












Geospatial Technology (9680)

Associate of Applied Science Degree























The Geospatial Technology Associate of Applied Science degree is designed to prepare students for careers in geospatial technology or for transfer to a bachelor-degree granting program in geospatial technology or a related field of study. The geospatial technology sector includes positions in geographic information systems (GIS), remote sensing, location analytics, mapping, and related areas. Geospatial technology is recognized by the U.S. Department of Labor as a high-growth career field, and this program will prepare students to enter the geospatial industry.

Course	Title	Credit Hours
First Semester		
ENGL 1110 or ENGL 1111	English Composition I (A) ¹ or English Composition I (B)	3
FYEX 1000	First Year Experience	1
GEOG 1400	Mapping Technologies 	3
GEOG 1500	Introduction to Geography	3
GEOG 1700	Map Design and Interpretation 	3
ITIS 1005	Computer Essentials	3
Credit Hours		16
Second Semester		
ENGL 1120 or ENGL 1121	English Composition II or English Composition II-Technical Focus	3
GEOG 1600	World Regional Geography	3
GEOG 2700	Geographic Information Science 	3
ITIS 1520	Microsoft Office Excel: Skills and Techniques 	3
MATH 1550	Statistics	4
Credit Hours		16
Third Semester		
COMM 1000 or COMM 1100 or MECT 1150	Effective Public Speaking or Effective Interpersonal Communications or Technical Communications	3
GEOG 1550 or PSCI 1300	Physical and Environmental Geography or Earth Science	3
GEOG 2710	Spatial Data Acquisition and Management 	3
ITCS 1010	Programming Logic 	3
Select course(s) from the Technical Electives list 		3
Credit Hours		15
Fourth Semester		
GEOG 2730	Remote Sensing 	3
GEOG 2780	Internship and Seminar in Geospatial Technology 	2
POLS 1300 or POLS 2100	U.S. National Government or State and Local Government	3
Select course(s) from the Arts and Humanities Electives list		3
Select course(s) from the Technical Electives list 		4
Credit Hours		15
Total Credit Hours		62

¹ English course selection is based on placement test results (ENGL 1111 English Composition I (B) is 4 credits, only 3 credits apply to the degree).

 This course is designated as a technical course in the program. Students must earn a "C" grade or higher in the course to fulfill the college's graduation requirements policy.

Electives

Course	Title	Credit Hours
Technical Electives		
CADT 1100	Introduction to AutoCAD 	3
CADT 1500	Advanced AutoCAD 	3
CADT 2100	Introduction to SolidWorks 	3
CIVT 1012	Reading Construction Drawings 	1
CIVT 2111	Surveying I 	2
GEOG 2720	Web Mapping and Programming for GIS 	1
GEOG 2750	Spatial Analysis and Modeling 	3
GRDS 1375	Computer Graphics AI, ID and PS 	3
ITCS 1105	Web Programming I 	3
ITCS 1820	Java Programming I 	3
ITCS 1870	Python Programming I 	3
ITCS 1880	R Programming I 	3
ITDB 1401	SQL Programming and Database Design 	3
ITDB 1405	Oracle PL/SQL Programming 	2
ITIS 1007	Principles of Information Technology and Computer Science 	3
ITIS 1108	Using an HTML Editor 	2
ITIS 1510	Microsoft Office Word: Skills and Techniques 	3
ITIS 1530	Microsoft Office Access: Skills and Techniques 	3
ITIS 1540	Microsoft Office PowerPoint: Skills and Techniques 	2
ITON 1070	Operating Systems: Skills and Techniques 	1
ITON 1205	Network+ and Networking Essentials 	2
PHOT 1105	Basic Photography - Digital 	3
Arts and Humanities		
ARTS 1120	Art Appreciation	3
ARTS 2220	Survey of Art I	3
ARTS 2230	Survey of Art II	3
ENGL 2250	Survey of American Literature I	3
ENGL 2260	Survey of American Literature II	3
ENGL 2280	Survey of British Literature I	3
ENGL 2290	Survey of British Literature II	3
HUMX 1100	Introduction to Humanities	3
HUMX 1200	The American Experience in the Arts	3
MUSC 1200	Music Appreciation	3
MUSC 1215	World Music	3
MUSC 1800	Popular Music: Rock, Jazz, Country, and Hip-Hop	3
MUSC 2200	Music History and Literature I	3
MUSC 2250	Music History and Literature II	3
PHIL 1500	Introduction to Philosophy	3
PHIL 2000	Comparative Religion	3
PHOT 1000	History of Photography	3

Geospatial Technology Certificate (6801)

The Geospatial Technology Certificate is designed to prepare students for a career in the geospatial industry. The certificate includes the geospatial technology core requirements of the Associate of Applied Science (AAS) major, plus a course in spatial analysis and modeling. Students may earn the certificate in addition to the AAS degree, and this certificate is especially designed for students who want to earn technical skills in addition to their two-year or four-year degree program to pursue a career in geospatial technology or a closely related field.

Students must meet specific admission requirements for this program and are advised to meet with a counselor or the program director. All prerequisite courses or their equivalent must be completed prior to acceptance in the Geospatial Technology certificate program.

Provisional admission may be granted to students currently enrolled in the prerequisite courses, if all courses are completed before enrollment in first semester of the certificate program. Coursework in this certificate includes prerequisites that are not included in the certificate. Students with equivalent courses, knowledge, and experience may request to have prerequisites waived prior to admission to the program.

Students must complete the following courses prior to program admission:

A minimum of 30 credit hours of for-credit college-level work with GPA of at least 2.0, including all of the following courses or their equivalents (with a grade of C or better): ENGL 1110 English Composition I (A) or ENGL 1111 English Composition I (B), ITIS 1005 Computer Essentials, and one college-level mathematics course.

Course	Title	Credit Hours
First Semester		
GEOG 1700	Map Design and Interpretation	3
Credit Hours		3
Second Semester		
GEOG 2700	Geographic Information Science	3
GEOG 2730	Remote Sensing	3
Credit Hours		6
Third Semester		
GEOG 2710	Spatial Data Acquisition and Management	3
GEOG 2750	Spatial Analysis and Modeling	3
Credit Hours		6
Fourth Semester		
GEOG 2780	Internship and Seminar in Geospatial Technology	2
Credit Hours		2
Total Credit Hours		17

Geospatial Technology Skills Certificate (6802)

The Geospatial Technology Skills Certificate is designed to be earned in conjunction with, or after completion of a two-year degree in a related field. The certificate is especially relevant for students who plan to transfer into a bachelor's degree program where basic geospatial information systems (GIS) and remote sensing skills are in demand, such as geosciences, ecology, biology, sociology, criminal justice, urban planning, civil engineering, or a related field. The certificate does not require special admissions. Students interested in pursuing a career in the geospatial field should consider the Associate of Applied Science degree in Geospatial Technology (9680) or the Geospatial Technology Certificate (6801).

Course	Title	Credit Hours
GEOG 1400	Mapping Technologies	3
GEOG 1700	Map Design and Interpretation	3
GEOG 2700	Geographic Information Science	3
GEOG 2730	Remote Sensing	3
Certificate Total		12

sUAS Applications in Geospatial Technology Certificate (6803)

The sUAS Applications in Geospatial Technology certificate is designed to prepare students for career in the geospatial field. The certificate includes the geospatial core requirements of the Associate of Applied Science (AAS) major and the Geospatial Technologies certificate, plus courses covering sUAS regulations, operations, flight planning, data collection, and FAA Part 107 requirements. Students may earn the certificate in addition to the AAS degree, and this certificate is especially designed for students who want to earn technical skills in addition to their existing career or degree program.

Students must meet specific admission requirements for this program and are advised to meet with a counselor or the program director.

All prerequisite courses or their equivalent must be completed prior to acceptance in the sUAS Applications in Geospatial Technology certificate program. Provisional admission may be granted to students currently enrolled in the below courses as long as all courses are completed before enrollment in first semester courses.

GEOG 1700 Map Design and Interpretation has a prerequisite of ITIS 1005 Computer Essentials (can be taken concurrently or permission of instructor or department chair. GEOG 2700 Geographic Information Science, GEOG 2730 Remote Sensing, and GEOG 2740 sUAS Flight and Planning have prerequisites.

NOTE: Coursework in this certificate includes prerequisites that are not included in the certificate. Students with equivalent courses, knowledge, and experience may request to have the prerequisites waived prior to program admission. Students who do not have the prerequisite and do not have equivalent courses, knowledge, and experience will need to take additional courses.

Course	Title	Credit Hours
First Semester		
GEOG 1700	Map Design and Interpretation	3
GEOG 1740	Introduction to sUAS	3
Credit Hours		6
Second Semester		
GEOG 2700	Geographic Information Science	3
GEOG 2740	sUAS Flight and Planning	3
Credit Hours		6
Third Semester		
GEOG 2730	Remote Sensing	3
GEOG 2781	Internship and Seminar in sUAS Applications in Geospatial Technologies	2
Credit Hours		5
Total Credit Hours		17