

# Associate of Applied Science in Geomatics

The Associate of Applied Science (AAS) in Geomatics prepares students for technician-level employment as land survey or mapping technicians. Those working as survey technicians frequently work outdoors, travel to various job locations, and enjoy an independent lifestyle. Mapping technicians work with the latest cartographic techniques and equipment and easily transfer skills learned in geomatics courses to other disciplines.

The program is based on the curriculum used in the Bachelor of Science (BS) in Geomatics and transfers credit for students interested in pursuing professional licensing as registered land surveyors.

## Admission Requirements

- Complete the Admission Requirements for Associate Degrees (<http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate/ees> (<http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate/>).

## Graduation Requirements

- Complete the General University Requirements for Associate Degrees (<http://catalog.uaa.alaska.edu/undergraduateprograms/aasrequirements/>).
- Complete the General Education Requirements for Associate of Applied Science Degrees (<http://catalog.uaa.alaska.edu/undergraduateprograms/aasrequirements/generaleducationrequirements/>).
  - For the Quantitative Skills requirement, choose (MATH A151 and MATH A152) or MATH A155.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
GEO A146	Geomatics Computations	3
GEO A156 & A156L	Geospatial Measurement I and Geospatial Measurement I Laboratory	3
GEO A256 & A256L	Engineering Surveying and Engineering Surveying Laboratory	3
GEO A266 & A266L	Geospatial Measurement II and Geospatial Measurement II Laboratory	3
GEO A267	Boundary Law I	3
GIS A101	Introduction to Geographic Information Systems	3
GIS A201	Intermediate Geographic Information Systems	3
MATH A151 & MATH A152	College Algebra for Calculus and Trigonometry	5-7

or MATH A155	Precalculus	
Complete 7 to 8 credits of natural sciences, including at least one laboratory:		7-8
ASTR A103 & A103L	Solar System Astronomy and Solar System Astronomy Laboratory	
BIOL A102 & BIOL A103	Introductory Biology and Introductory Biology Laboratory	
BIOL A178 or GEOL A178	Introduction to Oceanography	
BIOL A179	Introduction to Oceanography Laboratory	
CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	
ENVI A211	Environmental Science: Systems and Processes	
GEOG A111	Discovering Alaska and Earth's Physical Geography: From Weather to Glaciers	
GEOL A111 & A111L	Planet Earth and Planet Earth Laboratory	
GEOL A115 & A115L	Dangerous Earth and Dangerous Earth Laboratory	
PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
or PHYS A211 & A211L	General Physics I and General Physics I Laboratory	
PHYS A124 & A124L	College Physics II and College Physics II Laboratory	
or PHYS A212 & A212L	General Physics II and General Physics II Laboratory	
<b>Total</b>		<b>33-36</b>

**A minimum of 60 credits is required for the degree.**

## Program Student Learning Outcomes

Students graduating with an Associate of Applied Science in Geomatics will be able to:

- Operate industry standard field surveying equipment,
- Keep surveying records,
- Perform basic surveying computations,
- Produce surveying drawings,
- Apply knowledge of basic boundary law in the field, and
- Utilize basic geographic information systems in an engineering context.

## Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according

to their initial course placement (<http://catalog.uaa.alaska.edu/academicpoliciesprocesses/academicstandardsregulations/courseplacement/>), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

**Please review the following terms, definitions, and resources associated with the sample academic plan below.**

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER:** indicates a General Education Requirement (<http://catalog.uaa.alaska.edu/undergraduateprograms/baccalaureaterequirements/gers/>). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective:** indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective:** indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective:** indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective:** indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

### First Year

Fall		Credits
GEO A146	Geomatics Computations	3
GEO A156 & A156L	Geospatial Measurement I and Geospatial Measurement I Laboratory	3
GIS A101	Introduction to Geographic Information Systems	3
MATH A151	College Algebra for Calculus	4
WRTG A111	Writing Across Contexts	3
<b>Credits</b>		<b>16</b>

### Spring

KIN A112	First Aid and CPR for Professionals	1
MATH A152	Trigonometry	3
GER Written Communication Skills (200-level)		3
Elective		3

Elective		3
<b>Credits</b>		<b>13</b>
<b>Second Year</b>		
<b>Fall</b>		
GEO A256 & A256L	Engineering Surveying and Engineering Surveying Laboratory	3
GEO A266 & A266L	Geospatial Measurement II and Geospatial Measurement II Laboratory	3
GER Oral Communication Skills		3
Program Elective (w/ Lab)		4
Elective		3
<b>Credits</b>		<b>16</b>
<b>Spring</b>		
GEO A267	Boundary Law I	3
GIS A201	Intermediate Geographic Information Systems	3
Program Elective		3
Elective		3
Elective		3
<b>Credits</b>		<b>15</b>
<b>Total Credits</b>		<b>60</b>