

GEOGRAPHIC INFORMATION SCIENCE AND TECHNOLOGY CONCENTRATION

Geography, Bachelor of Science with a Concentration in Geographic Information Science and Technology Requirements

Code	Title	Credits
GENERAL EDUCATION REQUIREMENTS - 46 Hours Required		
Minimum of "C-" required		
Fundamental Academic Skills		15
ENGL 1150	ENGLISH COMPOSITION I	
ENGL 1160	ENGLISH COMPOSITION II	
ENGL 3050 or ENGL 3980	WRITING FOR THE WORKPLACE TECHNICAL WRITING ACROSS THE DISCIPLINES	
(Or another advisor-approved Writing in the Discipline course)		
CMST 1110 or CMST 2120	PUBLIC SPEAKING FUNDS ARGUMENTATION AND DEBATE	
MATH 1120 or MATH 1100 or MATH 1130 or MATH 1140 or MATH 1300 or STAT 1100 or STAT 1530	INTRODUCTION TO MATHEMATICAL AND COMPUTATIONAL THINKING DATA LITERACY AND VISUALIZATION QUANTITATIVE LITERACY QUANTITATIVE REASONING FOR HEALTHCARE PROFESSIONALS COLLEGE ALGEBRA WITH SUPPORT DATA LITERACY AND VISUALIZATION ELEMENTARY STATISTICS	
Distribution Requirements		31
Natural Science - From two disciplines and at least one lab - 7 hrs		
Social Science - From two disciplines - 9 hrs		
Humanities and Fine Arts - From two disciplines- 9 hrs		
Global Diversity - 3 hrs		
US Diversity - 3 hrs		
MAJOR REQUIREMENTS		
**Course will satisfy UNO's General Education requirement		
^Course requires pre-requisite(s)		
Geography Major with a Concentration in Geographic Information Science and Technology - 39-55 Hours Required		
Required Coursework		24
GEOG 1000	WORLD REGIONAL GEOGRAPHY (**)	
GEOG 1020	INTRODUCTION TO HUMAN GEOGRAPHY (**)	
GEOG 1030	OUR DYNAMIC PLANET: INTRODUCTION TO PHYSICAL GEOGRAPHY (**)	
GEOG 1050	HUMAN-ENVIRONMENT GEOGRAPHY (^)	

GEOG 3530	CARTOGRAPHY AND DATA VISUALIZATION	
GEOG 4620	GEOGRAPHICAL FIELD STUDIES (Can also apply to the upper-level Global or North American category, depending on the field study destination) ¹	
STAT 1530	ELEMENTARY STATISTICS (^)	
1 Geographical Field Studies Requirement		
Optional method of completing GEOG 4620: Students who have completed study abroad, or military service for more than six months outside the USA can complete the course without going on the multiple day field trip. Contact the department for the details regarding this alternative method.		
Geographic Information Science and Technology Concentration		
Select 9 credit hours of computer science coursework in consultation with an advisor		9
Select one of the following courses in Mathematics		3-6
MATH 1320 & MATH 1330	PRE-CALCULUS ALGEBRA and TRIGONOMETRY	
Or one of the following:		
MATH 1340	ALGEBRA AND TRIGONOMETRY FOR CALCULUS	
MATH 1930	CALCULUS FOR THE MANAGERIAL, LIFE, AND SOCIAL SCIENCES	
MATH 1950	CALCULUS I	
Additionally, select one of the following*		3-4
GEOG 4020	SPATIAL ANALYSIS IN GEOGRAPHY	
GEOG 4030	COMPUTER MAPPING AND VISUALIZATION (^)	
GEOG 4050	GEOGRAPHIC INFORMATION SYSTEMS I (^)	
GEOG 4660	GEOGRAPHIC INFORMATION SYSTEMS II (^)	
*Can double-count with Geospatial Science requirement below		
Geography diversity requirements		
Select a minimum of one course from each of the groups of Geography Diversity courses below		15-16
Physical Geography:		
GEOG 3440	NEBRASKA NATURAL RESOURCES MANAGMENT (^)	
GEOG 3510 & GEOG 3514	METEOROLOGY and INTRODUCTION TO METEOROLOGY LABORATORY (** ^)	
GEOG 4010	CONSERVATION OF NATURAL RESOURCES	
GEOG/GEOL 4040	GEOARCHAEOLOGY	
GEOG/BIOL/GEOL 4100	BIOGEOGRAPHY	
GEOG 4260	PROCESS GEOMORPHOLOGY	
GEOG 4320	CLIMATOLOGY	
GEOG 4330	SOIL GENESIS, MORPHOLOGY AND CLASSIFICATION	
GEOG 4340	WATER RESOURCES	
GEOG 4350	GLOBAL CLIMATE CHANGE	
GEOG/ENVN/GEOL/BIOL 4610	ENVIRONMENTAL MONITORING AND ASSESSMENT	
GEOG 4640	CRITICAL ZONE SCIENCE	
Human Geography:		
GEOG 3040	HEALTH & MEDICAL GEOGRAPHY	
GEOG/ECON 3130	ECONOMIC GEOGRAPHY	

