GEOGRAPHY RESEARCH MASTER'S PROGRAM

The **Master of Science (MS) in Geography – Research Track** at the University of North Texas provides students with a strong foundation in **geographic theory, research design, and analytical skills**. This track is specifically designed for students pursuing **faculty-mentored research** and a **thesis**, preparing them to become **independent researchers, project managers, or professionals** in fields such as environmental management, urban planning, and Geographic Information Science (GIScience).

The program requires a minimum of **36 credit hours**, including:

- **Thesis Option (recommended):** 6 credit hours of thesis research.
- **Non-Thesis Option:** 3 credit hours of a research problems course (GEOG 5920) plus an additional 3 credit hours of electives.

Note: The thesis option is strongly encouraged, as it provides essential experience in independent research and prepares students for advanced academic or professional careers. The non-thesis pathway is only approved under exceptional circumstances with **Graduate Committee approval**.

Applicants need to select a major professor and have a confirmed consultation with said faculty member before applying.

PROGRAM MILESTONES

Progress through the MS program is structured around four key milestones:

1. Degree Plan

Develop a personalized degree plan during the **first semester** with guidance from your major professor.
The plan outlines coursework, research goals, and timelines to ensure steady progress.

2. Thesis Committee

By the start of the **second semester**, form a thesis committee consisting of:

- Your **major professor** (committee chair)
- **Two additional faculty members**, one of whom must be from the Department of Geography

External committee members must be approved by the Department and the Toulouse Graduate School. A CV and justification statement must be submitted for review.

3. Thesis Proposal & Defense

Students must **defend their thesis proposal by the end of their second semester**.

- **Proposal Content:**
  - Literature review and theoretical context
  - Clear research objectives
  - Methodological plan
- **Defense Process:**
  1. Draft reviewed by major professor
  2. Shared with thesis committee for approval
  3. Public defense presentation announced to the department
  4. Committee deliberates and decides on one of the following outcomes:
     - Pass (approved to proceed)
     - Conditional pass (revisions required)
     - Fail (student may transition to non-thesis option)

4. Final Thesis & Defense

The thesis demonstrates a student's ability to conduct independent research, analyze data, and contribute to the field of geography.

- **Defense Process:**
  1. Draft reviewed and approved by major professor
  2. Distributed to full thesis committee
  3. Public defense presentation announced to the department
  4. Committee evaluates and votes to pass, request revisions, or deny approval

Successful students must submit the final thesis to the Toulouse Graduate School in accordance with Thesis Guidelines and Graduation Deadlines.

NON-THESIS OPTION

While the thesis track is strongly encouraged, the non-thesis option is available under special circumstances.

- Replace the 6 thesis credit hours with:
  - 3 hours of **GEOG 5920 – Research Problems**
  - 3 hours of **additional elective coursework**

Approval must come from the **major professor** and the **Graduate Committee**.
This option is best suited for students who cannot complete a thesis due to personal or professional circumstances.

ACADEMIC POLICIES

- **Minimum Grade Requirement:** No grade below a B counts toward the degree.
  - A course with a grade below B must be retaken (maximum of two retakes allowed).
  - A third grade below B results in dismissal from the program.
- **Decision Deadline:** Students must finalize their choice between thesis or non-thesis by **30 completed credit hours**.
- **Timely Progress:**
  - Students not graduating within one year after completing coursework must apply for an extension to remain in the program.
  - Students who fail to demonstrate progress within 1.5 years of passing their proposal defense will automatically receive a failing grade for thesis credits.
  - Appeals may be submitted to the Graduate Committee.

GRADUATE RESEARCH TRACKS

The following tracks serves as guides for those who wish to have a more focused program. These tracks reflect some of the research areas of faculty members in the department. Students are not required to choose a track.

Globalization, Cities and Development

Our global society is more interconnected and interdependent than ever before. Globalization of trade and commerce has increased national wealth and our appetite to consume commodities, technologies, art and culture from around the world. We continue to create spectacular cities to represent our cultural, technological and architectural achievements. But even as we continue to generate extraordinary wealth, we live in a world that is riddled with social and environmental unsustainability, poverty, inequality, discrimination, prejudice, marginalization, terror and conflict. The objective of this track is to train students to understand the complexities of our global society, our cities and our unequal geographies of life and livelihood. Upon graduating, students will find themselves well trained to pursue doctoral degrees, or careers in government, think tanks, non-governmental organizations, teaching, diplomacy and elsewhere.

Applied geomorphology

Applied geomorphology emphasizes geomorphological processes that are of societal significance, including hazards such as flooding, expansive soils, landslides and coastal erosion.

This track enables students to structure their degree plans around conceptual and technical aspects of applied geomorphology. The track meets all existing requirements for the degree, including required courses in research design, quantitative techniques, and a cognate field. Students completing this track may find employment with government research and regulatory agencies, municipalities, planning organizations, water supply districts, or environmental consulting firms.

Environmental archaeology

Archaeology faculty in the geography department, in cooperation with the graduate program in anthropology, direct graduate students in pursuit of either the MS in geography or the MS in interdisciplinary studies. The focus of this program is to give students a strong foundation in selected areas of research that will prepare them for entry into research positions or doctoral programs in archaeology. Two principal areas of training are geoarchaeology and zooarchaeology, which derive strength from the faculty and laboratory/collections resources at UNT. In addition to core requirements in geoarchaeology or zooarchaeology, students complete two areas of specialization selected from the following areas: GIS and remote sensing, spatial and quantitative analysis, instrumental techniques (e.g., SEM, EDX, PIXE, stable isotopes, petrography), or zoology and ecology.

Urban environments

This track prepares students to assume a vital role within the structure of a city government, coordinating the activities of various city departments related to environmental legislation. In addition to the normal requirements, students select courses from content areas, including urban environments, environmental science, city government structure, and environmental law and policy. This track has been developed in response to the increasing need for persons to coordinate different programs in city government, to liaison with governmental agencies, to interact with contracted environmental engineers and to bring a philosophy of sustainable environments to the planning process.

Water resources management

This track prepares geography students to assume active roles in addressing the critical issues of water supplies and water quality. Students follow a curriculum balanced among technical, scientific and political aspects of water resources management. Courses are selected from the following topical areas: techniques, geography/geology, environmental science and environmental policy. Students completing this degree track gain positions with local and regional governments, federal and state regulatory agencies, engineering firms and regional water districts.

Applied geographic information systems

This track prepares students to meet the growing demand for GIS professionals. Rather than a strictly technical preparation, students acquire the foundation in applied geography that qualifies them to play vital roles in planning, policy and implementation in chosen areas such as urban geography, economic/business development, environmental science and medical geography.

Courses for this track are selected from a chosen subset of the following groups: GIS technology, GIS applications, topics/cognate fields, real estate/marketing, public health administration, environmental science and applied economics.

Business geography

The objective of this track is to educate students to integrate geographic analysis, reasoning, and technology in support of improved business decisions. The focus on improving the decisions made by business differentiates business geography from urban/economic geography.

Participation in a business internship is encouraged. If appropriate, the results of the internship can form the basis for the student's MS thesis or problems in lieu of thesis.

Medical geography

This track focuses on theory and techniques that are needed to understand the spatial patterns of health outcomes, environmental risks and exposures and disease spread, as well as the distribution of health care services and lack thereof. Students specializing in this track will learn about the relationships between human activities, place, and health outcomes and how to evaluate those relationships using GIS methods, spatial and statistical analysis, and computational