Catalog Entry Changes

Proposed New (October 2016) with changes marked

**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), email geography@marshall.edu, or call (304) 696-4364.

**Admission Requirements**

M.A. applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at [www.marshall.edu/graduate/](http://www.marshall.edu/graduate/). [changed web address]

M.S. applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at [www.marshall.edu/graduate/](http://www.marshall.edu/graduate/). [changed web address]

In addition, M.S. applicants must:

• Submit GRE (Graduate Record Examination) scores with the graduate application;

• Have a minimum undergraduate GPA of ~~2.9~~ 3.5 or minimum GRE scores (~~for those taking the GRE prior to August 2011 the scores must be: Verbal plus Quantitative greater than or equal to 900 and Writing greater than or equal to 3.5; for those taking the GRE after that date, the scores must be~~ Verbal greater than or equal to 150 and Quantitative greater than or equal to ~~290~~ 150 and Writing greater than or equal to ~~3.5~~ 4.5).

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 [www.marshall.edu/graduate](http://www.marshall.edu/graduate). [changed web address]

For more information about other financial support, please see [www.marshall.edu/graduate/](http://www.marshall.edu/graduate/). [changed web address]

**Degree Requirements**

Candidates for the master’s degree must meet the general requirements for the Graduate College and ~~either~~ complete ~~a thesis with~~ a minimum of 32 total credits ~~(M.S.) or comprehensive exams with a minimum of 30 total credits (M.A.)~~.

Required Courses ~~(M.A.)~~

* GEO 526 Principles of GIS (requirement waived if taken at the undergraduate level)
* ~~Statistics – 3 credit hours;~~ GEO540 Spatial Statistics and GIS; (with permission from a Graduate adviser, a student may substitute one of the following ~~choose from~~: EDF 517, SOC 606, CJ 656, MGT 500, PSC 604;) requirement waived if statistics passed with a grade of C or better at the undergraduate level.
* GEO 615 Geographic Thought and Methods
* GEO 616 Geographical Research
* For the M.A.: GEO 679 Applied Projects (1-3 credits)
* For the M.S.: GEO 679 Applied Projects (3 credits) and GEO 681 Thesis (3 credits)

~~Of the 30 credit hours required for the M.A., at least 15 must be at the 600 level. Of the 30 credit hours, at least 24 must be GEO courses. Some electives from other departments may be taken to complement GEO courses, with permission of the graduate advisor.~~

~~Required Courses (M.S.)~~

* ~~GEO 526 Principles of GIS (requirement waived if taken at the undergraduate level)~~
* ~~Statistics – 3 credit hours; choose from: EDF 517, SOC 606, CJ 656, MGT 500, PSC 604;) requirement waived if statistics passed with a grade of B C or better at the undergraduate level.~~
* ~~GEO 615 Geographic Thought and Methods~~
* ~~GEO 616 Geographical Research~~
* ~~GEO 681 Thesis (1-6 hours)~~

~~Of the 33 credit hours required for the M.S., at least 17 must be at the 600 level. Of the 33 credit hours, at least 27 must be GEO courses. Some electives from other departments may be taken to complement GEO courses, with permission of the graduate advisor.~~

Electives:

GEO 501: Historical Geography (3 credits)

GEO 502: Geography of Appalachia (3 credits)

GEO 503: Geography of Asia (3 credits)

GEO 504: Geography of Europe (3 credits)

GEO 505: Political Geography (3 credits)

GEO 506: Population Geography (3 credits)

GEO 507: Geography of Sub-Saharan Africa (3 credits)

GEO 508: Geography of South and Middle America (3 credits)

GEO 509: Geography of North Africa and the Middle East (3 credits)

GEO 510: Urban Geography (3 credits)

GEO 511: Medical Geography (3 credits)

GEO 512: Geography of Russia (3 credits)

GEO 514: Principles and Methods of Planning (3 credits)

GEO 515: Urban Land Use Planning (3 credits)

GEO 516: Environmental Issues in Planning (3 credits)

GEO 519: Geography of Gender (3 credits)

GEO 522: Environmental Geography (3 credits)

GEO 525: Climatology (4 credits)

GEO 529: Principles of GIS 2 - Vector Analysis (4 credits)

GEO 530: GIS - Raster Analysis (4 credits)

GEO 531: Principles of Remote Sensing and Photogrammetry (3 credits)

GEO 532: Enterprise GIS (3 credits)

GEO 533: GPS and Mobile Geospatial Technologies (3 credits)

GEO 607: Economic Geography

GEO 617-619: Seminars in Geography (3 credits)

GEO 620: Topics in Environmental Geography (3 credits)

GEO 623: Regions of North America (3 credits)

GEO 631: Advanced GIS Projects (3 credits)

GEO 690: Internship (1-6 credits)

Some GEO courses may not be listed here, but still count for credit in the program; see an adviser.

Of the credit hours required for the degree, at least half must be at the 600 level. Courses from other departments may be taken to complement GEO courses and may count toward the M.A. or M.S. in Geography with permission of the graduate adviser.

**Plan of Study**

A Plan of Study approved by the student’s advisor must be submitted for approval to the Graduate College 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.

**Minor in Geography**

Students who minor in Geography should choose a minimum of six hours of appropriate courses from one of the specialties below in consultation with their major faculty advisor and a Geography faculty advisor.

Regional Geography: GEO 623, Regions of North America, is required. Choose additional coursework from GEO 502, 503, 504, 507, 508, 509, 512, ~~520 (regional topic)~~, 610-614, 617-619.

Physical Geography: Choose from ~~GEO 520 (physical topic)~~, 522, 525, 530, 531, 617-619, 620

Human Geography: Choose from GEO 501, 505, 506, 510, 511, 518, 519, ~~520 (human topic)~~, 522, 607, 617-619, 620

Planning: Choose from GEO 514, 515, 516, ~~520 (planning topic),~~ 617-619

Geographic Information Systems/Remote Sensing: Choose from GEO 526, 529, 530, 531, 532, 533, 540, 617-619, 631