

## Clackamas Community College

### Online Course/Outline Submission System

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Show changes since last approval in red

#### Section #1 General Course Information

**Department:** WAFE

**Submitter**

First Name: Carel

Last Name: Kotze

Phone: 3728

Email: carelk

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**Course Prefix and Number:** GIS - 282

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**# Credits:** 3

**Contact hours**

Lecture (# of hours):

Lec/lab (# of hours): 66

Lab (# of hours):

Total course hours: 66

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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.

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**Course Title:** ArcGIS II

**Course Description:**

This class is an advanced study of the ArcGIS software, including working with geodatabases, feature datasets, feature classes, subtypes, domains and relationship classes. Additional topics include: establishing topological relationships, geometric networks, network analysis and advance editing. Students also learn 3D analysis of data and the use of ModelBuilder to automate tasks.

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**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):** CC: Gistechnology

Are there prerequisites to this course?

**Yes**

**Pre-reqs:** GIS-281

**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. manage geographic data,
2. create subtypes and domains in a geodatabase,
3. create and edit data topology,
4. use a geometric network,
5. place labels using advanced labeling properties,
6. create annotation,
7. create and utilize 3D data,
8. use ModelBuilder to create and execute models,
9. perform spatial analysis,
10. complete a comprehensive real world GIS project,
11. produce high-quality maps and graphs.

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***This course does not include assessable General Education outcomes.***

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Major Topic Outline:

1. Domains and subtypes in a geodatabase
2. Design and create a geodatabase schema
3. Automating GIS processes in ModelBuilder
4. Analyzing networks
5. Understand topology
6. Explore advanced cartographic methods and techniques
7. Understand and use 3D data in the GIS environment
8. Spatial extraction
9. Proximity analysis
10. Completing a GIS project
11. Presenting results

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

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

Percent of course: 30%

First term to be offered:

**Next available term after approval**

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