GEOGRAPHY AND ENVIRONMENTAL RESOURCES, B.S.

Juneau

The Geography B.S. degree in Environmental Resources integrates and synthesizes courses in geography, climate change, physical and biological sciences, and geographic information sciences and technology. This degree provides students with an interdisciplinary background in the geospatial science and earth system processes and prepares students for science-based careers in environmental research, management and consulting as well as graduate studies in related fields of geography and environmental science. Senior practicum courses serve as integrating capstone experiences enabling students to apply what they have learned in real-world settings. Courses in statistics, GIS, GPS and remote sensing are integrated with the geography core curriculum and courses in natural sciences. Program assessment plans and student learning outcomes are posted at the Program Assessment website (https://uas.alaska.edu/provost/assessment/program-assessment1.html).

Admission Requirements

Students are admitted to the program after declaring a Geography and Environmental Resources major to an academic advisor in the Geography program. Students will be assigned an advisor in the Natural Science department. Students should consult with their advisor for course selection and sequencing.

Candidates must complete the General Education Requirements (GERs) (http://catalog.uas.alaska.edu/general-education-requirements) as well as the specific program requirements listed below for a minimum of 120 credit hours. Courses in a degree program may be counted only once. Courses used to fulfill the major requirements cannot be used to fulfill the GERs. Specific requirements for GERs are listed below. The degree must include 48 credits of upper-division 300 or above courses. To satisfy the residency requirement, 30 credits must be completed at UA, including 24 upper division credits. An overall major course GPA average of 2.50 or better is required for successful completion of the degree.

Requirement	Hours
Minimum Credit Hours	**120**
General Education Requirements	36
Major Requirements	56
Electives	28

Code	Title	Credits
General Education Requirements		
Complete all General Education Requirements which must include the following:		36
MATH S251	Calculus I	
One of the following Science sequences:		
BIOL S105 & BIOL S106	Fundamentals of Biology I and Fundamentals of Biology II	
CHEM S105 & CHEM S106	General Chemistry I and General Chemistry II	
PHYS S103 & PHYS S104	College Physics I and College Physics II	
PHYS S211 & PHYS S212	General Physics I and General Physics II	
Major Requirements [1]		
ENVS S492	Environmental Science Seminar	1
GEOG S101	Local Places, Global Regions: Introduction to Geography	3
GEOG S102	Earth and Environment	4
GEOG S312	Humans and the Environment	3
GEOG S313	Sustainable Resource Management	3
GEOG S338	Introduction to GIS	3
GEOG S490	Geography Seminar	2
		3
Earth Systems		
Select twenty-one credits of the following:		21
BIOL S271	Ecology	
BIOL S373	Conservation Biology	
BIOL S480	Aquatic Pollution	
CHEM S350	Environmental Chemistry	
ENVS S302	Glaciology	
ENVS S422	Earth's Climate System	
GEOG S210	Temperate Rainforest Ecosystems	
GEOG S407	Snow Hydrology	
GEOG S414	Biogeochemistry	
GEOG S415	Biogeography and Landscape Ecology	
GEOL S300	Geology of Alaska	
GEOL S301	Geomorphology	
GEOL S302	Hydrology	
Human-Environment		
Select two of the following:		6
ANTH S342	Arctic Anthropology	
ANTH S408	Ethnobiology	
ECON S435	Natural Resource/ Environmental Economics	
ENGL S303	Literature and the Environment	
GEOG S313	Sustainable Resource Management	
PHIL S371	Perspectives on the Natural World	
SOC S404	Environmental Sociology	
Geographic Analysis		
Select ten credits of the following:		10
GEOG S111	Introduction to Differential GPS	
GEOG S309	Mobile GIS Technology and Applications	
GEOG S406	Remote Sensing	
GEOG S409	GIS Jam: Projects in GIS and Remote Sensing	
GEOG S410	Advanced Geographic Information Systems	
MATH S460	Mathematical Modeling	
STAT S273	Elementary Statistics	
STAT S401	Regression and Analysis of Variance	

Electives	
Select 28 credits of electives in consultation with an advisor, including a minimum of 12 credits of upper division courses.	28
Total Credits	123

[1] Classes should be selected in consultation with an advisor and must include a minimum of 12 credits of upper division courses.