

Bachelor of Science in Geomatics

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.

Sample Plan - GIS

First Year

Fall		Credits
CSCE A101	Introduction to Computer Science	3
GIS A101	Introduction to Geographic Information Systems	3
MATH A151	College Algebra for Calculus	4

WRTG A111	Writing Across Contexts	3
Credits		13

Spring

MATH A152	Trigonometry	3
GER Humanities ¹		3
GER Oral Communication Skills		3
GER Social Sciences ¹		3
GER Written Communication Skills (200-level)		3
Credits		15

Second Year

Fall

BA A241	Business Law I	3
MATH A251	Calculus I	4-6
or	or F.A.T. Calculus I	
MATH A251F		
STAT A253	Applied Statistics for the Sciences	4
GER Fine Arts		3
Program Elective ²		3
Credits		17-19

Spring

GIS A201	Intermediate Geographic Information Systems	3
MATH A252	Calculus II	4-6
or	or F.A.T. Calculus II	
MATH A252F		
GER Social Sciences		3
Program Elective (w/ Lab) ²		4
Elective		3
Credits		17-19

Third Year

Fall

GIS A301	Web GIS	3
GIS A351	Remote Sensing	3
MATH A314	Linear Algebra	3
Program Elective (GIS Concentration)		3
Program Elective ²		3
Credits		15

Spring

BA A300	Organizational Theory and Behavior	3
GIS A466	Spatial Analysis	3
PHIL A305	Professional Ethics	3
Program Elective (GIS Concentration)		3
Elective		3
Credits		15

Fourth Year

Fall

GIS A458	Spatial Data Management	3
GIS A467	Image Analysis	3
Program Elective		3

Upper Division Program Elective (GIS Concentration)	3
Elective	3
Credits	15
Spring	
ESM A450 Economic Analysis and Operations	3
GEO A460 Geomatics Capstone Project	3
Upper Division Program Elective (GIS Concentration)	3
Upper Division Elective	3
Upper Division Elective	3
Credits	15
Total Credits	122-126

¹ Choose a course that also fulfills the Alaska Native-Themed GER.

² Three Natural Science Program Electives must be a PHYS selection.

Sample Plan - Surveying

First Year

Fall	Credits
GEO A146 Geomatics Computations	3
GEO A156 Geospatial Measurement I and Geospatial Measurement I Laboratory	3
MATH A151 College Algebra for Calculus	4
WRTG A111 Writing Across Contexts	3
Program Elective ¹	3
Credits	16

Spring

KIN A112 First Aid and CPR for Professionals	1
MATH A152 Trigonometry	3
GER Oral Communication Skills	3
GER Social Sciences ²	3
GER Written Communication Skills (200-level)	3
Program Elective ¹	3
Credits	16

Second Year

Fall	
GEO A266 Geospatial Measurement II and Geospatial Measurement II Laboratory	3
GIS A101 Introduction to Geographic Information Systems	3
MATH A251 Calculus I or F.A.T. Calculus I or MATH A251F	4-6
STAT A253 Applied Statistics for the Sciences	4
GER Fine Arts ²	3
Credits	17-19

Spring

GEO A267 Boundary Law I	3
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GIS A201 Intermediate Geographic Information Systems	3
MATH A252 Calculus II or F.A.T. Calculus II or MATH A252F	4-6
GER Humanities ²	3
GER Social Sciences	3
Credits	16-18

Third Year

Fall

BA A241 Business Law I	3
GEO A256 Engineering Surveying & A256L and Engineering Surveying Laboratory	3
GEO A359 Geodesy and Map Projections	3
GIS A351 Remote Sensing	3
MATH A314 Linear Algebra	3
Credits	15

Spring

BA A300 Organizational Theory and Behavior	3
GEO A357 Photogrammetry	3
GEO A364 Spatial Data Adjustments	3
GEO A369 Cadastral Surveys	1
PHIL A305 Professional Ethics	3
Program Elective (w/ Lab) ¹	4
Credits	17

Fourth Year

Fall

ESM A450 Economic Analysis and Operations	3
GEO A410 High-Density Surveying	3
GEO A466 Geopositioning & A466L and Geopositioning Laboratory	3
Program Elective (Surveying Concentration)	3
Program Elective	3
Credits	15

Spring

GEO A420 Point Cloud Analysis	3
GEO A457 Boundary Law II	3
GEO A460 Geomatics Capstone Project	3
Program Elective (Surveying Concentration)	3
Credits	12
Total Credits	124-128

¹ Three Natural Science Program Electives must be a PHYS selection.

² Choose a course that also fulfills the Alaska Native-Themed GER.