

I. Course Information

Instructor Information

Primary Course Instructor: Ian M. Bird, PhD
Office: 7 E. Meriter Hospital, 202 S. Park St, Madison, WI 53715
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Course Administration

TA: Kristal Gant
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Course Administrator: Shelley Maxted
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Course Time and Location:

Class Time: 8:30 – 10:10 am
Day: Tuesday
Location: Temin Room, 11th floor McArdle Building, 1400 University Ave.

Course Description

Meets the NIH Institutional Training Grant requirements of instruction in the nine recommended areas of

- A. Conflict of interest - Personal, professional, and financial
- B. Policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices
- C. Mentor/mentee responsibilities and relationships
- D. Collaborative research including collaborations with industry
- E. Peer review
- F. Data acquisition and laboratory tools; management, sharing and ownership
- G. Research misconduct and policies for handling misconduct
- H. Responsible authorship and publication
- I. The scientist as a responsible member of society, contemporary ethical issues in

biomedical research, and the environmental and societal impacts of scientific research for MS and PHD graduate students in the Biological Sciences.

Weekly lectures will be followed by small group discussion of reading assignments of case studies. Invited guest speakers and faculty will be the primary source of instruction for the first hour of the course.

Prerequisite

- Graduate Student Standing Only

Textbook & Course Materials

Required Text

- Scientific Integrity, 3rd Edition. Francis Macrina ISBN:1-55581-318-6

This book is being provided students enrolled in the course on loan for use during the semester.

Recommended Texts & Other Readings

- On Being A Scientist: A Guide to Responsible Conduct in Research, 3rd Edition, National Academy of Science. ISBN-10: 0-309-119701-7
- At the Helm 2nd Edition: A Laboratory Navigator, Baker, Kathy, Cold Spring Harbor Press. ISBN: 0879698667
- Making the Right Moves: A Practical Guide to Scientific Management for Post-docs and New Faculty, Howard Hughes Medical Institute Download the book at:
<http://www.hhmi.org/sites/default/files/Educational%20Materials/Lab%20Management/Making%20the%20Right%20Moves/moves2.pdf>
- Other readings will be made available in the MY UW Course site or distributed in class.

Course Requirements

- Internet connection (DSL, LAN, or cable connection desirable)
- Access to MY UW and Learn@UW Course Site

Course Structure

Class Format - The first half of class will be lecture format on the topic listed in the syllabus by either the instructor indicated or an appropriate invited speaker. The second half of class will focus on a discussion of case studies and application of ideas and concepts from the lecture.

Online Resources - Additional resources will be presented in class or made available in the course website at Learn@UW

- NIH Grant Review Process Videos:
<http://public.csr.nih.gov/aboutcsr/contactcsr/pages/contactorvisitscrpages/nih-grant-review-process-youtube-videos.aspx>
- National Post-doc Association Responsible Conduct of Research homepage:
<http://www.nationalpostdoc.org/publications/rcr>
- Office of Research Integrity, US Department of Health and Human Services:
<http://ori.hhs.gov/>; The Lab (video recommended for Research Misconduct)

- AAMC Pre & Postdoctoral Scholar's Mentor/Mentee Compact
<http://www.ctsi.umn.edu/sites/default/files/Mentor-Mentee%20Compact.pdf>
- Scientific Integrity - a companion site to the text book : www.scientificintegrity.net

II. Course Objectives

Learning Objectives - This course is designed to facilitate the acquisition of knowledge through a sequence of lectures and group discussion on the nine recommended topics in Responsible Conduct of Research established by the National Institutes of Health. Each lecture has specific learning objectives to be accomplished by the end of the 70-minute class period. Measurement of learning objectives will include observation of group discussion and a final written exam. Students will also complete a course evaluation form on the final day of class.

III. Lecture Schedule

<i>Date</i>	<i>Course Topics</i>	<i>Instructor</i>	<i>NIH Topics Covered</i>	<i>Reading Assignment (Macrina Book)</i>
09/11/2018	Mentor/Mentee Responsibilities	Ian Bird	A, C, I, H, G	Chapter 3
09/18/2018	Rigor and Reproducibility	Donata Oertel	G,H,I	
09/25/2018	Creating a Positive Work Environment	Sherry Boeger	A, C, D, G, I	No Book Chapter
10/02/2018	Collaborative Research	Debbie Melzer, Bob Gratzl, Larry Westby (RSP)	A, B, C, D, E, F, G, H, I	Chapter 8
10/9/2018	Human Subjects	Heather McFadden –	A, B, D, F, G, H, I	Chapter 5
10/16/2018	Authorship & Peer Review	Jon Audhya	A, B, C, D, E, F, G, H, I	Chapter 4
10/23/2018	Creating an Individual Career Development Plan	Graduate School - Office of Professional Development – Alissa Ewer	A, B, C, E, F, H, I	No book chapter
10/30/2018	Vertebrate Animals	Eric Sandgren	A, B, C, D, F, G, H, I	Chapter 6
11/06/2018	Intellectual Property	Office of Industrial Partnerships Staff (Matt Barron, Casey Kettler)	A, B, C, D, F, G, H, I	Chapter 9
11/13/2018	Biosafety	Tara Schnell, Karaen Demick	A, B, D, F, G, H, I	No book chapter
11/20/2018	Research Misconduct	Donata Oertel	A, B, C, D, E, F, G, H, I	Chapter 11, Appendix VI
11/27/2018	Funding Scientific Research	Nihal Ahmad	A, B, C, D, E, F, G, H, I	No book chapter
12/04/2018	Conflict of Interest	Sam Leinweber	A, B, D, E, F, G, H, I	Chapter 7
12/11/2018	The Scientist & Society	Ian Bird & Chris Bradfield	A, B, C, D, E, F, G, H, I	Chapter 1

