SURVEYING AND GEOMATICS

ASSOCIATE OF SCIENCE, WITH AN EMPHASIS IN SURVEYING AND GEOMATICS – 98 CREDITS

CAREER DESCRIPTION

The surveying and geomatics professions work with private and public projects. Projects may include property surveys, road construction, topographical maps or building layout. The surveying curriculum offers a hands-on approach to learning the principles of surveying. Electronic surveying equipment and computer software are used throughout the coursework.

Geographic information systems (GIS) is a systematic approach to management, analysis, and display of geographic information. Many public agencies now use GIS for most of their mapping. Surveying, geomatics, and GIS often overlap.

Oregon Tech is currently the only university in Oregon that offers either a Bachelor of Science in Geomatics, Surveying Option or a Bachelor of Science in Geomatics, Geographic Information Systems (GIS) Option.

Students interested in a 2-year AAS degree with focus in Surveying & Geomatics may want to consider an AAS in Civil Engineering and Surveying Technology. For more information on the AAS program go to the Career and Technical portion of this catalog under ENGINEERING TECHNOLOGY: Civil Engineering and Surveying Technology, AAS. The UCC Counseling and Career Planning Services can assist with developing a plan for course of study.

PROGRAM OUTCOMES

Students who successfully complete an Associate of Science with an emphasis in Surveying and Geomatics will:

1. Apply knowledge of mathematics, science, and engineering.
2. Design, collect, analyze, and interpret data.
3. Function on teams.
4. Identify, formulate, and solve surveying problems.
5. Communicate effectively.

GRADUATION REQUIREMENTS

Oregon Tech is currently the only university in Oregon that offers either a Bachelor of Science in Geomatics, Surveying Option or a Bachelor of Science in Geomatics, Geographic Information Systems (GIS) Option.

Students interested in a 2-year AAS degree with focus in Surveying & Geomatics may want to consider an AAS in Civil Engineering and Surveying Technology. For more information on the AAS program go to the Career and Technical portion of this catalog under ENGINEERING TECHNOLOGY: Civil Engineering and Surveying Technology, AAS. The UCC Counseling and Career Planning Services can assist with developing a plan for course of study.

ARTICULATION AGREEMENT

The articulation agreement for this program can be found at http://tinyurl.com/oituccarticul.

ASSOCIATE OF SCIENCE — Surveying and Geomatics

98 Credits — Recommended Sequence for Students (Students should see an advisor to customize their educational plan.)

YEAR ONE

Fall	Engineering Orientation I ENGR 111 3 CR	Computer Aided Drafting I DRF 112 3 CR	Elementary Functions MTH 112 4 CR	English Composition Intro to Argument WR 121 4 CR	Digital World and Geospatial Concepts GIS 203 4 CR	CREDITS 18
Winter	Social Sciences Elective 3 CR	GIS I Intro to Geographic Information Systems GIS 234 4 CR	Calculus I MTH 251 5 CR WR 122 4 CR	English Composition Style & Argument		CREDITS 16
Spring	CAD-Civil3D and Virtual Design CIV 214 3 CR	Surveying I SUR 161 4 CR	Calculus II MTH 252 4 CR	GIS II Data Analysis and Applications GIS 235 4 CR		CREDITS 15

YEAR TWO

Fall	Plane Surveying II SUR 162 4 CR	Vector Calculus MTH 254 4 CR	General Physics w/Calculus PH 211 5 CR	Arts & Letters Elective 3 CR	CREDITS 16
Winter	Route Surveying SUR 163 4 CR	Introduction to Probablity and Statistics MTH 243 4 CR	General Physics w/Calculus PH 212 5 CR	Photogrammetry and Intro to Remote Sensing SUR 209 4 CR	CREDITS 17
Spring	Land Descriptions- and Cadastre SUR 242 3 CR	Technical Report Writing WR 227 4 CR	General Physics w/Calculus PH 213 5 CR	Fundamentals of Public Speaking SP 111 4 CR	CREDITS 16

NOTES

Scheduling requirements may prevent all courses from being offered every term. Consultation with an advisor is critical to student's selection of courses. Please see an advisor for a degree planning worksheet for this program.

General Education Requirements. See UCC Engineering Faculty Advisor or UCC Advising Services to review requirements for selected transfer university and AS requirements at UCC.

Students must take one Humanities and one Social Sciences elective 3 credits from a course that meets Cultural Literacy-can also be used to meet Humanities/Social Sciences