INSTRUCTOR: Dr. Rossie  
office: BCHM 203  
TEL: 494-3112  
e-mail: rossie@purdue.edu  
Office hours: by appointment

LECTURE TIME AND PLACE

Monday, 4:30-5:30pm, BCHM 102

All lectures will be recorded, and will be available for students who miss a class or who would like to review a lecture. They can be downloaded at http://www.itap.purdue.edu/learning/tools/boilercast/

COURSE OBJECTIVES

This is a one-credit course and is part of the capstone research experience required for completion of the Biochemistry B.S. degree. The primary focus of this course is on scientific communication.

Students will learn and practice effective means to communicate scientific information in both written and oral forms, focusing on their own research experience in BCHM 49800. A secondary focus will be on proper conduct of scientific research, including ethical and practical issues.

LEARNING OUTCOMES

BCHM 49000 students will incorporate the scientific method in their communication exercises. They will demonstrate the ability to develop hypotheses, design experiments, and analyze results to create new knowledge.

BCHM 49000 students will communicate scientific knowledge, experiments and conclusions effectively as speakers and writers.

BCHM 49000 students will appreciate the ethical issues facing professionals in the life sciences.

BCHM 49000 students will learn the contributions of our discipline to society, including improvements to medicine, agriculture, the economy and the environment.
**TEXTBOOK**

Students should read "Slide:ology: The Art and Science of Creating Great Presentations" and Chapter 2 of "Resonate: Present visual stories that transform audiences" both by Nancy Duarte. They are both available online through the Purdue libraries at no cost.

**BRIGHTSPACE**

The syllabus for the course, lecture notes, assignments and templates for grading will be available via the Purdue University BRIGHTSPACE site at: https://purdue.brightspace.com

**ASSESSMENT**

There are no exams for this course

The grading for this course is based on the following:

- 1 short written assignment 5%
- 1 written paper 25%
- 2 oral presentations 35%
- **Poster presentation** 20%
- Class participation 15%

The cutoff values for letter grades are as follows:

- 90% A
- 80% B
- 70% C
- 60% D
- 59% and below F

Missing an assignment will result in a grade of 0 being recorded unless documented justification is presented. Any request to be excused from a class presentation assignment must include official documentation (doctor’s note, request from academic advisor, etc) explaining why the class was or will be missed.

If you have any disagreements with the way any of your assignments have been graded, please make an appointment to see the instructor. Requests for re-grades must be submitted no later than the end of the second class period after the grade is received.

**EXTRA CREDIT**

There will be occasional opportunities for extra credit.

**OBTAINING EXTRA HELP**

Dr. Rossie will be available to answer questions immediately after class, or by appointment (arranged in class or by e-mail). Alternatively, you can submit questions by e-mail that can be answered in class or by return e-mail. Please include "BCHM 490" in the subject line for all emails.
CLASS ATTENDANCE

Attendance Policy during COVID-19: Students should stay home and contact the Protect Purdue Health Center (496-INFO) if they feel ill, have any symptoms associated with COVID-19, or suspect they have been exposed to the virus. In the current context of COVID-19, in-person attendance will not be a factor in the final grades, but the student still needs to inform the instructor of any conflict that can be anticipated and will affect the submission of an assignment or the ability to take an exam. Only the instructor can excuse a student from a course requirement or responsibility. When conflicts can be anticipated, such as for many University-sponsored activities and religious observations, the student should inform the instructor of the situation as far in advance as possible. For unanticipated or emergency conflict, when advance notification to an instructor is not possible, the student should contact the instructor as soon as possible by email, through Brightspace, or by phone. When the student is unable to make direct contact with the instructor and is unable to leave word with the instructor's department because of circumstances beyond the student's control, and in cases of bereavement, quarantine, or isolation, the student or the student's representative should contact the Office of the Dean of Students via email or phone at 765-494-1747. Our course Brightspace includes a link on Attendance and Grief Absence policies under the University Policies menu.

ACADEMIC GUIDANCE IN THE EVENT A STUDENT IS QUARANTINED/ISOLATED

If you become quarantined or isolated at any point in time during the semester, in addition to support from the Protect Purdue Health Center, you will also have access to an Academic Case Manager who can provide you academic support during this time. Your Academic Case Manager can be reached at acmq@purdue.edu and will provide you with general guidelines/resources around communicating with your instructors, be available for academic support, and offer suggestions for how to be successful when learning remotely. Importantly, if you find yourself too sick to progress in the course, notify your academic case manager and notify me via email or Brightspace. We will make arrangements based on your particular situation. The Office of the Dean of Students (odos@purdue.edu) is also available to support you should this situation occur.

