



GENERAL INFORMATION

Geoscientists study the composition, structure, and other physical aspects of the Earth. Geoscientists usually study, and are subsequently classified in, one of several closely related fields of geoscience, including geology, geophysics, and oceanography. Geologists study the composition, processes, and history of the Earth. They try to find out how rocks were formed and what has happened to them since formation. They also study the evolution of life by analyzing plant and animal fossils. Geophysicists use the principles of physics, mathematics, and chemistry to study not only the Earth's surface, but also its internal composition; ground and surface waters; atmosphere; oceans; and its magnetic, electrical, and gravitational forces. Oceanographers use their knowledge of geology and geophysics, in addition to biology and chemistry, to study the world's oceans and coastal waters and how their physical and chemical properties affect coastal areas, climate, and weather.

Geoscientists can spend a large part of their time in the field identifying and examining rocks, studying information collected by remote sensing instruments in satellites, conducting geological surveys, constructing field maps, and using instruments to measure the Earth's gravity and magnetic field. For example, they often perform seismic studies, which involve bouncing energy waves off buried rock layers, to search for oil and gas or understand the structure of subsurface rock layers. Seismic signals generated by earthquakes are used to determine the earthquake's location and intensity. Seismic technology is also used by geoscientists employed in the mining, oil or gas industries.

In laboratories, geologists and geophysicists examine the chemical and physical properties of specimens. They study fossil remains of animal and plant life or experiment with the flow of water and oil through rocks. Some geoscientists use two- or three-dimensional computer modeling to portray water layers and the flow of water or other fluids through rock cracks and porous materials. They use a variety of sophisticated laboratory instruments, including x ray diffractometers, which determine the crystal structure of minerals, and petrographic microscopes, for the study of rock and sediment samples.

Quoted and adapted from the Occupational Outlook Handbook, April 2007
<http://stats.bls.gov/oco/ocos288.htm>

➔ **Getting started in the sciences? Look for a special option at EvCC called Learning Communities. Geology and Oceanography are linked with ENGL& 101 and 102, enabling you to build well-rounded science skills and knowledge. Ask your advisor!**

OPTIONS

Start your pursuit of the geological sciences at EvCC, then transfer to a university for your bachelor's degree. Advanced degrees are usually needed to work as a professional. Study in Geoscience is also valuable to support other majors, such as environmental studies or certain fields in engineering. Because of our unique location in the Pacific Northwest, study in Geoscience can also enhance your personal enjoyment and understanding of the natural world around us, including ancient sedimentary deposits, glaciers, volcanoes and earthquake zones.

EvCC offers two degrees that are part of a statewide agreement that smooths the transfer process for students. Both degrees offer qualified students priority for admission with junior status at most 4-year institutions in Washington. Students interested in colleges and universities outside of Washington may also find the requirements of these degrees to be appropriate.

The **Associate of Science** degree requires that the student complete all freshman and sophomore math and science courses and a limited number of courses in English, Humanities and Social Science. Upon transfer, the student will be eligible for junior level science courses, but will need to complete the remaining distribution requirements before graduation with a baccalaureate degree.

The **Associate of Arts and Sciences - Option II** degree enables the student to complete basic distribution requirements in Math, English, Humanities, Social Sciences and Natural Sciences, and to begin the major course of study. However, the student will have to take additional freshman and sophomore level science courses at the university before being eligible for junior level courses in a science major.

CAREER OPTIONS

Research, teaching, natural resource exploration, environmental studies, and engineering are some of the fields where geologists find employment. According to the Occupational Outlook Handbook, the median salary for geologists is about \$68,730; variation is great due to differing professional qualifications and types of employment. The average starting salary for college graduates is about \$39,365.

SUGGESTED PREPARATION

To begin college study in the geological sciences, students should have solid writing and communication skills, a strong algebra background, and high school courses in biology, chemistry and physics. Students who do not have that background may gain it at the community college before starting the courses that will count toward their degree.

GETTING STARTED AT EVCC

Our Enrollment Services Office provides information about application, advising, orientation and registration for new and continuing students. Though advising is voluntary, all prospective and current students are invited to contact the Enrollment Services Office or the Counseling Advising and Career Center (CACC) if they would like to speak one-to-one with an advisor about getting started.

Contact:

- ❑ Enrollment Services, Jackson Ctr, 425-388-9219
admissions@everettcc.edu
- ❑ CACC, Third Floor, Parks Bldg. 435-388-9263

PROGRAM ADVISORS

To plan your course of study and discuss your interests, we strongly encourage you to contact an advisor:

Steve Grupp, Whitehorse 214, 425-388-9450,
sgrupp@everettcc.edu

TRANSFER INFORMATION

Preparing for transfer in the sciences requires careful attention to the requirements of the university you wish to attend. We strongly recommend that you review catalogs of a variety of schools, as well as their websites. Work with your advisor at EvCC to discuss which courses to take, and which degree option is best for you.

