

2022SP - EFF COMM SKILLS GEN 01:447:430:01

Welcome to Effective Communications Skills in Genetics!

Communication is an essential part of science. Whether it is communicating research findings to other scientists or conveying complex concepts to a lay audience, a scientist must be able to effectively communicate their research in order to succeed. Communication in science is typically through publications, posters, or oral presentations. The goal of this course is to provide students practice in effectively communicating scientific findings. This includes preparing and revising an introduction for scientific papers, writing a research description for general audience, and preparing and giving presentations (both oral and poster).

Course Syllabus: Spring 2022

Course number: 01:447:430

Class location (when in person): Science and Engineer Resource Center [SEC-220](#)

Class meeting times: Mondays and Wednesdays from 2:00 PM - 3:20 PM

Instructor: Maureen M. Barr, PhD

Office address: Life Sciences Building [LSB-324](#), 145 Bevier Road, Piscataway, NJ 08854

Phone: 848-445-1639: **The preferred way to contact Dr. Barr is by email. The phone should be used only for absolute emergencies!!!**

Email:mmbarr@hginj.rutgers.edu

Office Hours – Fridays from 12:00pm until 1:00pm and by appointment. Let me know by email if you plan to come to office hour. If for some reason I cannot make my office hours, I will announce this on the CANVAS site. Appointments, outside of normal office hours, will be made ONLY by email.

Technology Requirements: There will be a few classes in which we will use Zoom's breakout rooms. For that reason, you will need high-speed internet so that you can participate in these Zoom classes.

Required textbook: Scientific Writing and Communication: Papers, Proposals, and Presentations (FORTH EDITION), Angelika H. Hofmann, Oxford University Press, 2019; ISBN: 9780190063283. See links below to obtain:

1. On reserve at circulation desk at [Library of Science and Medicine](#)
2. [Oxford Press link](#)
3. [Amazon link](#)
4. [Rutgers B&N link](#)

COVID-related information

In order to protect the health and well-being of all members of the University community, masks must be worn by all persons on campus when in the presence of others (within six feet)

and in buildings in non-private enclosed settings (e.g., common workspaces, workstations, meeting rooms, classrooms, etc.). Masks must be worn during class meetings; any student not wearing a mask will be asked to leave.

Masks should conform to [CDC guidelines](#) and should completely cover the nose and mouth.

Each day before you arrive on campus or leave your residence hall, you must complete the brief survey on the My [Campus Pass symptom checker self-screening app](#).

How to Begin This Class

1. Review the information below (syllabus). Read each section carefully, taking note of the requirements, policies, and assignment due dates listed in the table at the bottom of the page.
2. Familiarize yourself with the assignments and deadlines
3. Read instructions for each assignment (see Quick Links below)
4. Review the weekly class schedule file (which will change over the semester)
5. Review the different Modules!

If you need accessibility accommodations, please send your professor a copy of your Letter of Accommodations as soon as possible! If you have not yet registered to receive your Letter, please refer to the [Support Services](#) page for directions on how to do so.

Course Goals: Students are expected to:

1. effectively incorporate critiques from peers and faculty in their revision of written and oral communication,
2. effectively describe their research, using relevant discipline-specific terminology with precision, accuracy & purpose,
3. accurately and effectively present advanced scientific concepts through oral presentations and poster formats.

SAS Core Learning Goals:

WCR- Communicate complex ideas effectively, in standard written English, to a general audience, and respond effectively to editorial feedback from peers, instructors, &/or supervisors through successive drafts & revision.

WCD- Communicate effectively in modes appropriate to a discipline or area of inquiry; evaluate and critically assess sources and use the conventions of attribution and citation correctly; and analyze and synthesize information and ideas from multiple sources to generate new insights.

Departmental Learning Goal:

Students will be able to communicate their discoveries through a written article appropriate for publication in a peer-reviewed Genetics journal, and through talks or posters appropriate for scientific meetings.

Weekly class schedule

You can find the weekly class schedule file in the files section under, "Weekly Class Schedule. This may change over the semester. If it does, I will make an announcement. Also, "do before class" for each of the first 5 classes are assigned within Pages and you can see them at the bottom of the syllabus.

Assignment due time

Assignments are typically due at **5pm** (check to confirm)

Academic integrity policy

Rutgers University takes academic dishonesty very seriously. By enrolling in this course, you assume responsibility for familiarizing yourself with the Academic Integrity Policy and the possible penalties (including suspension and expulsion) for violating the policy. As per the policy, all suspected violations will be reported to the Office of Student Conduct. Academic dishonesty includes (but is not limited to):

Cheating

Plagiarism

Aiding others in committing a violation or allowing others to use your work

Failure to cite sources correctly

Fabrication

Using another person's ideas or words without attribution—reusing a previous assignment

Unauthorized collaboration

Sabotaging another student's work in doubt, please consult the instructor

[SEE THIS WEBSITE FOR DETAILS.](#)

Class Attendance (IMPORTANT- READ CAREFULLY)

For the most part, we will meet in-person. However, for some classes, I have you do some small group work. For these, I hope to utilize an online class format using Zoom's "Breakout Rooms" in which I can "visit" throughout the course time.

Students are expected to attend and be punctual for all classes. Attendance will be taken at the beginning of class.

Class participation points would be taken off for each missed class. Additionally, overall grade points are ALSO taken off for habitual lateness or frequent absences (see frequent absence policy below). If you expect to miss a class, you MUST use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to the course instructor.

If you are told to quarantine due to illness (e.g., Covid), please email me. I don't want you to come to class when you are infectious. We can discuss how to make up the work.