Grading Policy

Graded Course Activities

Points	Description
50 points	Attendance and Participation
50 points	1 Comprehensive Final Exam
100 points =100%	

Attendance, Participation and Absence Policy

This course is scheduled to meet 1 day per week for two hours each session and weekly attendance will be taken. Topics in this course have the potential to generate and stimulate a robust discussion with many diverse points of view; you the student will benefit from active participation in large and small group discussion as in many situations there are no clear cut answers to the situations in the case studies.

Class Participation Expectations - Students are expected to have completed the required readings prior to the start of each class. While participants may be passionate about a particular point of view, discussion is expected to remain respectful of all individuals, levels of experience and area of scientific study.

Absences - Students are expected to notify the course coordinator by email at least one week in advance of planned absence.

Exams

There will be 1 comprehensive take home exam due on the final day of class that integrates all of the material learned throughout the semester. More details will be provided in November. The exam must be deposited in the drop box in Learn@UW by 3:30 pm on the posted due date to receive full credit.

Viewing Grades in Learn@UW

Points you receive for graded activities will be posted to the Learn@UW Grade Book.

Your instructor will update the online grades each time a grading session has been complete—typically within 7 days following the completion of an activity.

Letter Grade Assignment

This course will follow the standard A-F grading scale at UW-Madison:

Letter Grade	Percentage	Performance
A	93-100%	Excellent Work
AB	87 – 93%	Nearly Excellent Work
B	83-86%	Good Work
BC	77-82%	Above Average Work
C	70-76%	Average Work
D	60-69%	Below Average Work
F	0-59%	Failing Work

IV. Course Policies

Understand When You May Drop This Course

It is the student's responsibility to understand when they need to consider withdrawing from a course. Refer to the Registrar's website for dates and deadlines for registration and withdrawal.

Inform Your Instructor of Any Accommodations Needed

If you have a documented disability and verification from the McBurney Center, and wish to discuss academic accommodations, please contact your instructor as soon as possible.

Use of Handheld Devices

All handheld devices including but not limited to iPads, smart phones, laptop computers and tablet devices must be turned off during the first hour of the lecture. Devices may be used during the discussion session provided their use is relevant to the task at hand. The instructor reserves the right to temporarily retrieve electronic devices from students as needed.

Commitment to Integrity

The following text is provided by the Graduate School Academic Guidelines access online 8/12/2015 from the following site: <http://grad.wisc.edu/acadpolicy/> (scroll down for "Misconduct, Academic")

Misconduct, Academic

Graduate students should be aware that the university holds graduate students to a high standard of academic integrity and believes that misconduct may warrant university discipline in addition to sanctions imposed by an instructor. Graduate students who have been found by their instructors to commit academic misconduct can expect that the Division of Student Life will consider whether to impose a further disciplinary sanction of university probation, suspension, or expulsion.

Chapter 14 of the University of Wisconsin Administrative Code defines academic misconduct as follows:

Academic misconduct is an act in which a student:

1. seeks to claim credit for the work or efforts of another without authorization or citation;
2. uses unauthorized materials or fabricated data in any academic exercise;
3. forges or falsifies academic documents or records;
4. intentionally impedes or damages the academic work of others;
5. engages in conduct aimed at making false representation of a student's academic performance; or
6. assists other students in any of these acts. UWS 14.03(1)

Examples of academic misconduct include but are not limited to:

1. cutting and pasting text from the Web without quotation marks or proper citation;
2. paraphrasing from the Web without crediting the source;
3. using notes or a programmable calculator in an exam when such use is not allowed;
4. using another person's ideas, words, or research and presenting it as one's own by not properly crediting the originator;
5. stealing examinations or course materials;

6. changing or creating data in a lab experiment;
7. altering a transcript;
8. signing another person's name to an attendance sheet;
9. hiding a book knowing that another student needs it to prepare for an assignment;
10. collaboration that is contrary to the stated rules of the course; or
11. tampering with a lab experiment or computer program of another student.

The full text of the state statute governing academic misconduct, UWS 14, Student Academic Disciplinary Procedures, as well as the UW-campus procedures for implementing the provisions of UWS 14 and general information about academic misconduct, are available at web location http://www.students.wisc.edu/doso/docs/uws_chapter_14.pdf or from the Division of Student Life, 75 Bascom Hall, (608) 263-5700.