

James Madison University Bachelor of Science (B.S.) in Geology or Bachelor of Arts (B.A.) in Earth Science*

Associate Transfer Degree Plan in Geology

TRANSFER GUIDE
Catalog Years: 2025-2028

COURSE REQUIREMENTS

Complete at VCCS				Complete at JMU		
BACHELOR'S DEGREE REQUIREMENT	SATISFIED BY			BACHELOR'S DEGREE REQUIREMENT		
Course	Credits	CC Course	Notes	Course	Credits	Notes
UNST 000	1-2	SDV 100 College Success Skills or 101 Orientation		Required for both the BS Geology and BA Earth Science degrees:		
WRTC 000	3	ENG 111 College Comp I	ENG 111 + ENG 112 (Both must be completed for transfer credit for WRTC 103)	GEOL 230	4	Evolution of Earth
WRTC 103**	3	ENG 112 College Comp II or ENG 113 Tech-Prof Writing		GEOL 291	1	Writing and Communication in the Geosciences
JMU General Education Requirements**	3	Any UCGS Art or Humanities	These two courses must come from two different disciplines. PHI 100 recommended, which is required for the B.A. degree in Earth Science*.	GEOL 377	3	Earth Surface Processes
	3	Any UCGS Art, Humanities, or Literature		GEOL 491/494/497/499 Research Requirement	2-6	Students choose an approved independent research project or internship (research with JMU faculty, internships at government agencies or companies, honors thesis, etc.)
	3	Any UCGS Social & Behavioral Sciences (not History)				
	3	Any UCGS History		Additional Requirements for the BS in Geology:		
Calculus I	3-5	MTH 261 Applied Calculus I or MTH 263 Calculus I	If pursuing B.S. in Geology*, take MTH 263 (= MATH 235 at JMU) If pursuing B.A. in Earth Science*, take MTH 261 or 263 (=MATH 205 or 235 at JMU)	GEOL 280	4	Mineralogy
				GEOL 300	4	Petrology - Taken after GEOL 280
GEOL 110 + 110L	4	GOL 105 Physical Geology		GEOL 330	4	Sedimentology, Stratigraphy, & Paleoclimatology
CHEM 131 + 131L	4	CHM 111 Gen Chemistry I		GEOL 365	4	Structural Geology, Tectonics, & Climate
CHEM 132 + 132L	4	CHM 112 Gen Chemistry II		GEOL 399: Field Geology	4-6	Required summer course of at least 4 weeks. Take the JMU course or a course approved at another university.

Additional coursework in biology or physics	8	Geology B.S. ● PHY 201 & PHY 202 College Physics I + II or PHY 241 & PHY 242 University Physics I + II Earth Science B.A. ● PHY 201 or PHY 241 College / Univ Physics I ● BIO 101 General Biology	Choose science courses at left based on whether you are pursuing the B.S. in Geology or B.A. in Earth Science	Upper-Level Geology Electives	12	Choose from four elective concentrations: 1. Environmental and Engineering Geology 2. Life, Ocean, and Climate 3. Solid Earth and Tectonics 4. General Geology
Other major requirements, degree requirements, or electives	8-20	Math prerequisites if needed	MTH 161, MTH 161+162, or MTH 167 may be needed as a prerequisite for calculus.	Additional Requirements for the BA in Earth Science:		
		MTH 155 or 245 if needed	Students pursuing a B.S. in Geology must take MATH 220 at JMU or satisfy the statistics requirement through transfer by taking MTH 155 or 245.	Degree requirement		Intermediate level world language (232), if not completed at VCCS
		World Language if needed	Students pursuing a B.A. in Earth Science need two total math courses. If you completed a prerequisite for calculus, you will have satisfied this requirement. If not, take another UCGS math course.	GEOL 167	3	History and Philosophy of the Geosciences
		Additional geology, science or transfer electives to fulfill the 60-62 credit requirement to earn the associate degree. Options include the courses below or any others:	Students pursuing the B.A. in Earth Science must fulfill world language through the intermediate level (202 at VCCS; 232 at JMU). Complete this requirement before transfer if possible; if not, you can finish at JMU.	GEOL 211 or 401	3	Oceanography (if didn't already complete GOL 111 at VCC)
		BIO 101 Gen Bio I BIO 102 Gen Bio II	GOL 111 = GEOL 211, Intro to Oceanography, which may help students pursuing the B.A. Earth Science major.	GEOL 307 or ASTR 220	3	Planetary Geology
		GOL 110 Earth Systems GOL 207 Mineralogy	CST 100 or CST 110 is recommended as a transfer elective if you have time. You may also choose other transfer electives that interest you.	GEOL 320	4	Meteorology
		GOL 299 Geology Capstone		GEOL 330 or 365		Sedimentology, Stratigraphy, and Paleoclimatology or Structural Geology, Tectonics, and Climate
		PHY 201 & 202 College Physics I & II		GEOL 367	4	Genesis of Solid Earth Materials
		PHY 241 & 242 University Physics I & II		GEOL 477	4	Contemporary Issues in Geosciences
		University Electives:				
		Additional electives or courses toward another major or minor may be needed in either the BA Earth Science or the BS Geology majors to reach the minimum credit requirements for graduation (30 from JMU; 60 from a 4-year; 120 total credits).				
CREDITS PRE-TRANSFER: 60-62				CREDITS POST-TRANSFER: 60		

* If you aren't sure whether the Earth Science or Geology is the better major for you, read the transfer guidance below to learn more about each of them.

