary in requiring a thesis, project, or additional coursework. It is the responsibility of the student to be knowledgeable of all departmental requirements. Students are strongly encouraged to consult with their departmental graduate adviser.

Thesis -- (6 hours) The candidate electing to write a thesis will select a problem area of interest within his major field. The thesis will be directed by the student's major adviser, with the approval of the student's thesis committee. There is a two (2) year limit on completing the thesis, calculated from the date the student passed the Graduate Comprehensive Examination. From the time the Graduate Comprehensive Examination is taken a student is required to be in continuous enrollment until the degree is earned within the two-year limitation.

Project -- (3 hours) The term "Project" is broadly conceived: it may be an experiment, a review of research, an analysis and evaluation of some psychological, educational or vocational problem related to the student's work or some other type of independent study. The specific nature, procedure and requirements of the project are to be arranged by the candidate and his adviser with the approval of appropriate departmental faculty members or chairs. A minimum of 33 semester hours is required for this option. The results of the Project are to be reported in written form according to an acceptable stylistic format.

Additional Coursework -- The student, in consultation with his/ her adviser will select at least two additional courses to extend, expand or supplement his area of specialization.

Specialist in Education

The Specialist in Education Degree is offered in some of the teaching fields in which Master's degrees are offered.

Admission to Candidacy

When approximately 12-15 semester hours have been completed the student should make application for advancement to candidacy. Please note that students cannot be advanced to candidacy until:

1. Supervisory committee is formed and proposal is approved.
2. G. P. A. earned is a 3.00 cumulative
3. All incompletes ("I" grades) have been removed.
4. All departmental requirements are completed.
5. Registered for Graduate Degree Candidacy with Graduate Studies.

Program Options

It is the responsibility of the student to be knowledgeable of all departmental requirements.

Examinations

Each graduate student who intends to earn a specialist degree at Jackson State University must successfully pass qualifying, comprehensive or final examinations or a combination of

these. The content and methods of conducting these examinations are the responsibility of the college, school or department.

Graduate Record Examination, (GRE)

Candidates for degrees at Jackson State University may be required to take the Aptitude Test and may be required to take the Advanced Test in their field of specialization. Information with regard to dates and fees may be secured from the JSU Testing Center (www.jsums.edu/dta (http://www.jsums.edu/dta/)) or by writing to:

Educational Testing Service
20 Nassau Street
Princeton, New Jersey 08540
(www.ets.org (https://www.ets.org)).

Students should consult with department chair for specific departmental requirements.

Graduate Area Comprehensive Examination (GACE)

Each graduate student who intends to become a candidate for the specialist degree at Jackson State University should take a written comprehensive examination in the student's area of specialization after completing all graduate program requirements with a cumulative average of "B" (3.00 GPA) or better in courses completed.

No student may appear for the comprehensive examination until after he/she has been declared eligible for the examination by the Dean of Graduate Studies. The student must be registered for at least one credit hour in the semester in which the examination will be taken. An audited course will not meet this requirement.

The Graduate Comprehensive Examination may be given three times a year, once in each semester. The date will be set by the Dean of Graduate Studies. A student may be permitted to take the Comprehensive Examination twice: if the student fails the second time, the student must petition the Academic College Dean or designee for permission to take the examination a third time. The student should register with the assigned adviser or department chair to take this examination in the last semester or summer session of course work.

If the student fails the written examination, the program has the option of administering an oral examination as an immediate second chance attempt to pass the examination. The oral examination must be administered in the same semester the written comprehensive examination is given. Results should be reported to the Division of Graduate Studies within 2 weeks of the examination.

Graduation Requirements

These are the basic requirements for the specialist degree:

1. Completion of the required course work with the required departmental cumulative GPA.
2. Comprehensive Examination, if required.
3. Completion of graduation clearance process.

Doctoral Degree

Admission to Candidacy

When eligibility has been established according to program requirements, the student should make application for advancement to candidacy. A student is eligible for candidacy when he has:

1. Achieved regular status
2. Earned a cumulative 3.00 GPA and the required departmental cumulative GPA.
3. All incompletes ("I" grades) have been removed.
4. Completion of all departmental requirements.
5. Filed or registered for Graduate Degree Candidacy with the approval of the Candidacy Committee in the major department.

