Applied Atmospheric Science

MAJOR MAP

How to use the map

This map is designed to give you information about your chosen major that will help keep you on track for graduation within 4 years. The introductory sections will help orient you to the "big picture" ideas like the topics and areas of interest inside your major, the kinds of courses you will take, university policies including admissions, and other general topics. The chart on the second page will help you to develop a productive plan to make the most of your 4 years at East Carolina University and prepare yourself for the job market after graduation.

Remember, it is important that you diversify your experiences, both for success in your degree program and for success outside of school. While coursework is important, it should not be your only focus. The chart below will show you how to incorporate other kinds of experiences that will expand your knowledge of your chosen field and make you a more desirable job candidate.

The map is only a guideline. Remember to speak with your advisor often to learn about new opportunities, clarify concerns, and develop a plan that is right for you.

Questions?

East Carolina University offers an array of support to help you grow and learn from your first day of orientation until your graduation. New Student Orientation, Pirate to Pirate Mentoring, the University Writing Center, and the Career Center are only a few of the services and centers available to assist you throughout your time on campus.

WORKPLACE SUCCESS

What employers want

With your Applied Atmospheric Science major, you will pursue a career that requires specific skills and experiences. These might include:

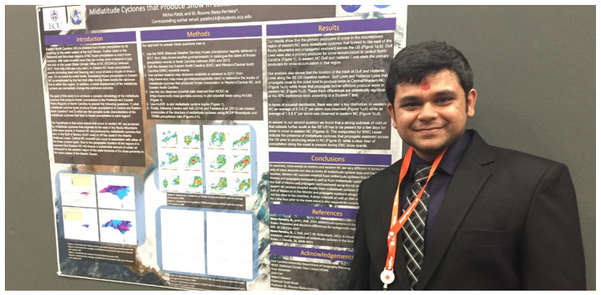
1. Weather forecasting techniques;
2. Mathematical and statistical proficiency;
3. Computer programming and data visualization skills;
4. Hands-on meteorological measurements;
5. Satellite and radar image interpretation and analysis;
6. Geographical Information Systems (GIS) proficiency;
7. Excellent oral, written and communication skills;
8. Science communication and outreach.

Taking advantage of the opportunities that are available to you outside of the classroom can help you to grow as a student and emerging professional.

WHAT CAN I LEARN?

With a degree in Applied Atmospheric Science you will:

- Harness weather predicition, meteorological observations and an understanding of climate to address the societal challenges of natural hazards, economic prosperity, health and safety;
- Apply the latest geospatial technologies, such as Geographic Information Systems and cartographic design to understanding coastal hazards, severe weather, and hydrology;
- Gain experience running state-of-the-art weather forecast computer models used by professional forecasters;
- Intern with local television stations and the National Weather Service to gain valuable experience in developing and communicating weather forecasts.



ECU
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THOMAS HARRIOT COLLEGE OF ARTS AND SCIENCES

Applied Atmospheric Science

ABOUT THE CONCENTRATION

Are you interested in becoming a weather forecaster? Can you picture yourself helping people prepare for our changing environment? Do you want to get ready for a research career in meteorology? The B.S. degree in Applied Atmospheric Science can help you get there. Our faculty will give you a solid background in weather and climate, meteorological observations, and forecasting. Students will receive training in the

latest geospatial technologies, such as Geographic Information Systems and cartographic design. Students apply this knowledge to understanding coastal hazards, severe weather, and hydrology. Whether you're interested in undergraduate or graduate study, the Atmospheric Science program will give students at ECU one-of-a-kind preparation for 21st century careers in applying the science of the atmosphere to societal challenges.

DEGREE OPTIONS

For the Applied Atmospheric Science degree, you will need to complete:

- 120 semester hours in total
- 40 semester hours of general education courses
- 37 semester hours of core courses
- 28-30 semester hours of cognates
- 6 semester hours from each of the elective categories: atmospheric science, geography and geospatial technologies
- general electives to complete degree requirements

You can minor in Atmospheric Science! In addition to the courses for you major, you'll need to complete:

Two core courses in atmospheric science: ATMO 1300 (Weather and Climate) and ATMO 2510 (Physical Meterology)

Choose four elective courses in atmospheric science, which may include:

- Global Climates
- Dynamic and synoptic meteorology
- Meteorological instruments
- Coastal Storms
- Radar and Satellite meteorology
- Boundary layer processes and micrometerology
- Tropical Weather
- Environmental Hazards
- Climate Change

ECU

ADMISSIONS INFO

You can apply to ECU through the Office of Undergraduate Admissions website at www.ecu.edu/admissions. To be considered for admission, freshmen applicants will submit their high school transcript and standardized test scores. Transfer applicants will submit official transcripts from all previously attended institutions. Application deadlines and specific admissions requirements for freshmen and transfer applicants are listed on the website.

COURSE HIGHLIGHTS

The Applied Atmospheric Science degree includes some exciting courses such as:

- ATMO/GEOG 1300: Weather and Climate is the introductory general education course that is the gateway to the major
- ATMO/GEOG 2510: Physical Meteorology is a mathematical introduction to observations and forecasting of clouds and precipitataion major
- ATMO 3520: Dynamic Meteorology introduces the physical and mathematical foundation for the formation and movement of weather systems.
- ATMO 4580: Radar and Satellite Meteorology gives students hands-on training in image interpretation and computer analysis to forecast weather and understand climate.

