

# **SYLLABUS: COURSE # 11:115:321**

## **ETHICAL ISSUES IN BIOCHEMICAL RESEARCH**

### **SPRING 2023**

## **Course Overview**

### **Course Description**

This course will address ethical issues related to biochemistry at the level of the researcher, the implementation of discoveries and the impact on society.

### **Instructor**

Instructor: Kyle Murphy, Ph.D.

Email address: [Kyle.Murphy@rutgers.edu](mailto:Kyle.Murphy@rutgers.edu)

Office hours: By arrangement

### **Diversity, Equity and Inclusion**

The SEBS/NJAES Office of Diversity, Equity, and Inclusion and your professor are committed to supporting diversity, equity, and inclusion as core values in our work, interactions, and planning. Central to our ability to function as a community of learning and research is practicing respect for each other, developing a culture of belonging, and ensuring a commitment to everyone's dignity.

### **Course Delivery**

This course uses Canvas as the learning management system to deliver most course content. To access the course, please visit <https://tlr.rutgers.edu/canvas>. For more information about course access, support or technological assistance with the Canvas site contact the Canvas Help Desk via email at 877-361-1134 immediately upon having an issue. Do not ask your professor to solve technical issues you are experiencing in Canvas. To protect yourself from possibly missing a deadline because of a technical issue, I ask that you work in advance of deadlines to ensure timely completion of. Please have a backup plan in place in case your computer or your internet go down during the semester as make-ups will not be given due to technical difficulties. You may wish to check on the hours and locations of the Rutgers computer labs and/or have a backup plan with a friend or family member to safeguard against missing due dates because of a lack of available or availability to resources.

### **Prerequisites**

## Course Learning Objectives

By the end of this course, students should successfully be able to:

- locate literature and assess literature related to ethical issues in the biosciences or biomedical field.
- discuss controversial ethical issues in biosciences and biomedical field.
- express their viewpoints of ethical issues in the biosciences or biomedical field in both verbal and written formats.
- Convey a clear message in verbal format supporting or opposing a current ethical issue in the biosciences or biomedical field.

## Course Materials

### Readings

- A series of faculty selected reading will be provided for some in class discussions.
- Students will search for published materials from credible sources to present an ethical issue to the class. After the class has heard the presentation, a discussion thread will be started with students assigned to support or point out issues that oppose resolutions to ethical issues.

### Textbook

- There is no required textbook. Articles are provided on Canvas and student will have to use the Rutgers Libraries for other research articles to support their discussion posts and presentations.

### Required Videos and/or Website Materials

- All the faculty readings will be posted on Canvas.  
(<https://tlt.rutgers.edu/canvas>)

## Technology Requirements

### Baseline technical skills necessary for online courses

- Basic computer and web-browsing skills
- Navigating Canvas

## **Technology skills necessary for this specific course**

- Live web conferencing using Zoom, Webex or Canvas for office hours and any required meetings.
- Use of our learning management system, Canvas.

## **Required Equipment**

- Computer: current Mac (OS X) or PC (Windows 7+) with a reliable high-speed internet connection
- Webcam: built-in or external webcam, fully installed
- Microphone: built-in laptop or tablet mic or external microphone
- A pair of headphones for listening to videos and office hours

## **Required Software (see Rutgers Software Portal)**

- Microsoft Word or equivalent
- Microsoft PowerPoint or equivalent
- Google Chrome web browser ONLY for course materials.
- The use of online proctoring tool extensions or other items related to online proctoring.

# Assessments and Scheduling

## **Important Dates (see schedule below assignment deadlines)**

Please check the Rutgers registrar's office for details and official dates and times of the course. All exams will be given according to the schedule below.

## **Course Schedule and Deadlines**

Each week student's will be assessed and graded based on participation in the course in class discussion and/or discussion board posts. Students will also receive a presentation score as well as a score for debating the presentation topic. Please see the Canvas Assignment Tool for Due Dates pertaining to this semester.