Dissertations

All candidates must submit a dissertation based on independent and original research and must defend it in a formal, public forum. Policies and standards for establishing a dissertation committee, preparing and submitting the dissertation are outlined in "Guidelines for Preparing the Doctoral Dissertation" (available at www.jsums.edu/graduateschool (http://www.jsums.edu/graduateschool/)) and are supplemented by documents from Graduate Studies and individual departments. All procedures must be followed.

Doctoral Examinations

Every student must pass a group of comprehensive examinations (oral, written, or both) that covers the primary areas of the student's program. After passing these examinations, the student may advance to candidacy.

Examinations

Each graduate student who intends to earn a doctoral degree at Jackson State University must successfully pass qualifying, comprehensive or final examinations and/or a combination of these. The content and methods of conducting these examinations are the responsibility of the college, school, or department.

Graduate Record Examination, (GRE)

Candidates for degrees at Jackson State University may be required to take the Aptitude Test and may be required to take the Advanced Test in their field of specialization. Information with regard to dates and fees may be secured from the JSU Testing Center (www.jsums.edu/dta (http://www.jsums.edu/dta/)) or from the:

Educational Testing Service
20 Nassau Street
Princeton, New Jersey 08540
(www.ets.org (http://www.ets.org)).

Students should consult with the department chair for specific departmental requirements.

Graduate Area Comprehensive Examination, (GACE)

Each graduate student who intends to become a candidate for the doctoral degree at Jackson State University should take a written comprehensive examination in the student area of specialization after completing 80% of the graduate program with a cumulative average of "B" or better in courses completed.

No student may appear for the comprehensive examination until after he/she has been declared eligible for the examination by the Dean of Graduate Studies. The student must be registered for at least one credit hour in the semester in which the examination will be taken. An audited course will not meet this requirement.

The Graduate Comprehensive Examination may be given three times a year, once in each semester. The date will be set by the Graduate Dean.

A student may be permitted to take the Comprehensive Examination twice: if the student fails the second time, the student must petition the Academic School Dean or designee for permission to take the examination the third time. The student should register with the assigned adviser or department chair to take this examination in the last semester or summer session of course work.

If the student fails the written examination, the program has the option of administering an oral examination as an immediate second chance attempt to pass the examination. The oral examination must be administered in the same semester the written comprehensive examination is given. Results should be reported to the Division of Graduate Studies within 2 weeks of the examination.

Final Oral Examination

The Final Oral Examination is administered by a committee of graduate faculty to students who write dissertations. This examination is based chiefly on the candidate's dissertation and its relationship to the general field of education. No student is admitted to the oral examination unless he/ she has satisfied all previous requirements. This examination can be taken only after the thesis is in final form ready for final approval, and no earlier than the final term or semester of the candidate's program. Students who fail their oral examination may petition the Academic College Dean or designee for a second examination after an interval of six months has elapsed.

Graduation Requirements

These are the basic requirements for the doctoral degree:

1. A minimum of 42 required semester hours of course work (please check with your individual program).
2. Internship if required.
3. Comprehensive Examination
4. Defense of Dissertation
5. Completion of the graduation clearance process.

Chronological Summary of Steps Leading to the Doctoral Degree

1. Admission and Continuous Enrollment
2. Completion of coursework with the required GPA
3. Meet residency requirement
4. Internship (if required by program)
5. Comprehensive Examinations
6. Appointment of dissertation committee
7. Register, complete and defend dissertation
8. Apply for graduation
9. Dissertation publication, arranged through the Division of Library and Information Resources.
10. Granting of degree. Diploma issued by the Registrar.

Required Forms for Matriculation
The University/Graduate Studies uses several forms to assist in the advising process for graduate degree candidates. These forms may be obtained from departmental advisers or at www.jsums.edu/graduateschool/graduate-forms/ (http://www.jsums.edu/graduateschool/graduate-forms/). The forms, when properly executed, provide general directions for matriculation at the University. Each form must be completed under the direction of the student's adviser.

Degree Plan (Degree Audit). It contains principal program requirements, thereby serving as a checklist for the candidate. Submission to Graduate Studies is not required.

Application for Graduate Degree Candidacy. (Required) Register for degree candidacy after earning 12 semester hours (Masters and Specialist Degree) and the GECE requirement (Master) or 80% of required coursework (Doctoral) and only when all admission and departmental requirements have been met. The student also forms the committee for the dissertation, thesis or project at this time.

Committee Report of Defense Results. The "Committee Report of Defense Results" is completed upon the successful defense of the dissertation, thesis, or project before the student's committee. This form must be submitted prior to final "Clearance for Graduation".

