



## **OPTI 489/589 Optics Outreach**

### **Description of Course**

There is no single correct way to communicate the field of optics to other people. What is effective for some might not be for others. This class is a guided period for students to find their most effective voice when communicating with people outside of the field of optics. Students will be exposed to a variety of methods for effective science communication. Utilizing the ideas presented in the course, students are then expected to develop and apply their knowledge and skills to effectively communicate about optics with a wide range of audience sizes and settings. The course is designed to maximize in-class activities, leaving less work outside of the classroom.

### **Course Prerequisites**

Only being open to improving communication skills!

### **Meeting Times**

We will meet on Wednesday from 12:00-12:50 in Meinel Room 432.

### **Office Hours**

Wednesdays 11 AM - Noon Wednesdays (Subject to change if needed)

### **Instructors and Contact Information**

Sebastian Magri  
Phone: (602) 570-5195  
Email: [smagri@arizona.edu](mailto:smagri@arizona.edu)

Logan Pawlowski  
Phone: (541) 760-9870  
Email: [loganpawlowski@arizona.edu](mailto:loganpawlowski@arizona.edu)

John Koshel  
Office: Meinel Bldg. Rm 403  
Phone: 621-6357  
Email: [jkoshel@optics.arizona.edu](mailto:jkoshel@optics.arizona.edu)

Ewan Wright  
Office: Meinel Bldg. Rm 636  
Phone: 621-2406  
Email: [ewan.wright@optics.arizona.edu](mailto:ewan.wright@optics.arizona.edu)

## Course Objectives and Learning Outcomes

Encounter a variety of communication techniques.

Consider the impact and effect a specific audience might have on message delivery.

Participate in public speaking events such as high school presentations.

Demonstrate effective presentation skills when speaking to an audience.

Explicate science, with an emphasis on optics, to groups with a variety of backgrounds.

Provide a platform for students to explore their most effective ways to speak to others about their field of study.

## Course Assignments

This course consists of in-class lectures and workshops covering communication techniques to help develop students as speakers and communicators.

Students are required to fulfill their outreach requirements in a variety of in-person and/or virtual demonstrations. The out-of-class requirements are as follows:

1. Volunteer at Laser Fun Day
  - Date: Saturday, April 20<sup>th</sup>, 2024
2. At least 1 optics presentation/demonstration in-person, or as allowed, as the primary presenter with a high school/community college class or high school level event or community college level event
3. Engaging TikTok/YouTube Short/Instagram Reel that explains an OSC museum piece to the general public (class-time utilized)
4. Pick at least 2 outreach activities and complete brief writeups from the following:
  - LFD Coordinator
  - In-person demo/lecture at any level or organization or an OSC-organized outreach event. These events can be done solo or in conjunction with classmates or other OSC students.
  - Engaging science/research video 1-10 minute YouTube video through the OSC account.
  - With the approval of the instructors, anything else that you feel communicates science with the community!
5. GRADUATE (589) students must additionally:
  - Create an optical science demo to be presented at LFD by the student (Ideally to be donated to the OSC in the future)

### In-Class Requirements

1. In-class 5-minute flash presentation/demo on any topic of their choosing
2. Participate in workshops or in-class activities
3. Be open to new techniques and constructive criticism

## Grading Scale and Policies

Undergraduate:

High school presentation: 30%

Attendance: 20%

LFD Volunteering: 10%

Choice of 2 outreach activities: 20%

In-class participation/presentations: 20%

Graduate:

High school presentation: 20%

Demo creation: 10%

Attendance: 20%

LFD Volunteering: 10%

Choice of 2 outreach activities: 20%

In-class participation/presentations: 20%

Grades will be given on an A-E scale.

**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-gradingsystem#incomplete> and <http://catalog.arizona.edu/policy/grades-and-gradingsystem#> Withdrawal respectively.

## Honors Credit

Students wishing to contract this course for Honors Credit should email the course instructors 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>.

## 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/religiousaccommodation-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 healthcare 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 unless approved by one of the instructors

### **Course Communications**

All course communication will be done via UA e-mail and D2L

### **Required Texts or Readings**

There are no required readings for this course

### **Required Materials**

There are no required materials for this course. The department can provide demonstrations for any presentations. Demos to be created can be created with materials that can be sourced from the outreach department or the students themselves

### **Required Extracurricular Activities**

There are no travel accommodations provided for presentations

### **Subject to Change Notice**

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

### **Accessibility and Accommodations**

At the University of Arizona, we strive to make learning experiences as accessible as possible. If you anticipate or experience barriers based on disability or pregnancy, please contact the Disability Resource Center (520-621-3268, <https://drc.arizona.edu>) to establish reasonable accommodations.