

Course Syllabus

[Jump to Today](#)

 [Edit](#)

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BIO 416: Biomedical Research Ethics

Course and Faculty Information

Course Description

Biomedical Research Ethics will explore ethical issues that arise in the conduct of research and the results of research—emerging biotechnologies. Specifically, the course is made up of four units on: research with human subjects, research with animals, misconduct in science, and emerging biotechnologies. As an applied ethics course, the emphases within these topics will include describing common practices in biomedical research, exploring ethical principles, professional norms, and laws that shape responsible conduct of research, and developing of ethical problem-solving skills. Effectively constructing and communicating an argument about a research ethics topic will be one of the main aims of this course.

Credits: 3

Prerequisites

Minimum 45 hours; Credit is allowed for only for BIO 416 or HPS 410

Faculty and Contact Information

Christopher Rojas, Instructor
Faculty, Biology and Society
christopher.rojas@asu.edu

Paul Ehmman, Teaching Assistant
Ph.D. student, Biology and Society
pjeumann@asu.edu

Office Hours

By appointment. Please contact us by email to arrange for phone or Zoom consultation. Your first contact for questions about assignments, grading, or other course matters should be your discussion

section leader. If you have additional questions, anyone should feel free to contact the instructor, Christopher Rojas, directly.

Learning Objectives

At the completion of this course, you will be able to:

- Identify ethical dimensions of current biomedical research practices
- Explain ethical principles, legal standards, and professional norms in the areas of research with human subjects, research with animal subjects, misconduct in science, and ethics of emerging technologies
- Discuss regulatory approaches to achieve ethical goals in biomedical research
- Employ ethical principles, legal standards, and professional norms to respond to ethically complex situations in the conduct of biomedical research
- Formulate an ethical argument concerning ethically complex situations in the conduct of biomedical research

Course Access

Your ASU courses can be accessed by both [my.asu.edu](http://my.asu.edu/?tiq=t&c=15806) [_\(http://my.asu.edu/?tiq=t&c=15806\)](http://my.asu.edu/?tiq=t&c=15806) and [myasucourses.asu.edu](http://myasucourses.asu.edu/?tiq=t&c=15806) [_\(http://myasucourses.asu.edu/?tiq=t&c=15806\)](http://myasucourses.asu.edu/?tiq=t&c=15806); bookmark both in the event that one site is down.

Computer Requirements

This is a fully online course; therefore, it requires a computer with internet access and the following technologies:

- Web browsers ([Chrome](https://www.google.com/chrome/) [_\(https://www.google.com/chrome/\)](https://www.google.com/chrome/), [Mozilla Firefox](http://www.mozilla.org/en-US/firefox/new/) [_\(http://www.mozilla.org/en-US/firefox/new/\)](http://www.mozilla.org/en-US/firefox/new/), or [Safari](http://www.apple.com/safari/) [_\(http://www.apple.com/safari/\)](http://www.apple.com/safari/))
- [Adobe Acrobat Reader](http://get.adobe.com/reader/) [_\(http://get.adobe.com/reader/\)](http://get.adobe.com/reader/) (free)
- Webcam, microphone, headset/earbuds, and speaker
- Microsoft Office ([Microsoft 365 is free](https://myapps.asu.edu/app/microsoft-office-2016-home-usage?tiq=t&c=15806) [_\(https://myapps.asu.edu/app/microsoft-office-2016-home-usage?tiq=t&c=15806\)](https://myapps.asu.edu/app/microsoft-office-2016-home-usage?tiq=t&c=15806) for all currently-enrolled ASU students)
- Reliable broadband internet connection (DSL or cable) to stream videos.

Note: A smartphone, iPad, Chromebook, etc. will not be sufficient for completing your work in ASU Online courses. While you will be able to access course content with mobile devices, you must use a computer for all assignments, quizzes, and virtual labs.

Help

For technical support, use the Help icon in the black global navigation menu in your Canvas course or call the ASU Help Desk at +1-(855) 278-5080. Representatives are available to assist you 24 hours a day, 7 days a week.