Online Graduation Clearance. This process is to be completed by the published deadline and prior to Commencement. See http://www.jsums.edu, or access "Online Graduation Clearance" in the PAWS system.

Specific Degree Requirements
The specific requirements (admission, candidacy and graduate) for each degree are listed in the appropriate section of the catalog for the program, department, or school. The student should consult the major department or academic school for additional requirements.

Academic Records and Institutional Governance

General Philosophy on Academic Records

Jackson State University maintains a permanent academic record for each student enrolled. The Permanent Academic Record contains those grades received from course work completed at Jackson State University along with any transfer of courses and credits from any other accredited institution of higher learning that is used by JSU to fulfill the degree requirements. All records are confidential. Academic records are considered property of the University. Opportunities are provided for students to inspect and to control the release of information contained in their records in accordance with the Family Education Rights and Privacy Act (FERPA) of 1974. The purpose of FERPA is to afford certain rights to students concerning their education records. The primary rights afforded are the right to inspect and review the education records, the right to seek to have the records amended, and the right to have some control over the disclosure of information from those records. The Act applies to all education records maintained by JSU that are directly related to a student. Records containing a student's name, social security number or other personally identifiable information are covered by FERPA.

The Retention and Disposal of Student Records: The Office of the Registrar and Records currently maintains academic records for students previously and currently enrolled. Academic records are stored on the mainframe computer located in the Office of Information Management with systems backup conducted nightly. Academic records that are not retrievable through computer access are stored on microfilm as well as a CD-ROM document imaging system located in the Registrar's Office. An additional copy of the microfilm, and CD-ROM disks are maintained at an off-site location, with duplicate copies of microfiche being stored in a steel vault located in the Office of Information Management. Once the information contained in the academic record has been electronically reproduced, the hardcopy document may be destroyed.

However, the contents of those records can be reproduced at such time that the student requests personal examination or disclosure of the academic record be forwarded to another institution of higher learning, a potential or present employer, or any person or persons so designated by the student. The student must make a written request to have the academic record released. The academic record is generated and printed on transcript security paper that prevents duplicating or printing an official copy outside the Office of the Registrar and Records.

To file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA should be done with

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Ave., SW
Washington, DC 20202-4605

Transcripts

Transcript requests are made electronically or in writing and directed to the Office of the Registrar and Records. Transcripts may also be requested online at www.jsums.edu (http://www.jsums.edu). The transcript is a student's complete and permanent academic record. It shows all undergraduate and/or graduate work completed, results, and degrees awarded at JSU. In addition, a summary of transfer credit is listed and detailed course work may be included. After the last enrollment period, transcript totals are shown. The Office of the Registrar and Records will not release transcripts received from other schools and colleges.

The current cost for each transcript is $7.50. Checks or money orders should be made payable to Jackson State University. Transcripts can only be released for students having no outstanding financial obligations to the University. Transcripts are also held if the student has incomplete admissions files. Fees are not refunded under any circumstance.

Name and Address Change

A student who has had a change in name after his/her last registration must provide the University with the appropriate documentation that substantiates the legal name change. This must be submitted to the Office of the Registrar and Records prior to the student's next registration. Registration under a name different from that used in the student's last enrollment cannot be accomplished without appropriate documentation, which becomes a part of the student's permanent file. All grade reports and transcripts are issued under the student's legal name as recorded in the Office of the Registrar and Records.

A student who has had a change of address after his/her last registration must provide the University the new address by completing the appropriate form. This form may be secured from the Office of the Registrar and Records. All transcripts will be mailed to the location of the new address.

Student Participation in Institutional Governance

As constituents of the university community, students are free, individually and collectively, to express their own position on institutional policies and on matters of general interest and on matters of general interest to the student body. The Graduate Student Association (GSA) is the primary forum for graduate student representation and provides a channel for communication among graduate students at Jackson State University. The organization serves as a vehicle for students to participate in the formulation of university policies directly affecting them. Students also may participate in the decision-making process through active membership on ad hoc and standing committees as specified in the University's policies on committee structure.

Contact the Graduate Studies office for membership information or additional information on the Graduate Student Association, by phone, (601) 979-4322, or by e-mail, gadmappl@jsums.edu.

Public Safety (Campus Police)

The Public Safety Department is responsible for the general welfare, protection, and security of the students and faculty of the University. In this respect, it is particularly concerned with the following responsibilities:

1. the enforcement of campus regulations governing the parking of automobiles and traffic violations;
2. the maintenance of sound security measures of properties belonging to the University; and
3. the enforcement of rules governing standards of conduct. For more information, contact (601) 979-2580.