<b>Assignment Summary Table</b>	<b>Weight</b>
<ul style="list-style-type: none"> <li>In Class Discussions About Faculty Assigned Readings done before coming to class</li> </ul>	20 points each meeting (see rubric)
<ul style="list-style-type: none"> <li>Continuation of Faculty Assigned Readings in Discussion Tool</li> </ul>	20 points for full credit (see rubric)
<ul style="list-style-type: none"> <li>Student Given 30 minute PowerPoint Presentation on Ethical Biochemistry Topic of Choice</li> </ul>	100 pts
<ul style="list-style-type: none"> <li>Non-presenter discussion contribution in class after presentation is given</li> </ul>	20 pts each presentation
<ul style="list-style-type: none"> <li>Continuation of presentation on Discussion Tool in Canvas after non-presenting students research topic. Citations required.</li> </ul>	20 pts each

## Assignment Summary

### In-Class Discussions About Faculty Assigned Readings



- Students are expected to complete the faculty assigned readings listed on Canvas before the in-person meeting day. Students should be prepared to contribute to discussions based on the reading and possible implications to the scientific or global community. Grading will be based on student discussion/contribution. Disagreement with the author's stance is allowed., but logical reasoning as to why is expected.

- In class discussions about faculty assigned readings

In class discussions about faculty assigned readings							
Criteria	Ratings						Pts
Student verbal contribution to discussion Quantification of student's verbal participation during the in-person discussions. More than just an agreement or disagreement. Evidence in needed.	10 pts 5 contributions of substance	8 pts 4 contributions of substance	6 pts 3 contributions of substance	4 pts 2 contributions of substance	2 pts 1 contributions of substance	0 pts no contribution of substance	10 pts
Does student demonstrate organized supporting material usage during their discussion. The student may verbally reference an article or life experience that backs up their contribution. The discussion should not be solely opinion based, but be founded in logic with reasoning.	10 pts <b>Excellent</b> The student displays excellent preparation evident by their use of supporting theory and evidence from other sources during their verbal contributions.	8 pts <b>Most times</b> The student backs up most, but not all of their comments with a logic bound or evidence based principles.	6 pts <b>Sometimes</b> The student backs up more than half of their comments with a logic bound or evidence based principles.	4 pts <b>Less than half</b> The student backs up less than half of their comments with a logic bound or evidence based principles.	2 pts <b>Minimal logic or evidence provided</b> The student backs very few of their comments with a logic bound or evidence based principles. It is mostly opinion based only.	0 pts <b>Sometimes</b> The student only provides person opinions without logic or evidence statements.	10 pts
Total Points: 20							

### Continuation of Faculty Assigned Readings in Discussion Tool

- Students are expected to think about what was presented in class and proposed for discussion/debate. Now go and do research on the topics and further support your in-class viewpoints or change your mind. Find evidence through further research and cite your references. For full credit, you should contribute twice to this post. Your contributions can be in the form of a reply to another student or you can state something new in your own thread. Please use citations and provide something more than what another person already did for full credit.
- Student Given**

Continuation of Faculty Assigned Readings in Discussion Tool							 
Criteria	Ratings					Pts	
Number of Discussion Entries (Contributions) Present The student is expected to contribute any combination of initial posts or replies to total two contributions.	5 pts There are two contributions found	2.5 pts There is only 1 contribution found		0 pts There aren't any contributions found		5 pts	
Citations are present Each contribution is expected to have a citation.	5 pts There is a citation for both contributions		2.5 pts Only 1 citation is found		0 pts There are no citations found	5 pts	
Quality Assessment of the Contribution The student should provide a clear statement that completes a thought with logic and/or evidence supporting their contribution.	10 pts Full credit All contributions contain a complete and clear statement of what the student is trying to convey and is backed up by logic and/or evidence from their citation.	7.5 pts Minor Issues There are minor issues of clarity within the contribution the student is trying to convey but it is backed up by logic and/or evidence from their citation.	5 pts Significant Issues There are minor issues of clarity within the contribution the student is trying to convey and there are minor issues with the contribution being backed up by logic and/or evidence from their citation.	2.5 pts Major Issues There are major issues of clarity within the contribution the student is trying to convey and there are major issues with the contribution being backed up by logic and/or evidence from their citation.	0 pts There are no contributions There are no contributions presented	10 pts	
Total Points: 20							

