

GEOGRAPHY MAJOR: GEOGRAPHIC INFORMATION SCIENCE CONCENTRATION (B.S./B.A.)

CORE REQUIREMENTS (11 Courses)

Cr. 4 F, S
GEO 101

Cr. 3 F, S
GEO 110

CHOOSE ONE
GEO 200 F, S, SU - Cr. 3
GEO 203 F, S - Cr. 3
GEO 211 F, S, SU - Cr. 3

Cr. 3 F, S
GEO 305

Cr. 4 F, S, SU
STAT 145

Cr. 3 F, S, **
GEO 405

Cr. 1 F, S, **
GEO 401

Cr. 3 F, **
GEO 415

Cr. 3 S, **
GEO 445
CHOOSE ONE

Cr. 3 S, EY, **
GEO 455
CHOOSE ONE

Cr. 3 F, **
GEO 418

Cr. 3 S, OY, **
GEO 465
CHOOSE ONE

Cr. 3 S, **
GEO 485

Cr. 4 F
GEO 221

Cr. 4 S
GEO 222

Cr. 3 S, **
GEO 422

Cr. 3 F, OY, **
GEO 425

Cr. 3 S, EY, **
GEO 428

Cr. 3 S, OY, **
GEO 430

Cr. 3 F, EY, **
GEO 460

EARTH'S ENVIRONMENTAL SYSTEMS ELECTIVES (1 Course)

GEOSPATIAL TECHNIQUES ELECTIVES (3 Credits)

Cr. 3 F, **
GEO 410

Cr. 3 S, **
GEO 412

Cr. 3 S, OY, **
GEO 488

Cr. 3 S, **
GEO 445
IF NOT TAKEN FOR GIS CORE
*415 is prereq for 445

Cr. 3 S, OY, **
GEO 465
IF NOT TAKEN FOR GIS CORE
*405 is prereq for 465

Cr. 3 S, **
GEO 455
IF NOT TAKEN FOR GIS CORE
*405 or 418 prereq for 455

Cr. 1-6 F, W, S, SU
GEO 450
Cr. 3 O**
GEO 470

Cr. 1-3 O**
GEO 495
Cr. 1-3 F, W, S, SU
GEO 499

Cr. 1-3 F, W, S, SU **
GEO 490
GEO 450, 470, 490, 495 AND 499
MUST BE GIS-RELATED

GEO EXIT SURVEY

HUMANS AND THE ENVIRONMENT ELECTIVES (1 COURSE)

GEO 307 F, - Cr. 3
GEO 309 F, OY - Cr. 3
GEO 310 F, EY - Cr. 3

GEO 318 S, EY - Cr. 3
GEO 320 S, OY - Cr. 3
GEO 321 S - Cr. 3

GEO 335 S, OY - Cr. 3
GEO 340 F, EY - Cr. 3
GEO 427 F, OY** - Cr. 3

PREREQUISITES:

REQUIRED
MULTIPLE PREREQ OPTIONS

LEGEND:

F = FALL
S = SPRING
SU = SUMMER

** = JR/SR STANDING
O = OCCASIONALLY
OY = ODD NUMBERED YEARS
EY = EVEN NUMBERED YEARS

GEOGRAPHY &
ENVIRONMENTAL SCIENCE



Geography Major: Geographic Information Science (GIS) Concentration (B.S./B.A.)**38 CREDITS****(42 CREDITS including STAT Requirement)****Core Requirements:**

