

ENGINEERING

Surveying & Geomatics Associate of Science

PROGRAM DESCRIPTION

This degree prepares students for transfer to the bachelor's degree program Oregon Tech. Oregon Tech (OIT) 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. OIT also offers a minor in Geomatics for Civil Engineering majors. 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.

PROGRAM OUTCOMES

Students who complete the Surveying & Geomatics Associate of Science (AS) will have the knowledge, skills, and abilities to:

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

CAREER CONSIDERATIONS

The surveying and geomatics professions work with private and public projects. Projects may include property surveys, road construction, topographical maps or building layout. 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. There is a strong job market for these skills, and virtually 100% of graduates from OIT with a degree in Geomatics are employed at graduation.

PROGRAM COURSE REQUIREMENTS

Year One

General Education Requirements

Arts & Letter Elective ¹	3
MTH 251 Calculus I	5
WR 121 Academic Composition	4
WR 122 Argument, Research, and Multimodal Comp	4

Program Requirements

CIV 214 CAD – Civil3D	3
DRF 112 CAD I	3
ENGR 111 Orientation to Engineering	3
GIS 203 Digital World	4
GIS 234 GIS I Intro to GIS	4
GIS 235 GIS II Data Anal & Apps	4
SUR 161 Plane Surveying I	4

Year One Credits (minimum) 49

Year Two

General Education Requirements

SP 111 Fundamentals of Public Speaking	4
Social Sciences Elective	3
WR 227 Technical Writing	4

Program Requirements

MTH 243 ² Probability & Statistics	4
MTH 254 Vector Calculus	4
PH 211 Physics w/Calculus I	4
PH 212 Physics w/Calculus I	4
PH 213 Physics w/Calculus I	4
SUR 162 Plane Surveying II	4
SUR 163 Route Surveying	4
SUR 242 Land Descriptions & Cadastre	3

Year Two Credits (minimum) 45

NOTES:

¹ At least one Arts & Letters elective must be designated as Cultural Diversity. OSU General Ed requirements include 5 "Perspective" courses, see website info at OSU website. OIT General Ed requirements allow up to 9 cr of Humanities electives and 12 cr of Social Science Electives, see articulation agreements

² MTH 265 can be substituted for MTH 243