

GEOGRAPHY, M.S.

Program Description

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 a rapidly expanding discipline with diverse career opportunities across the environmental sciences, social sciences, and technological fields in both the public and private sectors. Both the U.S. Department of Labor and the Bureau of Labor Statistics predict that demand for trained geographers will grow much faster than average over the next decade.

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 with geography studies at the doctoral level.

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. Both the M.S. and M.A. degree options prepare the graduate for professional employment or advanced work at the doctoral level. Because M.S. students are required to complete a thesis, the M.S. option is the best choice for students wishing to engage in geographical research projects or in preparation for entrance into a doctoral program.

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. applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at <http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission> ([http://www.marshall.edu/graduate/admissions/how-to-apply-for-](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/)

<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>) In addition, M.S. applicants must:

- Submit a curriculum vitae (CV) and/or resume with the graduate application;
- Submit a letter of recommendation (from employers or faculty members) with the graduate application;
- Have a minimum undergraduate GPA of 3.25

M.S. applicants demonstrating potential but not meeting these criteria may be admitted to the M.S. program with permission from the faculty.

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/>).

Program Requirements

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

Code	Title	Credit Hours
Required Courses		
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 532	Enterprise GIS	
GEO 533	GPS & Mobile Geospatial T	
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)	
GEO 580	Special Topics (GIScience Topic)	
GEO 581	Special Topics (GIScience Topic)	
GEO 582	Special Topics (GIScience Topic)	
GEO 583	Special Topics (GIScience Topic)	

GEO 585	Independent Study (GIScience Topic)	
GEO 586	Independent Study (GIScience Topic)	
GEO 587	Independent Study (GIScience Topic)	
GEO 588	Independent Study (GIScience Topic)	
GEO 540	Spatial Statistics and GIS ¹	4
GEO 615	Geographic Thought	3
GEO 616	Geographical Research Methods	3
GEO 679	Portfolio and Career Profile	3
GEO 681	Thesis	3

Electives

Select 12-13 credits of the following: 12-13

GEO 501		
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 514		
GEO 515		
GEO 522	Environmental Geography	
GEO 523	Cartography & GIS	
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 532	Enterprise GIS	
GEO 533	GPS & Mobile Geospatial T	
GEO 534	Flood Hazards and GIS	
GEO 554	Drones:Remote Sensing & GIS	
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 Semester Hours 34

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

Some GEO 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.