

Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: Manufacturing: GIS

Submitter

First Name: Carel

Last Name: Kotze

Phone: 3728

Email: carelk

Course Prefix and Number: GIS - 232

Credits: 3

Contact hours

Lecture (# of hours):

Lec/lab (# of hours): 60

Lab (# of hours):

Total course hours: 60

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Data Collection & Application

Course Description:

An introduction to data collection techniques and applications. This course explores different techniques to collect spatial and tabular data. The class focuses on GPS (Global Positioning System) data collection using mapping grade GPS units. ArcGIS mobile extensions are used to compile, extract and use collected data. This class will also cover the use and applications of aerial drones (UAV) to collect and analyze GIS data.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Geographic Information Systems (GIS) Technology Certificate

Are there prerequisites to this course?

Yes

Pre-reqs: GIS-201

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

Yes

Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Demonstrate proficiency in the different techniques of data collection,
2. Effectively plan for the collection of data,
3. Effectively collect different types of data,
4. Demonstrate proficiency in use GIS hardware and software in data collection,
5. Demonstrate proficiency in data transferring and displaying the data in a GIS system,
6. Use an Unmanned Aerial Vehicle(UAV) to collect GIS data.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Gather data with GPS equipment.
2. Database design for data collection.
3. Import external data into a GIS.
4. Use Unmanned Aerial Vehicle for data collection.
5. Creating reports from collected data.
6. Present the collected data in as a GIS project.

Does the content of this class relate to job skills in any of the following areas:

- | | |
|--------------------------------------|------------|
| 1. Increased energy efficiency | No |
| 2. Produce renewable energy | No |
| 3. Prevent environmental degradation | No |
| 4. Clean up natural environment | No |
| 5. Supports green services | Yes |

Percent of course: **30%**

First term to be offered:

Next available term after approval

:

