Course Title: EPID 7000: Doctoral Seminar in Epidemiology

Instructor: Dr. Enrique Schisterman

Schedule: Wednesdays, 10:15 AM - 1:15 PM

Duration: January 24, 2024 - May 1, 2024 (15 Weeks)

Location: Blockley Hall, Room 235

Course Description: This doctoral seminar is an intensive exploration of the science evaluation and dissemination process, including the scientific publishing process, focusing on developing practical skills in writing/communicating various components of research dissemination. The course provides an in-depth look at crafting papers, abstracts, cover letters, responses to reviewers, and other critical elements of scholarly communication, utilizing resources from the American Journal of Epidemiology. Additionally, students will explore various contemporary forms of science communication, including podcasts, Twitter and Twittorials, video abstracts, conference presentations, and interactions with reporters. We will examine how these mediums can enhance the dissemination of epidemiological research.

Course Objectives:

- Develop proficiency in writing different components of scientific evaluation and publications.
- Understand the nuances and strategies of communicating with journal editors, journal staff, reviewers, and other stakeholders.
- Enhance skills in critiquing and reviewing scientific papers.
- Learn the art of constructing a compelling narrative in scientific research.
- Explore and practice various forms of science communication, including podcasts, Twitter and Twittorials, video abstracts, presentations, and interactions with reporters.

Guest Speakers:

1. **TBD (Science Dissemination)**
    - Topic: Effective Strategies for Science Dissemination
    - Insights into podcasting and its role in disseminating scientific findings.
2. **Lori Biddle (How the Journal Works)**
    - Topic: Navigating the World of Scientific Journals
    - Understanding the journal publishing process, from submission to publication.
3. **TBD (Methodological Editors)**

- Topic: Statistical Aspects of Epidemiology Research
- Insights into the role of statistics in epidemiology and the peer-review process.

Course Format: The course consists of lectures, workshops, writing exercises, peer review sessions, and practical exercises in science communication. Students will actively engage in different forms of science communication and receive feedback from peers and the instructor.

Every week, every four students should select a paper (preferably published in the last week) and work independently.

Assessment Methods:

1. Participation and Peer Review Exercises (20% each)
2. Science Communications Assignments (60% of grade):

Task One: 1500 review manuscript (30% of the grade)

- Write an Abstract
- Write a Cover Letter to a Journal Editor
- Write a short paper (1500 words)
- Write a Response to Reviewers
- Write Reviewer Comments on a Paper

Task 2 (for Individuals 2 out of 6 options, group of 2 people, 4 out of 6 options, Group of 3, all options) (30% of the grade)

- Write and submit a Letter to the Editor (of the American Journal of Epidemiology or similar)
- Create a short Podcast Episode
- Craft Twittorials
- Produce a Video Abstract
- Deliver a Scientific Presentation
- Conduct Mock Interviews with Reporters (Media Interaction Simulation)

Weekly Schedule and Topics:

1. January 24, 2024: Introduction to Scientific Publishing and Communication and The Art of Writing an Abstract.
2. January 31, 2024: Topic 1: Causal Inference in Practice 1. Journal Club of 2-3 selected papers will be in Canvas. Present a critique of the paper. Secrets for writing an effective Cover Page. Drafting a Paper.

3. February 7, 2024: Topic 2: Causal Inference in Practice 2. The Role of a Reviewer: Providing Constructive Feedback. Journal Club of 2-3 selected papers. Present a critique of the paper. Drafting a letter to the editor.
4. February 14, 2024: Topic 3: Causal Inference in Practice 3. Persuasive response to Editor and Reviewers. Journal Club of 2-3 selected papers. Present a critique of the paper.
5. February 21, 2024: Topic 4: Missing Data. Journal Club of 2-3 selected papers. Present a critique of the paper. Select and draft a short paper. Write a good review.
6. February 28, 2024: TBD Guest Speakers. Interacting with Reporters and Media.
7. March 6, 2024: Spring Break.
8. March 13, 2024: TBD
9. March 20, 2024: GGEB Works in Progress
10. March 27, 2024: Topic 7: Time-Dependent Confounding and Study Designs. Journal Club of 2-3 selected papers. Present a critique of the paper.
11. April 3, 2024: Topic 8: Selection Bias, Generativity, Proximal Causal Inference. Workshop 2: Submitting a Paper. Journal Club of 2-3 selected papers and critique.
12. April 10, 2024: Topic: Exposure assessment, including Biomarkers and Quality Control 1. Workshop: Workshop 3: Leveraging Twitter and Twittorials for Scientific Outreach. Social Media: Twittorials, Tic Toc, LinkedIn, Facebook, and other platforms. Journal Club of 2-3 selected papers.
13. April 17, 2024: Work on the project: Project presentations: Publish a Twittorial, Review a Real paper, Write a letter to the editors, Podcast Creation and Producing Engaging Video Abstracts, Producing Engaging Video Abstracts Delivering Effective Scientific Presentations.
14. April 24, 2024: Project presentations: Publish a Twittorial, review a Real paper, write a letter to the editors, create and produce a podcast and engaging video abstracts, and deliver effective scientific presentations.
15. May 1, 2024: Last Class. Project presentations: Publish a Twittorial, review a real paper, write a letter to the editors, create a podcast, produce engaging video abstracts, and deliver effective scientific presentations.

Required and Recommended Readings:

- Selected articles and guides on scientific writing, publication strategies, and communication with editors and reviewers.
- Relevant articles for review and critique and other sources.
- Resources on podcast production, social media engagement, video creation, and media interactions.

Course Policies:

- Active engagement