Student Health Services Center

The JSU Student Health Services Center provides therapeutic and preventive care and a variety of outpatient medical services for the care of acute and sub-acute conditions, illnesses, and injuries for Jackson State University students, faculty, and staff. The Student Health Center provides information on active health promotion, health protection, and disease prevention services in the physical, mental, and emotional areas. Student insurance information can also be obtained in the Health Center.

All enrolled students are required to have an up-to-date immunization record on file with the Student Health Center.

Proof of Immunization Requirement

1. Measles, Mumps, and Rubella
   Proof of immunization of measles, mumps, and rubella is required (two doses of the MMR vaccine) of all students, unless exempt because of
   a. actual or suspected pregnancy (measles or rubella vaccines are not required for females who are pregnant; if pregnancy is suspected, a valid certificate of medical exception from a health provider is required until pregnancy is resolved),
   b. medical contraindication, or
   c. birth prior to 1957.
   Temporary waivers may be granted for students enrolled in distance learning courses and/ or programs where their time on campus is limited to a minimum number of hours as determined by the admitting IHL institution.
2. Hepatitis B
   Proof of hepatitis B vaccination is required for students who are involved in health education programs that cause them to be potentially exposed to blood or other bodily fluids.
3. Tuberculosis
   Proof of test screening for tuberculosis by chest x-ray is required for all international students.

The Center is located adjacent to Dixon Hall and is open Monday-Friday from 8:00 a.m. to 5:00 p.m. For more information, call 601-979-2260. A night and weekend on-call schedule address “after hour” emergencies. If a student becomes ill or injured after clinic hours, he or she must immediately contact residential hall personnel or the JSU Department of Public Safety at 601-979-2580.

Veteran and Military Student Support Center

The mission of the Veteran and Military Student Center is to improve and enhance the success of student veterans, service members, and dependents eligible for benefits through the U.S. Department of Veterans Affairs. The Center supports the Division of Student Life through the development and implementation of outreach programs designed to provide student support services focused on the special needs and requirements of today’s military student.

Services provided to veterans, service-members, dependents, and survivors (VSDS):

1. Advise prospective VSDS students on the admission process.
2. Assist VSDS students with their military education benefits (G.I. Bill, Federal Tuition Assistance/FTA, State Education Assistance Program/SEAP)
3. Offer counseling support services to VSDS students through the Latasha Norman Center for Counseling & Disability Services.
4. Provide academic support services to VSDS students between departmental units on campus.
5. Provide outreach to the VSDS population throughout Mississippi and assist with JSU Admissions.
6. Serve as a liaison between the veteran student community, the University, and Veterans Affairs.

The Veteran and Military Student Support Center is located in the Jacob Reddix Building, 3rd Floor, Suite 302, and is open 8:00 a.m.-5:00 p.m. For information, email jsuveterans@jsums.edu or call 601-979-1365 or 601-979-1755 or visit www.jsums.edu/studentlife/veteran-student-services-program (http://www.jsums.edu/studentlife/veteran-student-services-program/).

Student Resources and Regulations

Disabilities Services/Americans with Disabilities Act (ADA) Compliance

Disability Services/ADA Compliance is committed to coordinating reasonable services and accommodations to JSU students and staff as well as other external constituents with disabilities. Special emphasis is given to accessibility and inclusion when meeting the needs of all of our students, employees, and visitors. Any student, employee, or campus visitor who has been diagnosed with a disability is eligible for his/her disability by presenting documentation applicably showing the disability and need for academic adjustment, auxiliary aid, and other services.

For additional information, please contact Support Services for Students and Employees with Disabilities at 601-979-3704, or email us at adaservices@jsums.edu. The office is located on the second floor of the JSU Student Center, Suite 2110.

I.D. Center

It is the policy of Jackson State University that all students, faculty, and staff must obtain and carry an official JSU identification card (I.D.). The identification card provides students, faculty, and staff access to dining facilities, athletics, athletic events, residence halls, and the library. Cardholders who participate in the declining balance program for students and inclining payroll deductible program for faculty and staff may make purchases in Student Dining, the Convenience Store, the Deli, Cash Dining, Bookstore, Health Center, Laundry, Publications, and vending machines as well as outside participating restaurants and fuel vendors. The identification card is the property of Jackson State University; it is intended for current JSU students, faculty, staff, and guest only and must be returned upon request. This card is nontransferable. No fee will be charged for the original issuance of an I.D. Card. However, the replacement of a lost, stolen, or damaged card is the cardholder’s responsibility. The cardholder is also responsible for safeguarding his/her I.D. card. The I.D. Center is located directly behind Jacob L. Reddix Hall. Office hours are from 8:00 a.m. to 5:00 p.m. on weekdays.

