

Civil/Surveying Technology A.A.S.

Program Description

This Civil Surveying Technology program incorporates design, use and construction of public use facilities, such as highways, bridges, airports, dams, canals and drainage systems. The curriculum is designed to provide basic theoretical training with practical application. Students have an opportunity to become familiar with modern field and computational procedures used in routine and specialized surveying operations. Curriculum is designed not only to incorporate National Uniform Fundamentals materials but to prepare and enable an individual to sit for the licensure examination used by the Oklahoma State Board of Registration of Professional Engineers and Land Surveyors.

Employment Information

Graduates from this program may find a wide variety of employers in the public and private sectors. Graduates may work for local, state or federal government agencies, or they may find positions with private engineering, surveying, planning or construction firms. Since the degree can lead to professional licensure as a registered land surveyor after apprenticeship and examination, the graduate may choose to own his or her own private civil/surveying firm.

Degree Awarded

Associate in Applied Science

For More Information Contact:

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 Science and Engineering Technologies Division
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Technical Occupational Specialty

<input type="checkbox"/>	CSUR	1101	Introduction to surveying	1
<input type="checkbox"/>	CSUR	1232	Principles of Hydraulics	2
<input type="checkbox"/>	CSUR	2232	Route Surveying	2
<input type="checkbox"/>	CSUR	2233	Civil CAD Drafting II	3
<input type="checkbox"/>	CSUR	2422	Intro to Photogrammetry	2
<input type="checkbox"/>	CSUR	2433	Civil CAD Drafting II	3
<input type="checkbox"/>	CSUR	2614	Surveying I	4
<input type="checkbox"/>	CSUR	2623	Legal Principles of Surveying I	3
<input type="checkbox"/>	CSUR	2633	Legal Principles of Surveying II	3
<input type="checkbox"/>	CSUR	2734	Applied Surveying Computations	4
<input type="checkbox"/>	CONS	2103	Introduction to Construction Management	3

31 Credit Hours

Date	Institution

Support and Related Courses

12 Credit Hours

Select 12 credit hours from the following:

<input type="checkbox"/>	ARCH	1103	Plan Reading	3
<input type="checkbox"/>	ARCH	2263	Systems and Materials	3
<input type="checkbox"/>	ARCH	2613	Architectural Desktop I	3
<input type="checkbox"/>	CONS	1214	Introduction to Construction	4
<input type="checkbox"/>	CONS	2343	Concrete and Asphalt Construction	3
<input type="checkbox"/>	CONS	2423	Construction Estimating I	3
<input type="checkbox"/>	CONS	2623	Construction Estimating II	3
<input type="checkbox"/>	CSUR	1320	Technical Problems in Surveying	1-6
<input type="checkbox"/>	CSUR	2050	Advanced Technical Problems in Surveying	1-6
<input type="checkbox"/>	CSUR	2113	Urban Transportation Systems	3
<input type="checkbox"/>	CSUR	2133	Contracts and Specifications	3
<input type="checkbox"/>	CSUR	2543	Transportation and Traffic Analysis	3
<input type="checkbox"/>	CSUR	2650	Technical Projects-Surveying	1-6
<input type="checkbox"/>	CSUR	2143	Highway Design and Construction	3
<input type="checkbox"/>	CSUR	2774	Structural Analysis and Design	4
<input type="checkbox"/>	FPST	2323	Environmental site Assessments	3
<input type="checkbox"/>	INDD	1103	Technical Drafting	3

General Education Courses

18 Credit Hours

<input type="checkbox"/>	ENGL	1113	English Composition I	3
<input type="checkbox"/>	HIST	1493	U.S. History Since 1865	3
<input type="checkbox"/>	MATH	1513	College Algebra	3
<input type="checkbox"/>	MATH	1613	Trigonometry	3
<input type="checkbox"/>	PSYC	1113	American Government	3

Select 3 credit hours from the following:

<input type="checkbox"/>	ENGL	1213	English Composition II	3
<input type="checkbox"/>	SPCH	1113	Introduction to Speech Communication	3

Total to Graduate

61 Credit Hours

Student Name:	_____
CWID:	_____
Counselor:	_____
Catalog 2009-2010	

CSUR 1101 INTRODUCTION TO SURVEYING

Introduction to the profession of land surveying. Course will familiarize the student with the history of surveying in the United States, knowledge of the terminology as well as the equipment used in the profession. Students will gain an elementary knowledge of the duties and responsibilities of a professional land surveyor.

CSUR 1232 PRINCIPLES OF HYDRAULICS

Principles of fluid mechanics, pressure conduits, open channel flow, fluid measurement and drainage structures. Design of collection systems for municipal drainage.

CSUR 2232 ROUTE SURVEYING

Principles of route surveys, use of photogrammetry in route design and layout. Computer applications. Prerequisite: CSUR 2614.)

***CSUR 2233 CIVIL CAD DRAFTING**

Covers a land survey CAD (computer-aided drafting) system, experience in contour maps, plan sheets, sections and details. Lab: three hours per week. Prerequisites: CSUR 2614 and INDD 1614.

CSUR 2422 INTRODUCTION TO PHOTOGRAMMETRY

This course presents the fundamentals of photogrammetry and then progresses to advanced methodology, as applied to the practice of surveying. This course is intended to present photogrammetric technology to surveyors so they may be better prepared to use and understand photogrammetric applications. The course is designed to prepare surveyors with the terminology and technology that will assist intellectually in acquiring photogrammetric data and services. Prerequisite: CSUR 2614

CSUR 2423 ADVANCED SURVEYING AND PHOTOGRAMMETRY

Care and adjustment of instruments, controls by triangulation, photographic methods of mapping, including ground control in aerial surveys, measurement and computation of earthwork, topographic surveys with conventional instruments and photographic methods. Oklahoma laws governing land surveys and professional licensing. Lab: three hours per week. Prerequisite: CSUR 2614.

***CSUR 2433 CIVIL CAD DRAFTING II**

Continuation of CSUR 2233. Advanced applications of civil CAD (computer-aided drafting) software to assigned civil or survey projects. Lab: three hours per week. Prerequisite: CSUR 2233.

CSUR 2614 SURVEYING I

First course in measurement science. Introduction and application of basic plane surveying procedures, linear and angular measurements and differential leveling, traverse and topographic surveys. Computer application to surveying calculations. Lab: three hours per week.

CSUR 2623 LEGAL PRINCIPLES OF LAND SURVEYING I

History of land surveying and law development, legal boundaries, title to land, public land surveys and general principles for subdivision of a section. Prerequisite: CSUR 2614.

CSUR 2633 LEGALS PRINCIPLES OF LAND SURVEYING II

Intensive study in the basic principles of legal descriptions of land, boundary agreements, boundaries adjacent to bodies of water, highway and street rights-of-way and deeds. Lab: three hours per week. Prerequisite: CSUR 2623.

CSUR 2734 APPLIED SURVEY COMPUTATIONS

Computations in traversing, adjustments, curves, astronomical observations and state plane coordinates to actual situations in highway location; rectangular land grid system, hydraulics and photogrammetry. Prerequisites: CSUR 2423 and CSUR 2232 and CSUR 2633.

CONS 2103 INTRODUCTION TO CONSTRUCTION MANAGEMENT

A study of organization, management, economics and labor relations pertaining to projects during the construction phase. Prerequisite: advisor's approval.