

http://umjobs.org/job_detail/106498/leo_lecturer_i

Job Summary

The School of Natural Resources and Environment (SNRE) at the University of Michigan invites individuals to apply for the position of LEO Lecturer I. SNRE's mission is to contribute to the protection of the Earth's resources and the achievement of a sustainable society. The successful applicant(s) will be expected to teach one or both courses to our graduate students during the Fall 2015 semester. The terms of this appointment is from September 1, 2015 - December 18, 2015.

Responsibilities*

Duties

NRE 531 Principles of GIS is a four credit course to be offered in Fall term 2015, beginning September 8, 2015. The aim of the course is to provide a firm understanding of the conceptual and technical issues that affect the use of geographic information for research and a variety of environmental planning and management applications. Topics include maps and projections, raster and vector data structures, database design and construction, and spatial analysis based on spatial proximity, overlay, neighborhoods, networks, terrain, and modeling. The course will have three hours of lecture and two three-hour laboratory sections each week. Weekly laboratory sections dovetail with concepts in lecture and will center on analysis of real-world problems and data using ArcGIS v10.3. In-class examples and laboratory problems should focus on natural resource, environmental, and ecological issues and experiments. The expected percentage of effort for this course is 44%.

NRE 543 Environmental Spatial Data Analysis is a three credit course also to be offered in Fall term 2015, beginning September 8, 2015. The course includes two hours of discussion on state-of-the-art research and applications of various spatial analysis tools and techniques, and two hours of laboratory sections each week. Class topics should include important spatial data concepts and definitions, geovisualization and analysis, spatial transformation and interpolation, first and second order point-pattern analysis, geostatistics (variograms, kriging, and trend surface analysis), spatial autocorrelation and local statistics, geographically weighted regressions, spatial lag regressions, analysis of residuals, and error analysis. Laboratory exercises explore these various approaches using a number of GIS-based techniques within ArcGIS v10.3, R, and other appropriate software. The expected percentage of effort for this course is 34%.

The Lecturer will be responsible for overall course content, examinations, assignments, exercises, and laboratory content. For the Principles of GIS course, the lecturer will supervise one graduate student instructors (GSI). The GSIs will instruct the weekly laboratory sections. For the Environmental Spatial Data Analysis course, the lecturer will be responsible for both the lab and lecture components. The terms of this appointment is from September 1, 2015 - December 18, 2015.

Desired Qualifications*

Qualifications

For each course, a PhD degree in geography, natural resources, ecology, or environmental science with an emphasis in GIS, or a closely related field is required to be completed by August 30, 2015 is required. At least one year of postdoctoral or teaching experience at the college/university level is expected.

Union Affiliation

This position is covered under the collective bargaining agreement between the U-M and the Lecturers Employee Organization, AFL-CIO, which contains and settles all matters with respect to wages, benefits, hours and other terms and conditions of employment.

U-M EEO/AA Statement

The University of Michigan is an equal opportunity/affirmative action employer.