Residence Requirements

Jackson State University applies the definitions and conditions as required by the State of Mississippi in the classification of students as residents or non-residents for the assessment of fees. Initial residency classification of an applicant for admission is determined at the time of admission. The University holds the student responsible for knowing and registering under their correct residential status. A student who willfully registers their status incorrectly will be subject to disciplinary action or dismissal and required to pay the fees they would have otherwise been required to pay. The following classifications will apply:

1. **Residence of a Minor**
   For purposes of determining whether a minor pay out-of-state or in-state tuition for attendance at the University, the residence of a person less than 21 years of age is that of the father, the mother or a general guardian duly appointed by a general guardian duly appointed by a proper court in Mississippi. If a court has granted custody of the minor to one parent, the residence of the minor is that of the parent who was granted custody by the court. If both parents are dead, the residence of the minor is that of the last surviving parent at the time of that parent’s death, unless the minor lives with a general guardian duly appointed by a proper court of Mississippi, in which case his/her residence becomes that of the guardian. A minor student who, upon registration at a Mississippi institution of higher learning or community college, presents a transcript demonstrating graduation from a Mississippi secondary school and who has been a secondary school student in Mississippi for not less than the final four years of secondary school attendance shall not be required to pay out-of-state tuition. This policy shall not apply to the residence of a person as it relates to residency for voter registration or voting.
2. **Residence of an Adult**
   The residence of an adult is that place where he/she is domiciled, that is, the place where he/she actually physically resides with the intention of remaining there indefinitely or of returning there permanently when temporarily absent.
3. **Removal of Parents from Mississippi**
   If the parents of a minor who is enrolled as a student at the University move their legal residence from the State of Mississippi, the minor shall be immediately classified as a nonresident student; such a change in classification shall not affect the tuition to be charged upon completion of the semester in which the move takes place.
4. **Residence Required**

No student may be admitted to the University as a resident of Mississippi unless his/her residence, as defined herein above, has been in the State of Mississippi for a continuous period of at least 12 months preceding his/her admission.

5. **Residency Petitions**
   Non-residents may petition the University for a change of residency classification. A person who enters the state of Mississippi from another state and enters a system institution is considered a non-resident unless the person meets the residency requirements set out in subsection A. Provided, however, that any person who has attained 21 years of age and has thereafter actually established residency as define within subsection A above and resided within the state of Mississippi for 12 consecutive months after attaining 21 years of age upon sworn affidavit and other representation, may petition the particular institution for a change in residency classification for the purposes of fees and tuition assessment. The institution may make a reasonable inquiry into the validity of the petitioner's claim. Such petition for change of residency must be made on or before the last day a student may register at the particular institution without penalty.
6. **Legal Residence of a Married Person**
   A married person may claim the residence status of his or her spouse, or he or she may claim independent residence status under the same regulations set forth above as any other adult.
7. **Children of Faculty or Staff**
   Children of parents who are members of the faculty or staff of the University may be classified as residents for the purpose of attendance at the institution where their parents are faculty or staff members.
8. **Active Duty Station in Mississippi**
   Members of the United States Armed Forces on extended active duty and stationed within the State of Mississippi and members of the Mississippi National Guard may be classified as residents, for the purpose of attendance at the University. Resident status of such military personnel, who are not legal residents of Mississippi shall terminate upon their reassignment for duty in the continental United States outside the State of Mississippi.
   a. **Spouse or Child of Military Personnel**
      Resident status of a spouse or child of a member of the Armed Forces of the United States on extended active duty shall be that of the military spouse or parent for the purpose of attending the University during the time that their military spouse or parent is stationed within the State of Mississippi and shall be continued through the time that the military spouse or parent is stationed in an overseas area with last duty assignment within the State of Mississippi, excepting temporary training assignments en-route from Mississippi. Resident status of a minor child terminates upon reassignment under Permanent Change of Station Orders of the military parent for duty in the continental United States outside the State of Mississippi, excepting temporary training assignments en-route from Mississippi, and except that children of members of the Armed Forces who attain Mississippi residency in accordance with the above provisions, who begin and complete their senior year of high school in Mississippi, and who enroll full time at the University to begin studies in the fall after their graduation from high school, maintain their residency status so long as they remain enrolled as a student in good standing at the University. Enrollment during summer school is not required to maintain such resident status. The spouse or child of a member of the Armed Forces of the United States who dies or is killed is entitled to pay the resident tuition fee if the spouse or child becomes a resident of Mississippi. If a member of the Armed Forces of the United States is stationed outside Mississippi and the member's spouse or child establishes residence in Mississippi and registers with the University, the University shall permit the spouse or child to pay the tuition, fees and other charges provided for Mississippi residents without regard to the length of time that the spouse or child has resided in Mississippi.

