

## Department of Astronomy and Planetary Science

### AST 201: Introduction to Indigenous Astronomy

### Spring 2024

#### Credit/ Pre- or co-requisites

- 3 credit hours
- No pre- or co-requisites
- Fulfills *Scientific Literacy*— *Physical, Life, Earth, and Space Sciences* Knowledge Area, and the *Indigenous Peoples Inclusive Perspective* in the General Studies Program

#### Mode of Instruction

We expect you to be fully **in-person** at the lectures and the lab section you signed up. **Attendance is REQUIRED for the labs** but not for the lecture classes (however highly recommended). We will use TopHat to make our large-enrollment lecture classes more interactive. **TopHat is required**, and there are questions for you to answer during the lecture classes.

#### Lectures

- **Meeting times:**
  - Sections 1 to 8: MW 9:00 - 9:50 am, Liberal Arts, Rm 120
  - Sections 9 to 16: MW 12:45 - 1:35 pm, Liberal Arts, Rm 120
- **In-class** content includes 1) lectures with slides mixed with YouTube videos, 2) TopHat questions, and 3) an online interactive astronomy app called ClassAction (no installation required).
- **After-lecture** content includes 1) reading assignments, 2) Reading Quiz for each Unit, 3) First Midterm, 4) Second Midterm, and 5) Final Exams all on Canvas.

#### Lab Contents

- **Indoor activities**, with or without online resources, require creative designs, qualitative analysis, and real-life applications
- **Outdoor observations** during class
- **Observations outside of class time** such as observing the solar activities, moon phases, or meteor showers

#### Lab Section Details

AST201-01	Mon 6:00 — 6:50 pm	Liberal Arts, Rm 322	AST201-09	Mon 6:00 — 6:50 pm	Science Annex, Rm 105
AST201-02	Mon 7:00 — 7:50 pm	Liberal Arts, Rm 322	AST201-10	Mon 7:00 — 7:50 pm	Science Annex, Rm 105
AST201-03	Tue 6:00 — 6:50 pm	Liberal Arts, Rm 322	AST201-11	Tue 6:00 — 6:50 pm	Science Annex, Rm 105
AST201-04	Tue 7:00 — 7:50 pm	Liberal Arts, Rm 322	AST201-12	Tue 7:00 — 7:50 pm	Science Annex, Rm 105
AST201-05	Wed 6:00 — 6:50 pm	Liberal Arts, Rm 322	AST201-13	Wed 6:00 — 6:50 pm	Science Annex, Rm 105
AST201-06	Wed 7:00 — 7:50 pm	Liberal Arts, Rm 322	AST201-14	Wed 7:00 — 7:50 pm	Science Annex, Rm 105
AST201-07	Thu 6:00 — 6:50 pm	Liberal Arts, Rm 322	AST201-15	Thu 6:00 — 6:50 pm	Science Annex, Rm 105
AST201-08	Thu 7:00 — 7:50 pm	Liberal Arts, Rm 322	AST201-16	Thu 7:00 — 7:50 pm	Science Annex, Rm 105

#### Contacts

**Professor:** Dr. Lisa Chien ([Lisa.Chien@nau.edu](mailto:Lisa.Chien@nau.edu))

- Email communications are strongly preferred first, and please give me 24 hours to reply (emails sent to me after 5 pm will have to wait until the next morning)
- Office Hours: MW 10 — 11 am (we can also set up a Zoom meeting)
- Office: Bldg 19, Rm 225C

**Lab 1 to 8 Instructor:** Pedro Camacho ([pdc49@nau.edu](mailto:pdc49@nau.edu))

**Lab 9 to 16 Instructor:** Schuyler Borges ([srb558@nau.edu](mailto:srb558@nau.edu))

## Need to Miss a Class?

- Lectures: Since attendance is not required, you do not need to contact Dr. Chien, unless you missed an assignment due. Please contact Dr. Chien ASAP to get an extension, but a late policy (see below) may apply.
- Labs: For any reason you will miss a lab, **you MUST contact your lab instructor ASAP**. You may attend another section in the same week to make up your lab. Otherwise, please work with your lab instructor closely.
- More NAU help and policy: [NAU "Need to miss a class?" page](#)

## Course Purpose

When we think of astronomy, we often think of western modern astronomy. However, Indigenous Peoples have been developing complex systems of understanding the heavens all around the world since before the development of modern astronomical thinking. The course will introduce ancient and living astronomies of native peoples and compare those systems with modern astronomy and planetary science. We will examine how Indigenous cultures reference the skies and how they integrate humans into the cosmos. We will examine the importance of worldview and how it affects a person's perception of the universe. The course will focus on observation-based astronomy and the use of technology in the study of Indigenous astronomy. It will also examine the use of cultural ethics in the study of space science and traditional native astronomy. The primary cultural focus will be on the astronomies of the American Southwest.

