

# 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, Project Associate Professor, Kobe University

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 communication 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 instructor modules covering oral presentation, manuscript writing, publication basics, and public communication. The teaching will include lectures, homework, 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%).

## Live Online Meeting with the Instructors

4/08 **Instructor Introductions, Course Overview, Essay Assignment**

## Lecture Schedule

4/08 **Oral Presentation | Global Communication (Vagins)**

4/15 **Manuscript Writing | Writing as a Scientist (Harris)**

4/22 **Public Communication | Science Communication (McKay)**

4/29 Golden Week Break

5/06 **Publication Basics | Scientific Knowledge (Yokoyama)**

5/13 **Manuscript Writing | Manuscript Structure (Harris)**

5/20 **Manuscript Writing | Reading and Reviewing (Harris)**

5/27 **Manuscript Writing | Writing for Peer Review (Harris)**

6/03 **Publication Basics | Journal Peer Review (Yokoyama)**

6/10 **Publication Basics | Publishing Landscape (Yokoyama)**

6/17 **Publication Basics | Publication Ethics (Yokoyama)**

6/24 **Oral Presentation | Preparing a Scientific Presentation (Vagins)**

7/01 **Oral Presentation | How to Deliver a Scientific Presentation (Vagins)**

7/08 **Oral Presentation | Creating and Presenting Scientific Posters (Vagins)**

7/15 Final Examination