GEOG 3440	NEBRASKA NATURAL RESOURCES MANAGEMENT (^)
GEOG 3930	POLITICAL GEOGRAPHY
GEOG 4010	CONSERVATION OF NATURAL RESOURCES
GEOG 4120	URBAN GEOGRAPHY
GEOG/WGST 4150	GEOGRAPHY, GENDER AND ENTREPRENEURSHIP (^)
GEOG 4160	URBAN SUSTAINABILITY (^)
GEOG 4170	ADVANCED CULTURAL GEOGRAPHY
GEOG 4550	GEOGRAPHY OF ECONOMIC GLOBALIZATION
GEOG/PA/BIOL/ ENVN 4820	INTRODUCTION TO ENVIRONMENTAL LAW & REGULATIONS (^)

Global Perspectives:

GEOG 3000	TRAVEL STUDY IN GEOGRAPHY
GEOG 3030	GEOGRAPHY OF AFRICA (^)
GEOG 3050	GEOGRAPHY IN FILM (^)
GEOG 3070	GEOGRAPHY OF LATIN AMERICA (^)
GEOG 3080	EAST & SOUTHEAST ASIA (^)
GEOG 3230	GEOGRAPHY OF EUROPE (^)
GEOG 3240	GEOGRAPHY OF RUSSIA AND ITS NEIGHBORS (^)

North American Perspectives:

GEOG 3330	UNITED STATES & CANADA (^)
GEOG 4230	GREAT PLAINS & NEBRASKA
GEOG 4530	HISTORICAL GEOGRAPHY OF THE UNITED STATES (^)

Geospatial Science:

GEOG 2620	AERIAL PHOTOGRAPHIC INTERPRETATION
GEOG 4020	SPATIAL ANALYSIS IN GEOGRAPHY
GEOG 4030	COMPUTER MAPPING AND VISUALIZATION (^)
GEOG 4050	GEOGRAPHIC INFORMATION SYSTEMS I (^)
GEOG 4630	ENVIRONMENTAL REMOTE SENSING (^)
GEOG 4660	GEOGRAPHIC INFORMATION SYSTEMS II (^)

College Breadth (choose one option) 15-30+

Option 1: Complete any UNO minor or undergraduate certificate - 15+ hours

Option 2: Additional General Education Requirements - 19+ hours

Additional quantitative literacy - 3 hours

Additional Social Science Gen. Ed. from 3rd Discipline - 3 hours

Additional Humanities Gen. Ed. from 3rd Discipline - 3 hours

HIST 1000 and HIST 1010 - 6 hours

Additional Nat. and Physical Science w/ Lab - 4-5 hours

Option 3: CAS comprehensive major (50+ hours) OR any second UNO major (30+ hours)

Bachelor of Science Cognate Requirement 0-15

See Advisor

ELECTIVES

Elective hours as required to reach a total of 120 hours