Program Change Request

Date Submitted: 10/20/23 2:51 pm

Viewing: SC-BA-GEOL : Geology, BA

Last approved: 02/09/22 2:52 pm

Last edit: 03/27/24 2:57 pm

Changes proposed by: jbazaz

Catalog Pages Using this Program

Geology, BA

Are you completing this form on someone else's behalf?

Yes

Requestor:

In Workflow

1. **AOES Curriculum Committee**
2. **AOES Chair**
3. **SC Curriculum Committee**
4. SC Assistant Dean
5. Assoc Provost-Undergraduate
6. Registrar-Programs

Approval Path

1. 03/08/24 2:28 pm Barry Klinger (bklinger): Approved for AOES Curriculum Committee
2. 03/09/24 11:00 am Mark Uhen (muhen): Approved for AOES Chair

History

1. Nov 1, 2017 by clmig-jwehrheim
2. Nov 21, 2017 by clmig-jwehrheim
3. Jan 29, 2018 by rzachari
4. Feb 18, 2021 by jriemen
5. Feb 9, 2022 by Jennifer Bazaz Gettys (jbazaz)

Name	Extension	Email
Stacey Verardo	1045	sverardo@gmu.edu

Effective Catalog: 2024-2025

Program Level: Undergraduate

Program Type: Bachelor's

Degree Type: Bachelor of Arts

Title: Geology, BA

Banner Title: Geology, BA

Registrar/OAPI Use Only – SCHEV Status Approved

Registrar's Office Use Only – Program Start Term

Registrar/OAPI Use Only – SCHEV Letter

Registrar/OAPI Use Only – SACSCOC Status

Concentration(s):

Registrar/IRR Use Only – Concentration CIP Code

College/School: College of Science

Department / Academic Unit: Atmospheric, Oceanic, & Earth Sciences

Jointly Owned Program? No

Justification

What: The major and the related concentrations were updated to elide the extraneous courses and offer the student a focused GEOL program.
Why: These updates were created to make a smoother and more streamlined degree path toward graduation.

What: Updating GPA requirement.
Why: To keep all AOES undergraduate degrees consistent.

Total Credits Required: Total credits: minimum 120

Registrar's Office Use Only - Program Code:

SC-BA-GEOL

Registrar/IRR Use Only – Program CIP Code

Admission Requirements:

Admissions

University-wide admissions policies can be found in the Undergraduate Admissions Policies section of this catalog.
To apply for this program, please complete the George Mason University Admissions Application.

Program-Specific Policies:

Policies

Students must fulfill all Requirements for Bachelor's Degrees including the Mason Core.
GEOL 317 Geomorphology (Mason Core) fulfills the writing intensive requirement for this major.
For policies governing all undergraduate degrees, see AP.5 Undergraduate Policies.

Degree Requirements:

This is a Green Leaf program.
Students should refer to the Admissions & Policies tab for specific policies related to this program.
Candidates for a degree in geology must complete all courses with a minimum GPA of 2.30. ~~2.50.~~

Geology Core

GEOL 101	Physical Geology (Mason Core)	4
& GEOL 103	and Physical Geology Lab (Mason Core)	
GEOL 102	Historical Geology (Mason Core)	4
& GEOL 104	and Historical Geology Laboratory (Mason Core)	
GEOL 302	Mineralogy	4
GEOL 304	Sedimentary Geology	4
GEOL 308	Igneous and Metamorphic Petrology	4
GEOL 312	Invertebrate Paleontology	4
GEOL 317	Geomorphology (Mason Core) 2	4
GEOL 401	Structural Geology	4
~~Six credits of~~		~~6~~
GEOL 404	Geological Field Techniques 3	6
Total Credits		38

2

Fulfills writing-intensive requirement.

3

A 6-credit geology field camp may be substituted for this requirement; see advisor for details.

Geology Electives

Students must select a minimum of 9 credits in geology or geology-related coursework from the following:9

GEOL 303	Field Mapping Techniques	
GEOL 305	Environmental Geology (Mason Core)	
GEOL 306	Soil Science	
GEOL 309	Oceanography	
GEOL 313	Hydrogeology	
GEOL 320	Geology of Earth Resources	
GEOL 321	Geology of Energy Resources	
GEOL 325	Planetary Geology	
GEOL 332	Paleoclimatology	
GEOL 334	Vertebrate Paleontology (Mason Core)	
GEOL 340	Modern Methods in Geology	
GEOL 363	Coastal Morphology and Processes	
GEOL 364	Marine Geology	
GEOL 392	Geology and Earth Science Seminar	
GEOL 403	Geochemistry	
GEOL 412	Physical Oceanography	
GEOL 417	Geophysics	
GEOL 420	Earth Science and Policy (Mason Core)	
GEOL 441	Great Events in Earth History	
Total Credits		9

Chemistry

CHEM 211	General Chemistry I (Mason Core)	3
CHEM 213	General Chemistry Laboratory I (Mason Core)	1
Total Credits		4

Physics

Select one from the following:		4
PHYS 160	University Physics I (Mason Core)	
& PHYS 161	and University Physics I Laboratory (Mason Core)	
PHYS 243	College Physics I (Mason Core)	
& PHYS 244	and College Physics I Lab (Mason Core)	
Total Credits		4