Key themes that we will examine throughout the course are— **Valuing the diversity of human experience, Environmental consciousness, and Technology and its impact**. We will accomplish this by examining the astronomies of different Indigenous cultures, their connection to the environment, and the use of technology in the past and present-day study of astronomy. This course satisfies [the Indigenous Peoples Inclusive Perspective and the Scientific Literacy—Physical, Life, Earth, and Space Sciences Knowledge Area](#). These requirements will be addressed through the comparisons of (a) ancient and living astronomies of native peoples with western astronomy and modern advances in space science exploration and (b) the cultural ethics of traditional native astronomy with those of modern space science. This course will also address several of the General Studies Essential skills— *Critical Thinking, Application(s), and Quantitative Reasoning*. The General Studies Requirements and Essential Skills are linked with the Student Learning Outcomes and assignments below.

## Course Student Learning Outcomes

This course has several objectives and learning outcomes (SLOs) that will be addressed during the lecture and in the assigned reading. By the end of the semester, students will be able to:

- SLO1.** Describe the role of diverse cultures in understanding the relationship of people to the universe we live in (*Indigenous Peoples; Applications*);
- SLO2.** Use critical reasoning to understand the ways of knowing and resulting narratives associated with Indigenous cosmologies, cosmologies widely accepted in the western pre-scientific era, and those of modern science (*Indigenous Peoples & Scientific Literacy; Critical Thinking & Applications*);
- SLO3.** Use knowledge gained from direct observation, critical thinking, and technology-based observations and analyses to locate the moon, planets, and stars that are important to Indigenous Peoples and describe their cycles, phases, physical characteristics, and significance in diverse cultural settings (*Indigenous Peoples & Scientific Literacy; Critical Thinking & Quantitative Reasoning*);
- SLO4.** Learn how ancient and modern Indigenous cultures often practiced observational astronomy in ways that resemble scientific practice (*Indigenous Peoples; Critical Thinking & Quantitative Reasoning*);
- SLO5.** Evaluate how influences of inequality, power, and privilege— including systems of oppression— affect Indigenous and non-Indigenous perspectives and ideologies (*Indigenous Peoples*).

This course is designed to be fully transparent, inclusive, and accessible to all students.

## NACE Career-Ready Competencies

The National Association of Colleges and Employers ([NACE](#)) defined eight [Career Readiness Competencies](#) that are key to ensuring successful entrance into the workforce and lifelong career management. In this class, you will gain these specific competencies listed below. In addition, they are linked to the assignment types below.

1. **Career & Self Development:** Proactively develop oneself and one's career through continual personal and professional learning, awareness of one's strengths and weaknesses, navigation of career opportunities, and networking to build relationships within and without one's organization.
2. **Communication:** Clearly and effectively exchange information, ideas, facts, and perspectives with persons inside and outside of an organization.

3. **Critical Thinking:** Identify and respond to needs based on an understanding of situational context and logical analysis of relevant information.
4. **Equity & Inclusion:** Demonstrate the awareness, attitude, knowledge, and skills required to equitably engage and include people from different local and global cultures. Engage in anti-racist practices that actively challenge the systems, structures, and policies of racism.
5. **Teamwork:** Build and maintain collaborative relationships to work effectively toward common goals, while appreciating diverse viewpoints and shared responsibilities.
6. **Technology:** Understand and leverage technologies ethically to enhance efficiencies, complete tasks, and accomplish goals.

## NAU Career Ready Resources

- LinkedIn:
  - CEFNS Career Development [www.linkedin.com/in/cefns-career-development-072715233](http://www.linkedin.com/in/cefns-career-development-072715233)
  - NAU Career Development <https://www.linkedin.com/company/nau-career-development/>
- Handshake: <https://nau.joinhandshake.com/login>
- Udemy: Online courses and career searching advice <https://in.nau.edu/its/udemy/>  
(Log in with your NAU email account and search 'NAU Career Steps')
- O\*net Online: Occupation exploration reports <https://www.onetonline.org/>

## Required Materials & Technology

All reading materials and assessments are on the Canvas course page. However, you need to have a solid internet connection and reliable hardware in order to participate **in class TopHat** Questions and finish **online Reading Quizzes and Exams** outside of the classroom. Intermittently throughout the semester, we will be using many [astronomy simulations and animations](#) on the Astronomy Education at the University of Nebraska-Lincoln website, to enhance learning. It is essential to your understanding and **required** to answer TopHat Questions and Reading Quizzes on Canvas. In the lab, you will also learn to use another interactive planetarium website called [Stellarium Web](#).



