

GLOBAL ENVIRONMENTAL SYSTEMS, CERTIFICATE

Requirements for an undergraduate certificate may be completed at any campus location offering the specified courses for the certificate.

Program Requirements

To earn an undergraduate certificate in Global Environmental Systems, a minimum of 12 credits is required.

Code	Title	Credits
Required Courses		
GEOG 210	Geographic Perspectives on Environmental Systems Science	3
Select 9 credits from:		9
GEOG 310	Introduction to Global Climatic Systems	
GEOG 310W	Introduction to Global Climatic Systems	
GEOG 314	Biogeography and Global Ecology	
GEOG 315	Landforms and Geomorphic Systems in the Anthropocene	
GEOG 410		
GEOG 411	Forest Geography	
GEOG 411W	Forest Geography	
GEOG 412W	Climatic Change and Variability	
GEOG 414	Principles and Applications in Landscape Ecology	
GEOG 417	Satellite Climatology	
GEOG 431	Geography of Water Resources	
GEOG 438W	Human Dimensions of a Changing Climate	
Non-Course Requirements		

Per University policy, all credit courses for a certificate require a grade of 'C' or higher, and at least two-thirds (2/3) of the credits used to complete a certificate must be earned at Penn State. If student is completing multiple certificates in Geography, no more than one (1) course may double-count for each.