

EPS Facilities

The **WCSU Observatory** houses a 20-inch (0.51 m) Ritchey-Chrétien telescope and a planetarium. The telescope is used by faculty, graduate and undergraduate students to obtain digital images and spectra of planetary and other celestial objects for research projects. WCSU is also affiliated with the **Lowell Observatory** in Flagstaff, where faculty and students have access to a 31-inch (0.78 m) telescope with a large format digital camera. The Flagstaff area also presents opportunities for geological research in the recently active San Francisco Volcanic Field.

The **Instrumentation Laboratory** contains research-grade equipment, including meteorological and radiometric instruments, data loggers and telecommunication systems. Students also have access to our state-of-the-art **Temperature Calibration Facility**.

The **Weather Center**, an institute within the university, provides professional weather forecasts to the greater Danbury community, including local businesses such as United Illuminating and the New Haven Register. Associated with the Weather Center is the **Broadcast Room**, which is designed to train students to become television meteorologists.

The award-winning Science Building on the Midtown campus contains a computer lab available to students 24 hours a day, as well as comfortable, well-lighted lounge areas. The building opened to statewide praise for its design, sophisticated equipment and designation as a "green" facility engineered to limit negative environmental impact.



Information

Division of Graduate Studies

Phone: (203) 837-8243
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Western Connecticut State University
181 White Street
Danbury, CT 06810



Master of Arts in Earth & Planetary Sciences

WESTERN CONNECTICUT STATE UNIVERSITY





Are you considering a master's degree in Earth and Planetary Sciences?

In the Master of Arts in Earth and Planetary Sciences (EPS) program offered at Western Connecticut State University, students have the opportunity to do advanced course work in physics, meteorology, astronomy, geology and oceanography. They may choose to concentrate in meteorology/climatology or astronomy/astrophysics. For their capstone experience, students have the option of performing independent thesis research or choosing a non-thesis track designed specifically for teachers, with classes conveniently scheduled in the evenings.

What can I do with a master's in EPS?

EPS encompasses those sciences directly related to the study of the environments of the Earth, the Sun, and other planets, as well as the processes that help shape those environments. Disciplines within EPS include atmospheric science, climatology, physical oceanography, physical geology and planetary physics.

Western's flexible course structure supports cross endorsement in physics and/or earth science, as well as the possibility of cross-disciplinary environmental research by students in the life sciences. A master's degree can lead to a higher salary and greater job opportunities.

Recent Graduate Presentations and Thesis Titles

- Short Term Effects of Solar Activity on Incoming Short Wave Radiation
- Evaluation of Greenhouse Gas Emission and Reduction in a Closed Landfill Site with Gas-to-Energy Recovery System
- Regional Correlations Between Convective Available Potential Energy and Tornadoic Thunderstorms
- Estimating Cloud Fraction over Long Island Sound for the Summer Months of 2004 Using Satellite Derived Estimates of Surface Solar Irradiance
- The Role of Weather in Aviation's Daily Operations: TAF Verification, TAF Amendment Criteria and a Weather Survey
- Effects of Climate Change on Migratory Patterns of Peregrine Falcons and Other Northern Hemisphere Birds
- Determining Climate Change Through the Stratigraphic Record
- Seamless Prediction: Bringing Climate and Weather Models Together
- Observations of Stellar Transits by Exoplanets WASP-33b and HAT-P-32b

Financial Aid and General Information

Funded graduate assistantships for life science students interested in cross-disciplinary research are available for thesis track students. Financial Aid questions should be directed to the Financial Aid Office. Please visit our website: wcsu.edu/graduate/eps or contact the Division of Graduate Studies by calling (203) 837-8243 for general information about graduate assistantships.

Transfer Credit

Students who wish to transfer credit to WCSU's Earth & Planetary Sciences graduate program must make this request when they apply to the university. Generally, graduate students may transfer up to nine semester-hour credits from other accredited institutions.

Program Requirements

Because physics is the basis for all the planetary sciences, the EPS program has a 12-credit physics core. Two courses, Thermodynamics and Scientific Methods, provide the necessary background in physics, math and experimental methods for later courses.

I. Physics Core Courses

- PHY 510 Thermodynamics
- PHY 520 Scientific Methods
- PHY 550 Special Topics in EPS
- PHY 590 EPS Seminar

II. Earth & Planetary Sciences Courses*

- EPS 510 Physical Oceanography
- EPS 521 Meteorology & Weather Systems
- EPS 530 Planetary Physics
- EPS 540 Physical Geology

III. Thesis or Education Course Requirements

- EPS 592 Thesis Research
Thesis defense
or
- ED 500 Contemporary Educational Issues
- ED 5__ See below**

* Students concentrating in meteorology/climatology or astronomy/astrophysics may substitute PHY 599 Student Developed Study for one of the courses listed in II.

** Educators seeking the non-thesis option must take ED 500, an additional 500-level ED course, and the EPS content examination. Possible course choices include: ED 530, ED 532, ED 556, ED 559 and ED 578.