Learning Materials and Assignments

Biomedical Research Ethics is a General Studies Literacy and Critical Inquiry (L) core course. The heart of this requirement is that you develop your ability to think critically and communicate in writing and verbally effectively. L courses have substantial writing components. Specifically, they must include writing that requires gathering, interpreting, and evaluating evidence, and they structure writing assignments to provide you feedback that aids in the development of communication skills.

For this course you will:

1. Read, view video clips, and listen to podcasts
2. Post to Yellowdig
3. Complete study questions
4. Do three short ethical writing exercises (mini assignments)
5. Write one full case analysis

Learning Materials

Content assignments are posted in the Modules. Complete them on or before the deadline schedule and you should do well.

There are two required texts for the course:

- Shamoo, Adil E. and David B. Resnik. *Responsible Conduct of Research*. 3rd ed. Oxford; New York: Oxford University Press, 2014.
- Guerrini, Anita. *Experimenting with Humans and Animals: From Galen to Animal Rights*. Johns Hopkins Introductory Studies in the History of Science. Baltimore, MD; London: The Johns Hopkins University Press, 2003.

For those interested in hardcopies, they are both available through Amazon.com, other online booksellers, and the ASU Bookstore.

Digital copies are provided in the Canvas shell.

Yellowdig

While some classes treat Yellowdig somewhat casually, we will be leaning on this platform frequently this semester. Participation is simple but is still worth 30% of your course grade. We will provide you with 5 prompts/scenarios and grade you based on your initial response and the number (and quality) of corresponding peer engagements.

In order to accrue full points, you must participate in Yellowdig in at least 5 weeks over the course. There are 6 earning periods (weeks) in the course so you have the opportunity to skip one full week and still attain full credit.

For more point distribution information and logging in to sync with the gradebook, visit [this page](#).

Study Questions

Study questions--short responses to a prompt--also aim to help you reflect on, process, and integrate the information learned from assigned readings and other content.

Ethical writing exercises (mini assignments)

You will be asked to write three short “ethics exercise” assignments we call “mini-assignments.” These are constructed to get you to focus on just one important feature of a case. Details about these writing exercises will be given in the respective assignment prompts.

Case Analysis

The case analysis essay is an exercise in critical reading and ethical argumentation. You will be asked to pick one of three cases (events/scenarios) that involve problems in biomedical research ethics. You'll have to apply what you've learned in your readings and through your discussion and mini assignment work to crafting a well-formed ethical argument. The assignment is available for you at any time on the Canvas page. More will be said about how to tackle it in the first few weeks of class.

Student Success

To be successful:

- Check the course daily
- Read announcements
- Read and respond to course email messages as needed
- Complete assignments by the due dates
- Communicate regularly with your instructor and peers
- Monitor the Canvas Calendar to stay on track with due dates
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- Access [ASU Online Student Resources \(http://goto.asuonline.asu.edu/success/online-resources.html?tiq=t&c=15806\)](http://goto.asuonline.asu.edu/success/online-resources.html?tiq=t&c=15806)

Submitting Assignments

All assignments, unless otherwise announced, **MUST** be submitted to the designated area of Canvas. Do not submit an assignment via email unless you are having technical difficulties.

Assignment due dates follow Mountain Standard Time (MST). Click the following link to access the [Time Converter \(http://www.thetimezoneconverter.com/\)](http://www.thetimezoneconverter.com/) to ensure you account for the difference in Time Zones. Note: Arizona does not observe daylight savings time and is aligned with MST year round.

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(855) 278-5080. Representatives are available to assist you 24 hours a day, 7 days a week

Grading

We will generally assign grades for this course as follows:

| Assignment | Points | Module/Week | Due Day/Date |
|------------------------------|---------------|-------------|----------------|
| Academic Integrity Agreement | 5 | 1 | Friday 5/21 |
| Study Questions (8) | 320 (40 each) | 1-6 | Every Friday |
| Mini Assignment 1 | 75 | 2 | Tuesday 6/1 |
| Mini Assignment 2 | 75 | 3 | Tuesday 6/8 |
| Mini Assignment 3 | 75 | 4 | Tuesday 6/15 |
| Case Assignment | 150 | 5/6 | Wednesday 6/23 |
| Yellowdig | 300 | 1-6 | Every Friday |
| TOTAL | 1000 | | |

