OPTI 489/589 Optics Outreach

Description of Course
Students will learn methods for communicating with the general public about science and optics in particular. Students are expected to develop and apply their knowledge and skills to effectively communicate about optics with a wide range of audiences. The primary audience targeted for this course is those at the high school level.

Course Prerequisites or Co-requisites
None.

Instructor and Contact Information
Hillary Mathis
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Phone: 626-6284
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Course Format and Teaching Methods
This course consists of in class lectures and demonstrations provided by the instructor. Students will be required to fulfill both in class and out of class assignments.

Students are required to be involved in at least 3 presentations/demonstrations at schools or outreach events. Each student must be the primary presenter at at least one high school presentation.

Students are expected to give their PowerPoint presentation, as well as a description of their demonstration before attending a school. Students will also give a post presentation review to the class.

Students will have a group project, due at the end of the semester, where they will come up with a new demonstration and present it to the class.

Graduate level students will give a 15-20 minute PowerPoint presentation to the class on their research project.

Course Objectives and Expected Learning Outcomes
Understand principles of informative communication
Understand, as well as participate in public speaking projects
Demonstrate effective presentation skills to audiences in an educational setting
Comfortable working in a group presentation setting
Create a group optics project for demonstration purposes
Absence and Class Participation Policy
The UA’s policy concerning Class Attendance, Participation, and Administrative Drops is available at: http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, http://policy.arizona.edu/human-resources/religious-accommodation-policy.

Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. See: https://deanofstudents.arizona.edu/absences

Participating in the course and attending lectures and other course events are vital to the learning process. As such, attendance is required at all lectures and discussion section meetings. Students who miss class due to illness or emergency are required to bring documentation from their health-care provider or other relevant, professional third parties. Failure to submit third-party documentation will result in unexcused absences.

Makeup Policy for Students Who Register Late
Students who register after the first class meeting may make up missed assignments with no extended deadline.

Course Communications
All course communication will be done via UA e-mail.

Required Texts or Readings
There is no required reading for this course.

Required or Special Materials
No special tools or supplies are needed for this course. All demonstration material will be provided by the instructor.

Required Extracurricular Activities
Students will be required to travel on their own time to schools and/or events to give presentations and demonstrations.

Assignments and Examinations: Schedule/Due Dates
Students are required to participate in 3 out of classroom demonstrations at either schools or events.
Undergraduates will be required to give 2 individual presentation and 1 group presentation.
Graduates will be required to give 3 individual presentation and 1 group presentation.

Final Examination or Project
All final projects, ie group projects, will be completed by the final day of classes.

Grading Scale and Policies
Undergraduate:
Presentations to the public: 40%
In class presentations: 25%
Group Project: 25%
Attendance: 10%

Graduate:
Presentations to the public: 40%
In class presentations: 20%
Group Assignments: 20%
Independent Project: 10%
Attendance: 10%

Grading Scale for P/F: 100-60=Pass | Below 60=Fail

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, which are available at http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete and http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal respectively.

Honors Credit
Students wishing to contract this course for Honors Credit should email me to set up an appointment to discuss the terms of the contract. Information on Honors Contracts can be found at http://www.honors.arizona.edu/faculty-and-advisors/contracts.

Scheduled Topics/Activities
Each student will give an in class presentation within the first few weeks of the course. All subsequent presentations must be given in class before presenting to a school or event. Completion of out of class assignments for this course do not have firm dates, but rather, are dictated by student and event availability.

Classroom Behavior Policy
To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.).

Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

The use of personal electronics such as laptops, iPads, and other such mobile devices is distracting to the other students and the instructor. Their use can degrade the learning environment. Therefore, students are not permitted to use these devices during the class period.

Threatening Behavior Policy
The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students.

Accessibility and Accommodations
Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact the Disability Resource Center (520-621-3268) to establish reasonable accommodations. For additional
information on the Disability Resource Center and reasonable accommodations, please visit
http://drc.arizona.edu.

If you have reasonable accommodations, please plan to meet with me by appointment or during
office hours to discuss accommodations and how my course requirements and activities may
impact your ability to fully participate.

Please be aware that the accessible table and chairs in this room should remain available for
students who find that standard classroom seating is not usable.

**Code of Academic Integrity**

Students are encouraged to share intellectual views and discuss freely the principles and
applications of course materials. However, graded work/exercises must be the product of
independent effort unless otherwise instructed. Students are expected to adhere to the UA Code
of Academic Integrity as described in the UA General Catalog. See:
http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity.

The University Libraries have some excellent tips for avoiding plagiarism, available at

_Selling class notes and/or other course materials to other students or to a third party for resale is
not permitted without the instructor’s express written consent._ Violations to this and other course
rules are subject to the Code of Academic Integrity and may result in course sanctions.
Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are
subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may
also constitute copyright infringement.

**UA Nondiscrimination and Anti-harassment Policy**

The University is committed to creating and maintaining an environment free of discrimination;
see http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy

Our classroom is a place where everyone is encouraged to express well-formed opinions and
their reasons for those opinions. We also want to create a tolerant and open environment where
such opinions can be expressed without resorting to bullying or discrimination of others.

**Additional Resources for Students**

UA Academic policies and procedures are available at http://catalog.arizona.edu/policies
Student Assistance and Advocacy information is available at
http://deanofstudents.arizona.edu/student-assistance/students/student-assistance

**Confidentiality of Student Records**

http://www.registrar.arizona.edu/personal-information/family-educational-rights-and-privacy-
act-1974-ferpa?topic=ferpa

**Subject to Change Statement**

Information contained in the course syllabus, other than the grade and absence policy, may be
subject to change with advance notice, as deemed appropriate by the instructor.