MAKE THE MOST OF YOUR DEGREE

Add value to your Applied Atmospheric Science degree with a minor in mathematics or a certificate in Geographic Information Science and Technology (GIST)! The math courses required for the major allow you to obtain a minor in mathematics with just a few additional credit hours. The major puts a certificate in GIST within easy reach with one additional course in geospatial technologies. Math and GIST are both highly sought skills in the workplace as you launch your career.

Applied Atmospheric Science MAJOR MAP

DEGREE INFORMATION

	FIRST YEAR ➤➤➤	SECOND YEAR ➤➤➤	THIRD YEAR ➤➤➤	FOURTH YEAR ➤➤➤
THE COURSES YOU NEED	Complete general education requirements such as 2 social sciences, EXSS 1000, ENGL 1100 and 2 humanities/fine arts courses. Register for MATH 1065; ATMO 1300; HLTH 1000; MATH 1083/1085; and GEOG 2250.	Register for MATH 2171; MATH 2172; GEOG 2400 & 2410; ATMO 2510 & 3230 and PHYS 1251 & 2350. Continue general education requirements such as ENGL 2201 and a humanities course.	Register for MATH 2173 & 4331; PHYS 1261 & 2360; and ATMO 4510, 4580 & 3520. Continue with general education courses like a humanities/fine arts or a social science. Register for a geospatial technologies elective.	Continue with geospatial technologies electives as well as geograhy and atmospheric science electives. Complete general education requirements and register for ATMO 3550, 4525 & 4550, and GEOG 4999.
GAIN RELEVANT EXPERIENCE	Explore your major and career options in consultation with your advisor. By the end of your first year you should have developed plans to complete specific internships, develop the experience necessary for the kind of employment you want, or begin to identify potential graduate schools.	Meet with Career Services often to work on your post-graduation plans. Investigate job-related skills and identify gaps in your résumé so you can address them early. Use the Occupational Outlook Handbook, USAJobs.gov, and/or other resources available through Career Services to identify common skills in your career field.	Internships, part-time jobs, student leadership positions, and volunteer or community engagement activities can help build your résumé and give you valuable experience. Consider interning with the National Weather Service, local television weather broadcasting services, and utility companies.	Volunteering for political, governmental, or social organizations is a great way to get experience in your field, build your résumé, test your interest in working with diverse populations, and develop your professional network. During your final year you should also participate in ECU's Research and Creative Achievement Week.
COMMUNITY CONNECTION	Emails for the department will let you know about upcoming guest lectures, internship opportunities, and special events. Keep up with the department social calendar to attend events such as the colloquium series.	Join student or national organizations that suit your interests, which may include the American Meteorological Society or the Certified Broadcast Meteorologist Program (CBM). For a full list of student organizations, visit OrgSync.	Connect with the Center for Leadership and Civic Engagement to explore local opportunities. Also consider contacting community partners using the Orgsync directory. To build your professional network, join a professional organization like the American Meteorological Society.	Submit a proposal to present a polished research paper from one of your classes at the American Meteorlogical Society's annual meetings.
THINK GLOBALLY	Being internationally aware and culturally competent is increasingly important. Think about ways you could build these skills, which may include foreign language or Global Understanding courses, study abroad, or internationally-focused courses or student organizations.	Integrate internationally-oriented classes into your electives and consider a minor or second major in an international field or foreign language. Consider a Summer or semester-long study abroad program. Apply for study abroad scholarships in the early Fall.	Make the most of your return from your study abroad or internship program by becoming more active in your student organizations. Work with the Office of Global Affairs and the Career Center to learn how to leverage your study abroad experience to improve your job placement possibilities.	Take on a leadership position in one of your globally-oriented student organizations. Complete your program by incorporating more internationally-focused courses.
CAREER PREPAREDNESS	Visit Career Services to learn about their resources. Check out the Bureau of Labor Statistics and Virtual Job Shadow to explore potential careers. Log in to Handshake to set up your profile, check out career events, and begin to explore potential employers and job opportunities.	Meet with your Career Counselor to explore your goals and develop your résumé. Attend career fairs and other employer-related activities. Speak to your instructors and advisors about career options and research opportunities.	Develop your LinkedIn profile. Meet with your Career Counselor to discuss postgraduation plans. If needed, research graduate schools and program requirements. Continue to attend career fairs and other employer-related career events.	Meet with your Career Counselor to put your post-graduation plans into action. Refine your résumé, LinkedIn profile, and interview skills. Complete the Pirate Employment Survey.

APPLY FOR SCHOLARSHIPS EACH YEAR

CONSIDER AN INTERNSHIP

POST-GRAD OPTIONS

Students who graduate with a degree in Applied Atmospheric Science have a variety of career options. Some of these include:

- U.S. Government
- Private companies
- Universities
- The National Weather Service
- Broadcast media as on-air meteorologists
- Graduate progams in meteorology or geography

VISIT US ONLINE

For more information and an interactive map PDF, visit: **www.ecu.edu/degrees/BS/Applied%20Atmospheric%20Science/**.

FINISH IN FOUR
East Carolina University