

Integrity in Scientific Research (BMSC 5001)
Fall 2021
1 Credit Hour
BSEB 272
Fridays – 9:00-10:00a
August 27 – December 17, 2021

This syllabus is intended as a guide for this course. Dates, assignments, and evaluation are subject to revision by the instructor and will be announced in advance when possible.

COURSE FACULTY

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WELCOME FROM THE COURSE DIRECTOR / TEACHING PHILOSOPHY

Welcome to Integrity in Scientific Research. This course is designed to satisfy the NIH requirement that all trainees receive training on the importance of maintaining integrity and high ethics in science. Topics of discussion include the many ethical issues encountered in biomedical research, including the use of human subjects and animal models, data ownership, plagiarism, and others. This course is discussion-based and led by multiple faculty leaders with experience in the areas to be discussed. Students are encouraged to read the topics before class and take part in the discussions, to best facilitate a more active learning environment.

COURSE DESCRIPTION

This course will focus on the issues important to maintaining integrity in scientific endeavors. Topics to be discussed include ethical decision making, data collection and analysis, intellectual property, competitive pressures, technology transfer, authorship practices and human and animal studies.

PREREQUISITE(S)

Admission to GPiBS or permission from the Instructor.

CLASS TYPE

Lecture/Discussion and **on-line training through the required CITI course**

COURSE OBJECTIVES

- Students will be able to **apply** knowledge acquired from this course that they may responsibly perform research and adhere to high standards of scientific integrity.

LEARNING OUTCOMES

This course is designed to fulfill federal requirements for instruction in responsible conduct of research and is required to obtain a graduate degree.

CLASS PREPARATION

Students are responsible for completing all assigned readings and materials, whether discussed in class or not (including any written or verbal updates, all lecture material, independent study, and other information provided). All assignments are due on the date provided by each individual instructor. All material will be provided to students, with instructions, via D2L.

PROFESSIONALISM

Plagiarism

Plagiarism is a serious offense and is not tolerated in any of its forms. It is a form of academic misconduct under the HSC Academic Misconduct Code. Examples of plagiarism include, but are not limited to, 1) copying sentences nearly verbatim from another source or 2) working together on a take-home exam where the instructions clearly state that the answers are to be composed independently. Plagiarism is monitored by the Turnitin software within the D2L system. Turnitin reports will be reviewed by the Course Coordinator and reported to the Course Directors.

In all instances of plagiarism, the faculty member, with the permission of the Course Directors, will take away points from the plagiarized assignment, resulting in a decreased grade up to and including a grade of "0." Academic misconduct charges may also be filed, in accordance with the Academic Misconduct Code, found in **appendix C, section 12.1** of the Faculty Handbook.

Classroom Behavior

Though classroom discussion is encouraged, students are expected to respect the instructor and classmates by exhibiting professional behavior at all times. Cell phones should be silenced and put away during class. The use of laptop computers should be limited to accessing journal articles required for the specific lecture and for note-taking. Students are also expected to regularly arrive on time to lectures. Lapses in professionalism, including but not limited to the issues listed above, may result in a Professional Concerns Report submitted to the Graduate College by the Course Directors, as described in **section 3.2** the GPiBS Handbook.

ATTENDANCE

Students are absent if they 1) arrive 10 minutes or more after the beginning of the scheduled start of the class, 2) do not arrive to class at all, or 3) leave at any time prior to the conclusion of the class. The Course Coordinators and Course Directors will monitor attendance for each class via sign-in sheets. If the student misses any lecture, then the student will receive an 'incomplete' (I) grade. To replace the letter grade of "I", the student must attend each lecture that was missed at the next class offering in the following academic year. The letter grade of 'I' is described in **section 3.3** of the GPiBS handbook. Any absence does not change the scholastic expectation of the course.

Important: In accord with NIH requirements for discussion based classes, class attendance is mandatory. You must have a 100% attendance record to pass this course. No absences are allowed for this course.

PARTICIPATION

Students are expected to contribute to discussion and engage instructors with questions and answers. Preparation and classroom participation is a major graded criterion for this course.

CONDUCT OF THE COURSE

Textbook

Macrina "Scientific Integrity" (4th edition). ASM Press: www.asmpress.org Companion web site: www.scientificintegrity.net

Assignments (Final Paper)

The paper will discuss ethical issues of the Hwang stem cell case. Pick 3 of the following for comment; describe briefly what happened in the case that relates to each issue; discuss why it was wrong, or questionable, or not a problem; and discuss what could have been done to avert the problems. You should not need more than 2 pages. Due December 10 by 5 PM.

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|--|--------------------------------|
| (a) use of human subjects | (f) discrimination, harassment |
| (b) data analysis, falsification of data | (g) conflicts of interest |
| (c) reporting misconduct | (h) mentoring |
| (d) authorship | (i) record keeping |
| (e) peer review | |

Evaluation Methods

Students must take and pass the university-mandated CITI course. Attendance and the final paper are the primary means of evaluating student performance and are the graded component of this course. There is no exam.

