BACHELOR OF SCIENCE METEOROLOGY

The Jackson State University's Atmospheric Science/ Meteorology Program consists of several significant components including basic curricula, academic support, research, and outreach. When integrated together, these components provide a supportive framework for the preparation minority atmospheric of scientists. Programmatic emphases include a strong commitment to student learning and professional preparation, increasing the number of African American atmospheric scientists, increasing the number of African American graduate students in atmospheric science, and an expansion of research and development with regard to basic and applied research, computer-related training strategies, and outreach and cooperative efforts.

The Bachelor of Science in Meteorology program has in its primary objective to prepare students for careers in meteorology and to prepare students for graduate study in meteorology or in related fields.

Alternative careers could also include teaching, medicine, law (especially intellectual property or patent law), science writing, history of science, philosophy of science, science policy, energy policy, government, or management in technical fields. College of Science, Engineering, and Technology



| COURSE TYPE DESCRIPTIONS | | | | | | |
|-----------------------------|------------|---|--|--|--|--|
| General Education Core | GEC | General Education Core (GEC) courses are courses that every student must take in order to obtain a degree from Jackson State University. GEC courses are essential to every undergraduate degree at Jackson State University. Collectively, there are 30 credit hours of GEC course requirements. | | | | |
| General Education Pathway | РАТН | General Education Pathway (PATH) courses are courses that are connected through interdisciplinary themes and are selected at the student's discretion to fulfill the general education curriculum. Through experiential learning and reflective writing, students will have the opportunity to integrate knowledge across courses, develop their skills and an enhanced sense of civic responsibility. Students select nine (9) hours from the pathway of choice. Each pathway concludes with a related one (1) credit hour a University Required (UR) course. | | | | |
| University Required | UR | University Required (UR) courses are courses that are specific to Jackson State University and are designed to integrate students within the Jackson State University community by promoting student success resources, strategies and high impact practices. | | | | |
| Degree Program Requirement | DPR | Degree Program Required (DPR) courses are courses that are required for completion of a degree program within the specified major. | | | | |
| Electives | DPE or GEL | Electives are courses selected at a student's discretion and provide oppor- tunities for students to pursue their academic interests. There are two types of electives. Degree Program Elective (DPE) courses are elective courses that are partially restricted such that students select courses from a specified group of identified courses (e.g., departmental elective courses) to fulfill a particular requirement. General Elective (GEL) courses are courses that may be selected from any program for which the student has fulfilled the proper prerequisites. | | | | |
| Professional Concentrations | РС | Professional Concentration (PC) courses complement Degree Program Required courses and allow students to have a concentrated area of study within the major. | | | | |



COLLEGE OF SCIENCE, ENGINEERING, AND TECHNOLOGY METEOROLOGY

Meteorology students must take nine (9) hours of restrictive elective options from the following course list:

| Meteorology Restrictive Elective Options: | | | | | | |
|---|---|--------------|--|--|--|--|
| COURSE | COURSE TITLE | CREDIT HOURS | | | | |
| ITEM, ITHM & MATH options | Any ITEM, ITHM, and MATH course above 244 | 3 | | | | |
| ITEM 301 | Principles of Emergency Management | 3 | | | | |
| ITEM 303 | Introduction to Medical Terminology | 3 | | | | |
| ITEM 401 | Biotechnology | 3 | | | | |
| ITEM 403 | Control Systems | 3 | | | | |
| ITHM 300 | Digital Sign Processing | 3 | | | | |
| ITHM 402 | Special Topics | 3 | | | | |
| ITHM 405 | Research in Environmental Science | 3 | | | | |
| ITMA 410 | First-Line Supervision and Foremanship | 3 | | | | |
| CSC 118 | Computer Science I | 3 | | | | |
| CSC 119 | Computer Science II | 3 | | | | |
| CSC 215 | Data Analytics | 3 | | | | |
| CSC 225 | Discrete Structures for Computer Science | 3 | | | | |
| CSC 228 | Data Structures and Algorithms. | 3 | | | | |
| CSC 235 | Security Awareness | 3 | | | | |
| CSC 245 | Introduction to Bioinformatics | 3 | | | | |
| CSC 330 | Database Systems | 3 | | | | |



Degree Map: Catalog 2022-2023

COLLEGE OF

Entering Term: _____

Student Name: ______

Advisor: ____

SCIENCE, ENGINEERING, AND TECHNOLOGY Expected Graduation Date:

METEOROLOGY

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Pathway:

FRESHMAN YEAR FALL 1ST SEMESTER **CREDIT HOURS** GRADE COURSE COURSE TITLE COURSE TYPE SUCCESS MARKER/NOTE **UNIV 100** University Success 2 UR 3 GEC ENG 104 Composition I MET 200 Introduction to Meteorology 3 DPR Atmospheric Process & Patterns DPR METL 200 1 MATH 241 Calculus I & Lab 3 GEC General Chemistry I & Lab 4 CHEM 141 & GEC CHML 141 TOTAL CREDIT HOURS 16 TERM GPA:

Comments:

| FRESHMAN YEAR SPRING 2nd SEMESTER | | | | | | |
|-----------------------------------|---|--------------|-------------|-------|---------------------|--|
| COURSE | COURSE TITLE | CREDIT HOURS | COURSE TYPE | GRADE | SUCCESS MARKER/NOTE | |
| ENG 105 | Composition II | 3 | GEC | | | |
| CHEM 142 & CHML 142 | General Chemistry II & Lab | 4 | GEC | | | |
| MET 210 | Climatology | 3 | DPR | | | |
| METL 219 | Weather Analysis/Forecasting Lab | 1 | DPR | | | |
| MET 270 | Computational Data Analysis and Visualization | 3 | DPR | | | |
| | Pathway Option | 3 | РАТН | | | |
| | TOTAL CREDIT HOURS | 17 | TERM GPA: | | | |

