

Jumpstart Pathway

Earth Sciences: Geology Transfer to Montana State University

Associate of Science

Academic & Career Pathway: Science, Technology, Engineering and Math

Student:

Advisor:

Course & Semester	Course Title	Credits	Fall/ Spring	Milestone Course	Notes	Completed
Semester 1						
WRIT 101	College Writing I	3				
M 171	Calculus	4	Fall	*	MSU required course Student may need to take M151 summer prior to prepare for M171.	
GEO 101	Intro to Physical Geology & Lab	4		*	Important milestone course for this pathway.	
CHMY 141	College Chemistry I & Lab	4		*	MSU required course	
Total		15				
Semester 2						
ARTZ 105, LIT 110, or PHL 110	Visual Language Drawing, Intro to Literature, or Intro to Ethics	3			H&FA course. Recommended courses meet core requirements at both MSU and HC. Any HC H&FA course can be taken to meet HC requirement.	
CHMY 143	College Chemistry II & Lab	4		*	MSU required course	
BIOB 170	Principles of Biological Diversity	4			This course is not required for the MSU degree, but it is a good science option if students want to complete an AS at HC.	
M 172	Calculus II	4	Spring	*	MSU required course	
Total		15				
Semester 3						
PSYX 100	Introduction to Psychology	3			S&PS/H course Course meets core requirements at both MSU and HC. Any HC S&PS/H course can	

					be taken to meet HC requirement.	
PHSX 205	College Physics I & Lab	3	Fall	*	MSU required course	
STAT 216	Introduction to Statistics	3			Course provides preparation for statistics courses required at MSU.	
COMX 111	Intro to Public Speaking	3			Course meets core requirements at both MSU and HC. Course offered every fall, spring, and summer semester.	
BIOB 160 or ENSC 105	Principles of Biological Diversity or Environmental Science	3-4			If student is completing an AS degree at HC, credits will be needed for degree. Recommended science courses not required by MSU but compliment the pathway. If student took M 151 in preparation for M 171 in semester 1, this course is not needed.	
Total		15-16				
Semester 4						
PSCI 210, SOCI 101, HSTA 101, or HSTA 102	Intro to American Government, Intro to Sociology, American History I, or American History II	3			S&PS/H course Recommended courses meet core requirements at MSU and HC. Any HC S&PS/H course can be taken to meet HC requirement.	
NASX 105	Intro to Native American Studies	3			D & CHAI course Course offered every fall, spring, and summer semester.	
ARTZ 105, LIT 110, or PHL 110	Visual Language Drawing, Intro to Literature, or Intro to Ethics	3			H&FA course. Recommended courses meet core requirements at both MSU and HC. Any HC H&FA course can be	

					taken to meet HC requirement.	
PHSX 207	College Physics II & lab	4	Spring	*	MSU required course	
BIOB 290 or CHMY 290	Undergraduate Research	2-3			Courses meet Creative Experience core at MSU. If student is completing AS at HC, student can complete undergraduate research at HC or back transfer an MSU course after transfer.	
Total		15-16				

**Students must earn a C- or better in order to successfully complete a course.*

Career outlook:

There are outstanding opportunities for employment in the public and private sectors in fields such as petroleum geology, mining geology, seismology (including earthquake and volcanic risk assessment), hydrology (surface and ground water) natural-hazard geology, environmental clean-up and containment of environmental hazards, mitigation of future environmental problems related to development, preservation of water resources (both surface and ground water), and the study of the processes of climate change and global warming. The optimal degree for employment and advancement in the geological sciences in the private sector is the Master's Degree, and the undergraduate Geology Option is an excellent preparatory degree for graduate study. Some students interested in college teaching or advanced research may require a Ph.D. degree.

MSU Earth Sciences, Geology Option, degree requirements <http://catalog.montana.edu/undergraduate/letters-science/earth-sciences/geology-option/>

MSU General Education core requirements https://www.montana.edu/msu-core/msu_core_courses.html#IA_RA

60-62 credits to degree. Student may not need BIOB 160/ENSC 105 course in semester 3 if M 151 was completed prior to M171. Student can also choose to complete select courses at MSU and back transfer for HC AS degree.

Students that complete the Helena College General Education Core will earn a Certificate of General Studies.

Certificate of General Studies		
Category	Credits	Complete
Natural Science with Lab		
Natural Science		
Mathematics		
Written Communication		
Oral Communication		
Social & Psychological Sciences/History		
Social & Psychological Sciences/History		
Humanities/Fine Arts		
Humanities/Fine Arts		
Cultural Diversity		
Total Credits (30-32)		