Grading Rubrics

60% = Preparation and Participation

40% = Final Paper

Attendance is absolutely mandatory for this course. Students who attend and participate will receive the full 60% of the "Preparation and Participation" criterion. Students must submit a paper, which is worth 40% of the total grade. The paper will be graded by the Course Director.

EVALUATION AND GRADING

Grading Scale

Satisfactory = 100-75%

Unsatisfactory = 74-0%

Class attendance is mandatory. You must have a 100% attendance record to pass this course. One final paper will be given to ensure the students have learned and retained the required material. Students must receive a 70% or greater grade to receive a grade of satisfactory. If a student does not turn in the final paper and/or has any absences, the student will receive a grade of incomplete (I) and must retake the course in the following year. The letter grade of 'I' is described in **section 3.3** of the GPIBS handbook.

Suggested COURSE OUTLINE/SCHEDULE			
Date	Instructor	Topic	Text 4th edition
Fri Aug 27	Gillian Air	Methods, Manners and Ethics	Chs 1 & 2
Fri Sep 10	Carol Webb	Stem Cells and current topics	
Fri Sep 24	Judith James	Mentoring	Ch. 3
	FALL BREAK	FALL BREAK	FALL BREAK
Fri Oct 15	Jimmy Ballard	Authorship and Peer Review	Ch 4
Fri Oct 22	Mary Carter	Plagiarism	
Fri Nov 5	Anne Pereira	Scientific record keeping and who owns the data?	Ch 10 & App. VI
Fri Nov 12	Larry Rothblum	Conflicts of interest	Ch 7
Fri Nov 19	Michelle Staudt and Travis Russell	Research Misconduct and discrimination and harassment	
Fri Dec. 3	Dean Myers	Data analysis	
Fri Dec 10	Pat Gaffney	Collaborative Research	

Required Policy Statements

This syllabus is intended as a guide for this course. Dates, assignments, and evaluation are subject to revision by the instructor. Any such revisions will be announced in advance.

Copyright

This syllabus and all related course material are protected under US Copyright Law and may not be further disseminated in any form or format without the prior explicit written consent of the faculty member. Failure to comply with this provision may subject the student to disciplinary action and/or state or federal action.

Student Professional Behavior in an Academic Program

Ethical and professional behaviors are considered a core competency in an academic program and thus are key factors in a student's good academic standing. Upon acceptance of an offer of admission, the student commits to comply with all professional conduct regulations established by the University, respective college, and program. The complete Student Professional Behavior in an Academic Program policy is at www.ouhsc.edu/provost/documents/FacultyHandbookOUHSC.pdf.

Academic Misconduct Code

The Academic Misconduct Code describes academic misconduct as any acts intended to improperly affect the evaluation of a student's academic performance or achievement. Academic Misconduct includes but is not limited to cheating, plagiarism, fabrication, fraud, destruction, bribery or intimidation, assisting others in any act proscribed by the Code, or attempting to engage in such acts. The policy and procedures related to academic misconduct are detailed in the Academic Misconduct Code found in Appendix C of the Faculty Handbook at www.ouhsc.edu/provost/documents/FacultyHandbookOUHSC.pdf.

Academic Appeals

The Academic Appeals policy outlines the procedure a student must follow to request a hearing for appeals related to evaluation in a course, thesis or dissertation defense, or general or comprehensive exam. It also outlines the appeal process for a suspension or dismissal or under

the Student Professional Behavior in an Academic Program Policy and for appeals of decisions resulting in dismissal, expulsion, or suspension from a program or of being required to repeat a semester of year. The sole basis for an academic appeal is an alleged prejudiced or capricious academic evaluation or decision. Policy and procedure details are in Appendix C of the Faculty Handbook at www.ouhsc.edu/provost/documents/FacultyHandbookOUHSC.pdf .

Accommodation on the Basis of Disability

The University of Oklahoma is committed to the goal of achieving equal educational opportunity and full participation for students with disabilities. Accommodations on the basis of disability are available by contacting the Disability Resource Center (DRC) by email at drc@ou.edu or by calling (405) 325-3852 or Voice (405) 325-4173/TDD. Information on policies and registration with the Disability Resource Center may be found on the DRC website at: www.ou.edu/drc. Students requesting accommodations related to work in a course must contact the DRC as soon as possible; accommodations are not made retroactively.

Sexual Misconduct

For issues regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including Advocates-On-Call 24/7, counseling services, mutual “No Contact orders,” scheduling adjustments, and disciplinary sanctions against the perpetrator. Information is available from the Sexual Misconduct Office at (405) 325-2215 (8AM-5PM) or the Sexual Assault Response Team at (405) 605-0013 (24/7).

Adjustment for Pregnancy/Childbirth Related Issues

Students needing modifications or adjustments to course requirements because of documented pregnancy-related or childbirth-related issues should contact the college’s Assistant/Associate Dean for Student Affairs (or academic advisor) or the Disability Resources Center (www.ou.edu/drc) as soon as possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. See www.ou.edu/content/eoo/faqs/pregnancy-faqs.html for answers to commonly asked questions.

Course Drop/University Withdrawal

The student is responsible to submit required University paperwork before the deadlines to drop or withdraw from a course, shown in the Academic Calendar at <http://admissions.ouhsc.edu/AcademicCalendar.aspx>. Missed homework and examination grades will be entered as a grade of zero if a student fails to formally drop the course or withdraw from the University.

