

Civil Technology

civil.chemeketa.edu

The Civil Technology program offers both a one-year Certificate of Completion and a two-year Associate of Applied Science degree. The one-year certificate program prepares the student for entry-level surveying and drafting positions. The two-year program prepares the student to provide preliminary designs of public works projects and subdivision design in addition to surveying projects. Both curricula include courses and field experiences in drafting and surveying. The two-year program also includes basic office calculations in street, storm, and wastewater layout and design.

Job opportunities vary. As a graduate of the two-year program, you may assist in planning, design, and construction. You may go into public services dealing with water supply and wastewater treatment systems. As a technician on construction projects, you may assist in estimating costs, writing specifications, inspecting, surveying, drafting, or designing.

Program outcomes

Students completing the certificate will:

- Apply skills and attitudes that reflect professional behavior in the field and office.
- Work as a member of a team to set up and operate surveying equipment to gather data for site plans.
- Perform basic survey calculations.

In addition to the certificate outcomes, students completing the AAS will:

- Perform advanced survey operations utilizing electronic surveying equipment.
- Build coverages and construct queries with GIS software.
- Lay out streets, lots, and utilities for a subdivision based on survey data or property descriptions.
- Create topographic drawings and base maps from data gathered with electronic survey equipment.
- Read and write basic metes and bounds descriptions.

Getting started

The first step to entering the following program is to take part in an assessment process, which includes taking the college's free placement test and meeting with Counseling and Career Services staff. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

CA121A	Keyboarding A (if less than 25 wpm).....	1
CIS101	Introduction to Microcomputer Applications	3
MTH070	Elementary Algebra.....	4
SSP051	Studying for College.....	3
	or	
RD090	College Textbook Reading.....	3
WR049	Basic Writing.....	4

If you have questions about the requirements, call Counseling and Career Services at 503.399.5120 or 503.399.5210. Failure to be assessed may delay your entry into program classes.

Survey Technology Certificate of Completion

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$481; class fees, \$95; student services fee, \$25; universal fee, \$300; equipment and supplies, \$355. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 50 credit hours with a grade of "C" or better in all courses:

Course Term	Title	Credit Hours
COM051	Communication Skills I+	3
	or	
WR121	English Composition—Exposition+ (or higher)	3
CVL130	Work Zone Safety and First Aid	1
CVL143	Introduction to Civil Survey	3
DRF110	Applied Engineering Computations.....	2
DRF112	Sketching.....	1
DRF130	CAD 1	3
MTH081	Technical Mathematics I+	4
	or	
MTH111	College Algebra+ (or higher).....	5
	Term 2	
CVL161A	Plane Surveying 1—Lecture.....	2
CVL161B	Plane Surveying 1—Lab.....	2
DRF131	CAD 2.....	3
DRF220	GIS 1	2
GEG105	Physical Geography	4
MTH082	Technical Mathematics 2	4
	or	
MTH112	Trigonometry (or higher)	5
	Term 3	
CVL162A	Plane Surveying 2—Lecture.....	2
CVL162B	Plane Surveying 2—Lab.....	2
DRF155	Mapping and Platting	3
DRF160	Technical Software Applications.....	3
	or	
CIS125E	Excel—Workbooks.....	4
DRF221	GIS 2	3
PSY104	Psychology in the Workplace+	3

Civil Technology Associate of Applied Science

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$1,266; class fees, \$275; student services fee, \$49; universal fee, \$588; equipment and supplies, \$355. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.

Chemeketa also offers a pre-engineering transfer program for students who want to transfer to an accredited four-year college or university to earn a Bachelor of Science degree.

An Associate of Applied Science degree is awarded upon the successful completion of the required 98 credit hours with a grade of "C" or better in all courses:

Course	Title	Credit Hours
Term 1		
COM051	Communication Skills I+	3
	or	
WR121	English Composition—Exposition+ (or higher)	3
CVL130	Work Zone Safety and First Aid	1
CVL143	Introduction to Civil Survey	3
DRF110	Applied Engineering Computations.....	2
DRF112	Sketching.....	1
DRF130	CAD I	3
MTH081	Technical Mathematics I+	4
	or	
MTH111	College Algebra+ (or higher).....	5
Term 2		
CVL161A	Plane Surveying 1—Lecture.....	2
CVL161B	Plane Surveying 1—Lab.....	2
DRF131	CAD 2	3
DRF220	GIS 1	2
GEG105	Physical Geography	4
MTH082	Technical Mathematics 2	4
	or	
MTH112	Trigonometry (or higher)	5

Term 3

CVL162A	Plane Surveying 2—Lecture.....	2
CVL162B	Plane Surveying 2—Lab.....	2
DRF155	Mapping and Platting.....	3
DRF160	Technical Software Applications.....	3
	or	
CIS125E	Excel—Workbooks.....	4
DRF221	GIS 2	3
PSY104	Psychology in the Workplace+	3

Term 4

CVL230	Applied Statics.....	3
CVL240A	Construction Surveying—Lecture.....	2
CVL240B	Construction Surveying—Lab.....	2
DRF245	Civil Drafting and Design.....	4
PH121	Applied Physics (or higher).....	4

Term 5

CVL231	Applied Strength of Materials.....	4
CVL260	Survey Project Planning	3
CVL261	Environmental and Sanitary Technology.....	4
DRF230	Introduction to MicroStation PC.....	3
DRF241	Structural Drafting.....	3

Term 6

COM053	Technical Report Writing.....	3
	or	
WR227	Technical Writing	3
CVL263A	Topographic Surveying—Lecture.....	2
CVL263B	Topographic Surveying—Lab	2
DRF165	CAD System Administration.....	3
DRF231	Advanced MicroStation	3
DRF246	Project Development.....	3

+Meets related instruction requirement