Comments:

| SOPHOMORE YEAR FALL 1ST SEMESTER | | | | | | |
|----------------------------------|---------------------------------|--------------|-------------|-------|---------------------|--|
| COURSE | COURSE TITLE | CREDIT HOURS | COURSE TYPE | GRADE | SUCCESS MARKER/NOTE | |
| MATH 242 | Calculus II | 3 | DPR | | | |
| MET 303 | Measurements & Observations | 3 | DPR | | | |
| METL 303 | Measurements & Observations Lab | 1 | DPR | | | |
| PHY 211 & PHYL 211 | General Physic I & Lab | 4 | GEC | | | |
| | Humanities & Fine Arts Option | 3 | GEC | | | |
| | Pathway Option | 3 | PATH | | | |
| | TOTAL CREDIT HOURS | 17 | TERM GPA: | | | |

Comments:

| SOPHOMORE YEAR SPRING 2ND SEMESTER | | | | | | |
|------------------------------------|----------------------------------|--------------|-------------|-------|---------------------|--|
| COURSE | COURSE TITLE | CREDIT HOURS | COURSE TYPE | GRADE | SUCCESS MARKER/NOTE | |
| UNIV 200 | Civic Engagement | 1 | PATH | | | |
| MATH 243 | Calculus III | 3 | DPR | | | |
| PHY 212 & PHYL 212 | General Physics II & Lab | 4 | DPR | | | |
| MET 311 | General Meteorology | 3 | DPR | | | |
| METL 299 | Weather Analysis/Forecasting Lab | 1 | DPR | | | |
| | Pathway Option | 3 | PATH | | | |
| | TOTAL CREDIT HOURS | 15 | TERM GPA: | | | |
| Comments: | | | | | | |



| JUNIOR YEAR FALL 1ST SEMESTER | | | | | | |
|-------------------------------|------------------------------------|--------------|-------------|-------|---------------------|--|
| COURSE | COURSE TITLE | CREDIT HOURS | COURSE TYPE | GRADE | SUCCESS MARKER/NOTE | |
| MATH 244 | Calculus IV | 3 | DPR | | | |
| MET 321 | Atmospheric Thermodynamics | 3 | DPR | | | |
| | Meteorology Elective | 3 | DPE | | | |
| | Humanities & Fine Arts Option | 3 | GEC | | | |
| | Social & Behavioral Science Option | 3 | GEC | | | |
| | TOTAL CREDIT HOURS | 15 | TERM GPA: | | | |

Comments:

| JUNIOR YEAR SPRING 2ND SEMESTER | | | | | | |
|---------------------------------|------------------------------------|--------------|-------------|-------|---------------------|--|
| COURSE | COURSE TITLE | CREDIT HOURS | COURSE TYPE | GRADE | SUCCESS MARKER/NOTE | |
| MET 341 | Dynamic Meteorology | 3 | DPR | | | |
| MET 399 | Weather Analysis & Forecasting Lab | 1 | DPR | | | |
| MATH 355 | Probabilities & Statistics | 3 | DPR | | | |
| | Restricted Elective | 3 | PC | | | |
| | Meteorology Elective | 3 | DPE | | | |
| | Social & Behavioral Science Option | 3 | GEC | | | |
| | TOTAL CREDIT HOURS | 16 | TERM GPA: | | | |

Comments:

| SENIOR YEAR FALL 1ST SEMESTER | | | | | | |
|-------------------------------|-------------------------------|---------------------|-------------|-------|---------------------|--|
| COURSE | COURSE TITLE | CREDIT HOURS | COURSE TYPE | GRADE | SUCCESS MARKER/NOTE | |
| MATH 368 | Differential Equations | 3 | DPR | | | |
| MET 411 | Physical Meteorology | 3 | DPR | | | |
| MET 421 | Synoptic Meteorology | 3 | DPR | | | |
| METL 421 | Synoptic Meteorology Lab | 2 | DPR | | | |
| MET 472 | Research Methods | 1 | DPR | | | |
| | Humanities & Fine Arts Option | 3 | GEC | | | |
| | TOTAL CREDIT HOURS | 15 | TERM GPA: | | | |

Comments:

| SENIOR YEAR SPRING 2ND SEMESTER | | | | | | |
|---------------------------------|---------------------|--------------|-------------|-------|---------------------|--|
| COURSE | COURSE TITLE | CREDIT HOURS | COURSE TYPE | GRADE | SUCCESS MARKER/NOTE | |
| MET 431 | Numerical Methods | 3 | DPR | | | |
| MET 499 | Meteorology Seminar | 1 | DPR | | | |
| SCI 331 | GIS/Remote Sensing | 3 | DPR | | | |
| | Restricted Elective | 3 | PC | | | |
| | Restricted Elective | 3 | PC | | | |
| | TOTAL CREDIT HOURS | 13 | TERM GPA: | | | |
| Comments: | Comments: | | | | | |

TOTAL HOURS: 124 REQUIRED

Candidates that transfer 12 or more hours of college credit are exempt from UNIV 100: University Success; however, the student must take 2 hours of general electives to replace UNIV 100.