

B.S. in Geology

Academic Program Guide for New First-Year Students (Effective Fall 2019) Department of Geology (geology@rowan.edu)

Students who entered Rowan University prior to Fall 2019 should follow the guide for their program and start year in consultation with their advisor.

Rowan University Graduation Requirements for all Majors / Degrees

- Students must complete at least 120 semester hours (sh) of coursework that apply to their Rowan University degree.
- Students must have a cumulative GPA of at least 2.0 in Rowan University coursework. (Transfer courses/credit do not count toward the RU GPA.)
- A minimum of 30 sh of coursework must be completed at/through Rowan University.
- Only grades of "D-" or above may apply to graduation/degree requirements. (Some programs may set higher minimums.)
- Students must meet the Rowan Core and Rowan Experience Requirements.
 - An individual course can potentially satisfy one Rowan Core literacy and/or multiple Rowan Experience attributes.
 - Rowan Core & Rowan Experience designations are listed in course details in Section Tally (www.rowan.edu/registrar) and may also be searched on that site under "Attributes." A list of Rowan Core courses is here: <https://confluence.rowan.edu/display/AS/Rowan+Core+Course+List>.
- Students must apply for graduation and should do so for the term in which they will complete all program requirements.

Program-Specific Graduation Requirements for this Major / Degree

- Students must receive a grade of C or better in all courses satisfying Non-Program and Major requirements.

Rowan Core Requirements¹

Students must satisfy all **six** Rowan Core Literacies. A minimum total of 3 sh of coursework is required to satisfy each Literacy.

With the exception of the 9 sh counted here for Communicative Literacy, credits attached to the courses in this section will apply elsewhere.

- (COML) Communicative Literacy: *Must be met by the following three courses or their official equivalents:*
 - COMP 01111 College Composition I (3 sh) COMP 01112 College Composition II (3 sh) CMS 04205 Public Speaking (3 sh)
- (ARTL) Artistic Literacy *Recommendation from major:*
- (GLBL) Global Literacy *Recommendation from major:* GEOG 16100 (3 sh counted under non-program)
- (HUML) Humanistic Literacy *Recommendation from major:*
- (QNTL) Quantitative Literacy *Recommendation from major:* STAT 02260, MATH 01130 (3 or 4 sh counted under non-program)
- (SCIL) Scientific Literacy *Recommendation from major:* CHEM 06100, BIOL 01104 or PHYS 00211 (4 sh counted under non-program)

Subtotal of credits counted in this section: 9 sh

Rowan Experience Requirements

Students must satisfy all three Rowan Experience attributes. Credits attached to the courses in this section will apply elsewhere.

- (LIT) Broad-Based Literature Attribute *Recommendation from major:*
- (WI) Writing Intensive Attribute *Recommendation from major:* Suggestion for 2020-2021 coming soon.
- (RS) Rowan Seminar Attribute² *Recommendation from major:*

Non-Program Courses (minimum 30 sh)

Courses in this section cannot be in the major department.

Course #	Course Name	Course Attributes / Notes	Sem/Yr	Grade	Credits
GEOG 16100	Earth, People, and the Environment	Satisfies Global Literacy			3
STAT 02260	Statistics I	Satisfies Quantitative Literacy			3
CHEM 06100	Chemistry I	Satisfies Scientific Literacy			4
MATH 01130	Calculus I	Satisfies Quantitative Literacy			4
MATH 01131	Calculus II				4
CHEM 06101	Chemistry II				4
PHYS 00210	Physics I				4
BIOL 01104 or PHYS 00211	Introduction to Evolution and Scientific Inquiry or Physics II	Satisfies Scientific Literacy			4
					Subtotal: 30 sh

¹ The Rowan Core requirements are waived for transfer students with an earned A.A. or A.S. degree from a NJ community/county college.

² The Rowan Seminar requirement is waived for all students transferring 24 or more approved credits into Rowan University at the time of initial entry.

