

## ENGINEERING

### Geographic information Systems Pathway Certificate

#### PROGRAM MISSION

The Geographic Information System (GIS) Pathway Certificate program prepares students with the foundational knowledge and skills to apply GIS concepts.

#### PROGRAM DESCRIPTION

The Geographic Information Systems (GIS) Pathway Certificate provides GIS training in support of student's career and education goals in: science, business, engineering, surveying, and resource management, public safety, and urban and regional planning. The GIS courses transfer to many Oregon universities and support students and working professionals as they update their technical skills. The GIS classes in the certificate are found in the Civil Engineering & Surveying Technology, AAS degree and the AS degree with emphasis in Surveying and Geomatics.

#### PROGRAM OUTCOMES

Students who successfully complete the Pathway Certificate in Geographic Information Systems will:

1. Utilize modern measurement technologies to acquire spatial data

#### CAREER CONSIDERATIONS

Geographic Information Systems (GIS) technology is utilized by virtually all public agencies and private companies involved in managing resources and assets. The GIS Pathway Certificate provides technical skills in support of multiple career and educational pathways.

#### PROGRAM COURSE REQUIREMENTS

##### Year One

GIS 203	Digital World & Geospatial Concepts	4
GIS 234	GIS: Intro to Geographic Systems	4
GIS 235	GIS II: Analysis and Applications	4

**Total Credits 12**

## ENGINEERING

### Surveying Pathway Certificate

#### PROGRAM MISSION

The Surveying Pathways Certificate program prepares students with the foundational knowledge and skills in Surveying

#### PROGRAM DESCRIPTION

The purpose of the Surveying Pathway Certificate is to provide training in basic surveying skills for entry level positions on surveying field crews and/or to support architectural design, civil design and construction. The surveying classes in the certificate are found in the Civil Engineering & Surveying Technology, AAS degree and the AS degree with emphasis in Surveying and Geomatics.

#### PROGRAM OUTCOMES

Students who successfully complete the Pathway Certificate in Surveying will:

1. Utilize modern measurement technologies to acquire spatial data

#### CAREER CONSIDERATIONS

Surveying skills are in high demand as technology advances, the economy is expanding which drives demand for new development, and many experienced surveyors are reaching retirement age.

#### PROGRAM COURSE REQUIREMENTS

##### Year One

SUR 161	Surveying I	4
SUR 162	Surveying II	4
SUR 163	Route Surveying	4
SUR 242	Land Description and Cadastre	3
MTH 112	Elementary Functions	4

**Total Credits 19**