- **FIRST STEP: Be sure to click on the link "Top Hat 1.3" on Canvas to get access!**
- Then make sure to use SSO login after the first time to log in to TopHat directly



## Assignments & Assessments

### 1. TopHat Questions

*(SLO2, SLO3, SLO5; Communication, Equity & Inclusion)*

In each Section of each Unit in class, there is a small portion of questions based on the lectures. They are designed to increase interaction in class, and you can discuss with your classmates most of the questions. They will be answered in class. There are 11 Units, and there are 12 to 19 Points in each Unit. No TopHat Questions points are dropped, and the total is 171 points. Check TopHat or the schedule constantly for **Monday 11:59 pm dues**.

### 2. AST201 Labs

*(SLO1, SLO2, SLO3, SLO4; Communication, Critical Thinking, Equity & Inclusion, Teamwork)*

**Attendance is required for the labs.** The Labs are designed to strengthen your understanding of lecture materials and will provide the opportunity to investigate or relate to astronomical phenomena as many ancient cultures once did. Some Labs align with specific astronomical events and thus will **require time-sensitive participation or outdoor observations** (see schedule below or on Canvas). Labs will be posted on Canvas and usually will be **due at the beginning of the following lab meeting**. Completing all work during lab time is very much encouraged. **If you must miss your section, you MUST contact your instructor and attend another section to make it up. An absence is an additional 3-point deduction.** Please work closely with your lab instructors. There are 12 labs, and each is worth 10 points. The last week will be for an optional makeup lab. One lowest Lab score is dropped, so the total of Lab points counted is 110 points.

### 3. Reading Quiz

*(SLO2, SLO3; Career & Self Development, Technology)*

Reading quizzes are posted on Canvas, which will test students' comprehension of the material covered in the assigned reading. You have 2 attempts, and the timer is set to 60 minutes. The highest grade is counted before the due date, and you

can review the correct answers after the due date. There are 10 questions, and thus 10 points, in each quiz. One lowest Reading Quiz score is dropped, so total points are 100 points. Check the Canvas course page or the schedule constantly for **Monday 11:59 pm dues**.

#### 4. Exams

*(SLO2, SLO3; Career & Self Development, Technology)*

The exams are all on Canvas with multiple choice questions, fill-in-the-blanks, matching, and sorting questions. All exams will be open for a week (including Sat and Sun) and will be closed at the due date/time listed below. If you encounter any technical difficulties during your exams, please contact Dr. Chien at [Lisa.Chien@nau.edu](mailto:Lisa.Chien@nau.edu) immediately.

**First Midterm Exam: due Friday, 2/23, 11:59 pm | Unit 1 to 3, 43 points**

**Second Midterm Exam: due Friday 4/5, 11:59 pm | Unit 4 to 7, 62 points**

**Final Exam: due Wed, 5/8, 11:59 pm | Unit 8 to 11, 54 points**

#### Connection Issues and Late Submission Policy for all Assignments:

If you encounter any difficulties accessing any assignments on TopHat or Canvas, please first keep trying with different internet connections, browsers, or devices. If problems still exist and it is getting close to the due date, please email me as soon as you can and I will give you an extension for another 24 hours. I am very lenient and please let me know if you need any help! Otherwise, the late penalties are

- **TopHat Questions: count as 0 points (unless official excuses or previous communications)**
- **Labs: 2 points per day (absence: additional 3 points off)**
- **Reading Quiz: 2 points per day**
- **Exams: count as 0 points**

Below is a summary of the Assignments and Assessments:

Category	Due (see schedule below)	Points Distribution	Points	Includes:
TopHat Question	Mondays	12-19 points each Unit	171	ALL Questions, NONE Dropped
Lab	Normally in 1 week	10 points each	110	1 Lowest Dropped
Reading Quiz	Mondays	10 points each	100	1 Lowest Dropped
First Midterm Exam	Due Friday 2/23, 11:59pm	-	43	Unit 1 to 3 Materials
Second Midterm Exam	Due Friday 4/5, 11:59pm	-	62	Unit 4 to 7 Materials
Final Exam	Due Wed 5/8, 11:59pm	-	54	Unit 8 to 11 Materials
<b>Total</b>			<b>540</b>	

#### Grading System & Late Policy

Midterm Total Points (Unit 1-3, Lab 1-3, First Midterm Exam)	Midterm Grade	Total Points	Grade
132 or more	A	483 or more	A
118 — 131	B	429 — 482	B
103 — 117	C	375 — 428	C
88 — 102	D	321 — 374	D
0 — 87	F	0 — 320	F

## Local Sky-Watching Events and Places to Visit









- [NAU Astronomy Club Facebook Page](#)
- [Lowell Observatory](#)
- [Flagstaff Star Party](#)
- [Museum of Northern Arizona](#)
- [Flagstaff Festival of Science](#) (in the Fall)
- [Meteor Crater](#)
- [Coconino Astronomical Society](#)
- Grand Canyon National Park: [Night Sky Events](#), [Star Party in June](#)
- Arizona State Parks: [Star Party Astronomy Events](#)
- Check out [Arizona's IDA-certified Dark Sky Parks](#) and [Visiting American Indian Tribal Lands in Arizona](#)

Also, see a list of [Museums & Places to Visit in the Southwest](#) on our Canvas Homepage related to our course! In addition, you can check out the [Online Exhibitions of Smithsonian National Museum of American Indian](#), lots of great stories!

### Respect for Diversity

*It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you. I am NAU Safe Zone certified.*

## Tentative Schedule (Check Canvas Homepage for updates)

Week	Date	Day	Unit	TopHat DUE	Reading Quiz DUE	AST201 Lab
1	1/15	M	<b>No Class</b>			
	1/17	W	Course Intro			
2	1/22	M	Unit 1: Connecting With the Sky	-	-	#1: Connecting Western & Indigenous Astronomy 
	1/24	W				
3	1/29	M	Unit 2: Cultural History of Indigenous People in North & Central America	-	-	#2: Globe at Night 
	1/31	W				
4	2/5	M	Unit 3: Cosmogony and Cosmology in Native & Western Astronomies	Unit 1	Unit 1	#3: Origins of The World
	2/7	W				
5	2/12	M		Unit 2	Unit 2	#4: Figures in the Sky
	2/14	W	Unit 4: Celestial Sphere & Sidereal Motion			
6	2/19	M		Unit 3	Unit 3	NO LABS
	2/21	W	Unit 5: Stars			
	2/23	F	Canvas First Midterm Exam DUE 11:59pm (Unit 1-3)			
7	2/26	M		-	-	#5: Stars and Time 
	2/28	W				
8	3/4	M	Unit 6: Constellations	Unit 4	Unit 4	#6: Equinox & Calendar (Spring Equinox: 3/20) 
	3/6	W				
9	No Class: Spring Break					
10	3/18	M		Unit 5	Unit 5	#7: Polynesian Wayfinding, I
	3/20	W	Unit 7: Planets			
11	3/25	M		Unit 6	Unit 6	#8: Polynesian Wayfinding, II 
	3/27	W	Unit 8: Moon & the Lunar Cycle			
12	4/1	M		Unit 7	Unit 7	#9: Maya and the Wondering Stars, I
	4/3	W				
	4/5	F	Canvas Second Midterm Exam DUE: Fri 11/10, 11:59pm (Unit 4-7)			
13	4/8	M	Unit 9: Sun & the Diurnal Cycle	-	-	#10: Maya and the Wondering Stars, II
	4/10	W				
14	4/15	M		Unit 8	Unit 8	#11: Moon Phases (New: 4/8, First Q: 4/15) 
	4/17	W	Unit 10: Seasons & the Annual Cycle			
15	4/22	M		Unit 9	Unit 9	#12: The Winter Count
	4/24	W	Unit 11: Comets, Asteroids & Meteors			
16	4/29	M		Unit 10	Unit 10	#13: MAKE UP LAB (optional)
	5/1	W				
17	5/6	M	<b>No Class</b>	Unit 11	Unit 11	
	5/8	W	Canvas Final Exam DUE 11:59pm (Unit 8-11)			

### Academic Deadlines

- ADD/DROP deadline (without “W”): 1/25
- Last day to withdraw: 5/3

### NAU Guide to Student Resources

The [Guide to Student Resources](#) is your reference point for academic support, involvement opportunities, health and wellness, and financial assistance. Whether you attend classes online, on the Flagstaff campus, or on one of NAU’s statewide campuses, we encourage you to explore the opportunities available to make the most of your college experience. The link is <https://in.nau.edu/office-of-student-affairs/guide-to-student-resources/>, which is also on our Canvas menu bar.