** Students who complete an approved transferable associate degree will qualify for a full waiver of general education requirements at JMU. Students who will not be earning an approved transferable associate degree should complete core community college requirements with courses that also satisfy area requirements in JMU's general education program. For example, the WRTC 103 requirement can only be filled with ENG 111+112 at VCCS. Learn more about JMU general education equivalents offered at VCCS at www.jmu.edu/transfer/vccs-transfer/genedequiv.shtml. Email transferadvising@jmu.edu with questions.

TRANSFER GUIDANCE

Admission into the Geology or Earth Science majors at James Madison University:

Students who meet the requirements for guaranteed admission to JMU are guaranteed admission into the Geology or Earth Science major. You do not necessarily need to have taken all courses on the transfer guide to be able to complete the major within two years of transferring to JMU with your associate degree. This guidance may help with your planning:

- Students must complete an approved transferable associate degree from their Virginia community college with a minimum GPA of 3.0 for guaranteed admission to JMU. Students who do not qualify for guaranteed admission are encouraged to apply to JMU through the regular admission process. For additional details about requirements for guaranteed admission, please see the JMU letter of intent for your community college: www.jmu.edu/admissions/apply/transfer-gaa.shtml.
- Have you discovered a love of geology or environmental science later in your VCCS studies and don't have time to finish the course recommendations listed above? That's ok! Try to complete GOL 105 or 110 and some science cognates (chemistry and/or physics) and Calculus I or Statistics before transfer, if possible.

IMPORTANT LINKS & DATES:

- **University Transfer Center:** www.jmu.edu/transfer
- **Register Intent to Transfer:** Transfer applicants from a VCCS institution intending to apply through the Guaranteed Admission Agreement (GAA) must review requirements and submit a Letter of Intent prior to applying: www.jmu.edu/admissions/apply/transfer-GAA.shtml.
- **Admission Application:** By March 1 for Fall or October 15 for Spring at www.jmu.edu/admissions/apply/apply-online.shtml
- **Financial Aid:** www.jmu.edu/financialaid
- **FAFSA** - Free Application for Federal Student Aid: Deadline is March 1. Learn more at studentaid.gov.

WHAT SHOULD I CONSIDER WHEN SELECTING COURSES?

- Create a schedule for all required courses, pay attention to prerequisites and when courses are offered, complete your first math and English courses in your first year. For help, see Transfer Steps and Resource Center at www.TransferVirginia.org.
- Connect with an advisor at your community college and schedule an appointment with a [JMU Next transfer advisor](#) in your first semester or first year.



IS THIS DEGREE RIGHT FOR ME?

Geology: This degree is ideal for students with interests in climate science, environmental and engineering geology, and solid Earth processes like volcanoes, earthquakes, and plate tectonics. The Geology degree includes specialized upper-level courses involving modern analytical equipment, data analysis and visualization, and field experiences. Each student in this degree

program completes a research project on a topic of interest, mentored by one or more faculty members, with opportunities for collaborations outside the university. Research opportunities include paid summer research programs outside JMU and potential internships at government agencies and private companies. The Geology degree has a 4-6 credit hour summer field capstone course requirement that is generally taken between the 3rd and 4th year, or in the summer after the 4th year. Any approved field course can be used to fulfill the requirement. Students of varied abilities are welcome to participate in field courses.

Earth Science: This degree is ideal for students with interests in environmental and climate science including meteorology and ocean sciences, public policy and outreach, and high school teaching. This degree includes flexible general elective credits which can be used towards fulfilling a minor or second major in a related topic of interest. Electives can include study abroad or field courses, if interested. Each student in this degree program completes a research project on a topic of interest, mentored by one or more faculty members, with opportunities for collaborations outside the university. Research opportunities include paid summer research programs outside JMU and potential internships at government agencies and private companies.

Minors in Climate Science, Environmental Science, Environmental Studies, Environmental Humanities, Environmental Management, and Environmental Information Systems: A minor can be earned in addition to one of the degrees above and may help transfer students fulfill the JMU credit hour requirement. See <https://www.jmu.edu/environment/index.shtml> for descriptions of these minors.

WHAT IS THE IMPACT ON MY DEGREE OF WORK I HAVE ALREADY COMPLETED?