PROTECT PURDUE PLAN

The Protect Purdue Plan, which includes the Protect Purdue Pledge, is campus policy and as such all members of the Purdue community must comply with the required health and safety guidelines. Required behaviors in this class include: staying home and contacting the Protect Purdue Health Center (496-INFO) if you feel ill or know you have been exposed to the virus, wearing a mask in classrooms and campus buildings, at all times (e.g., no eating/drinking in the classroom), disinfecting desk/workspace prior to and after use, maintaining proper social distancing with peers and instructors (including when entering/exitng classrooms), refraining from moving furniture, avoiding shared use of personal items, maintaining robust hygiene (e.g., handwashing, disposal of tissues) prior to, during and after class, and following all safety directions from the instructor.

Students who are not engaging in these behaviors (e.g., wearing a mask) will be offered the opportunity to comply. If non-compliance continues, possible results include instructors asking the student to leave class and instructors dismissing the whole class. Students who do not comply with the required health behaviors are violating the University Code of Conduct and will be reported to the Dean of Students Office with sanctions ranging from educational requirements to dismissal from the university.

Any student who has substantial reason to believe that another person in a campus room (e.g., classroom) is threatening the safety of others by not complying (e.g., not...
wearing a mask) may leave the room without consequence. The student is encouraged
to report the behavior to and discuss next steps with their instructor. Students also have
the option of reporting the behavior to the Office of the Student Rights and
Responsibilities. See also Purdue University Bill of Student Rights.

ACADEMIC MISCONDUCT

Academic misconduct of any kind will not be tolerated in any course offered by the
Department of Biochemistry. Information on Purdue’s policies with regard to academic
misconduct can be found at http://www.purdue.edu/studentregulations/student_conduct/regulations.html

Any incidence of academic misconduct will be reported to the Office of the Dean of
Students. Academic misconduct may result in disciplinary sanctions including expulsion,
suspension, probated suspension, disciplinary probation, and/or educational sanctions. In
addition, such misconduct will result in punitive grading such as:
• receiving a lower or failing grade on the assignment, or
• assessing a lower or failing grade for the course

Punitive grading decisions will be made after consultation with the Office of the Dean of
Students. Please note reported incidences of academic misconduct go on record for
reference by other instructors. Further, a record of academic misconduct is likely to
influence how current/future situations are handled.

To provide you with an unambiguous definition of academic misconduct, the following
text has been excerpted from "Academic Integrity: A Guide for Students", written by
Stephen Akers, Ph.D., Executive Associate Dean of Students (1995, Revised 1999,
2003), and published by the Office of the Dean of Students in cooperation with Purdue
Student Government, Schleman Hall of Student Services, Room 207, 475 Stadium Mall
Drive West Lafayette, IN 47907-2050.

"Purdue prohibits "dishonesty in connection with any University activity. Cheating,
plagiarism, or knowingly furnishing false information to the University are examples of
dishonesty." [Part 5, Section III-B-2-a, Student Regulations] Furthermore, the University
Senate has stipulated that "the commitment of acts of cheating, lying, and deceit in any of
their diverse forms (such as the use of substitutes for taking examinations, the use of
illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be
tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in
committing dishonest acts is in itself dishonest." [University Senate Document 72-18,
December 15, 1972]

More specifically, the following are a few examples of academic dishonesty which have
been discovered at Purdue University that are relevant to this class.

• paying someone else to write a paper and submitting it as one’s own work
• doing class assignments for someone else
• plagiarizing published material, class assignments, or lab reports
• turning in a paper that has been purchased from a commercial research firm or
obtained from the internet
• padding items of a bibliography
• collaborating with other students on assignments when it is not allowed
• stealing class assignments from other students and submitting them as one’s
own
• fabricating data
• destroying or stealing the work of other students

Plagiarism is a special kind of academic dishonesty in which one person steals another person's ideas or words and falsely presents them as the plagiarist's own product. This is most likely to occur in the following ways:

• using the exact language of someone else without the use of quotation marks and without giving proper credit to the author
• presenting the sequence of ideas or arranging the material of someone else even though such is expressed in one's own words, without giving appropriate acknowledgment
• submitting a document written by someone else but representing it as one's own

Academic integrity is one of the highest values that Purdue University holds. Individuals are encouraged to alert university officials to potential breaches of this value by either emailing integrity@purdue.edu or by calling 765-494-8778. While information may be submitted anonymously, the more information that is submitted provides the greatest opportunity for the university to investigate the concern.

Purdue's Honor Pledge was developed by students to advance a supportive environment that promotes academic integrity and excellence. It is intended that this pledge inspires Boilermakers of all generations to stay “on track” to themselves and their University. “As a boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together - we are Purdue.”

NOTICE OF COPYRIGHT PROTECTION OF COURSE MATERIALS

Among the materials that may be protected by copyright law are the lectures, notes, and other material presented in class or as part of the course. Always assume the materials presented by an instructor are protected by copyright unless the instructor has stated otherwise. Students enrolled in, and authorized visitors to, Purdue University courses are permitted to take notes, which they may use for individual/group study or for other non-commercial purposes reasonably arising from enrollment in the course or the University generally.