      A member of the Armed Forces of the United States or the child or spouse of a member of the Armed Forces of the United States who is entitled to pay tuition and fees at the rate provided for Mississippi residents under another provision of this section while enrolled in a degree or certificate program is entitled to pay tuition and fees at the rate provided for Mississippi residents in any subsequent term or semester while the person is continuously enrolled in the same degree or certificate program. A student may withdraw or may choose not to re-enroll for no more than one (1) semester or term while pursuing a degree or certificate without losing resident status only if that student provides sufficient documentation by a physician that the student has a medical condition that requires withdrawal or non enrollment. For purposes of this subsection, a person is not required to enroll in a summer term to remain continuously enrolled in a degree or certificate program. The person's eligibility to pay tuition and fees at the rate provided for Mississippi residents under this subsection does not terminate because the person is no longer a member of the Armed Forces of the United States or the child or spouse of a member of the Armed Forces of the United States.

   b. **Certification of Residence of Military Personnel**

      A military person on active duty stationed in Mississippi who wishes to avail himself/herself or his/her dependents of the provisions of (A) **active duty station in Mississippi** must submit a certificate from his/her military organization showing the name of the military member; the name of the dependent, if for a dependent; the name of the organization of assignment and its address (may be in the letterhead); that the military member will be on active duty stationed in Mississippi on the date of registration at the University; that the military member is not on transfer orders; and the signature of the commanding officer, the adjutant, or the personnel officer of the unit of assignment with signer's rank and title. A military certificate must be presented to the registrar of the University each semester at (or within 10 days prior to) registration each semester for the provisions of the (A) **active duty station** in Mississippi to be effective.

The University

- Mission/Purpose
- Core Values
- History of the University
- Accreditation/Memberships

Jackson State University, a coeducational institution, is supported by the State of Mississippi. It is controlled by the Board of Trustees of Institutions of Higher Learning, appointed by the governor. The University is supported by legislative appropriations supplemented by student fees and federal and private grants.

Jackson State University is located in Jackson, Mississippi, the capital and largest city of the state. Jackson State University has a distinguished history, rich in the tradition of educating young men and women for leadership, having undergone seven name changes as it grew and developed. Founded as Natchez Seminary in 1877 by the American Baptist Home Mission Society of New York, the school was established in Natchez, Mississippi "for the moral, religious and intellectual improvement of Christian leaders of the colored people of Mississippi and the neighboring states." In November 1882, the school was moved to Jackson, MS; in March 1899, the curriculum was expanded and the name was changed to Jackson College.

The state assumed support of the college in 1940, assigning to it the mission of training teachers. Subsequently, between 1953 and 1956, the curriculum was expanded to include a graduate program and bachelor's programs in the arts and sciences; the name was then changed to Jackson State College in 1956. Further expansion of the curriculum and a notable building program preceded the elevation of Jackson State College to university status on March 15, 1974. In 1979, Jackson State University, a public, coeducational institution, is supported by legislative appropriations supplemented by student fees and federal and private grants.

Jackson State University Presidents

1877-1894: Dr. Charles Ayer
1894-1911: Dr. Luther G. Barrett
1911-1927: Dr. Zachary T. Hubert
1927-1940: Dr. B. Baldwin Dansby
1940-1967: Dr. Jacob L. Reddix
1967-1984: Dr. John A. Peoples, Jr.
1984-1991: Dr. James A. Hefner
1991-1992: Dr. Herman B. Smith, Jr. (interim)
1992-1999: Dr. James E. Lyons, Sr.
1999-2000: Dr. Bettye Ward Fletcher (interim)
2000-2010: Ronald Mason, Jr., Esq.
2010: Dr. Leslie Burl McLemore (interim)
2011-2016: Dr. Carolyn W. Meyers
2017: Dr. Rod Paige (interim)
2017-2020: Dr. William B. Bynum, Jr.
2020-present: Thomas K. Hudson, Esq.