Because it's possible to receive a fractional grade (from Yellowdig), your course grade will be determined based on the following schema:

| Grade | Percent | Points |
|-------|-----------------|-------------|
| A+ | 100% to 97.0% | 1000 to 970 |
| A | <97.0% to 93.0% | <970 to 930 |
| A- | <93.0% to 90.0% | <930 to 900 |
| B+ | <90.0% to 87.0% | <900 to 870 |
| B | <87.0% to 83.0% | <870 to 830 |
| B- | <83.0% to 80.0% | <830 to 800 |

| | | | | | | |
|----|--------|----|-------|------|----|-----|
| C+ | <80.0% | to | 77.0% | <800 | to | 770 |
| C | <77.0% | to | 70.0% | <770 | to | 700 |
| D | <70.0% | to | 60.0% | <700 | to | 600 |
| E | <60.0% | to | 0.0% | <600 | to | 0 |

- The points listed are maximum points possible. Simply completing an assignment does not guarantee full points.
- Grades reflect your performance on assignments and adherence to deadlines.
- We will endeavor to return grades within 72 hours of the assignment due date via the Grades link in the navigation menu. Due dates are viewable on the Canvas Calendar located on the left menu.
 - In the event that grade returns are delayed, we will adhere to a more charitable grading regiment.

Late or Missed Assignments

With the COVID-19 pandemic, we are certainly sensitive and sympathetic to these unprecedented times and the occurrence of unplanned events that may disrupt your progress in the course.

Try to notify the instructor before an assignment is due if an urgent situation arises and you are unable to submit the assignment on time. We understand that this is not always possible however, so count on our understanding.

Importantly, we do have to regulate late-submissions to some extent because not doing so negatively impacts our ability to be dutiful graders and provide the requisite feedback on your assignments. Therefore, submissions sent 3 days late without notice will be reduced 25% (the maximum possible grade is 75%). We will not be able to accept assignments 7 days after they are due without clearing it with your instructional leader. The lesson here is that in all cases, it is best to communicate.

Follow the appropriate University policies to request an [accommodation for religious practices](http://www.asu.edu/aad/manuals/acd/acd304-04.html?tiq=t&c=15806) (<http://www.asu.edu/aad/manuals/acd/acd304-04.html?tiq=t&c=15806>) or to accommodate a missed assignment [due to University-sanctioned activities](http://www.asu.edu/aad/manuals/acd/acd304-02.html?tiq=t&c=15806) (<http://www.asu.edu/aad/manuals/acd/acd304-02.html?tiq=t&c=15806>).

Track Your Progress

You are encouraged to keep track of your own progress in this course by checking your grades regularly. You can use the "What-If Grades" feature in Canvas to enter in hypothetical grades for any assignment (past and future). This feature allows you to determine what grades you need to make on assignments

to achieve the grade you want in the course. Visit "[How do I approximate my assignment scores using the What-If Grades feature](https://community.canvaslms.com/docs/DOC-10631-421255065)" (<https://community.canvaslms.com/docs/DOC-10631-421255065>) for more information.

Communicating with the Teaching Team

Please try to contact the teaching team member responsible for your grading first. If you have don't get a timely reply from a TA or your issue is about a TA, please feel free to contact the instructor. You can expect a response within 24 business hours.

Community Forum

This course uses a discussion topic called "Community Forum" for general questions and comments about the course. Prior to posting a question or comment, check the syllabus, announcements, and existing posts to ensure it's not redundant. You are encouraged to respond to the questions of your classmates.

Email questions of a personal nature to your instructor. You can expect a response within 48 business hours.

Email

ASU email is an [official means of communication](http://www.asu.edu/aad/manuals/ssm/ssm107-03.html?tiq=t&c=15806) (<http://www.asu.edu/aad/manuals/ssm/ssm107-03.html?tiq=t&c=15806>) among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

All instructor correspondence will be sent to your ASU email account.