Encryption

Students and trainees must have personally-owned and University-issued laptops, smartphones, and external storage devices, such as flash drives and hard drives, that are used for University Business, encrypted by Campus IT through a Device Security Clinic <http://ouhsc.edu/registerdevice> or similar, prior to using the device for University Business (unless they have been notified by College or Department personnel that they are specifically, individually exempt). University Business does include checking HSC email. Removal of encryption by Campus IT is required upon a student’s departure from the University.

Syllabus Policy Statement re COVID-19 Academic Policies

This Fall 2021 Syllabus Addendum replaces any and all information in the course syllabus that addresses COVID-19 Related Academic Policies.

COVID-19 Related Academic Policies. The OUHSC COVID-19 Response Plan ([here](#)) includes the HSC policies referenced below, as well as others intended to mitigate the spread of COVID-19. If you believe you have a medical condition that prevents you from complying with these requirements or others, please refer to the Reasonable Accommodations section of this syllabus. As a student, compliance with the following expectations is your responsibility:

1. **MASKING.** All individuals are required to wear a mask inside university facilities where healthcare is the primary purpose and in patient-facing and clinical research spaces. Regardless of vaccination completion, all individuals must wear a mask in these spaces. Unvaccinated individuals are strongly encouraged to wear masks in other University spaces.

Unvaccinated individuals are strongly encouraged to become vaccinated and may do so by making an appointment at HSC Student & Employee Health and OU-Tulsa clinics, at no cost to them.

If you need a mask, you may pick one up from the centralized Student Affairs office for your campus. Non-medical grade masks with exhalation valves are not permitted on campus unless a surgical style mask is worn over it. Scarves, bandanas, gaiters, buffs, and the like are also not permitted as substitutes for masks. It must cover your nose and mouth when worn.

2. **COVID- 19 Vaccine Requirement.** HSC program students who have patient-facing responsibilities are required to receive immunizations to protect patients and other health care providers. The University recognizes that vaccine requirements in certain University settings, in particular patient care settings, are both prudent and important. Vaccine requirements will be updated as appropriate, based on guidance from the Centers for Disease Control and Prevention as well as medical and public health officials. **Effective June 1, 2021, faculty, staff, and students with patient-facing responsibility are required to provide the completed COVID-19 Vaccine Documentation Form.**

For the student documentation and declination process, please visit the webpage below, based on the student's geographic campus:

- a. **HSC & Remote Sites:** <https://students.ouhsc.edu/required-immunizations>
- b. **OU-Tulsa:** <https://www.ou.edu/tulsastudentaffairs/health/requiredimmunizations>

3. **Off-Campus and On-Campus Clinical or Experiential Instruction.** If your academic responsibilities or assignments require you to go to on- or off-campus facilities for clinical or other experiential instruction, including to OU Medical/OU Health facilities, you must comply with the COVID-19 related policies of those facilities. You will receive specific directions from your instructor related to your particular class and the relevant guidelines.
4. **COVID-19 Screening and Reporting.** All students are responsible to know the University's COVID-19 Screening & Reporting requirements, listed [here](#). Each time you experience one of the scenarios listed in the [online COVID-19 Screening and Reporting Guidance](#), you must follow the below steps:
 - a. Complete the [online COVID-19 Screening & Reporting Tool](#). The Student & Employee Health Clinic will notify you, via your University email address, of your screening results.
 - b. After receiving your screening results, please send your results to the specified email address for your college/program outlined in your results email.
 - c. After forwarding your screening results to the specified college results email address, you can send your screening results to your individual instructors or preceptors.

Please note: If you have questions regarding the screening or reporting process, contact HSC Student Affairs at (405) 271-2416 or students@ouhsc.edu or OU-Tulsa Student Affairs at (918) 660-3100 or TulsaSA@ou.edu

HIPAA Compliance. The University of Oklahoma complies with all federal and state laws related to the confidentiality of patient and research participant medical information, including the Privacy and Security Regulations issued pursuant to the Health Insurance Portability and Accountability Act (HIPAA). Students are required to comply with these laws and related University policies and procedures, including the HIPAA Privacy and Security policies <http://ouhsc.edu/hipaa/policies.asp>. Students are required to complete the University's mandatory annual HIPAA training at <http://ouhsc.edu/hipaa>. Students must also comply with the related policies and procedures of their departments and any facilities in which they rotate.

Responsible Conduct of Research. Students, as members of the University community, have the responsibility to ensure the integrity and ethical standards of any research activity with which they are associated directly or of which they have sufficient knowledge to determine its appropriateness. Students are governed by the Policy on Ethics in Research (Faculty Handbook Section 3.25) at www.ouhsc.edu/provost/documents/FacultyHandbookOUHSC.pdf.

Distance Learning Notification: In a Distance Learning Classroom (DLC), a student's voice, physical presence, materials, and participation in classroom activities may be transmitted to distance learning sites and videotaped or digitally captured. DLC video/digital archives are used internally by the University for educational and informational purposes.