45.0702 CTGIS



Tohono O'odham Community College



Certificate in Geographic Information Science

The GIS certificate program consists of 31 credit hours. This certificate is designed to be flexible in that it can provide students with the essential entry level skills to obtain direct employment with the Tohono O'odham Nation and surrounding agencies while also allowing degree-seeking students and community members to gain valuable, practical skills in an emerging technical sector.

Sample Path Progression

If you are a part time student, take half of the classes each semester (fall 1 and spring 1). The following year, take the second half of the classes (fall 1 again and spring 1 again) until you complete the suggested sequence.

| Fall 1 (12 cr hr) | Spring 1 (10 cr hr) |
|-------------------|---------------------|
| ✓ GEO 217 | ✓ THO 101 |
| ✓ WRT 101 | ✓ GEO 270 |
| ✓ MAT 142H | ✓ GEO 280 |
| ✓ CIS 100 | |
| Fall 2 (9 cr hr) | |
| ✓ GEO 170 | |
| ✓ GEO 267 | |
| ✓ HIS 122 | |





Tohono O'odham Community College



Certificate in Geographic Information Science

| NAME: | TOCC ID: |
|--------------------|--------------------------------|
| TOCC EMAIL: | PHONE NUMBER: |
| TERM OF ADMISSION: | EXPECTED GRADUATION YEAR/TERM: |
| ACADEMIC ADVISOR: | FACULTY ADVISOR: |

General Education Courses:

- Tohono O'odham Himdag (7 cr): HIS 122 (3 cr) and select one from the following: THO 101, THO 106 (4 cr)
- Mathematics: MAT 142H or higher

Note: All courses are 3 cr hrs unless otherwise indicated

| COURSE | COURSE NAME | REPLACEMENT COURSE | SEMESTER | YEAR | CREDITS | GRADE | MET |
|--|---------------------|-----------------------|----------|------|---------|-------|-----|
| PREFIX | | | | | | | |
| HIS 122 | Tohono O'odham | | | | | | |
| | History and Culture | | | | | | |
| THO | | | | | | | |
| WRT 101 | Writing I | | | | | | |
| MAT 142H | College Mathematics | | | | | | |
| CIS 100 | Introduction to | | | | | | |
| | Computers | | | | | | |
| Total General Education Credits Needed: 17 | | Total Earned Credits: | | | | | |

Core Requirements:

| COURSE | COURSE NAME | REPLACEMENT COURSE | SEMESTER | YEAR | CREDITS | GRADE | MET |
|----------------------------------|---------------------------|-----------------------|----------|------|---------|-------|-----|
| PREFIX | | | | | | | |
| GEO 170 | Introduction to | | | | | | |
| | Geospatial | | | | | | |
| | Technology | | | | | | |
| GEO 217 | Introduction to | | | | | | |
| | Global Positioning | | | | | | |
| | System (2 cr) | | | | | | |
| GEO 267 | Introduction to GIS | | | | | | |
| | (Prerequisite: : CIS 100) | | | | | | |
| GEO 270 | Remote Sensing | | | | | | |
| | (Prerequisite: GEO 267 | | | | | | |
| | and CIS 100) | | | | | | |
| GEO 280 | GIS Applications | | | | | | |
| | (Prerequisite: | | | | | | |
| | (Prerequisite: GEO 267 | | | | | | |
| | or GEO 277) | | | | | | |
| Total Core Credits Needed: 14 | | Total Earned Credits: | | | | | |
| Total Program Credits Needed: 31 | | Total Earned Credits: | | | | | |

Program Learning Outcomes:

- 1. Learn and apply Field Mapping and GNSS Survey Skills
- 2. Use instrumentation to acquiring Data

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- 3. Develop Maps
- 4. Think Critically and Spatially
- 5. Be prepared for a Career in GIS
- 6. Analyze Patterns in Data

Students:

You must secure official approval by your advisor(s) before submitting the **final** Program of Study. By signing or entering your name below, you agree to the following statement: "Students are responsible for complete knowledge of Academic Catalog requirements in their degree plan and for adhering to all policies in Academic Catalog and Student Handbook."

Signature Panel:

Please indicate approval of the curriculum on the Program of Study by placing your signature (formal electronic signatures are permitted) in the space provided.

| Student: | Date: |
|--------------------|-------|
| Academic Advisor: | Date: |
| Faculty Advisor: | Date: |
| Registrar: | Date: |
| Dean of Academics: | Date: |