

Bachelor of Science in Geography

Major: Physical Geography

Students specializing in Physical Geography will receive technical training in areas such as biogeography, geoscience, hydrology, glaciology, geomorphology, land cover change, and global climate change. Students in this major will complete a minimum of 121 hours (including 39 upper division hours) outlined as follows.

General Education Requirements		
Requirement	Course Options	Hours
GE Launch Seminar	AcadAff 1201	1
Foundations: Writing and Information Literacy	Student Choice	3
Foundations: Mathematical & Quantitative Reasoning/Data Analysis	Math 1151	5
Foundations: Literary, Visual and Performing Arts	Student Choice	3
Foundations: Historical & Cultural Studies	Student Choice	3
Foundations: Natural Sciences	Student Choice	4-5
Foundations: Social & Behavioral Sciences	Student Choice	3
Foundations: Race, Ethnicity and Gender Diversity	Student Choice	3
Theme: Citizenship for a Diverse & Just World*	Student Choice	4-6
Theme: Student Choice*	Student Choice	4-6
GE Reflection	AcadAff 4001	1
General Education Credit Hours:		32-39

College Requirements		
Requirement	Course Options	Hours
University Survey	ASC 1100.xx(H)	1
World Language Foundation	1101-1103 in any language or equivalent proficiency**	0-12
Credit Hours:		1-13

* Students complete either one 4-credit course or two 3-credit courses in each of two General Education Theme areas: Citizenship for a Diverse & Just World (required), and the student's choice of available GE Themes. If major courses are approved as a GE Theme course, one course in each GE Theme area may double count in the GE and major hours.

**Students must demonstrate proficiency in a language other than English at a level equivalent to 3 semesters of university coursework. Proficiency may be demonstrated by satisfactory completion of coursework, appropriate testing, or language validation. Please see <https://cllc.osu.edu/validation-foreign-language-0> and your Academic Advisor for more details.

***Major Pre-Requisites and Co-Requisites may overlap freely with GE Foundations, GE Themes, minors, or certificates when appropriate.

Major Pre-requisites/Co-requisites***		
Course	Title	Hours
Math 1151	Foundations: Mathematical & Quantitative Reasoning/Data Analysis	5
Math 1152		5
Physics 1250		5
Statistics 2450	EL: Data Analysis	3
GEOG 3597.03	EL: Advanced Writing	3
Credit Hours:		21

Major Coursework		
Course	Title	Hours
Major Coursework – Core (19-20 hours)		
ATMOSSC 2940 or GEOG 5900	Basic Meteorology (recommended course) OR Weather, Climate and Global Warming	3
GEOG 2800 or GEOG 2960	Our Global Environment OR Introduction to Physical Geography	3 4
GEOG 3900 or GEOG 3901H	Global Climate Change: Causes and Consequences OR Global Climate and Environmental Change	3
GEOG 3980	Biogeography: An Introduction to Life on Earth	3
GEOG 5210	Fundamentals of Geographic Information Systems / EL: Tech	3
EARTHSC 5550	Geomorphology *if not offered, see list of approved substitute courses	4
Major Coursework – Electives, choose 5 (14-15 hours)		
ATMOSSC 5901	Climate System Modeling: Basics and Applications	3
ATMOSSC 5950	Atmospheric Thermodynamics	3
ATMOSSC 5951	Dynamic Meteorology I	3
ATMOSSC 5952	Dynamic Meteorology II	3
CHOICE	ONE Human GEOG course 4000-level or higher.	3
GEOG 3597.02	Integrated Earth Systems: Confronting Global Change	3
GEOG 4101	Undergraduate Research & Professionalization Seminar	3
GEOG 4103	Introductory Spatial Data Analysis (previously GEOG 5100) (if not taken as required course)	3
GEOG 5200	Cartography and Map Design	3
GEOG 5201	GeoVisualization (pre-req, 5200)	3
GEOG 5212	Spatial Database Design for GIS	3
GEOG 5222	GIS Algorithms and Programming (pre-req, 5212)	3
GEOG 5223	Design and Implementation of GIS (pre-req, 5222)	3
GEOG 5225	Geographic Applications of Remote Sensing	3
GEOG 5226	Spatial Simulation and Modeling	3
GEOG 5803	Sustainable Energy Geographies	3
GEOG 5921	Microclimatology: Boundary Layer Climatology	3
GEOG 5922	Microclimatology: Microclimatological Measurements	3
GEOG 5940	Synoptic Meteorology Laboratory	2

GEOG 5941	Synoptic Meteorology: Synoptic Analysis & Forecasting	3
GEOG 5942	Synoptic Meteorology: Severe Storm Forecasting	3
EARTHSC 2206	Principles of Oceanography	3
EARTHSC 4450	Water, Ice, & Energy in the Earth System	3
Credit Hours:		33-35

Open Electives	
TBD	
Credit Hours:	TBD

General Education	32-39
College Requirements	1-13
Major Pre-requisites/Co-requisites	21
Major Coursework	33-35
Required Minor/Certificate	N/A
Open Electives	_____
Total Credit Hours	Min. 121

College of Arts and Sciences Policies and General Requirements for Degree

- Students must earn a minimum of 121 total credit hours. Remedial courses (courses at the 10XX level or below, and English 1109) and credit hours earned in repeated course work do not count toward the 121 hour minimum.
- A maximum of 10 hours of non-Arts and Sciences and non-Arts and Sciences-approved course work can be applied to your degree. Of the 10 hours, no more than 4 may be from physical activities courses taught in Education: Physical Activity and Educational Services (KNSFHP); physical activities courses include all 1100 level KNSFHP courses except for 1102, 1103, 1122, and 1137. A maximum of 8 hours of technical credit may be counted toward the 10 hours of non-Arts and Sciences and non-Arts and Sciences-approved course work; however, the combination of KNSFHP, technical, and other non-Arts and Sciences credit hours may not exceed 10.
- Students must complete a total of 39 upper division hours. Upper-division courses are defined as all Arts and Sciences courses at the 3000-level or above, Philosophy 2500, all courses taught by departments in mathematical and physical sciences (Astronomy, Chemistry and Biochemistry, Computer Science and Engineering, Earth Sciences, Mathematics, Physics, and Statistics) at the 2000-level and above (except for courses numbered 2194), and world language courses taught in the language at the 2000-level.
- Students must earn a minimum of 30 credit hours through regular course enrollment at Ohio State.
- Students must earn a cumulative grade point average (GPA) of at least 2.0 for all work attempted at Ohio State. Additionally, students must earn a cumulative GPA of at least 2.0 in their major.

[Name of Department] Department Policies and Requirements

- [Minimum grades in select courses]
- [Application to the major/program]
- [Honors Requirements]
- [Restricted research/independent study/internship hours]
- [Study Abroad requirements/restrictions]
- [Internship requirements/restrictions]
- [Minor requirements/restrictions]
- [Other department rules as appropriate]