GEOGRAPHY - 5-YEAR BACHELOR OF SCIENCE AND MASTER OF GEOSCIENCE IN GEOSCIENCE

Intended for the highly motivated, exceptional individuals, this accelerated program prepares students in human geography, physical geography, and human-environment interactions, while also providing specialized geospatial skills.

Program Requirements

First Year

Fall		Semester Credit Hours
GEOG 201	Introduction to Human Geography	3
GEOG 215	Geospatial Cornerstone	1
Life and physical sciences [1]		4
Select one of the following:		
OCNG 251 & OCNG 252	The Blue Planet - Our Oceans and The Blue Planet - Our Oceans Laboratory	
GEOL 101 & GEOL 102	Principles of Geology and Principles of Geology Laboratory	
BIOL 111	Introductory Biology I	
CHEM 119	Fundamentals of Chemistry I	
PHYS 201	College Physics	
American history (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)		3
Communication (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3
Human geography elective [2]		3
	Semester Credit Hours	**17**
Spring		
GEOG 203	Planet Earth	3
GEOG 213	Planet Earth Lab	1
MATH 140	Mathematics for Business and Social Sciences	3
Life and physical sciences [1]		4
Select one of the following:		
ATMO 201 & ATMO 202	Weather and Climate and Weather and Climate Laboratory	
GEOL 106	Historical Geology	
BIOL 112	Introductory Biology II	
CHEM 120	Fundamentals of Chemistry II	
PHYS 202	College Physics	
Human geography elective [2]		3
General elective [4]		3
	Semester Credit Hours	**17**

Second Year

Fall		
GEOG 232	Cartography and Visualization	3
MATH 142	Business Calculus	3
POLS 206	American National Government	3
STAT 303	Statistical Methods	3
General elective [4]		4
	Semester Credit Hours	**16**
Spring		
GEOG 390	Principles of Geographic Information Systems	4
POLS 207	State and Local Government	3
Creative arts (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts)		3
Physical geography elective [3]		6
	Semester Credit Hours	**16**

Third Year

Fall		
American history (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)		3
Language, philosophy and culture (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture)		3
Geography elective [5]		9
	Semester Credit Hours	**15**
Spring		
Communication (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3
General elective [4]		13
	Semester Credit Hours	**16**

Fourth Year

Fall		
GEOG 450	Field Geography	3
GEOG 651	Remote Sensing for Geographical Analysis	3
GEOG 659	Geodatabases	3
GEOS 669 or OCNG 669	Introduction to Processing Geoscience Data with R or Python for Geosciences	3
General elective [4]		4
	Semester Credit Hours	**16**
Spring		
GEOG 440	History and Nature of Geography	3
Graduate theme elective [6]		6
General elective [4]		7
	Semester Credit Hours	**16**

Fifth Year

Fall		
GEOG 665	GIS-Based Spatial Analysis and Modeling	3
GEOG 676	GIS Programming	3
Graduate theme elective [6]		6
	Semester Credit Hours	**12**

Spring		
GEOG 678	WebGIS	3
GEOS 676	Capstone Experience	6
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**150**

1 8 hours required. Department requires that you take two in the same discipline to meet this requirement.

2 Select from GEOG 301, GEOG 304, GEOG 305, GEOG 306, GEOG 309, GEOG 311, GEOG 320, GEOG 323, GEOG 325, GEOG 327, GEOG 330, GEOG 401, GEOG 406, GEOG 420, GEOG 430.

3 Select from GEOG 324, GEOG 331, GEOG 335, GEOG 360, GEOG 370/MARS 370, GEOG 400, GEOG 434, GEOG 435, GEOG 442/GEOL 442.

4 Courses to be selected in consultation with advisor. Select any courses from 100-499 not used elsewhere. (Except AERS 100-499 (https://catalog.tamu.edu/undergraduate/course-descriptions/aers/); ASCC 100-499 (https://catalog.tamu.edu/undergraduate/course-descriptions/ascc/); ENGL 103; KINE 198, KINE 199; MATH 102-104, 131, 141-142, 150-151, 166, 171 (https://catalog.tamu.edu/undergraduate/course-descriptions/math/); MLSC 100-499 (https://catalog.tamu.edu/undergraduate/course-descriptions/mlsc/); NVSC 100-499 (https://catalog.tamu.edu/undergraduate/course-descriptions/nvsc/); SOMS 100-499 (https://catalog.tamu.edu/undergraduate/course-descriptions/soms/); STAT 211, STAT 302, STAT 303).

5 Choose from any 300 or 400-level geography course except GEOG 361, GEOG 391, GEOG 392, GEOG 461, GEOG 477, GEOG 478.

6 Select from GEOG 661, GEOG 662, GEOG 663, GEOG 677, GEOG 695; GEOL 617, GEOP 635. Up to 6 hours of graduate electives may be used towards the undergraduate degree's general elective.

Two courses in the bachelor of science degree plan must be Writing Intensive courses designated by the department in the schedule of classes. Also, International and Cultural Diversity (3 hours) and Cultural Discourse (3 hours) must be incorporated into the degree.

A maximum of 15 hours of graduate courses can be taken online, which is less than 50% of the required graduate degree hours.

The program includes a total of 156 hours, which up to 6 hours may be applied toward both the Bachelor of Science in Geography and the Master of Geoscience in Geoscience face-to-face program.