## Student Given 30 Minute PowerPoint Presentation on Ethical Biochemistry Topic of Choice.

- Students are expected to put together a 30 minute presentation about an ethical topic on bioscience or biomedical. The presentation should consist of the following:
  - Title slide with Presentation title, the presenter's name and the date.
  - A slide that introduces the issue
  - Background slide(s) about the issue stating who is affected.
  - What you have found and who has published on the issue. If there is data, provide it.
  - Has there been any advances regarding this issue. This could be opinion and fact based.
  - Are there are negative impacts of advances or efforts being made in the above bullet point.
  - Summary, what are your views of what you think should be done about the ethical issue you presented on.
  - Questions and participation from the students in the audience is graded under the category of "Non-presenter discussion contribution in class after presentation is given". This should be the last 5 minutes of the 30 minute presentation.

Total Points: 100

**Continuation of presentation on Discussion Tool in Canvas after non-presenting students research topic. Citations required.**

- Non-presenting students will post items they have found by doing internet research about the topics and further discussion about it using the Discussion Tool in Canvas.
- The student who presented should respond to each post by the non-presenting students for their grade.



## Grading Scale

(Source: Rutgers standard undergraduate grade scale)

Grade	Range
A	89.01 – 100
B+	84.01 – 89
B	79.01 – 84
C+	74.01 – 79
C	69.01 – 74
D	59.01 – 69
F	Below 60

## Student Participation Expectations

By signing up to take this class, you have made a commitment to the class and the schedule of the class. The due dates in the course are a part of that commitment. Work in advance of your due dates and plan around the due dates of the course. Your plan should include contingencies of how you can get your work completed in your first plan fails. For example, do you have a friend or family member's computer that you can access if your computer just stops working? What will you do in case of a power outage? These are important things to consider when pacing with and engaging in this course. Think of these now and make a "worst case scenario" plan involving people you may need to ask a favor of. Your plan could be something like spending an hour in your car at a friend or family members house/driveway to watch a lecture video or going to a local place (library, coffee shop, etc.) that broadcasts WIFI. Please do yourself a favor and look into options for yourself before a situation such as this presents itself and you're not prepared.

- **Logging in to Canvas and/or Mastering Chemistry:**  
Be sure you are logging in to the course in Canvas daily to check the Announcements Tools for any messages from your professor, including weeks with holidays or weeks with minimal online course activity. (During most weeks you will probably log in many times.) I will be posting communications via the Announcement tool and will be available during our normal scheduled class meeting times for live consultation.
- **Time Commitment**  
To be successful in this course, you should plan to dedicate approximately 3hrs outside the class per credit of the class (9hrs for this class). This varies on a per student basis and is no guarantee of success.
- **Office hours**  
They will be held online and by appointment.
- **Missing an assignment/deadline**  
Only assignment will be dropped as your lowest grade. The PowerPoint Presentation will not be dropped and will be given on a different day if you have a Dean of Students verified absence emailed to Dr. Murphy. If you are sick and miss your presentation, get a doctor's note and present it to a Dean of Student's immediately. If you have another life altering emergency, presenting proof to a Dean of Students will also be necessary. Google "Dean of Students + Rutgers" to learn how to contact them.
- **Rescheduling a Due Date for Religious Reasons**  
Any and all conflicts with observed religious holidays need to be reported at the beginning of the semester and due dates will be adjusted ahead of your religious holiday conflict. You will have 7 days past the add/drop period to contact me so that we can arrange for your alternative testing date/time. After 7 days past the add/drop period adjustments will not be offered. All other assignments should be completed ahead of time and are open for students to work on ahead of time. Altering due dates for such assignments for homework or quizzes is not needed.