ASU Online Course Policies

View the [ASU Online Course Policies](https://asuonline-dev.asu.edu/qm-template/CanvasQM/qm-policies.html?tiq=t&c=15806) (<https://asuonline-dev.asu.edu/qm-template/CanvasQM/qm-policies.html?tiq=t&c=15806>).

Academic Integrity

Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions, and records. The possible penalties include, but are not limited to, appropriate grade reductions, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification, and dismissal. For more information, see <http://provost.asu.edu/academicintegrity> (<http://provost.asu.edu/academicintegrity?tiq=t&c=15806>). Additionally, required behavior standards are listed in the [Student Code of Conduct and Student Disciplinary Procedures](#)

(<http://www.asu.edu/aad/manuals/ssm/ssm104-01.html?tiq=t&c=15806>), **Computer, Internet, and Electronic Communications policy** (<http://www.asu.edu/aad/manuals/acd/acd125.html?tiq=t&c=15806>), and outlined by the **Office of Student Rights & Responsibilities** (<https://students.asu.edu/srr?tiq=t&c=15806>). Anyone in violation of these policies is subject to penalties.







It would be especially pathetic to fail an ethics course for cheating!

Syllabus Disclaimer

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Remember to check your ASU email and the course site often.

(<https://canvas.asu.edu/courses/85180/assignments/2170394>)

Course Summary:

| Date | Details | Due |
|------------------|---|----------------|
| Mon May 17, 2021 |  First Day of Class https://asu.instructure.com/calendar?event_id=508346&include_contexts=course_85180 | 12am |
| Fri May 21, 2021 |  Academic Integrity Agreement https://asu.instructure.com/courses/85180/assignments/2170394 | due by 11:59pm |
| Fri May 21, 2021 |  Study Question 2 -- Making moral arguments https://asu.instructure.com/courses/85180/assignments/2170402 | due by 11:59pm |
| Fri May 21, 2021 |  Study Question 1 -- What is Ethics https://asu.instructure.com/courses/85180/assignments/2170401 | due by 11:59pm |
| Fri May 28, 2021 |  Study Question 3 - What harms does misconduct lead to? https://asu.instructure.com/courses/85180/assignments/2170405 | due by 11:59pm |
| Fri May 28, 2021 |  Study Question 4 -- Identifying rules https://asu.instructure.com/courses/85180/assignments/2170406 | due by 11:59pm |

| Date | Details | Due |
|------------------|---|----------------|
| Tue Jun 1, 2021 |  Module 2: Mini-Assignment 1 - Interested Parties (https://asu.instructure.com/courses/85180/assignments/2170404) | due by 11:59pm |
| Fri Jun 4, 2021 |  Module 3: Study Question 6 - The 3Rs in practice (https://asu.instructure.com/courses/85180/assignments/2170409) | due by 11:59pm |
| Fri Jun 4, 2021 |  Study Question 5 - Using animals (https://asu.instructure.com/courses/85180/assignments/2170408) | due by 11:59pm |
| Tue Jun 8, 2021 |  Module 3: Mini-Assignment 2 - Norms and Standards (https://asu.instructure.com/courses/85180/assignments/2170407) | due by 11:59pm |
| Fri Jun 11, 2021 |  Study Question 7 - Comparing oversight approaches (https://asu.instructure.com/courses/85180/assignments/2170412) | due by 11:59pm |
| Fri Jun 11, 2021 |  Study Question 8 - Formulating options and anticipating consequences (https://asu.instructure.com/courses/85180/assignments/2170413) | due by 11:59pm |
| Tue Jun 15, 2021 |  Mini Assignment 3 - Consequences (https://asu.instructure.com/courses/85180/assignments/2170411) | due by 11:59pm |
| Fri Jun 18, 2021 |  Study Question 9 - Ethical principles and emerging technologies (https://asu.instructure.com/courses/85180/assignments/2170414) | due by 11:59pm |
| Fri Jun 25, 2021 |  Module 4: Case Analysis (https://asu.instructure.com/courses/85180/assignments/2170410) | due by 11:59pm |
| Fri Jun 25, 2021 |  Yellowdig Engage (https://asu.instructure.com/courses/85180/assignments/2214093) | due by 11:59pm |