### COVID-19 REQUIREMENTS AND INFORMATION

Additional information about the University’s response to COVID-19 is available from the **Jacks are Back!** web page located at <https://nau.edu/jacks-are-back>.

## **Syllabus Policy Statements**

### **ACADEMIC INTEGRITY**

NAU expects every student to firmly adhere to a strong ethical code of academic integrity in all their scholarly pursuits. The primary attributes of academic integrity are honesty, trustworthiness, fairness, and responsibility. As a student, you are expected to submit original work while giving proper credit to other people's ideas or contributions. Acting with academic integrity means completing your assignments independently while truthfully acknowledging all sources of information, or collaboration with others when appropriate. When you submit your work, you are implicitly declaring that the work is your own. Academic integrity is expected not only during formal coursework, but in all your relationships or interactions that are connected to the educational enterprise. All forms of academic deceit such as plagiarism, cheating, collusion, falsification or fabrication of results or records, permitting your work to be submitted by another, or inappropriately recycling your own work from one class to another, constitute academic misconduct that may result in serious disciplinary consequences. All students and faculty members are responsible for reporting suspected instances of academic misconduct. All students are encouraged to complete NAU's online academic integrity workshop available in the E-Learning Center and should review the full *Academic Integrity* policy available at <https://policy.nau.edu/policy/policy.aspx?num=100601>.

### **ARTIFICIAL INTELLIGENCE**

Artificial intelligence (AI) technologies bring both opportunities and challenges. Ensuring honesty in academic work creates a culture of integrity and expectations of ethical behavior. The use of these technologies can depend on the instructional setting, varying by faculty member, program, course, and assignment. Please refer to course policies, any additional course-specific guidelines in the syllabus, or communicate with the instructor to understand expectations. NAU recognizes the role that these technologies will play in the current and future careers of our graduates and expects students to practice responsible and ethical use of AI technologies to assist with learning within the confines of course policies.

### **COPYRIGHT INFRINGEMENT**

All lectures and course materials, including but not limited to exams, quizzes, study outlines, and similar materials are protected by copyright. These materials may not be shared, uploaded, distributed, reproduced, or publicly displayed without the express written permission of NAU. Sharing materials on websites such as Course Hero, Chegg, or related websites is considered copyright infringement subject to United States Copyright Law and a violation of NAU Student Code of Conduct. For additional information on ABOR policies relating to course materials, please refer to [ABOR Policy 6-908 A\(2\)\(5\)](#).

### **COURSE TIME COMMITMENT**

Pursuant to Arizona Board of Regents guidance (ABOR Policy 2-224, *Academic Credit*), each unit of credit requires a minimum of 45 hours of work by students, including but not limited to, class time, preparation, homework, and studying. For example, for a 3-credit course a student should expect to work at least 8.5 hours each week in a 16-week session and a minimum of 33 hours per week for a 3-credit course in a 4-week session.

### **DISRUPTIVE BEHAVIOR**

Membership in NAU's academic community entails a special obligation to maintain class environments that are conducive to learning, whether instruction is taking place in the classroom, a laboratory or clinical setting, during course-related fieldwork, or online. Students have the obligation to engage in the educational process in a manner that does not interfere with normal class activities or violate the rights of others. Instructors have the authority and responsibility to address disruptive behavior that interferes with student learning, which can include the involuntary withdrawal of a student from a course with a grade of "W". For additional information, see NAU's *Disruptive Behavior in an Instructional Setting* policy at <https://nau.edu/university-policy-library/disruptive-behavior>.

