



# Tohono O'odham Community College

## Associate of Science in Physical Science



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

### Himdag and General Education Requirements:

- **Tohono O'odham Himdag:** (7 cr): HIS 122 (Institutions of Americas: 3 cr) and THO 101 (Written & Oral Comm: 4 cr)
- **Arizona General Education Courses (AGEC) Requirements listed below (with credit requirements)**

Note: MAT 142H and courses ending in N (e.g., BIO 100N) are 4 cr. hrs unless otherwise indicated. The rest of the courses are 3 cr. hrs unless otherwise indicated.

COURSE PREFIX	COURSE NAME	REPLACEMENT COURSE	SEMESTER	YEAR	CREDITS	GRADE	MET
<b>Institutions of the Americas: (3 cr)</b>							
HIS 122	Tohono O'odham History and Culture						
<b>Written and Oral Communications: (10 cr – first 6 must be composition/technical writing)</b>							
WRT 101	Writing I						
WRT 102	Writing II						
THO 101	Elementary Tohono O'odham I						
<b>Quantitative Reasoning: (5 cr)</b>							
MAT 220	Calculus I (prerequisites: MAT 182 or MAT 187; or placement test equivalent)						
<b>Arts and Humanities: (6 cr)</b>							
<b>Social and Behavioral Sciences: (6 cr)</b>							
<b>Natural Sciences: (4 cr)</b>							
PHY 121N	Fundamentals of Physics I						
<b>Total General Education Credits Needed: 35</b>				<b>Total General Education Credits Earned:</b>			

### Core Requirements:

COURSE PREFIX	COURSE NAME	REPLACEMENT COURSE	SEMESTER	YEAR	CREDITS	GRADE	MET
CHM 151N	General Chemistry I						
CHM 152N	General Chemistry II						
PHY 122N	Fundamentals of Physics II						

PHY 232	Principles of Research in the Natural Sciences (Prerequisite: WRT 101, MAT 151 and 2 science courses)						
PHY 298	Service Learning Practicum (Prerequisite: Declared major in A.S. Physical Science and completion of general education requirements.)						
PHY 299	Research Practicum (Prerequisite: Declared major in A.S. Physical Science and completion of general education requirements.)						
<b>Total Core Credits Needed: 19</b>				<b>Total Core Credits Earned:</b>			

**Electives:**

Choose any of the following courses: AST101N, AST102N, CIS127, EGR102N, GEO101N, GLG101, any MAT above 220, PHY210N, PHY216N, PHY295, SCI100, SCI290

COURSE PREFIX	COURSE NAME	REPLACEMENT COURSE	SEMESTER	YEAR	CREDITS	GRADE	MET
<b>Total Electives Credits Needed: 7</b>			<b>Total Elective Credits Earned:</b>				
<b>Total Program Credits Needed: 61</b>			<b>Total Program Credits Earned:</b>				

**Associate of Science in Physical Science**

TOCC’s Science programs include an Associate of Science in Physical Science degree for transfer with the following concentrations: Astronomy, Physics, Computer Science and Engineering. All options in the AS Physical Science degree emphasize thorough preparation of students who plan to transfer to four-year colleges and universities after they graduate from TOCC. The AS Physical Science degree can help a student attain admission to one of Arizona’s public universities as a junior and prepares students for transfer to fields such as engineering, computer science or physical sciences like astronomy, physics or geology.

**Program Learning Outcomes:**

1. Demonstrate foundational knowledge of science and technical topics relevant to physical sciences or engineering.
2. Design and conduct experiments and proficiently analyze and interpret data in the context of both indigenous and western perspectives in physical sciences or engineering.
3. Display a sense of place, by being able to identify engineering, scientific or technical issues on the Tohono O’odham Nation and propose a culturally-appropriate solution.
4. Apply critical and creative thinking skills to solve problems.

**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: