

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 - 281

Credits: 3

Contact hours

Lecture (# of hours):

Lec/lab (# of hours): 66

Lab (# of hours):

Total course hours: 66

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: ArcGIS I

Course Description:

Students will learn the essential skills needed to navigate and operate ArcGIS software. The class explores geoprocessing tools, spatial and attribute joins, the geodatabase format, raster analysis, geocoding and presenting 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): GIS 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?

✓ **Winter**

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. create and use a geodatabase in the ArcGIS environment,
2. query features using logical expressions,
3. find features using spatial relationships,
4. edit spatial data and non-spatial data,
5. analyse and process raster data,
6. create and edit new data,
7. use spatial joins to solve geospatial problems,
8. create and use geocoding tools in ArcGIS,
7. create maps, reports, and graphs.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Basics of ArcGIS.
2. What can a GIS do?
3. What is a geodatabase?
4. The applications: ArcMap, ArcCatalog, and ArcToolbox.
5. Displaying and Georeferencing Data in ArcGIS.
6. Spatial joins in ArcGIS.
7. Raster analysis in ArcMap.
8. Geocoding and address matching.
9. Working with attributes and attribute joins in ArcGIS.
10. Querying your database in ArcGIS.
11. Spatial queries.
12. Presenting data in ArcGIS.
13. Basic cartographic principles.

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

:
