Telecommunications Engineering Curriculum (Spring 2006)



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Department of Computer Engineering School of Engineering Jackson State University

| Fall Semester | | | | Spring Semester | | |
|-----------------|--|--|--|---|---|---------------------------------------|
| First Year | MATH 231 | Calculus I | 4 | MATH 232 | Calculus II | 4 |
| | ENG 104 | Composition and Literature | 3 | ENG 105 | Composition and Literature | 3 |
| | HIST 101 | History of Civilization | 3 | HIST 102 | History of Civilization | 3 |
| | UNIV 100 | Concepts for Success | 2 | PHY 211 | General Physics I | 4 |
| | CHEM 141 | General Chemistry I | 3 | PHYL 211 | General Physics I Lab | 1 |
| | CHML 141 | General Chemistry Lab | 1 | | | |
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| Second Year | MATH 233 | Calculus III | 4 | | Ordinary Diff Equations | 3 |
| | PHY 212 | General Physics II | 4 | EN 212 | Digital Logic | 3 |
| | PHYL 212 | General Physics II Lab | 1 | ENL 212 | Digital Logic Lab | 1 |
| | EN 220 | Circuit Theory | 3 | CSC 118 | Fundamentals of Programming | 3 |
| | ENL 220 | Circuit Theory Lab | 1 | | Fundamentals of Prog Lab | 1 |
| | EN 252 | Engineering Analysis | 3 | CPE 351 | Signals and Systems | 3 |
| | | | | MATH 307 | Prob. & Stat for Engineers | 3 |
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| | | | 16 | | <u> </u> | 17 |
| | CSC 119 | Object Oriented Programming | 16 | CPE 442 | Digital Communications | |
| Ħ | CSC 119 CSCL 119 | Object Oriented Programming Object Oriented Prog Lab | | | | 17 3 1 |
| <i>Year</i> | | | 3 | CPE 442 | Digital Communications | 17 3 1 3 |
| rd Year | CSCL 119 | Object Oriented Prog Lab Electronics Electronics Lab | 3 1 3 | CPE 442 CPEL 442 CPE 441 CPE 345 | Digital Communications Digital Communications Lab | 17 3 1 3 3 |
| Third Year | CSCL 119 CPE 330 | Object Oriented Prog Lab Electronics | 3 1 3 1 3 | CPE 442 CPEL 442 CPE 441 | Digital Communications Digital Communications Lab Computer Networks | 17 3 1 3 3 3 |
| Third Year | CSCL 119 CPE 330 CPEL 330 | Object Oriented Prog Lab Electronics Electronics Lab | 3 1 3 1 3 3 | CPE 442 CPEL 442 CPE 441 CPE 345 EN 222 CPE 360 | Digital Communications Digital Communications Lab Computer Networks Electromagnetics | 17 3 1 3 3 |
| Third Year | CSCL 119 CPE 330 CPEL 330 CPE 440 | Object Oriented Prog Lab Electronics Electronics Lab Communications Systems | 3 1 3 1 3 3 3 | CPE 442 CPEL 442 CPE 441 CPE 345 EN 222 | Digital Communications Digital Communications Lab Computer Networks Electromagnetics Eng. Mechanics I | 3 1 3 3 3 3 1 |
| Third Year | CSCL 119 CPE 330 CPEL 330 CPE 440 CPE 312 | Object Oriented Prog Lab Electronics Electronics Lab Communications Systems Computer Organization | 3 1 3 1 3 3 | CPE 442 CPEL 442 CPE 441 CPE 345 EN 222 CPE 360 | Digital Communications Digital Communications Lab Computer Networks Electromagnetics Eng. Mechanics I Embedded Microprocessors | 3 1 3 3 3 3 |
| Third Year | CSCL 119 CPE 330 CPEL 330 CPE 440 CPE 312 ENG xxx | Object Oriented Prog Lab Electronics Electronics Lab Communications Systems Computer Organization | 3 1 3 1 3 3 3 3 | CPE 442 CPEL 442 CPE 441 CPE 345 EN 222 CPE 360 CPEL 360 | Digital Communications Digital Communications Lab Computer Networks Electromagnetics Eng. Mechanics I Embedded Microprocessors | 3 1 3 3 3 3 1 17 |
| | CSCL 119 CPE 330 CPEL 330 CPE 440 CPE 312 ENG xxx | Object Oriented Prog Lab Electronics Electronics Lab Communications Systems Computer Organization English Option Applied Electromagnetics | 3 1 3 1 3 3 3 3 17 | CPE 442 CPEL 442 CPE 441 CPE 345 EN 222 CPE 360 CPEL 360 | Digital Communications Digital Communications Lab Computer Networks Electromagnetics Eng. Mechanics I Embedded Microprocessors Embedded Microproc. Lab Senior Project Design II | 3 1 3 3 3 3 1 17 |
| Year Third Year | CSCL 119 CPE 330 CPEL 330 CPE 440 CPE 312 ENG xxx CPE 445 SPCH xxx | Object Oriented Prog Lab Electronics Electronics Lab Communications Systems Computer Organization English Option Applied Electromagnetics Speech Option | 3 1 3 1 3 3 3 17 | CPE 442 CPEL 442 CPE 441 CPE 345 EN 222 CPE 360 CPEL 360 | Digital Communications Digital Communications Lab Computer Networks Electromagnetics Eng. Mechanics I Embedded Microprocessors Embedded Microproc. Lab | 3 1 3 3 3 3 1 17 |
| Year | CSCL 119 CPE 330 CPEL 330 CPE 440 CPE 312 ENG xxx CPE 445 SPCH xxx CPE 490S | Object Oriented Prog Lab Electronics Electronics Lab Communications Systems Computer Organization English Option Applied Electromagnetics | 3 1 3 1 3 3 3 17 | CPE 442 CPEL 442 CPE 441 CPE 345 EN 222 CPE 360 CPEL 360 CPEL 360 CPEL 491W CPE 446 ART xxx | Digital Communications Digital Communications Lab Computer Networks Electromagnetics Eng. Mechanics I Embedded Microprocessors Embedded Microproc. Lab Senior Project Design II Wireless Communications Fine Arts Option | 3 1 3 3 3 3 1 17 |
| | CSCL 119 CPE 330 CPEL 330 CPE 440 CPE 312 ENG xxx CPE 445 SPCH xxx | Object Oriented Prog Lab Electronics Electronics Lab Communications Systems Computer Organization English Option Applied Electromagnetics Speech Option | 3 1 3 1 3 3 3 17 | CPE 442 CPEL 442 CPE 441 CPE 345 EN 222 CPE 360 CPEL 360 | Digital Communications Digital Communications Lab Computer Networks Electromagnetics Eng. Mechanics I Embedded Microprocessors Embedded Microproc. Lab Senior Project Design II Wireless Communications | 3 1 3 3 3 3 1 17 |

Total hours **128** Grade "C" or better is required for all courses

Technical Electives

CPE 451 Digital Signal Processing. CPE 355 Control Systems.

CPE 412 Computer Architecture. CPE 447 Telecom Switching & Transmission.

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Other courses may be considered with the approval of the Chair.

Students who joined the program in 2006 or after must follow this curriculum. This curriculum is optional for students who joined the program before 2006.

Speech Options

SPCH 201 Speech Arts

SPCH 300 Introduction to Organization Communication

SPCH 334 Argumentation and Debate

SPCH 355 Persuasion

SPCH 430 Small Group Discussion

Philosophy Options

PHIL 301 Introduction to Philosophy

PHIL 416 Logic
PHIL 208 Aesthetics
PHIL 309 Ethics

Humanities And Fine Arts

ART 206 Art Appreciation
MUS 205 Music Appreciation
DR 201 Introduction to Drama

ENG 201/202 Humanities
ENG 205 World Literature
FR 101/102 Elementary French
FR 201/202 Intermediate French
FR 213 French Phonetic Reading
SP 101/102 Elementary Spanish
SP 201/202 Intermediate Spanish

English Options

ENG 213 Professional Writing
ENG 206 Literature of Science
ENG 205 World Literature

Additional Requirements

ENG 002 Required for students with an ACT English subtest score of 16 or less.

Strongly encouraged for students with English subtest score of 19 or less.

MATH 004 Required for students with an ACT Mathematics subtest score of 16 or less.

Strongly encouraged for students with Mathematics subtest score of 19 or less.

RE 002 Required for students with an ACT Reading subtest score of 16 or less.

Strongly encouraged for students with Reading subtest score of 19 or less.

GNST 101,102 Required for students taking two or more intermediate courses. Students in the Academic Support

Program will not be permitted to take more than 15 semester hours, including intermediate courses

and the Academic Support Program.

Note: (a) Students who transfer 12 or more hours of college credit are exempt from UNIV 100. (b) Students are required to take the Mathematics Placement Test to determine if they need to take any math courses before taking Math 231-Calculus I.

Students who joined the program in 2006 or after must follow this curriculum. This curriculum is optional for students who joined the program before 2006.

^{*}Note-students may take the equivalent of any foreign language the University offers.