

PROPOSED M.S. in GEOGRAPHY

Program Description

The proposed Master of Science in Applied Geography is a 36-hour program with a required thesis. It includes 15 hours of foundation courses, 15 hours of electives, and a six-hour thesis. Eighteen hours of coursework will be at the 600 level.

Upon admission to the program, the student will meet with the Graduate Program Advisory Committee. This committee will have a membership of three Geography/Geosciences faculty members who will work with the student to establish a plan of study and identify deficiencies (many geography graduate students have a B.A./B.S. in another field). Students will make up deficiencies by taking an additional undergraduate course(s) in the area of deficiency. Geographic information systems (GIS) proficiency is required for all students. If not attained at the undergraduate level, students will be required to take GEOG 557. After the second semester, each student will choose a thesis advisor and two other faculty members for a thesis committee.

Required Core Courses (Foundations)

GEOG 600: History and Philosophy of Geography
GEOG 640: Approaches and Methods in Applied Geography
GEOG 641: Research Design and Proposal Development
GEOG 656: Advanced Quantitative Methods
GEOG 660: Qualitative Methods

15 hours

Electives

GEOG 521: Medical Geography
GEOG 522: GIS and Public Health
GEOG 528: Urban Geography
GEOG 530: Transportation Geography
GEOG 531/631: Urban Demography
GEOG 535: Retail Site Analysis
GEOG 555: Remote Sensing & Image Processing
GEOG 557: Geographic Information Systems
GEOG 561: Urban Environment
GEOS 565: Hazards
GEOS 564: Hydrology
GEOG 570: Geography of Gender
Up to 2 outside courses @ 500- or 600-level (with approval)

15 hours

Thesis

698: Thesis

6 hours

Sequence of Course Work

Assuming full-time graduate enrollment, a typical geography graduate student could complete the program in two years. Following is a sample sequence of courses. All courses are 3 hours. Electives will vary.

Year 1

Fall	Spring
GEOG 600: History of Geography	GEOG 660: Qualitative Methods
GEOG 656: Advanced Quantitative Methods	GEOG 640: Approaches & Methods in Geog.
GEOG/GEOS elective	GEOG/GEOS elective
9 hours	9 hours

Year 2

Fall	Spring
GEOG 641: Proposal Development	GEOG/GEOS elective
GEOG/GEOS elective (or outside course)	GEOG/GEOS elective (or outside course)
GEOG 698: Thesis 1	GEOG 698: Thesis 2
9 hours	9 hours

Department of Geography & Geosciences Graduate Courses.

GEOG 521	Medical Geography	Introduction to concepts, methods and tools used to investigate geographic aspects of health and disease. Application of concepts and methods through analysis of health, population and environmental data.
GEOG 522	GIS and Public Health	Application of tools and methods of analysis in geographic information systems (GIS) to public health. Use of ArcGIS software to manage and analyze health, census and spatial data.
GEOG 528	Urban Geography	Examination of the association of activities in urban areas as they are expressed in patterns of land use and occupancy features.
GEOG 530	Transportation Geography	An analysis of distribution and transportation systems as functional entities capable of introducing and reacting to change within the economic region.
GEOG 531/631	Urban Demography	Demographic analysis through the use of GIS technology. Emphasis placed on metropolitan area characteristics including population change, segregation, ethnic settlement, social and economic stratification and commuting.
GEOG 535	Retail Site Analysis	Retail site analysis through use of GIS technology. Emphasis placed on market demand and supply

		characteristics. Physical site analysis, demographics, and competitive environment will be examined.
GEOG 555	Remote Sensing & Image Processing	Application of the methods and theories involved in the collection and analysis of photographic and electronic imagery taken from aircraft and spacecraft
GEOG 557	Advanced GIS	Application of advanced GIS concepts to real-world projects. An emphasis will be placed on the development of a digital spatial database.
GEOG 561	Urban Environment	A study of environmental aspects of urban areas and analysis of inter- and intra-city variations in environmental quality.
GEOS 564	Hydrology	Advanced study of the hydrologic cycle, drainage basin analysis, stream flow and flooding, pollution and utilization of water resources.
GEOS 565	Natural Hazards	Environmental significance of natural hazards and risk assessment methods. A discussion of earthquakes, flooding; landslides/expansive soil and volcanic eruptions. Hazards reduction and mitigation strategies.
GEOG 570	Geography of Gender	A broad introduction to the ways in which gender and spatial contexts (space, place, landscape) interact and intersect.
GEOG 600	History and Philosophy of Geography	An exploration of the history of geographic thought and the paradigms that have shaped geography since the late nineteenth century.
GEOG 640	Approaches & Methods Seminar	A team-taught graduate course that consists of an examination of concepts and methods used by applied geographers.
GEOG 641	Proposal Development	Provides students with the background needed to design a research study and develop a research proposal and culminates in development of thesis proposal.
GEOG 656	Advanced Quantitative Methods in Geography	Examines advanced methods for investigating, analyzing, and modeling spatial data.
GEOG 660	Qualitative Methods	An examination of the philosophical underpinnings of the qualitative approach with practical experience in conducting qualitative research
GEOG 698	Thesis	Thesis hours