### **NONDISCRIMINATION AND ANTI-HARASSMENT**

NAU prohibits discrimination and harassment based on sex, gender, gender identity, race, color, age, national origin, religion, sexual orientation, disability, veteran status and genetic information. Certain consensual amorous or sexual relationships between faculty and students are also prohibited as set forth in the *Consensual Romantic and Sexual Relationships* policy. The Equity and Access Office (EAO) responds to complaints regarding discrimination and harassment that fall under NAU's *Nondiscrimination and Anti-Harassment* policy. EAO also assists with religious accommodations. For additional information about nondiscrimination or anti-harassment or to file a complaint, contact EAO located in Old Main (building 10), Room 113, PO Box 4083, Flagstaff, AZ 86011, or by phone at 928-523-3312 (TTY: 928-523-1006), fax at 928-523-9977, email at [equityandaccess@nau.edu](mailto:equityandaccess@nau.edu), or visit the EAO website at <https://nau.edu/equity-and-access>.

### **TITLE IX**

Title IX of the Education Amendments of 1972, as amended, protects individuals from discrimination based on sex in any educational program or activity operated by recipients of federal financial assistance. In accordance with Title IX, Northern Arizona University prohibits discrimination based on sex or gender in all its programs or activities. Sex discrimination includes sexual harassment, sexual assault, relationship violence, and stalking. NAU does not discriminate on the basis of sex in the education programs or activities that it operates, including in admission and employment. NAU is committed to providing an environment free from discrimination based on sex or gender and provides a number of supportive measures that assist students, faculty, and staff.

One may direct inquiries concerning the application of Title IX to either or both the Title IX Coordinator or the U.S. Department of Education, Assistant Secretary, Office of Civil Rights. You may contact the Title IX Coordinator in the Office for the Resolution of Sexual Misconduct by phone at 928-523-5434, by fax at 928-523-0640, or by email at [titleix@nau.edu](mailto:titleix@nau.edu). In furtherance of its Title IX obligations, NAU promptly will investigate or equitably resolve all reports of sex or gender-based discrimination, harassment, or sexual misconduct and will eliminate any hostile environment as defined by law. The Office for the Resolution of Sexual Misconduct (ORSM): Title IX Institutional Compliance, Prevention & Response addresses matters that fall under the university's Sexual Misconduct policy. Additional important information and related resources, including how to request immediate help or confidential support following an act of sexual violence, is available at <https://in.nau.edu/title-ix>.

### **ACCESSIBILITY**

Professional disability specialists are available at Disability Resources to facilitate a range of academic support services and accommodations for students with disabilities. If you have a documented disability, you can request assistance by contacting Disability Resources at 928-523-8773 (voice), 928-523-8747 (fax), or [dr@nau.edu](mailto:dr@nau.edu) (e-mail). Once eligibility has been determined, students register with Disability Resources every semester to activate their approved accommodations. Although a student may request an accommodation at any time, it is best to initiate the application process at least four weeks before a student wishes to receive an accommodation. Students may begin the accommodation process by submitting a self-identification form online at <https://nau.edu/disability-resources/student-eligibility-process> or by contacting Disability Resources. The Director of Disability Resources, Jamie Axelrod, serves as NAU's Americans with Disabilities Act Coordinator and Section 504 Compliance Officer. He can be reached at [jamie.axelrod@nau.edu](mailto:jamie.axelrod@nau.edu).

### **RESPONSIBLE CONDUCT OF RESEARCH**

Students who engage in research at NAU must receive appropriate Responsible Conduct of Research (RCR) training. This instruction is designed to help ensure proper awareness and application of well-established professional norms and ethical principles related to the performance of all scientific research activities. More information regarding RCR training is available at <https://nau.edu/research/compliance/research-integrity>.

### **MISCONDUCT IN RESEARCH**

As noted, NAU expects every student to firmly adhere to a strong code of academic integrity in all their scholarly pursuits. This includes avoiding fabrication, falsification, or plagiarism when conducting research or reporting research results. Engaging in research misconduct may result in serious disciplinary consequences. Students must also report any suspected or actual instances of research misconduct of which they become aware. Allegations of research misconduct should be reported to your instructor or the University's Research Integrity Officer, Dr. David Faguy, who can be reached at [david.faguy@nau.edu](mailto:david.faguy@nau.edu) or 928-523-6117. More information about misconduct in research is available at <https://nau.edu/university-policy-library/misconduct-in-research>.

### **SENSITIVE COURSE MATERIALS**

University education aims to expand student understanding and awareness. Thus, it necessarily involves engagement with a wide range of information, ideas, and creative representations. In their college studies, students can expect to encounter and to critically appraise materials that may differ from and perhaps challenge familiar understandings, ideas, and beliefs. Students are encouraged to discuss these matters with faculty.

*“Education is the most powerful weapon which we can use to change the world.” — Nelson Mandela*