Everett Community College is now part of the Pacific Northwest Seismograph Network (PNSN), a joint venture of the U.S. Geological Survey, the U.S. Dept of Energy, and the State of Washington. The seismograph was installed in an underground location, north of Baker Hall, and sends data to U.W. via an Internet connection. You can monitor our location, using the following Website address:

http://www.pnsn.org/WEBICORDER/SMO_N/welcome.html

[MARCH 2008]

SUGGESTED PLAN OF STUDY

<u>First Year</u>			<u>Second Year</u>		
CHEM& 161, 162, 163 [140, 150, 160]	General Chemistry with Lab I, II, III	16.5	PHYS& 121, 122, 123 [117, 118, 119] or PHYS& 221/231, 222/232, 223/233 [121/131, 122/132, 123/133]	General Physics, or Engineering Physics with Lab	15-16.5
GEOL 102 [101]	Intro to Geological Science I	5	Mathematics	Mathematics through Calculus, consult with your advisor	5-15
GEOL 104 [102]	Intro to Geological Science II	5			
Mathematics	Mathematics through Calculus, consult with your advisor	5-15	GEOL& 103	Historical Geology	5
ENGL& 101	English Composition I	5	Humanities and Social Sciences	See Associate of Science Distribution List	5-15
ENGL& 102 or ENGL 103	Composition II or Critical Paper	5			
Humanities and Social Sciences	See Associate of Science Distribution List	5-15			

Everett Community College does not discriminate on the basis of race, religion, creed, color, national origin, age, sex, sexual orientation, marital status, the presence of any physical, sensory or mental disability, or status as a disabled or Vietnam era veteran in its program and activities, or employment. The Vice President of Student Services has been designated to handle inquiries regarding student-related non-discrimination policies and can be reached at 2000 Tower Street, Everett, WA 98201, or by phone at (425)388-9589. The Associate Vice President of Human Resources has been designated to handle employment-related inquiries regarding the non-discrimination policies and can be reached at 2000 Tower Street, Everett, WA 98201, or by phone at (425)388-9232. This publication is effective **SEPTEMBER 2008**. The College reserves the right to change courses, programs, degrees and requirements. It is the student's responsibility to be aware of correct information by routinely checking with Enrollment Services and/or the advisors listed in this publication. Requirements applicable to all certificates and degrees are published in the College Catalog. Nothing contained herein shall be construed to create any offer to contract or any contractual rights.

For more information, call 425-388-9219, Everett Community College, 2000 Tower Street, Everett, WA 98201, www.everettcc.edu

Associate of Science

This checklist is targeted at transfer students with an interest in **Geology**. Students should meet with an advisor and maintain this checklist while at Everett Community College. The quarter before expected completion, this checklist should be submitted with a diploma application to the Enrollment Services Office. Note: Though courses in a foreign language are not required in the Associate of Science degree, some universities may require two or three quarters of foreign language for admission or for graduation.

Courses listed with an ampersand in the course number (e.g. ENGL&101) reflect the new Common Course Numbering System.
 Courses in [brackets] are the "old" course numbers and may be used to satisfy requirements. For more information, go to www.everettcc.edu/ccn

Student Name: _____ Advisor Signature: _____ Date: _____

COMPLETION of Diversity Course

	(Where Completed/Course Title)		(Year Completed)	(Grade)
Course Number	Course Title	Credits	Quarter Completed	Grade
COMMUNICATIONS SKILLS (5 credits)				
ENGL& 101 or 101D	English Composition I	5	_____	_____
MATHEMATICS (10 credits selected from MATH& 151, 152, 153, 254, 146 [152, 153, 154 252, 281]; including at least one of MATH& 153, 254, 146 [154, 252, 281].)				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
HUMANITIES AND SOCIAL SCIENCE (15 credits, in three different disciplines, selected from both the Humanities and Social Science course list for the Associate of Science – see separate guide.)				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
SCIENCE (See Note 1.)				
GEOL 102 [GEOS 101]	Intro to Geological Science I	5	_____	_____
GEOL 104 [GEOS 102]	Intro to Geological Science II	5	_____	_____
GEOL& 103 [GEOS 103]	Historical Geology	5	_____	_____
CHEM& 161 [140]	General Chemistry with Lab I	5.5	_____	_____
CHEM& 162 [150]	General Chemistry with Lab II	5.5	_____	_____
CHEM& 163 [160]	General Chemistry with Lab III	5.5	_____	_____
PHYS& 121, 122, 123 [117, 118, 119] or PHYS& 221/231, 222/232, 223/233 [121/131, 122/132, 123/133]	_____	_____	_____	_____
ELECTIVES (Selected with advisor guidance, depending upon university requirements.)				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Total: minimum 90 credits required, minimum 2.0 GPA. See Note 2.

