**Meteorology, Minor**

**DEPARTMENT**

Department of Geography & City & Regional Planning

Michelle Calvarese, Chair
Science Building, Room 182
559.278.2797
www.fresnostate.edu/socialsciences/geography

MN in Geography, Minor
BA in Geography, B.A.
MN in Meteorology, Minor
MN in Urban Studies, Minor
BS in City and Regional Planning, B.S.
CERT in Community and Regional Planning, Certificate of Adv Study - Continuing & Global Education

Courses Offered

The world of the 21st century is a place where there are very complex interactions between an increasingly fragile environment and the people who make up the many varied and diverse cultures on it. Geographers are uniquely trained to "see the big picture" so that they can more fully understand these complex interactions of the environment and the many cultures of humankind.

The Geography Department offers a Bachelor of Arts degree in geography, a minor in geography, a minor in meteorology, and an interdisciplinary minor in urban studies. The geography course offerings support undergraduate preparation for careers in environmental study, teaching, weather, regional and urban planning, and preparation for graduate work.

Central to geographic inquiry is a concern with the human occupancy of the earth, the character of the human environment, and the interrelationships that link humans and the physical world. In sum, geography seeks to provide a broad understanding of the world, its people, and its problems. Geography seeks to provide applied specializations and technical skills that can address economic, social, and environmental problems at scales that range from local to global by employing a spatial framework for organizational purposes analogous to the chronological framework employed in history.

Geography integrates much information from the natural and social sciences and because of the diversity of subject matter from which it obtains data, offers a broad, liberal education applicable to many fields of employment.

The department offers a variety of courses that allow students to address different objectives. First, we provide, for both majors and non-majors alike, a greater understanding of the world as an element of a liberal education which has become an increasingly important component of a complete university education. Second, we provide courses that assure a depth of knowledge in subject matter and technique for majors and minors in geography. Third, we serve those students in related disciplines who wish to strengthen programs of study through a selection of courses in geography.

Although there are no options in the degree program, students may select courses that focus on various areas of study.

Examples of such focused study areas could include the following:

- **Geographic Studies**: Coursework for the student interested in the world and its spatial patterns. Traditional study which may lead to graduate work and a career in higher education, or with local, state, and federal agencies utilizing geographic analysis, including the use of geographic information systems (GIS).
- **Environmental Studies**: Coursework to develop competence in environmental techniques with particular emphasis on such topics as meteorology, pollution, environmental impact analysis, geographic information systems (GIS), and human-environment relationships may lead to graduate work in geography, or employment in various state and federal agencies dealing with environmental problems.
- **Urban and Regional Planning**: Coursework for the student interested in the study of how to create communities that balance new development and essential services, environmental protection and innovative change and which may lead to graduate work and a career with local or state agencies. Courses could cover a wide range of subjects including planning, environmental studies, legal issues, and geographic information systems (GIS).

Students must regularly consult with their academic adviser. Such consultation will facilitate course selection and enable the student to develop a program consistent with individual interests and needs.
Facilities
A laboratory facility is available for student use. The Urban Planning and Environmental Research Laboratory is a 32-station, state-of-the-art, computer laboratory used for instruction and research in urban planning, geographic information systems (GIS), environmental studies, remote sensing, and a variety of other applications.

REQUIREMENTS

Meteorology Minor Requirements
The Meteorology Minor requires the successful completion of four meteorology/climatology courses within the Geography Department and three other elective courses that are drawn from Chemistry, Computer Science, Engineering, Environmental Sciences, Geography, and Physics departments.

Core courses: GEOG 5, 111, 112, 114 (12 units)

Electives (9 units)*
With the approval of a program adviser, elect 9 units from the following list of courses: CHEM 3A, CSCI 40, EES 109, EES 125, EES 167, GEOG 118, PHYS 2A.
Total (21 units)

*All courses must be passed with a letter grade of C or better to count as credit toward the undergraduate Minor in Meteorology.

FACULTY
Instruction at introductory and advanced levels is conducted by a faculty whose teaching and research interests are diverse. All major facets of the discipline are represented as are a number of specializations, which include medical geography, economic studies of China, urban revitalization, political ecology of natural resource management, environmental monitoring using remote sensing, urban air quality, urban and regional planning, environmental planning, and climate change and global governance.

For faculty phone numbers and e-mail, see the campus directory.

For more on the faculty, see the faculty pages. The faculty pages are updated by the department or program.