

Course Syllabus | WISE Frontiers of Physics and Mathematics Graduate Program

Course Title

Scientific Writing, Publication, and Communication

Instructors

Kate Harris, Ph.D., Senior URA, School of Science

Mark Vagins, Ph.D., Professor, Kavli IPMU

Guest Speakers

Max Berthet, Ph.D., Assistant Professor, School of Engineering

Motoko Kakubayashi, Press Officer, Kavli IPMU

Rohan Mehra, Project Senior Specialist, Public Relations Group

Overview and Objectives

Communication with the scientific community and the public in English is essential for a successful scientific career, especially as research continues to become more global and team oriented. In this course, students will study the major forms of scientific communication, develop their abilities as confident, capable communicators, and learn how to publish and promote their research.

Teaching/Evaluation Methods

The lectures are divided into three modules: **Oral Presentation**, **Manuscript Writing and Publication**, and **Public Communication**. The teaching includes lectures, homework, and group or individual study. Evaluation is by means of an essay project including peer review of others' papers (40%), a final examination (40%), and class attendance and participation (20%).

Lecture Schedule

- 4/10 **Oral Presentation | Global Communication (MV)**
- 4/17 **Manuscript Writing | Writing as a Scientist (KH)**
- 4/24 **Oral Presentation | Dealing with People (MV)**
- 5/01 **Manuscript Writing | Writing Your Paper (KH)**
- 5/08 **Oral Presentation | Preparing a Scientific Presentation (MV)**
- 5/22 **Manuscript Writing | Reading as a Scientist (KH)**
- 5/29 **Public Communication | News Media (MK)**
- 6/05 **Oral Presentation | How to Deliver a Scientific Presentation (MV)**
- 6/12 **Manuscript Writing | Publishing Your Paper (KH)**
- 6/19 **Manuscript Writing | Academic Publishing (KH)**
- 6/26 **Public Communication | Research in Motion: The Power of Video Production (RM)**
- 7/03 **Oral Presentation | Creating and Presenting Scientific Posters (MV)**
- 7/10 **Public Communication | Three-minute Research: Presenting to Non-specialists (MB)**
- 7/17 **Final Examination**