Frequent absence policy:

- If you **have more than 4 or more absences (both unexcused and excused)**, then you will suffer an additional 10% deduction from overall cumulative grade for each additional absence.
- If you **have 6 or more absences (both unexcused and excused)**, then you will need to withdraw the course (if the sixth absence occurs prior to the withdrawal deadline) or fail the course (if the sixth absence occurs after the withdrawal deadline).

Grading system and policies

Grading will be as follows.

25%- MISC section

- 1) Attendance & Class participation
- 2) Homework
- 3) Quizzes

25%- Writing section:

- 1) Project narrative, research question and hypothesis (PRH)
 - a) Drafts of PRH
 - b) Final PRH
- 2) Editing & revising introduction
 - a) Submit intro from last semester
 - b) Editing group members' introductions
 - c) Final revised introduction

25%- Oral presentation

- 1) Outside seminars and testing critiques
- 2) Student critiques
- 3) Professor critique
- 4) Self-evaluation

25%- Poster section: final poster and poster session

- 1) Submitting drafts and final
- 2) Poster reviewer evaluations

GRADING SCHEME

A	90-100
B+	87-89
B	80-86
C+	77-79
C	70-76
D+	67-69
D	60-66
F	0-59

Participation will be evaluated according to the following rubric:

- A-range: Student participated thoughtfully in every, or nearly every, class discussion.
- B-range: Student participated in most class discussions.
- C-range: Students performed adequately in the above criteria.
- D or F: Student mostly failed to meet the above criteria.

IMPORTANT GRADING POLICIES:

1. Points will be taken off for not following instructions
 2. An automatic deduction of 15% will be applied for each day an assignment is late
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What is the class like?

This is an applied course to help students understand the format and practice of scientific communication. This includes preparing and revising an introduction for scientific papers, writing a research description for general audience, and preparing and giving presentations (both oral and poster). The course is divided into three sections:

Section 1- Writing and incorporating critiques into revisions

The goal of this section is to learn about scientific writing principles, understand specific aims of a research proposal and to be able to incorporate critiques into your writing. To give a structure to the course, we will begin by discussing the process of a research study. We will review the grant proposal process, conducting the research once it is funded, and ultimately publicizing the results in scientific journals and conference abstracts (both oral and poster format). For the grant review process, we will discuss the components of grant proposal, focusing on project narrative, research question, and hypotheses. If possible, students should try to obtain the specific aims from their respective lab to help them understand the larger goals and hypotheses of the lab.

Readings : There will be assigned readings that pertain to the topics we will cover in class. We will NOT cover all areas that are presented in the chapters and you are expected to read the assigned chapters.

Lectures and quizzes : There will be a few short quizzes from the material covered in class and in the readings. Questions will be taken directly from the examples within the chapters or from exercises at the end of the chapters.

New writing exercise (See PRH instructions): You will write a short lay narrative, limited to 3-5 sentences, describing your research project. This project narrative should use lay language, something that a non-scientist could understand. On the same page, you will write the research question and hypothesis for your project. In collaboration with your research supervisor, you will develop and write this exercise using the format presented in class. In class, we will review and edit each student's project narrative.

Edited writing exercise (See Group Project Editing instructions): You will use what you have learned about scientific writing to edit your classmate's introduction that was submitted in a prior semester. Students will be assigned to an introduction editing group, typically 5-10 per group. This editing will occur outside of class time and you will meet with your group to review suggested edits they give. Later, you will submit your final revised introduction after reviewing your classmate's edits. This final version will include a section describing areas you need to improve in your writing (i.e., self-evaluation of what learned about your writing during this process). This paper will be reviewed by the course professor and possibly sent to your research supervisor. Your grade for this section will be based on your edits of classmate's introduction and your final introduction after editing.

Section 2- Experience in preparing, giving, and analyzing scientific oral presentations

[See Oral Presentation instructions.](#) Using the material we reviewed in class and from the relevant textbook chapters, you will prepare an oral presentation. You will be assigned a date to give the presentation. The professor and classmates will critique each presentation using a specific rubric. Your classmates will upload these critiques to a site for you to improve your future oral presentations. You will also need to submit a self-evaluation of your oral presentation.

Section 3- Creating a scientific poster

[See Poster Presentation instructions.](#) Through an iterative process, students will create a poster describing their research project or independent study. At the end of class, we will have a virtual or in-person poster session, depending on Rutgers operating status. Mimicking a poster session at a scientific conference, individuals (i.e., faculty members, postdocs, and graduate students) will present at an in-person poster session or join an online breakout room. The student will give a short presentation and the reviewers will ask questions about the poster.

Information for Student-Wellness Services:

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901

<http://health.rutgers.edu/medical-counseling-services/counseling/>

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Crisis Intervention : <http://health.rutgers.edu/medical-counseling-services/counseling/crisis-intervention/>

Report a Concern: <http://health.rutgers.edu/do-something-to-help/>

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / <http://vpva.rutgers.edu/>

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services: (848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Report a Bias Incident *If you experience or witness an act of bias or hate, report it to someone in authority. You may file a report online and you will be contacted within 24 hours. The bias reporting page is [here](#)*

[Click here to report a bias incident](#)

Bias is defined by the University as an act, verbal, written, physical, psychological, that threatens, or harms a person or group on the basis of race, religion, color, sex, age, sexual orientation, gender identity or expression, national origin, ancestry, disability, marital status, civil union status, domestic partnership status, atypical heredity or cellular blood trait, military service or veteran status.