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Major Requirements (75 sh)

SUMMARY OF MAJOR REQUIREMENTS

- 8 sh of Year-One Required Courses
 - 16 sh of Year-Two Required Courses
 - 22 sh of Year-Three Required Courses
 - 6 sh of Year-Four Required Courses
 - 16 sh of Geology Concentration Electives
 - 6-8 sh of Restricted Geology Electives
-
- 74-76 sh total

YEAR-ONE REQUIRED COURSES

Course #	Course Name	Course Attributes / Notes	Sem/Yr	Grade	Credits
GEOL 01101	Physical Geology				4
GEOL 01102	Earth Through Time				4
Subtotal: 8 sh					

YEAR-TWO REQUIRED COURSES (YEAR ONE REQUIRED COURSES ARE PREREQUISITE)

Course #	Course Name	Course Attributes / Notes	Sem/Yr	Grade	Credits
GEOL 01201	Mineralogy and Petrology				4
GEOL 01210	Invertebrate Paleontology				4
GEOL 01230	Paleoclimatology				4
GEOL 01240	Introduction to Field Methods				4
Subtotal: 16 sh					

YEAR-THREE REQUIRED COURSES

Course #	Course Name	Course Attributes / Notes	Sem/Yr	Grade	Credits
GEOL 01311	Vertebrate Paleontology				4
GEOL 01320	Sedimentology and Stratigraphy				4
GEOL 01340	Structural Geology				4
GEOL 01340	Basin Analysis				4
GEOL 01400	Practical Experience in Geology				6
Subtotal: 22 sh					

YEAR-FOUR REQUIRED COURSES

Course #	Course Name	Course Attributes / Notes	Sem/Yr	Grade	Credits
GEOL 01450	Senior Seminar in Geology				2
GEOL 01460	Current Research in Geology				2
GEOL 01470	Research Experience in Geology				2
Subtotal: 6 sh					

GEOLOGY CONCENTRATION ELECTIVES

Choose 16 sh of courses from the following bank.

	Course #	Course Name	Course Attributes / Notes	Sem/Yr	Grade	Credits
<input type="radio"/>	GEOL 01105	Selected Topics in Geology				3
<input type="radio"/>	GEOL 01110	Dinosaurs and Their World				3
<input type="radio"/>	GEOL 01111	Edelman Fossil Park Experience				4
<input type="radio"/>	GEOL 01112	Motion of Life				3
<input type="radio"/>	GEOL 01120	Earthquakes and Volcanoes				3
<input type="radio"/>	GEOL 01131	Earth in Transition: The Science Behind Global Climate Change				3
<input type="radio"/>	GEOL 01133	Climate, Catastrophes, Civilization, and Collapse				3
<input type="radio"/>	GEOL 01136	Water Planet: Exploring the Hydrosphere				3
<input type="radio"/>	GEOL 01150	Voyager: The Exploration of Space				3
<input type="radio"/>	GEOL 01250	Ocean-Atmosphere Interactions				4
<input type="radio"/>	GEOL 01301	Advanced Field Methods				4

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<input type="radio"/>	GEOL 01303	Advanced Topics in Geology				3
<input type="radio"/>	GEOL 01310	Paleontology Laboratory Techniques				4
<input type="radio"/>	GEOL 01312	Dinosaur Paleontology				4
<input type="radio"/>	GEOL 01350	Advanced Petrology				4
<input type="radio"/>	GEOL 01411	Paleoecology				4
<input type="radio"/>	GEOL 01412	Macroevolution in the Fossil Record				4
<input type="radio"/>	GEOL 01413	Paleobiology				4
<input type="radio"/>	GEOL 01431	Hydrogeology				4
<input type="radio"/>	GEOL 01435	The Ice Ages and Quaternary Geology				4
						Subtotal: 16 sh

RESTRICTED GEOLOGY ELECTIVES

Choose 7 sh of courses from the following bank.

	Course #	Course Name	Course Attributes / Notes	Sem/Yr	Grade	Credits
<input type="radio"/>	GEOL 01303	Advanced Topics in Geology		3		
<input type="radio"/>	GEOL 01410	Taphonomy		4		
<input type="radio"/>	GEOL 01440	Geochronology and Thermochronology		4		
<input type="radio"/>	GEOL 01430	Climate Variability and Diagnostics		4		
						Subtotal: 7 sh

Free Electives for this Major/Degree (6 sh)

Students should choose Free Electives that satisfy any Rowan Core or Rowan Experience requirements that are not fulfilled by Major or Non-Program courses.

Course #	Course Name	Course Attributes / Notes	Sem/Yr	Grade	Credits	
						Subtotal: 6 sh

Total Program Credits Required for this Major / Degree: 120 SH