Note 1: Prerequisites: This program of study assumes the student has college level English and math skills. All new students are required to take the EvCC English and Math placement tests. All science courses require completion of ENGL 98 or placement into ENGL& 101. Chemistry courses require completion of MATH 99 [65] or equivalent placement, as well as completion of CHEM& 140 [98] or higher or a high school chemistry course. Some science classes are offered only in certain quarters of the year; please consult with an advisor to determine when classes are available. Students who initially place in a high level math course do not need to take math courses below that level. The Associate of Science degree requires the completion of at least 15 credits in Math, including completion of MATH& 153, 254, 146 [154 or 252 or 281].

Note 2: Completion of listed and recommended courses may result in more than 90 credits being earned for the degree. The advantage is that the completion of these courses will enable you to progress more efficiently in your major at a university. Alternatively, some of the more advanced courses may be done at the university instead. Please consult with an advisor to decide the best option for you.

Associate of Arts and Sciences – Option II

This checklist is targeted at transfer students with an interest in **Geology**. Students should meet with an advisor and maintain this checklist while at Everett Community College. The quarter before expected completion, this checklist should be submitted with a diploma application to the Enrollment Services Office. This checklist refers to requirements listed in the curriculum guide titled “Associate in Arts and Sciences – Option II”, which lists all the courses which are approved for the various categories of requirements. Note: Though courses in a foreign language are not required in the Option II degree, some universities may require two or three quarters of foreign language for admission or for graduation.

Courses listed with an ampersand in the course number (e.g. ENGL&101) reflect the new Common Course Numbering System.

Courses in [brackets] are the “old” course numbers and may be used to satisfy requirements. For more information, go to www.everettcc.edu/ccn

Student Name: _____ Advisor Signature: _____ Date: _____

PROFICIENCY in Intermediate Algebra

_____ (Where Completed/Course Title) _____ (Year Completed) _____ (Grade)

COMPLETION of Diversity Course

_____ (Where Completed/Course Title) _____ (Year Completed) _____ (Grade)

Course Number	Course Title	Credits	Quarter Completed	Grade
BASIC COMMUNICATIONS SKILLS (Minimum of 10 credits from approved list.)				
ENGL& 101 or 101D	English Composition I	5	_____	_____
ENGL& 102 or 102D	Composition II	5	_____	_____
BASIC QUANTITATIVE SKILLS (5 credits from the Option II approved Quantitative Skills list.)				
_____	_____	_____	_____	_____
HUMANITIES (15 credits from the Option II approved Humanities List. See Note 1.)				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
SOCIAL SCIENCE (15 credits from the Option II approved Social Science List. See Note 1.)				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
SCIENCE AND MATH (See Notes 1 and 2.)				
GEOL 102 [GEOS 101]	Intro to Geological Science I	5	_____	_____
GEOL 104 [GEOS 102]	Intro to Geological Science II	5	_____	_____
GEOL& 103 [GEOS 103]	Historical Geology	5	_____	_____
CHEM& 161 [140]	General Chemistry with Lab I	5.5	_____	_____
CHEM& 162 [150]	General Chemistry with Lab II	5.5	_____	_____
CHEM& 163 [160]	General Chemistry with Lab III	5.5	_____	_____
MATH& 254 [252]	Calculus IV	5	_____	_____
PHYS& 121, 122, 123 [117, 118, 119]				
or				
PHYS& 221/231, 222/232, 223/233				
[121/131, 122/132, 123/133]	_____	_____	_____	_____
ELECTIVES (Selected with advisor guidance, depending upon university requirements.)				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Minimum 90 credits required, with minimum 2.0 GPA. See Note 3.

- Note 1:** Courses must be from three different disciplines. No more than 10 credits in any one discipline may be used in Humanities, Social Science and Science.
- Note 2:** Prerequisites: This program of study assumes the student has college level English and math skills. All new students are required to take EvCC placement tests. All science courses require completion of ENGL 98 or placement into ENGL& 101. Chemistry courses require completion of CHEM& 140 [98] or one year of high school chemistry, and MATH 99 [65] or higher. Students who initially place in a high level math courses do not need to take math courses below that level. Some baccalaureate institutions require completion of Engineering Physics instead of General Physics.
- Note 3:** Completion of listed and recommended courses may result in more than 90 credits being earned for the degree. The advantage is that the completion of these courses will enable you to progress more efficiently in your major at a university. Alternatively, some of the more advanced courses may be done at the university instead. Please consult with an advisor to decide the best option for you.