Mathematics

Select one from the following:		3-6
MATH 110	Introductory Probability (Mason Core)	
MATH 111	Linear Mathematical Modeling (Mason Core)	
MATH 113	Analytic Geometry and Calculus I (Mason Core)	
or MATH 123	Calculus with Algebra/Trigonometry, Part A	
& MATH 124	and Calculus with Algebra/Trigonometry, Part B (Mason Core)	
Total Credits		3-6

Computer Science

Select one course from the following:		3
CDS 130	Computing for Scientists (Mason Core)	
GGS 311	Geographic Information Systems	
Total Credits		3

~~Program Courses~~

~~Students must take an additional 9 credits of GEOL or geology-related coursework. While any GEOL course numbered 300-499 is permissible if not used to fulfill other BA requirements, suggested courses include: 1~~		~~9~~
~~GEOL 303~~	~~Field Mapping Techniques~~	
~~GEOL 305~~	~~Environmental Geology (Mason Core)~~	
~~GEOL 306~~	~~Soil Science~~	
~~GEOL 309~~	~~Oceanography~~	
~~GEOL 313~~	~~Hydrogeology~~	
~~GEOL 320~~	~~Geology of Earth Resources~~	
~~GEOL 321~~	~~Geology of Energy Resources~~	
~~GEOL 325~~	~~Planetary Geology~~	
~~GEOL 332~~	~~Paleoclimatology~~	
~~GEOL 334~~	~~Vertebrate Paleontology (Mason Core)~~	
~~GEOL 363~~	~~Coastal Morphology and Processes~~	
~~GEOL 364~~	~~Marine Geology~~	
~~GEOL 403~~	~~Geochemistry~~	
~~GEOL 412~~	~~Physical Oceanography~~	
~~GEOL 417~~	~~Geophysics~~	
~~GEOL 420~~	~~Earth Science and Policy (Mason Core)~~	
~~GEOL 441~~	~~Great Events in Earth History~~	
~~GEOL 458~~	~~Chemical Oceanography~~	
~~Total Credits~~		~~0~~

~~1Other relevant courses may be applied to the program with the approval of the program's director.~~

Retroactive Requirements

Updates:

Plan of Study:

Honors Information:

Honors in the Major

Earth science and geology majors who have completed 16 credits of math and science, including GEOL 302 Mineralogy with a GPA of 3.00 or higher are eligible to enter the departmental honors program. Transfer students who have an incoming GPA of 3.10 or higher in math and science and a grade of 'B' or better in GEOL 302 Mineralogy are also eligible. To graduate with honors in Earth Science, students are required to maintain a minimum GPA of 3.00 in math and science courses and complete one of the two following sets of courses with an average GPA of 3.50 or better:

First Set of Courses

GEOL 410	Research Proposal Preparation	1
GEOL 411	Geological Research	3
GEOL 420	Earth Science and Policy (Mason Core)	3

Second Set of Courses

CLIM 408	Senior Research (Mason Core)	3
CLIM 409	Research Internship	3
GEOL 420	Earth Science and Policy (Mason Core)	3

Program Outcomes

Additional Program Information

This information is required by the Office of Accreditation and Program Integrity.

Courses offered via distance (if applicable):

What is the primary delivery format for the program? Face-to-Face Only

Does any portion of this program occur off-campus?

No

Are you working with a vendor / other collaborators to offer your program?

No

Related Departments

Could this program prepare students for any type of professional licensure, in Virginia or elsewhere?

No

Are you adding or removing a licensure component?

No

Additional SCHEV & SACSCOC Information

Is this change a simple retitling of an existing program, with no other changes, to any existing program content, curriculum requirements, etc?

No

Does this change represent a repackaging of content in an existing approved degree/certificate program at the same instructional level (i.e., baccalaureate, master's, or doctoral)?

No

Percentage of total credits containing new course content. ("New course content" is defined by SACSCOC as content that is not currently included in an existing approved degree/certificate program at the same instructiona level. Do not exclude gen ed credits in calculations for undergraduate programs.)

0%-24%

Does this change include the addition of a distance education or face-to-face method of delivery for this program?

No

Does this change include the addition of a course/credit-based competency-based education delivery option?

No

Will any additional equipment/facilities be needed?

No

Will any additional faculty be required?

No

Will any additional financial resources be needed?

No

Additional library/learning resources needed?

No

OAPI Use Only – Determination of SACSCOC Impact

Comments or Notes

Green Leaf Program Designation

Is this a Green Leaf program?	Yes
Green Leaf Designation	Sustainability-focused designation

Sustainability-focused academic programs require at least one green leaf course. Either that course is itself sustainability-focused or else the program requires a set of sustainability-related courses with aggregated substance equivalent to a sustainability-focused course.

Relationship to Existing Courses

Relationship to Existing Programs

List sustainability-focused courses currently required in the degree program:

Does this program cover material which crosses into another department?

No

Additional Attachments

SCHEV Proposal

Executive Summary

Reviewer Comments

Additional Comments

Is this course required of all students in this degree program?

%wi_required.eschtml%

Key: 152