

B.S. Surveying and Geomatics Engineering Technology

To declare a major in Surveying and Geomatics Engineering Technology, a student must have completed an AAS Degree in Civil Engineering Technology at ISU or equivalent, or have permission of the program coordinator. Students will meet with an advisor prior to the third year of the program to declare the major. For further details, please consult faculty of the Surveying and Geomatics Engineering Technology program.

The following courses are required for a Bachelor of Science degree.

Code	Title	Credits
CET 0111 or CE 1105	Drawing with CAD Engineering Graphics	3
CET 0112	Beginning Survey	3
CET 0121	Civil Engineering Technology Drafting	3
CET 0122	Intermediate Surveying and Spatial Analysis	3
CET 0216	Route Survey and GPS Fundamentals	3
CET 0226	Construction Surveying	3
CET 0228	Principles of GIS	3
CET 0232	Plan Reading and Worksite Safety	3
CET 0243	Public Works	3
CET 0250	Unmanned Aerial Systems/Imagery Analysis	3
CET 0251	Introduction to Legal Descriptions	1
Complete either this course:		5-6
MATH 1147	College Algebra and Trigonometry	
OR these two courses:		
CET 0110	Applied Mathematics I	
CET 0120	Applied Mathematics II	
Complete either these two courses:		7-8
CET 0115A	Materials Testing I	
CET 0125A	Materials Testing II	
OR these three courses:		
CET 0113	Civil and Geomatics Engineering Technology I	
CET 0123	Civil and Geomatics Engineering Technology II	
GEMT 2231	Survey Computations	
ENGL 3307	Professional and Technical Writing	3
GEMT 3310	Boundary Surveying Law	3
GEMT 3311	Advanced Surveying	3
GEMT 3312	Public Land Surveying	3
GEMT 3313	Surveying Software Applications	2
GEMT 3314	Research and Evidence in Surveying	3
GEMT 3315	Surveying Adjustments and Coordinate Systems	3
GEMT 3317	Subdivision Planning and Platting	2
GEMT 3319	Writing Legal Descriptions	1
GEMT 4400	Essentials of Surveying	2
GEMT 4411	Geodesy	3

GEMT 4415	Survey Office Practice	3
GEMT 4416	Surveying Project	3
GEMT 4430	GPS Principles and Applications	3
Complete either these two courses:		8
MATH 1170	Calculus I	
MATH 1175	Calculus II	
OR these two courses:		
RCET 0264	Introductory Calculus	
RCET 1372	Calculus for Electronics	
Select ONE of the following:		3
GEMT 4432	Principles of Photogrammetry	
GEOL 4409	Remote Sensing	
Select ONE of the following:		3
GEMT 4425	Principles of Cartography	
GEOL 4404	Advanced Geographic Information Systems	
GEOL 4427	Information Technology for GIS	
General Education Requirements		
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
ENGL 1101	Writing and Rhetoric I (Partially satisfies General Education Objective 1)	3
or ENGL 1101P	Writing and Rhetoric I Plus	
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
MATH 1153	Statistical Reasoning (Satisfies General Education Objective 3)	3
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory (Partially satisfies General Education Objective 5)	4
HIST 1118	US History and Culture (Satisfies General Education Objective 7)	3
ECON 1100	Economic Issues (Each of these 3 courses partially satisfy General Education Objective 6)	3
or ECON 2201	Principles of Macroeconomics	
or ECON 2202	Principles of Microeconomics	
PHIL 1103	Introduction to Ethics (Partially satisfies General Education Objective 4)	3
Other General Education Objective courses		12
Total Credits		130-133

Major Academic Plan (MAP)