- **Associate Transfer Degree Completion:** An approved transferable associate degree from a Virginia Community College will waive general education requirements at JMU. The list of approved transferable associate degrees can be found at www.jmu.edu/transfer/vccs-transfer/asdegrees.shtml.
- **Dual Enrollment – Completion of Associate Degree in HS:** Students who complete a transferable associate degree from a Virginia Community College through Dual Enrollment (DE) will not be eligible for guaranteed admission but will receive the general education waiver at JMU. DE associate degree earners who want to make progress toward their intended major should follow the curriculum in this guide.
- **Credit for Prior Learning:** Credit for prior learning may be awarded differently at JMU than at your previous institution. JMU accepts and reviews AP, IB CIE, and CLEP examinations for all students with eligible scores. JMU will complete an independent review of the test score to apply credit to your JMU student record. Other credit for prior learning is awarded on a per case basis for the ADP and RN-BSN programs in consultation with the department of expertise. Credit for learning acquired in military service is awarded by the registrar's office using the ACE guide credit recommendation for study/experience listed on the military transcript and in consultation with the department of expertise.
- **Catalog Year:** Catalog year determined by first semester of attendance at JMU.

IS THIS COLLEGE RIGHT FOR ME?

JMU is a mid to large size institution that behaves more like a smaller institution. Faculty and staff hold students as the top priority. JMU has a 96% satisfaction rate. 88% of classes have fewer than 50 students. JMU is the #1 most recommended public University in the US by the Wall Street Journal and Times Higher Education; JMU is the #1 Best College for Employment in Virginia according to U.S. Department of Education statistics compiled by Zippia. JMU has the highest post-graduation job levels of all Virginia colleges. Learn more about our college at www.jmu.edu and www.TransferVirginia.org.

DID YOU KNOW THAT ...

- There is no limit to the number of credits you can transfer to JMU, but 50% of the credits required for graduation in your major must be taken at a 4-year college or university, and 25% must be taken at JMU. (Most JMU majors require 120 credits, so 60 must come from a 4-year and 30 must be taken at JMU.)
- Completing your Associate transfer degree post-high school satisfies all lower division general education requirements and increases the chance of completing your bachelor's degree.
- Exceeding 3 years or 90 credits at your community college means you may have exhausted your financial aid at that college and have limited your future financial aid at JMU.
- Students who may be eligible for Virginia's Two-Year College Transfer Grant should transfer in the fall or spring immediately following the completion of their associate degree. Learn more about the state transfer grant here: <https://www.schev.edu/financial-aid/financial-aid/federal-state-financial-aid/two-year-college-transfer-grant>.

WHAT CAN I DO WITH THIS DEGREE?

The Geology or the Earth Science major can prepare you for a range of different career opportunities. The U.S. Bureau of Labor Statistics offers great resources for learning about careers in [geology](#) and [environmental sciences](#). Explore possible careers, salaries, and job outlook at www.TransferVirginia.org.

PROGRAM SUCCESSES & HIGHLIGHTS

The Department of Geology and Environmental Science has an excellent collection of modern analytical equipment for laboratory and field work and is known as a premier undergraduate geosciences program with nationally recognized faculty in a range of research subdisciplines.

Geology: JMU Geology students are highly sought after for field and analytical skills, as well as research and teaching experience provided through our program. Students graduating from JMU with a B.S. in Geology either enter graduate school or immediately find employment in

environmental and engineering consulting firms, the energy industry, or public outreach and teaching positions. Students admitted to graduate programs in the geosciences typically have tuition fully waived and are also provided a stipend for being a research or teaching assistant.

Earth Science: Students graduating from JMU with a B.A. in Earth Science can enter a wide range of careers or graduate programs according to their interests. These have included environmental law, environmental public policy and outreach, and high school and middle school teaching.

WHAT ARE MY CHANCES FOR GETTING ACCEPTED?

- Generally, two-thirds of transfer applicants are admitted to JMU. Competitive applicants will have mostly As & Bs and have completed at least one class in each of our four core areas (English, mathematics, lab science, and social science).
- JMU defines a transfer student as a student that has graduated from high school (or holds a GED equivalency) AND has taken courses in college after high school graduation.
- Learn more about applying at <https://www.jmu.edu/transfer/> or www.TransferVirginia.org.

DO MORE WITH YOUR DEGREE!

Geology: Students choose one of three concentration options for upper-level electives to focus their interests. These are: 1) Life, Ocean, and Climate Science, 2) Environmental and Engineering Geology, and 3) Solid Earth and Tectonics. Students may also choose to minor in related disciplines including astronomy, data analytics, mathematics, environmental science, and anthropology. Undergraduate students have opportunities to serve as paid course assistants and to participate in spring break and summer field programs. As part of the required research experience, students may choose to present their findings at regional or national meetings, gaining further experience and connections that place them at an advantage for admission into graduate programs and employment.

Earth Science: Undergraduate students have opportunities to serve as paid course assistants and/or participate in spring break and summer field programs. This degree includes flexible general elective credits which can be used towards fulfilling a minor or second major in a related topic of interest. Some students elect this degree together with an Education minor for preparation to be middle or high school Environmental and Earth Science teachers. As part of the required research experience, students may choose to present their findings at regional or national meetings, gaining further experience and connections that place them at an advantage for admission into graduate programs and employment.

OTHER THAN CLASSES, ARE THERE OTHER PROGRAM REQUIREMENTS?

GEOL 399, the field course for the BS in Geology, is a summer course, so it requires students to pay for summer school. We offer many scholarships to help offset the cost thanks to very generous JMU alumni.

