

# **Program Approval Form**

For approval of new programs and deletions or modifications to an existing program.

Inactivate Exis  X Modify Existin  Title (SCHI  Concentra  X Degree Re	SCHEV approval sting g (check all that EV approval requation (Choose or equirements Standards/ Appl	<del></del>	k one):  X B.S. Minor M.S. M.Ed.  aduate Certificate* e Certificate*		
College/School: College of Science Submitted by: College of Science Jen Gettys		ence	Department: Ext: 3.5302	GGS Email:	jbazaz@gmu.edu
Effective Term:  Justification: (attack	Fall 201	program must be fully app			tificate or concentration, the n the University Catalog.
Adding "Mason Core and Elective Credits" and "Mason Core" sections in order to have the catalog listing clearly show how the degree equals 120 credits and how the Mason Core requirements can be fulfilled.					
		Existing		New/Modified	
Program Title: (Required) Title must identify subject matter. Do not include name of college/school/dept. Concentration(s):		Geography, BS			
Admissions Standards / Application Requirements: (Required only if different from those listed in the University Catalog)					
Degree Requirements: Consult University Catalog for models, attach separate document if necessary using track changes for modifications		[Mason Core and Electives section not included]		See the bottom portion of the degree listing attached.	
Courses offered via distance: (if applicable)					
TOTAL CREDITS REQUIRED:					
*For Certificates Only: Indicate whether students are able to pursue on a Full-time basis Part-time basis  Approval Signatures					
Approval Sig	natures				
Department	D	ate College/School Date		Provost's Office Date Required for Minors and Interdisciplinary Programs	
If this program may impact another unit or is in collaboration with another unit at Mason, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal.					
		nit Approval Name Unit Approver's S		1	Date
For Graduate Programs Only					
Graduate Council Member Provost Office Graduate Council Approv					
For Pegistrar Office's					. 125/2

# Program Proposal Submitted to the College of Science Curriculum Committee (COSCC)

The form above is processed by the Office of the University Registrar. This second page is for the COSCC's reference. Please complete the applicable portions of this page to clearly communicate what the form above is requesting.

#### FOR ALL PROGRAMS (required)

Program Title: Geography, BS

Date of Departmental Approval: 3/11/2015

### **FOR INACTIVATED PROGRAMS** (required if inactivating a program)

• Reason for Inactivation:

#### **FOR MODIFIED PROGRAMS** (required if modifying a program)

- Summary of the Modification: Adding "Mason Core and Elective Credits" and "Mason Core" sections.
- Text before Modification (title, degree requirements, etc.): Sections weren't included.
- Text after Modification (title, degree requirements, etc.): See attached.
- Reason for the Modification: In order to have the catalog listing clearly show how the degree equals 120 credits and how the Mason Core requirements can be fulfilled.

#### **FOR NEW PROGRAMS** (required if creating a new program)

- Reason for the New Program:
- Relationship to Existing Programs:
- Relationship to Existing Courses:
- Semester of Initial Offering:
- Insert Tentative SCHEV Proposal Below

# Acalog ACMS<sup>TM</sup>

# 2015-2016 University Catalog {working}

# Geography, BS

#### **Banner Code: SC-BS-GEOG**

This program of study is offered by the <u>Department of Geography and Geoinformation Science</u> in the <u>College of Science</u>.

The <u>Geography</u>, <u>BS</u> is designed to offer students the opportunity to study the integrated social and environmental processes that continuously shape and reshape the world we live in. This major provides students with broad training across the core subdisciplines of geography (human, physical, and GIScience), emphasizing application and technique-driven coursework, in addition to a rigorous science and mathematics curriculum. Students will find numerous opportunities for employment in both the private and public sectors, as well as in academia, as geographers are well suited to address important local, regional, and global challenges in today's world, given their interdisciplinary approach and uniquely spatial perspective.

The <u>Department of Geography and Geoinformation Science</u> fosters a supportive, active learning environment in which students are encouraged to work closely with both faculty and peers. The curriculum in this major provides students with the analytical, technical, and practical training that prepares them to be successful in an ever-evolving job market. For students who wish to pursue their interest in geography via a more flexible degree program, the department also offers a <u>Geography</u>. BA.

The <u>Geography</u>, <u>BS</u> consists of three components: (1) 22-23 credits of core courses; (2) 27 credits of technique, systematic, regional, and elective courses; and (3) 11-12 credits of mathematics, computer programming, and statistics courses.

Students must fulfill all requirements for bachelor's degrees including the Mason Core.

GGS 415 meets the writing intensive requirement for this major.

