



ICONS 289H-01: Integrated Scientific Communication
Biomedicine (i2b)
Spring 2023

Course Theme: It Takes a One Health Village!

The One Health initiative: “recognizes that the health of people is connected to the health of animals and the environment. It is a collaborative, multisectoral, and transdisciplinary approach—working at the local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment”. -cdc.gov

Instructional Team:

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Place/Time: T-TH 10:00-11:15 ISB 329

Office Hours: By Appointment; send us an email or chat after class to set them up!

Junior Year Writing: This course is qualified by the Faculty Senate Writing Committee to satisfy the Junior Year Writing requirement for participating majors. For more information on participating majors, please consult the iCons director.

Pre-requisites: iCons 1 and College Writing (ENG 112) are the prerequisites for iCons 2.

Course Description

The focus of iCons 2 is honing the skills of 21st Century scientific communication: communicating to STEM professionals in our own field, with STEM professionals in other fields, and with non-STEM audiences like the general public. In the first half of the course, under the broad “One Health” worldview, we will practice reading, writing, and communicating about science with a focus on the general public as our audience. Our focus on “One Health” will be tethered to real world problems and issues surrounding food, water, environment, microbes, and human and animal health. In the second half of the course, we will switch to team-based work and focus on formal genres of scientific writing and communication for a scientific audience. Students will generate their own topics of interest and as a class we will vote to narrow down topics and create teams for final group writing and presentation work.

Each student tailors i2b to their interests and needs by choosing two of their own learning goals upon which their progress will be measured as well as their own topics and problems to explore. Because this is a writing intensive course, students will spend time on both individual writing products (first half of course) as well as a group writing product and presentation (second half of course).

Course materials and requirements:

iCons 2 Syllabus: Integrated Scientific Communication (i2e) NatSci 289H(2), 4 credits

No required textbook. All readings and materials will be provided on Moodle site and in class. Class attendance is required. **Please email us to let us know if you are unable to attend class.** (Of course unpredicted emergencies and illnesses occur, so reach out as soon as you are able to).

Overall Course Structure:

Component	# of Weeks
Scientific Communication Skills Individual Development	~7
Proposals for Project Topics	1
Group Project Work Leading to Final Proposals and Presentations	~6

Learning Outcomes: Upon completion of this course, students will be able to demonstrate the following critical skills within the context of the biological and biomedical fields:

Core Goals (required of all students):

1. Write effectively and clearly, individually and as a team.
2. Deliver effective and clear oral presentations.
3. Work collaboratively and synergistically in a group or team setting.

Student Choice Goals (choose 2): While the course activities will work to build all of these outcomes, choose 2 that you personally want to focus your development on.

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4. Create clear and effective visual presentations.
 5. Communicate science effectively with both scientists *and* non-scientists.
 6. Research, explain, and support scientific claims using evidence from the literature.
 7. Articulate societal problems and solutions effectively with writing and presentations.
 8. Make connections between social justice and STEM in writing and presentations.

Course Deliverables:

Individual Assignments

- Cover letter
- Diversity Statement (Who am I in STEM essay)
- Journal Article Review: "Academic Minute"
- Writing from Scientific Sources: Mini Annotated Bib w/ Graphical Abstract of background for Project Pitch
- Project Pitch (one slide/2 min pitch)
- Course Reflection (end of course reflect on iCons Goals)

Group Assignments

- Define a Genre Presentation
- Broad Audience Piece
- Project Proposal (Written)
- Project Presentation (Video)

Class Participation and Engagement

In addition to the above assignments, you are expected to attend class and participate. Attendance will be recorded and reflected on as part of your grade. In addition, there will be tasks that will count toward your overall participation grade. (For example, coming prepared for class by having completed readings; completing rough drafts for peer review workshops). While these will not result in a grade, they will be noted as a complete or incomplete and attendance will be noted. **In the end, attendance and participation data will provide evidence to support whether or not you met your course goals. Be vigilant about attending class and participating in and out of class.** Of course, illness and emergency are part of life and we will accommodate excused absences. **Please contact us if you are going to miss class and also be sure to contact any group members or peers that may be counting on you for class activities or group work.**

Labor-Based Grading:

Success in this course is not solely based on the final products you turn in. Although your final, best draft of a piece is important to strive for, please be vigilant about the other aspects of progress on assignments that we will be looking for. Utilizing self-assessment rubrics (when assigned) and reflecting on your revision process are an important part of your assignment grades. Being prepared and participating in peer review is an essential part of being able to complete the reflection rubrics. Also, utilizing the assignment description and rubrics to make sure your assignment is complete is also an important part of the process. In short, by the time you turn in a final draft to the instructors, you will have participated in a process that can ensure an on time and successful final product! **Be sure to stay connected to the process, the in class activities and discussions, and utilizing the rubrics during the course.**

Mutual respect and professionalism:

You are expected to treat all participants in the course with courtesy and respect. We will work together to create a safe and welcoming environment for all to participate and be heard. Your comments to others should be factual, constructive, and free from harassing statements. You are encouraged to disagree with the instructors and your peers, but such disagreements need to be supported with evidence (rather than prejudices and personalities). It is our goal to promote an atmosphere of mutual respect in the classroom. Please contact us if you have suggestions for improving the classroom environment.

iCons 2b Grading Scheme:

Students will pick their goals from the menu above and communicate those goals in the first week of the course. Then at the end of the course, the instructors will evaluate “evidence” for how, when, and where these goals were met. Students will make a final “argument” for this in their final i2b reflection. The course instructors will consider the evidence (assignment scores, attendance, participation, and revisions) and assign grades according to the following criteria for three goal areas: Core Goals, Choice Goal 1 and Choice Goal 2:

- Excellence in all three areas: A
- Excellence in two areas and Strength in 3rd: A-
- Excellence in one area and Strength in other 2: B+
- Strong in all three areas: B
- Strong in only two areas: B-
- Strong in only one area: C+
- Strong in no area, with effort: C
- Strong in no area, without effort: D
- No-show: F

Covid 19 (and other sources of stress)

Please note, we are now more than 3 years into a global pandemic, our country is taking halting, but forward moving steps, to address racist policies and institutions, climate change is becoming an increasingly existential threat to humanity, and many people and families are facing economic hardships. (We hope part of the reason you are in this program is to help improve such social challenges!) If you tell us you are having trouble, we will believe you without any judgment and without thinking any less of you as a student who is eager to learn. **If you are facing any difficulties that are impacting your performance please talk to us right away.** Our goal is for you to succeed in this course and we are here to support you in achieving that success.

Should you need support of any kind, UMass also has a Single Stop Resource that can be accessed here: <https://www.umass.edu/studentlife/single-stop>.

Accommodation Statement

The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS), you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify us within the first two weeks of the semester so that we may make appropriate arrangements. For further information, please visit Disability Services (<https://www.umass.edu/disability/>)

Academic Honesty Statement

Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University. Academic dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. Appropriate sanctions may be imposed on any student who has committed an act of academic dishonesty. Instructors should take reasonable steps to address academic misconduct. Any person who has reason to believe that a student has committed academic dishonesty should bring such information to the attention of the appropriate course instructor as soon as possible. Instances of academic dishonesty not related to a specific course should be brought to the attention of the appropriate department Head or Chair. Since students are expected to be familiar with this policy and the commonly accepted standards of academic integrity, ignorance of such standards is not normally sufficient evidence of lack of intent (http://www.umass.edu/dean_students/codeofconduct/acadhonesty/).