

Program Change Request

Date Submitted: 12/04/24 4:01 pm

Viewing: **SC-BA-GEOL : Geology, BA**

Last approved: 04/29/24 12:46 pm

Last edit: 12/04/24 4:01 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. 12/10/24 2:54 pm
Barry Klinger
(bklinger):
Approved for AOES Curriculum Committee
2. 12/10/24 3:57 pm
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)

6. Apr 29, 2024 by
Jennifer Bazaz
Gettys (jbazaz)

Name	Extension	Email
Barry Klinger	5302	bklinger

Effective Catalog: 2025-2026

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 GEOL BA curriculum is being updated and modernized.

Why: In order to provide flexibility for students in their academic pursuits and to reflect the requirements of a successful professional career.

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 core courses with a minimum GPA of 2.30.

Geology Core

GEOL 101 & GEOL 103	Physical Geology (Mason Core) and Physical Geology Lab (Mason Core)	4
GEOL 102 & GEOL 104	Historical Geology (Mason Core) and Historical Geology Laboratory (Mason Core)	4
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) ¹	4
GEOL 401	Structural Geology	4
GEOL 404	Geological Field Techniques²	6
Total Credits		32

¹

Fulfills writing-intensive requirement.

²A 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~~

Students must select a minimum of 15 credits in geology or geology-related coursework from the following: 15

Option One

[GEOL 404](#) [Geological Field Techniques](#)

Select three courses from the Geology Electives list below

Option Two

Select five courses from the Geology Electives list below

Geology Electives

[GEOL 301](#) [Geological Field Experience](#)

[GEOL 303](#) Field Mapping Techniques

[GEOL 305](#) Environmental Geology ([Mason Core](#)).

[GEOL 306](#) Soil Science

[GEOL 309](#) Oceanography

[GEOL 313](#) Hydrogeology

[GEOL 320](#) Resource Geology

[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 404	Geological Field Techniques	
GEOL 412	Physical Oceanography	
GEOL 417	Geophysics	
GEOL 420	Earth Science and Policy (Mason Core)	
GEOL 441	Great Events in Earth History	

Total Credits

15

Chemistry

CHEM 211 & CHEM 213	General Chemistry I (Mason Core) and General Chemistry Laboratory I (Mason Core)	4
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Total Credits

4

Physics

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

**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

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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 instructional 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?

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