# Degree Requirements

# Geography (49-50 credits)

Candidates for the <u>Geography</u>, <u>BS</u> degree must complete the following Core, Breadth and Experience, and Geography Elective courses with a minimum GPA of 2.00:

#### **Core Courses (22-23 credits)**

- GGS 102 Physical Geography Credits: 3 or GGS 121 Dynamic Atmosphere and Hydrosphere Credits:
   4 (Mason Core: Natural Science courses)
- GGS 103 Human Geography Credits: 3
- GGS 110 Maps and Mapping Credits: 3
- GGS 300 Quantitative Methods for Geographical Analysis Credits: 3
- GGS 310 Introduction to Digital Cartography Credits: 4
- GGS 311 Introduction to Geographic Information Systems Credits: 3

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• GGS 415 - Seminar in Geography Credits: 3 (fulfills writing intensive requirement)

# **Breadth and Experience Courses (18 credits)**

#### **Advanced Technique Courses**

• GGS 412 - Air Photography Interpretation Credits: 3

#### **And** three of the following:

- GGS 308 Field Mapping Techniques Credits: 3
- GGS 354 Data Analysis and Global Change Detection Techniques Credits: 3
- GGS 410 Introduction to Hyperspectral Imaging Credits: 3
- GGS 411 Advanced Digital Cartography Credits: 3
- GGS 416 Satellite Image Analysis Credits: 3
- GGS 463 Applied Geographic Information Systems Credits: 3
- GGS 470 Special Topics in Geographic Techniques Credits: 3

#### **Systematic Courses** (one course from the following must be taken):

- GGS 301 Political Geography Credits: 3
- GGS 302 Global Environmental Hazards Credits: 3
- GGS 303 Conservation of Resources and Environment Credits: 3
- GGS 304 Populations Dimensions of Global Change Credits: 3
- GGS 305 Economic Geography Credits: 3
- GGS 306 Urban Geography Credits: 3
- GGS 307 Sustainable Development Credits: 3
- GGS 309 Meteorology and Climate Credits: 3
- GGS 312 Physical Climatology Credits: 3
- GGS 314 Severe and Extreme Weather Credits: 3
- GGS 319 Air Pollution Credits: 3
- GGS 321 Biogeography: Space, Time and Life Credits: 3
- GGS 322 Issues in Global Change Credits: 3
- GGS 357 Structures in Urban Governance and Planning Credits: 3
- GGS 398 Selected Topics in Global Change Credits: 3
- GGS 399 Selected Topics in Geography Credits: 3

#### **Regional Courses** (one course from the following must be taken):

- GGS 315 Geography of the United States Credits: 3
- GGS 316 Geography of Latin America Credits: 3
- GGS 320 Geography of Europe Credits: 3
- GGS 325 Geography of North Africa and the Middle East Credits: 3
- GGS 330 Geography of the Soviet Succession States Credits: 3
- GGS 333 Issues in Regional Geography Credits: 3
- GGS 380 Geography of Virginia Credits: 3

#### **Geography Elective Courses (9 credits)**

- 3 credits of undergraduate-level GGS courses
- 6 credits of 300 or 400-level GGS courses

### **Outside Requirements (11-12 credits)**

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- MATH 113 Analytic Geometry and Calculus I Credits: 4 (Mason Core: Quantitative Reasoning course)
- MATH 114 Analytic Geometry and Calculus II Credits: 4 or IT 207 Applied IT Programming Credits: 3 or STAT 250 - Introductory Statistics I Credits: 3 (fulfills the Mason Core requirement for 'Quantitative Reasoning')
- <u>CS 112</u> <u>Introduction to Computer Programming</u> Credits: 4 (an additional 1 credit information technology ethics course must be taken to completely fulfill the <u>Mason Core</u>: <u>Information Technology</u> requirement. Recommended courses include <u>CDS 151</u> **or** <u>CS 105</u>).

# Mason Core and Elective Credits (58-60 credits)

These 58-60 credits are available to fulfill any remaining <u>Mason Core</u> requirements (outlined below). Once those and all <u>requirements for bachelor's degrees</u> are met, any remaining credits may be completed by elective courses. Students are strongly encouraged to consult with their advisor to ensure that they fulfill all requirements.

#### **Mason Core**

Please note that some Mason Core requirements may already be fulfilled by the major requirements listed above.

Expand each item below for a link to specific course lists for each category:

# **Foundation Requirements (15-19 credits)**

- Mason Core UWCU Written Communication Credits: 6
- Mason Core UOC Oral Communication Credits: 3
- Mason Core UQR Quantitative Reasoning Credits: 3
- Mason Core UITC Information Technology Credits: 3-7

### **Core Requirements (22 credits)**

- Mason Core UFA Arts Credits: 3
- Mason Core UGU Global Understanding Credits: 3
- Mason Core ULIT Literature Credits: 3
- Mason Core UNSL Natural Science Credits: 7
- Mason Core USBS Social and Behavioral Sciences Credits: 3
- Mason Core UWC Western Civilization/Western History Credits: 3

# Synthesis/Capstone Requirement (minimum 3 credits)

Mason Core USYN - Synthesis/Capstone Credits: minimum 3

# **Degree Total: Minimum 120 credits**

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