Name	Credits	Description	Prerequisite	Offered
GEO 101	4	Earth Environments	-	F, S
GEO 110	3	World Cultural Regions	-	F, S
GEO 200 OR	3	Conservation of Global Environments	-	F, S, Su
GEO 203 OR	3	Urban Community Health: A Global Perspective	-	F, S
GEO 211	3	Global Climate Change	-	F, S, Su
GEO 305	3	Geographic Information Systems and Science I	-	F, S
STAT 145	4	Elementary Statistics	-	F, S, Su
GEO 401	1	Capstone seminar in Geography and Environmental Science	Senior Standing	F, S
GEO 405	3	Geographic Information System and Science II	GEO 305; STAT 145	F, S
GEO 415	3	Remote Sensing of the Environment I	GEO 305	F
GEO 418	3	Map Design and Geovisualization	GEO 305	F
GEO 445 OR	3	Remote Sensing of the Environment II OR	GEO 415 (for GEO 445)	S
GEO 455 OR	3	Web Mapping	GEO 405 or 418 (for GEO 455)	S-Even
GEO 465	3	Geospatial Automation	GEO 405 (for GEO 405)	S-Odd
GEO 485	3	Geographic Information System and Science III	GEO 405	S

Earth's Environmental Systems Electives (Choose 1 Course)

Name	Credits	Description	Prerequisite	Offered
GEO 221	4	Weather and Climate	GEO 101	F
GEO 222	4	Earth Surface Processes and Landforms	GEO 101	S
GEO 422	3	Meteorology	GEO 221	S
GEO 425	3	Biogeography	GEO 101	F-Odd
GEO 428	3	Past Environmental Change	GEO 221 and GEO 222	S-Even
GEO 430	3	River Systems	GEO 222 or BIO 341 or BIO 464	S-Odd
GEO 460	3	Environmental Hazards	GEO 221 or GEO 222	F-Even

Geospatial Techniques Electives (Choose 3 credits from the following)

Name	Credits	Description	Prerequisite	Offered
GEO 410	3	Geospatial Field Methods	GEO 305	F
GEO 412	3	Geospatial Applications of Unmanned Aerial Systems	GEO 305	S
GEO 445	3	Remote Sensing of the Environment II (<i>if not GIS core</i>)	GEO 415	S
¹ GEO 450	1-6	Internship in Geography and Environmental Science	-	F, W, S, Su
GEO 455	3	Web Mapping (<i>if not GIS core</i>)	GEO 405 or GEO 418	S-Even
GEO 465	3	Geospatial Automation	GEO 405	S-Even
¹ GEO 470	1-3	Special Topics in Geography/Environmental Science	-	O
GEO 488	3	Quantitative Methods in Geography (<i>if not GIS core</i>)	GEO 305; STAT 145	S-Odd
¹ GEO 490	1-3	Independent Study	-	F, W, S, Su
¹ GEO 495	1-3	Seminar in Geography/Environmental Science	-	O
¹ GEO 499	1-3	Research in Geography and Environmental Science	-	F, W, S, Su

Humans and the Environment Electives (Choose 1 Course)

Name	Credits	Description	Prerequisite	Offered
GEO 307	3	Power, Space, and Global Change	-	F
GEO 309	3	Cities: Past, Present, and Future	-	F-Odd
GEO 310	3	Transportation Equity and Sustainable Communities	-	F-Even
GEO 318	3	The Geography of Latin America and the Caribbean	-	S-Even
GEO 320	3	Energy, the Environment, and Sustainability	-	S-Odd
GEO 321	3	Sustainable Development and Conservation	-	S
GEO 335	3	Islamic Asia: Cradle of Civilizations, Geographies of Conflict	-	S-Odd
GEO 340	3	Polar Environments	-	F-Even
GEO 427	3	Sustainable Water Resource Management	-	F-Odd

¹ GEO 450, GEO 470, GEO 490, GEO 495, and/or GEO 499 must be GIS related and a maximum of 3 credits of GEO 450, GEO 470, GEO 490, GEO 495, and/or GEO 499 may apply to the major.

* During the student's last semester of enrollment, completion of the Department of Geography and Environmental Science exit survey is required to graduate.

* Offered Codes: F = Fall; W = Winter; S = Spring; Su = Summer; O = Occasionally; F-Odd = Fall, Odd Years; F-Even = Fall, Even Years; S-Odd = Spring, Odd Years; S-Even = Spring, Even Years