Notes taken in class are, however, generally considered to be “derivative works” of the instructor’s presentations and materials, and they are thus subject to the instructor’s copyright in such presentations and materials. No individual is permitted to sell or otherwise barter notes, either to other students or to any commercial concern, for a course without the express written permission of the course instructor. To obtain permission to sell or barter notes, the individual wishing to sell or barter the notes must be registered in the course or must be an approved visitor to the class. Course instructors may choose to grant or not grant such permission at their own discretion, and may require a review of the notes prior to their being sold or bartered. If they do grant such permission, they may revoke it at any time, if they so choose.

EMERGENCY PREPAREDNESS

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor’s control. Relevant changes to this course will be posted onto the course website or can be obtained by contacting the instructors or TAs via email or phone. You are expected to read your @purdue.edu email on a frequent basis.
ON-LINE COURSE EVALUATIONS

During the last two weeks of the semester, you will be provided an opportunity to evaluate this course and your instructor(s). To this end, Purdue has transitioned to online course evaluations. On Monday of the fifteenth week of classes, you will receive an official email from evaluation administrators with a link to the online evaluation site. You will have two weeks to complete this evaluation. Your participation in this evaluation is an integral part of this course. Your feedback is vital to improving education at Purdue University. I strongly urge you to participate in the evaluation system.

NON-DISCRIMINATION POLICY

Purdue University's non-discrimination policy will be upheld in this classroom. Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life.

Purdue University views, evaluates, and treats all persons in any University related activity or circumstance in which they may be involved, solely as individuals on the basis of their own personal abilities, qualifications, and other relevant characteristics.

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs and values expressed by students and staff involved in this course. We support Purdue's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disability, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

For more information, see http://www.purdue.edu/purdue/ea_eou_statement.html.

MENTAL HEALTH

Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, such individuals should contact Counseling and Psychological Services (CAPS) at (765)494-6995 or http://www.purdue.edu/caps/ after hours, on weekends and holidays, or by going to the CAPS office of the second floor of the Purdue University Student Health Center (PUSH) during business hours.

ACCESSIBILITY AND ACCOMMODATIONS

Purdue University strives to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, you are welcome to let me know so that we can discuss options. You are also encouraged to contact the Disability Resource Center at: drc@purdue.edu or by phone: 765-494-1247.

DISCLAIMER

This syllabus is subject to change.
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<th>Class</th>
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| 8/24  | Introduction: Why Communicate Science | "Slide:ology: The Art and Science of Creating Great Presentations" and Chapter 2 of "Resonate: Present visual stories that transform audiences" by Nancy Duarte. They are both freely available online through the Purdue libraries. | • Introductions by teacher and students  
• Discuss course objectives and format  
• Review scientific method  
• How to talk about scientific topics in a way that people can understand their relevance and significance  
• **WRITING ASSIGNMENT 1** |
| 8/31  | Communicating science to an audience | Syd Field Paradigm website | • Communicating science effectively without dumbing it down  
• Discussing useful tools such as analogy, metaphors, narrative and providing context.  
• The Syd Field paradigm for creating effective stories  
• **WRITING ASSIGNMENT 1 DUE** |
| 9/07  | Visualizing science in communication | | • What makes visualizations effective?  
• Will go through various examples of effective and ineffective visualizations  
• How can data or concept visualizations enhance public understanding? |
| 9/14  | Assignments - watch Susan McConnell (Stanford) Designing effective scientific presentations [https://www.youtube.com/watch?v=Hp7Id3Yb9XQ&list=PLaKL0lcFtm-1wWO6SG2n6q85GfzdDVrCJ&index=7&t=20s](https://www.youtube.com/watch?v=Hp7Id3Yb9XQ&list=PLaKL0lcFtm-1wWO6SG2n6q85GfzdDVrCJ&index=7&t=20s) | | |
Willingham, Daniel T. "Trust me, I'm a Scientist" Sci. Am May 5, 2011 | • **WRITING ASSIGNMENT 2** writing for popular media  
• What features of scientific writing work well for the public?  
• What does not work well? |
<p>| 9/28  | Oral presentations: Scientific talks w/ peer review | Student Group 1 | |
| 10/5  | Oral presentations: Scientific talks w/ peer review | Student Group 2 | |</p>
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<td>Oral presentations: Scientific talks w/ peer review</td>
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<td>10/26</td>
<td>Poster presentation</td>
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<td>• Ways in which posters resemble and differ from oral and written reports</td>
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<td>• Strategies for producing posters</td>
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<td>11/02</td>
<td>Oral presentations: Lay audience with peer review</td>
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<td><strong>WRITING ASSIGNMENT 2 DUE</strong></td>
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<td>11/16</td>
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