

# CLIMATE CHANGE AND SOLUTIONS (B.S.)

Required coursework includes the university requirements (see regulation J) and:

Code	Title	Hours
ENGL 317 or ENGL 318	Technical Writing II Science Writing	3
ENGL 322	Climate Change Fiction	3
GEOG 100 & 100L or GEOL 101 & 101L or GEOL 111 & 111L or GEOL 102 & 102L	Introduction to Planet Earth and Introduction to Planet Earth Lab Physical Geology and Physical Geology Lab Physical Geology for Science Majors and Physical Geology for Science Majors Lab Historical Geology and Historical Geology Lab	4
GEOG 165	Human Geography	3
GEOG 200	World Cultures and Globalization	3
GEOG 301	Meteorology	3
GEOG 313	Global Climate Change	3
GEOG 385	Foundations of GIS	3
GEOG 401	Climatology	3
GEOG 411	Natural Hazards and Society	3
GEOG 430	Climate Change Ecology	3
GEOG 435	Climate Change Mitigation	3
GEOG 488	Geography of Energy Systems	3
GEOG 493	Senior Capstone in Geography	3
GEOL 212	Dinosaurs and Prehistoric Life	4
MATH 143	College Algebra	3
SOC 101	Introduction to Sociology	3
SOC 466	Climate Change and Society	3
SOIL 436	Principles of Sustainability	3
STAT 251	Statistical Methods	3
Select one of the following courses:		3
IS 322	International Environmental Governance	
NRS/POLS 462	Natural Resource Policy	
POLS 364	Politics of the Environment	
Select at least 18 credits from Elective Bin 1 and at least 9 credits from Elective Bin 2.		27
<b>Elective Bin 1 (Biophysical Science)</b>		
BE 453	Northwest Climate and Water Resources Change	
GEOG 317	Tree Rings and Environmental Change	
GEOL 309	Ground Water Hydrology	
GEOL 435	Glaciology and the Dynamic Frozen Earth	
GEOL 462	Petroleum Systems and Energy Transitions	
GEOL 467	Volcanology (* Only will count for one track)	
GEOL 471	Ore Deposits and Exploration	
<b>Elective Bin 2 (Human Dimensions)</b>		
ENVS 415	Environmental Lifecycle Assessment	

ENVS/AGEC 477	Law, Ethics, and the Environment
ENVS 484	History of Energy
ENVS 485	Energy Efficiency and Conservation
GEOG 350	Sustainability of Global Development
GEOG 420	Land, Resources, and Environment
GEOL 467	Volcanology
IS 322	International Environmental Governance
NRS/POLS 462	Natural Resource Policy
POLS 364	Politics of the Environment
SOC 465	Environmental Justice
SOIL 210	Introduction to Food Systems
SOIL 427	Sustainable Food Systems

**Total Hours** 92

*Note that GEOL 467 Volcanology only counts for one bin. If NRS 462/POLS 462, IS 322, or POLS 364 are taken as part of the core curriculum, they do not count for credit in Elective Bin 2.*

Courses to total 120 credits for this degree.

Fall Term 1	Hours	
ENGL 101	Writing and Rhetoric I	3
GEOG 100 & 100L or GEOL 101 <i>and</i> GEOL 101L or GEOL 111 <i>and</i> GEOL 111L or GEOL 102 <i>and</i> GEOL 102L	Introduction to Planet Earth or Physical Geology <i>and</i> Physical Geology Lab or Physical Geology for Science Majors <i>and</i> Physical Geology for Science Majors Lab or Historical Geology <i>and</i> Historical Geology Lab	4
Oral Communication Course		3
Elective Course		2
MATH 143 or MATH 160 or MATH 170 or MATH 175	College Algebra or Survey of Calculus or Calculus I or Calculus II	3
<b>Hours</b>		<b>15</b>
<b>Spring Term 1</b>		
ENGL 102	Writing and Rhetoric II	3
GEOG 165	Human Geography	3
SOC 101	Introduction to Sociology	3
STAT 251	Statistical Methods	3
Humanistic and Artistic Ways of Knowing Course (ENGL 322 rec)		3
<b>Hours</b>		<b>15</b>
<b>Fall Term 2</b>		
GEOL 212	Dinosaurs and Prehistoric Life	4
GEOG 313	Global Climate Change	3
ENGL 317 or ENGL 318	Technical Writing II or Science Writing	3
Scientific Ways of Knowing Course (if needed)		4
Elective		1
<b>Hours</b>		<b>15</b>
<b>Spring Term 2</b>		
GEOG 385	Foundations of GIS	3
GEOG 200	World Cultures and Globalization	3
Elective Bin 1 Course		3
Policy Course Elective		3
Elective Course		3
<b>Hours</b>		<b>15</b>

2 Climate Change and Solutions (B.S.)

**Fall Term 3**

GEOG 411	Natural Hazards and Society	3
Elective Bin 1 Course		3
Humanistic and Artistic Ways of Knowing Course		3
GEOG 301	Meteorology	3
GEOG 488	Geography of Energy Systems	3
<b>Hours</b>		<b>15</b>

**Spring Term 3**

GEOG 401	Climatology	3
American Diversity Course		3
Elective Bin 1 Course		3
GEOG 430	Climate Change Ecology	3
SOC 466	Climate Change and Society	3
<b>Hours</b>		<b>15</b>

**Fall Term 4**

GEOG 435	Climate Change Mitigation	3
GEOG 493	Senior Capstone in Geography	3
Elective Bin 1 Course		3
Elective Bin 2 Course		3
Elective Course		3
<b>Hours</b>		<b>15</b>

**Spring Term 4**

SOIL 436	Principles of Sustainability	3
Elective Bin 1 Course		3
Elective Bin 1 Course		3
Elective Bin 2 Course		3
Elective Bin 2 Course		3
<b>Hours</b>		<b>15</b>

**Total Hours** 120

1. Explain the physical, chemical, and biological processes that govern the Earth's climate system and how people influence the climate system.
2. Understand and explain climate change impacts on both human and natural systems, and be able to identify regions, ecosystems, and groups most vulnerable to climate change
3. Demonstrate knowledge about the strategies for mitigating climate change and options for adapting to its impact.
4. Communicate climate science and solutions in an effective manner to a variety of audiences, including stakeholders and the general public.