

# MEDS 6447 Tool Kit for Scientific Communication

## Syllabus: Spring 2019

12-14-18

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1 credit, **Pass/Fail** (S/U)

**Course Time:** Tuesdays 11:00 am-12:00 pm

**Course Dates:** Jan 22 – April 30; no class March 19 (grad school break)

**Course Location:** UConn Health: Rotunda A8 classroom (with videoconference to Storrs BME Dept)\*

\*NOTE: *There are four dates when it is necessary for ALL students to be at UCH: 1/22; 2/19; 2/26; 4/16*

**Course Description:** Effective communication is critical to success in any career. Through weekly lectures and practical assignments, this Pass-Fail course builds skills in written and oral communication relevant for academic careers in bioscience and bioengineering. Topics include manuscripts, grants, and posters. Writing skills include basic elements of grammar, style, and organization. Students will work one-on-one with faculty to write, edit and revise an abstract and an aims page. Presentation skills will emphasize clarity, logical sequence, and verbal expression. Students will prepare and practice short research summaries understandable to the public.

### Objectives:

- To develop skills in scientific writing including using clear and concise language; formulating strong questions, hypotheses and aims; and establishing a logical sequence of scientific rationale
- To develop skills in written or oral presentation of your own research as an abstract and as a poster
- To become familiar with organization and review of manuscripts and grants
- To become familiar with several forms of professional communication including introductions, correspondence, and communicating your research to the lay public

**Format:** Combination discussion/lecture and workshop. Assignments will be given in between class sessions.

**Evaluation:** The class is Pass/Fail (S/U). Pass is a B (80). Evaluation is 50% class participation and attendance and 50% written assignments. Rubrics for evaluation of written/oral assignments will be provided.

**Optional text:** Scientific Writing and Communication by Angelika H Hoffman, Oxford University Press. Book is available for purchase at the UConn Bookstore. A copy is on reserve in the UCHC library.

**Laptops and phones:** A goal of this class is to learn how to communicate in a professional manner. Out of respect for your classmates and instructors, personal cell phone and text use is not tolerated in class.

**Instructors:** Discussions and workshops are led by the course director, guest faculty and/or student teaching assistants

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<u>Week /Date</u>	<u>Topic</u>	<u>Learning Objectives</u>
Tuesday 1/22 (Dealy)	Course Overview Writing Basics I Discussion: Sciwrite 1.3	Introductions Sentences – cut the clutter Active vs Passive voice
Tuesday 1/29 (Dealy)	Writing Basics II Discussion: Sciwrite 3.4	Paragraphs Leaders & Linkers
Tuesday 2/5 (Kream)	Questions, Hypotheses, Aims Workshop: Writing hypotheses and Aims  After-class assignment: read the three assigned Abstracts	Drilling down to the key idea
Tuesday 2/12 (Kream)	Abstracts Workshop: What is a good abstract?	Parts of an Abstract Manuscript abstract vs grant abstract  After class assignment: write the first draft of your technical abstract and bring 4 copies to next class
Tuesday 2/19 (Faculty Editors)	Workshop: In class Editing <u>ALL students meet at UCH</u>	Working one-on-one with faculty editors to edit your first draft  After-class assignment: revise your abstract and bring 4 copies to next class
Tuesday 2/26 (Faculty Editors)	Workshop: In-class Editing <u>ALL students meet at UCH</u>	Working one-on-one with faculty editors to Edit your second draft  After-class assignment: revise your final Abstract and bring it and all editor's sheets to next class
Tuesday 3/5 (Dealy)	Manuscripts & Reviews	Organizing your data Writing manuscripts vs reviews
Thursday 3/12 (TA)	Posters Workshop: Poster samples	Poster Design principles Tips on poster presentation Poster software tips
Thursday 3/19	No class – UConn Grad School Spring Break	

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Tuesday 3/26 (Aguilar)	Fellowship Grants	Finding opportunities Mentor committee/timeline
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Tuesday 4/2 (Chon)	Research Grants	R21 vs R01 Mechanistic vs Technology Grants
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Tuesday 4/9 (Bonin)	Specific Aims Page Workshop: Aims revisited	Writing defined Aims
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After-class assignment: using the format provided, write the first draft of your three-aim research project Aims Page

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Tuesday 4/16 (Faculty Editors)	Workshop: In class Editing <u>ALL students meet at UCH</u>	Working one-on-one with Faculty Editors to revise your Aims Page
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After-class assignment: revise your final Aims page and bring the final and all editor's sheets to next class

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Thursday 4/23 (Stevens)	Communication with the Public Video – 3-minute ted-talks	Interviews, chance encounters
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After class assignment: write a 3-minute lay summary of your research and practice presenting it

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Thursday 4/30 (Dealy)	Small group video-recording	in-class oral presentation practice
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