## Discussion and Communication Guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Contacting the professor via writing** Please use the Discussion tool in Canvas to ask questions about the class. All content related correspondence for the class will take place there. Please do not email me directly because email isn't my preferred method of large class communication. I will dedicate time to check the Discussion tool daily, but will not be sorting through my daily emails for content questions from the course. If you have a personal issue, please contact a Dean of Students and they can assist you with how to properly notify me and your other professors of your needs. Please see "**Missing an assignment/deadline**" for more details.

Content questions should be posted under the appropriate Discussion heading on Canvas (module 1, module 2, Exam 1, etc.) and someone will respond as soon as possible (usually within 24hrs). You may want to see if someone else has already asked the same question before you post so that you can get your answer as quick as possible. If the answer involves a lot of explanation, I advise you come to one of my office hours. I will hold two, weekly office hours at which I will entertain questions. For this semester these will be held virtually.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. Informality (including an occasional emoticon) is fine for non-academic topics. Please also refrain from using all CAPITAL LETTERS, as this is often interpreted as shouting.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. Treat your instructor and fellow students with respect at all times, and in all communications.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)
- **Backing up your work:** I would like each student to compose their academic posts in a word processor, where you can save your work, and then copying into the Canvas discussion. Please keep a copy of this for your records in case it is required later.

# Support and Policies


## Faculty Feedback and Response Time

Please call the help desk at [877-361-1134](tel:877-361-1134) or email them at [help@canvas.rutgers.edu](mailto:help@canvas.rutgers.edu) if you have a technical problem with Canvas. If there is a technical problem with Mastering Chemistry, please consult the help feature on the Modified Mastering Chemistry homepage. Consult them as soon as you notice the problem and please post your issue on the Discussion tool in Canvas so you have record of the timing of your report. It would be wise to begin your workdays ahead of the deadlines to avoid missing a deadline due to a problem with technology and the helpdesk not being open.

## Grading and Feedback

You can generally expect feedback within **7 days** after an assignment is collected.

## Academic Integrity




The consequences of scholastic dishonesty are very serious. Please review the [Rutgers' academic integrity policy](#) .

Academic integrity means, among other things:



- Develop and write all of your own assignments.
- Show in detail where the materials you use in your papers come from. Create citations whether you are paraphrasing authors or quoting them directly. Be sure always to show source and page number within the assignment and include a bibliography in the back.
- Do not fabricate information or citations in your work.
- Do not facilitate academic dishonesty for another student by allowing your own work to be submitted by others.



If you are in doubt about any issue related to plagiarism or scholastic dishonesty, please discuss it with your instructor.

Other sources of information to which you can refer include:


- [Rutgers' Academic Integrity website](#) 
- [Code of Student Conduct](#) 
- [Eight Cardinal Rules of Academic Integrity](#) 

## Academic Support Services

- Rutgers has a variety of resources for academic support. For more information, check the [Academic Support website](#) .
- Rutgers has Learning Centers on each campus where any student can obtain tutoring and other help. For information, check the [Learning Center website](#) .

- Rutgers also has a Writing Center where students can obtain help with writing skills and assignments. Learn more at the [Writing Center website](#) .
- Many library resources are available online. Assistance is available through phone, email, and chat. For information, check the [Rutgers Libraries website](#) .


## Rutgers Health Services

- Rutgers Health Services is dedicated to health for the whole student body, mind and spirit. It accomplishes this through a staff of qualified clinicians and support staff, and delivers services at a number of locations throughout the New Brunswick-Piscataway area. For more information, check the [Rutgers Health Services website](#) .

## Accommodations for Accessibility

### Requesting accommodations

If you would like to request academic accommodations based on the impact of a disability qualified under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, contact your instructor privately as soon as possible to discuss your specific needs. Discussions are confidential.

In addition to contacting the instructor, please contact the [Office for Disability Services](#)  to register for services and/or to coordinate any accommodations you might need in your courses at Rutgers.

Go to the [Student section of the Office of Disability Services](#)  website for more information.