Vision Statement

Building on its historic mission of empowering diverse students to become leaders, Jackson State University will become recognized as a challenging, yet nurturing, state-of-the-art technologically-infused intellectual community. Students and faculty will engage in creative research, participate in interdisciplinary and multi-instructional/organizational collaborative learning teams and serve the global community.

Mission Statement

The mission of Jackson State University, an HBCU and comprehensive urban research university, is to provide quality teaching, research and service at the baccalaureate, masters, specialist, and doctoral levels to diverse populations of students and communities using various modalities to ensure that they are technologically-advanced, ethical, global leaders who think critically and can address societal problems and compete effectively.

Statement of Core Values

Tradition

The University believes that its role as a historically black university inspires and exemplifies positive societal change.

Accountability

The University believes in the principled exercise of leadership and the sanctity of the public trust.

Learning

The University believes in an experimentally enhanced learning environment where teaching, research, and service are integrated and mutually reinforcing.

Nurturing

The University is committed to creating a community, which affirms and welcomes persons from diverse backgrounds and experiences and supports the realization of their potential.

Service

The University responds to the needs of society to the best of its ability and expects its graduates to do likewise.

Responsibility

The University believes in and accepts its duty to enhance each generation's capacity to improve the human condition.

Principles for Collegiate Code of Conduct

Jackson State University, adopted a Collegiate Code of Conduct, which is designed to enhance students' success inside the classroom as well as in their campus life. It is intended also to assist with building characteristics which will serve as guideposts for lifelong success, understanding and appreciating differences among diverse groups of people, and ultimately leading to a more harmonious learning environment which fosters respect for others and one's self.

The tenets for this covenant are as follows:

1. **Integrity**–Respect and embrace the principles of academic honesty.
2. **Philosophy**–Embrace an academic philosophy for positive progress toward competency in goals, critical and logical thinking, and a commitment to excellence.
3. **Class Attendance**–Participate actively in classroom and other learning environments and commit to becoming a lifelong learner.
4. **Diversity**–Celebrate the similarities and differences in our cultures, races, and ethnic origins.
5. **Communication**–Encourage open communication and expression which is guided by respect for others.
6. **Behavior**–Understand that sexual or social harassment will not be tolerated. Always dress for success.
7. **Profanity**–Discourage the use of profanity and offensive actions out of respect for others.
8. **Accountability**–Accept personal responsibility for one's actions and life choices and realize that embracing negative elements of an unhealthy lifestyle will interfere with success.
9. **Service**–Engage in civic opportunities to share knowledge and skills with local, national, and world communities.
10. **Respect**–Embrace and respect tradition by participating in rituals and observances, especially those that contribute to the history and

heritage of the University. Respect others by using cell phones and other electronic devices only in appropriate settings.

11. **Assessment**–Conduct periodic assessments of academic, personal, and career progress. Stay focused on your purpose for being at the University.
12. **Safety**–Be alert to threats to safety and security and inform appropriate authorities of such situations.
13. **Freedom**–Respect the freedom of others to express themselves in matters relating to academic and philosophical opinions.

Expected Educational Results

The University seeks to ensure that it is responsive to the clientele it serves by producing graduates who are capable of performing responsibly, competently, and effectively in their chosen careers. Jackson State University expects its graduates to become active leaders and participants in the activities of the local community, their home community, and the world through actions such as volunteerism, consultancies, civic and political appointments, and elections. Through numerous degree programs ranging from the baccalaureate to the doctoral levels, students are nurtured in an environment that supports research, exploration, and discovery in the learning process. The students acquire a general education and are trained to become well-rounded professionals in a variety of disciplines through the University's academic schools and colleges. Further, Jackson State University provides continuing educational opportunities, especially to non-traditional students. Training for all students is facilitated through research laboratories, traditional and innovative classroom instruction, distance learning instruction, technologically advanced libraries, and through internships and alliances with external agencies and organizations. Additionally, institutes, centers, and specialized educational and research services contribute to the experiential growth of students and faculty.

