

Course Syllabus | WISE Frontiers of Physics and Mathematics Graduate Program

Course Title

Scientific Writing, Publication, and Communication

Instructors (in alphabetical order)

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

Euan McKay, Ph.D., Assistant Professor, UTokyo

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

Charles Yokoyama, Ph.D., Professor, UTokyo

Overview and Objectives

Research communication with the scientific community in English is essential for a scientific career, especially as research continues to become more global and team-oriented. In this course, students will learn the major forms of scientific communications used by professional scientists, develop their abilities as confident, capable communicators, and understand how to publish in academic journals. This 2 credit summer semester course is required for WISE FoPM program graduate students.

Teaching/Evaluation Methods

The course is organized into four modules: oral presentation, manuscript writing, publication basics, and public communication. Each instructor will teach one module, and a guest instructor will cover the public communication lecture. The teaching will include lectures, class and home assignments, and group or individual study. The evaluation will include an essay project including peer review of others' papers (40%), class attendance and participation (30%), and a final examination (30%).

Lecture Schedule (Online)

- 4/09 Oral Presentation | Global Communication (Vagins)
- 4/16 Public Communication | Science Communication (McKay)
- 4/23 Manuscript Writing | Writing as a Scientist (Harris)
- 5/07 Publication Basics | Scientific Knowledge (Yokoyama)
- 5/14 Oral Presentation | Preparing a Scientific Presentation (Vagins)
- 5/21 Manuscript Writing | Manuscript Structure (Harris)
- 5/28 Publication Basics | Journal Peer Review (Yokoyama)
- 6/04 Oral Presentation | How to Deliver a Scientific Presentation (Vagins)
- 6/11 Manuscript Writing | Reading and Reviewing (Harris)
- 6/18 Publication Basics | Publishing Landscape (Yokoyama)
- 6/25 Oral Presentation | Creating and Presenting Scientific Posters (Vagins)
- 7/02 Manuscript Writing | Writing for Peer Review (Harris)
- 7/09 Publication Basics | Publication Ethics (Yokoyama)
- 7/16 Final Examination