

GEOGRAPHY, M.S.

Program Description - M.S. in Geography

Geography is the systematic study of the spatial aspects of human activity, the natural world, and human-environment interaction. The discipline of geography occupies a unique position as a bridge between the social sciences (Human Geography), natural sciences (Physical Geography), and STEM fields (GIScience). From this interdisciplinary perspective, geography helps us understand and address numerous contemporary challenges ranging from economic development, urban planning, and ethnic conflict to climate change, environmental sustainability, and natural resource management. As a result, geography is an expanding discipline with diverse career opportunities across the environmental sciences, social sciences, and technological fields in both the public and private sectors.

The Geography Department prepares students to succeed as professionals in today's job market through an innovative curriculum focusing on building critical thinking, technical, and practical skills across a range of human geography, physical geography, and geospatial information science (GIScience) courses. The curriculum includes a mixture of classroom and lab instruction, hands-on projects, and professional internships experiences that actively engage students in the learning process and provide the skills necessary for lifelong learning. The department maintains state-of-the-art facilities, including technology-enhanced classrooms, a physical geography lab, and a GIScience computer lab, supporting students as they utilize the latest software and hardware. The department provides a supportive learning environment where students work closely with faculty and peers while enjoying numerous opportunities to participate in campus, state, and national professional activities.

Geography alumni have successfully applied their knowledge and practical skills in a variety of career paths in both the public and private sectors, including urban and regional planning, economic development, environment planning, natural resource and energy management, weather forecasting, emergency response and homeland security, GIS analysis, and education. Other alumni have continued studies at the doctoral level in geography, archaeology, and other fields.

Students wishing to earn a master's degree in geography have the option of selecting either a Master of Arts (M.A.) or Master of Science (M.S.) degree. The M.A. degree is for students interested in human geography or geography education, while the M.S. is suitable for students interested in GIScience and/or physical geography. Both the M.S. and M.A. degree options prepare the graduate for professional employment or advanced work at the doctoral level. In coordination with their advisor, students may choose to either: 1) complete a capstone course GEO679 focusing on Career Advancement, Reflection on the degree completion experience, and a Comprehensive Exam or 2) write a thesis. The majority of our majors pursue the capstone course GEO679 option. The thesis option is the best choice for students wishing to engage in geographical research projects or in preparation for entrance into a doctoral program. Thesis students must pass GEO615 and GEO616 with grades of A and then must get permission from a potential thesis advisor before enrolling in GEO681 Thesis.

A graduate minor in Geography is available for those not majoring in Geography.

For more information, please see the departmental website at www.marshall.edu/geography (<http://www.marshall.edu/geography/>), e-mail geography@marshall.edu or call 304-696-4364.

Admission Requirements - M.S. In Geography

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/admissions/graduate/ (<https://www.marshall.edu/admissions/graduate/>). In addition, applicants must:

- submit a curriculum vitae (CV) and/or resume with the graduate application;
- submit two letters of recommendation (either from employers or faculty members) with the graduate application.

Graduate Assistantships

Applications for department research or teaching assistantships are available from the department website at www.marshall.edu/geography (<http://www.marshall.edu/geography/>). For more information about graduate assistantships at Marshall University, please see <https://www.marshall.edu/graduate/graduate-assistantship-overview/>.

For more information about other financial support, please see [www.marshall.edu](http://www.marshall.edu/sfa) (<http://www.marshall.edu/sfa>) (<http://www.marshall.edu/sfa/>).

Program Requirements - M.S. In Geography

Candidates for the master's degree must meet the general requirements for graduate admission and complete a minimum of 34 total credits.

Plan of Study

A *Plan of Study* approved by the student's advisor must be submitted for approval to the academic dean before the student registers for his or her 12th semester hour. The Plan of Study is a student's "blueprint" for completing graduation requirements.

Plan Of Study - M.S. In Geography

Code	Title	Credit Hours
Required Courses		
GEO 540	Spatial Statistics and GIS ¹	4
GEO 615	Geographic Thought	3
GEO 616	Geographical Research Methods	3
Select one from the following:		3-6
GEO 679	Portfolio and Career Profile	
GEO 681	Thesis (6 credits)	
Select one GEO GIScience course from the following:		3-4
GEO 523	Cartography & GIS	
GEO 526	Principles of GIS	
GEO 527	Principles of GIS II	

GEO 529	Location Analysis and GIS
GEO 530	Environmental Raster Analysis
GEO 531	Remote Sensing & Photogram
GEO 534	Flood Hazards and GIS
GEO 554	Drones:Remote Sensing & GIS
GEO 631	Applied GIS Projects
GEO 634	GIS Databases & Programming
GEO 690	Internship in Geography (using GIScience)
Electives	
	18-19
GEO 502	Geography of Appalachia
GEO 504	Geography of Europe
GEO 505	Political Geography
GEO 506	Population Geography
GEO 508	Geog of South & Middle America
GEO 510	Urban Geography
GEO 522	Environmental Geography
GEO 523	Cartography & GIS
GEO 524	Transportation Geography
GEO 525	Climatology
GEO 526	Principles of GIS
GEO 527	Principles of GIS II
GEO 529	Location Analysis and GIS
GEO 530	Environmental Raster Analysis
GEO 531	Remote Sensing & Photogram
GEO 534	Flood Hazards and GIS
GEO 550	Extreme Weather
GEO 554	Drones:Remote Sensing & GIS
GEO 560	Weather Analysis
GEO 607	Economic Geography
GEO 617	Seminars in Geography
GEO 618	Seminars in Geography
GEO 619	Seminars in Geography
GEO 620	Problems in Environ Geog
GEO 623	Regions of North America
GEO 631	Applied GIS Projects
GEO 634	GIS Databases & Programming
GEO 690	Internship in Geography
Total Credit Hours	
	34-39

¹ Requirement waived if GEO 440 Spatial Statistics and GIS passed with a grade of C or better at the undergraduate level.

Some courses may not be listed here, but still count for credit in the program; see an advisor. Of the credit hours required for the degree, at least half must be at the 600 level.