The knowledge, experiences, skills, and qualities acquired by graduates of Jackson State University include the following:

- The ability to communicate effectively through both oral and written expression;
- The ability to demonstrate competence and creativity in a discipline for the purpose of obtaining and maintaining rewarding employment, and/or engaging in entrepreneurial activities;
- The ability to analyze, synthesize, and evaluate ideas and data using logic and quantitative reasoning;
- A familiarity with, and the ability to effectively use current and appropriate technology;
- A social consciousness which will enable one to think critically and responsibly about moral, social, economic, health, cultural, technological, and political issues and to contribute to the improvement of society;
- The achievement of a level of social maturity which will empower one to exercise good human relations skills, informed decision making, motivation, and persistence;
- A knowledge and recognition of the value of one's own ethnic and cultural heritage, and of the similarities and difference inherent in a multi-cultural society; and
- A demonstration of leadership and professionalism through the pursuit of research and educational experiences required in one's chose career.

Organization of Instructional Programs

The academic programs of the University are housed in five academic colleges:

- College of Business,
- College of Education and Human Development,
- College of Liberal Arts,
- College of Health Sciences, and
- the College of Science, Engineering, and Technology.

Additional academic units include the Division of Graduate Studies, JSU*Online*, and the DuBois-Harvey Honors College.

Accreditations

Jackson State University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, specialists, and doctorate degrees. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Jackson State University.

Specific programs are accredited by the following agencies:

- Accreditation Board for Engineering and Technology (ABET)
- American Assembly of Collegiate Schools of Business (AACSB)
- American Chemical Society (ACS)
- American Psychological Association (APA)
- Association of Technology, Management, and Applied Engineering (ATMAE)
- Computing Accreditation Commission
- Council for the Accreditation of Educator Preparation (CAEP)
- Council on Academic Accreditation in Audiology and Speech Language Pathology (CAA)
- Council on Education for Public Health (CEPH)
- Council on Social Work Education (CSWE)
- Counseling for Accreditation of Counseling and Related Educational Programs (CACREP)
- National Association of Schools of Art and Design (NASAD)
- National Association of Schools of Music (NASM)
- Network of International Business
- Network of Schools of Public Policy, Affairs, and Administration (NASPAA)
- Planning Accreditation Board (PAB)

Memberships

- American Association of Colleges for Teacher Education
- American Association of Collegiate Registrars and Admissions Officers American Business Communication Association
- American Council on Education
- American Society for Engineering Education
- American Association of Collegiate Schools of Business
- American Schools of Construction
- Association of American Colleges
- Association of Departments of English
- Association of Departments of Foreign Language
- Association of State Colleges and Universities

- Cooperative Education Association
- Council of Colleges of Arts and Sciences Institute of International Education
- Council of Historically Black Graduate Schools
- Council of Graduate Schools
- Mississippi Association of Colleges
- Mississippi Association of Colleges for Teacher Education
- Mississippi Association of Collegiate Registrars and Admissions Officers
- Mississippi Council of Colleges of Arts and Sciences
- Mississippi Counseling Association
- National Association of College Deans, Registrars and Admissions Officers
- National Association of Veterans Programs Administrators
- National Center for Public Service Internship Program
- National Collegiate Honors Council
- National Commission on Accrediting
- National Council for Small Business Management Development
- National Student Exchange
- North American Association of Commencement Officers
- Southern Association of Collegiate Registrars and Admissions Officers
- Southern Business Administration Association

Professional Licensure

Professional licensure/certification requirements vary from state to state, which may affect a student's ability to apply for a professional license/certification upon completing the program. The U.S. Department of Education regulation, *34 CFR 668.43 (a) (5) (v)*, requires an institution to disclose whether the program will fulfill educational requirements for licensure or certification for each state. SARA approval does not extend to programs that lead to professional licensure.

- Student's Responsibility: Students who reside in a state other than Mississippi must review the professional licensure disclosures pertaining to the academic program and consult with the state professional licensing board. It is the applicant's responsibility to contact the appropriate licensing board in their home state to confirm whether or not the Jackson State University degree program will meet the state's licensure requirements.
- Relocation: Students who consider relocating to another state, while enrolled in a course or program at Jackson State University, should consult with an academic advisor and the state professional licensing board to discuss licensure requirements. Transferring to a state that is not a member of NC-SARA may affect disbursements of federal financial aid. See NC-SARA portal page – https://www.nc-(https://www.nc-sara.org/state-portal-entity-contacts/) sara.org/state-portal-entity-contacts (https://www.nc-sara.org/state-portal-entity-contacts/)
- International Students: Prospective students living and/or working outside of the United States should consult with the appropriate certifying agency to determine if successful completion of any degree program at JSU will meet credentialing requirements of the country in which they intend to seek employment, as to certain types of employment or for advanced/specialized educational programs.

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