

Seminar/Responsible Conduct of Research

Course Information

Course Prefix and Number: PHYS 8002 A

Semester: Fall 2026

Welcome to the **Physics Graduate Seminar / Responsible Conduct of Research** course. PHYS 8002 is a double course. On the one hand, it's the first-year graduate seminar, in which faculty come and present their research so the new graduate students can become familiarized with the research done in the School of Physics. On the other hand, the course is also the in-person Responsible Conduct of Research (RCR) training for physics PhD students, which is a Georgia Tech requirement and in which we discuss issues related to research ethics.

- This class meets every **Friday** from **2:00pm-3:50pm** in **Howey S-104**.
- Please read the [Syllabus](#) (this page) in its entirety
- Please see [Announcements](#) for class meeting and assignment reminders. Make sure to change your Canvas notification settings to receive an email notification whenever a new announcement is posted, otherwise you'll miss out on important info.
- You will find PDF exports of the RCR lectures, along with additional information relevant to each lecture, in [Files](#). If the professors send me the slides for their faculty seminars, I will post them there as well.
- In [Assignments](#) you'll find links to the Group Presentation project assignments, the homeworks, and attendance taken separately for RCR and faculty seminars.
- Your scores for attendance and the assignments can be found under [Grades](#).

For additional resources, I recommend looking at the [APS Ethics in Physics](#) website.

IMPORTANT!!!

In addition to this class, all graduate students **MUST** complete the online CITI RCR Training during their first semester of grad school, within **60 days** of the first day of classes.

For Fall 2026, the deadline is **Friday October 23**.

You can find the online CITI RCR Training here:

<http://www.rcr.gatech.edu/online-training>

Course Description (from OSCAR)

Representative research programs in the School are described by advanced graduate students, post-doctoral fellows, and faculty members. The experimental basis of physics is illustrated through accounts of great experiments of importance to contemporary research.

Instructor Information

[picture]	Instructor: Dr Emily Alicea-Muñoz (she/her) Contact: eaalicea@gatech.edu Office: Howey C-201 (Howey second floor, center hallway) Office Hours: Anytime, in-person or remote, scheduled by email appointment or MS Teams private message, or just dropping by if you see my office door open
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Learning Objectives

This course doubles as a **first-year graduate seminar** and **Responsible Conduct of Research** (RCR) training. The aims of the course are therefore twofold:

- To introduce new graduate students to the research performed by faculty in the School of Physics through a series of research seminars.
- To identify and discuss ethical and professional issues that graduate students confront relating to their research.

The RCR portion of the class addresses topics that are recognized by US federal agencies and Georgia Tech as crucial to being a responsible researcher. This course satisfies [Georgia Tech's In-Person RCR Compliance Training for Doctoral Students](#).

Required Course Materials

There is no required textbook for this course. All reading materials will be made available to students either electronically via Canvas > [Files](#), or as printed copies during class.

Course Structure and Content

This class meets every **Friday** afternoon, from **2:00pm to 3:50pm**, in **Howey S-104**. The content of the class will switch between RCR material and faculty research seminars.

The RCR content of the class will include the following topics:

- Research misconduct
- Science and engineering in society
- Laboratory safety
- Authorship, publication, and collaborations
- Peer review
- Data acquisition, management, ownership, and sharing
- Conflicts of interest and commitment
- Animal subjects in research
- Human subjects in research
- Effective and responsible use of AI in research
- Mentorship
- Ethical conduct towards others

Course Schedule

This is the entire course schedule for the Fall 2026 semester. **Major assignment deadlines are highlighted in gold.** Note that the deadlines for the small homeworks are not included here; to find those deadlines please look in the [Assignments](#) page.

RCR class meetings are highlighted in blue. Faculty seminars have no background color. **Days in which there is no class meeting are highlighted in medium gray.**

I also highly recommend that everyone attend the **GAP Mentoring Meetings** that will take place on **Fridays at 11:00am in Howey S-104** during the **PHYS 6803 (Physics GTA Preparation)** course, regardless of whether you are working as a GTA this semester or not. These will be included in the schedule here and **highlighted in mint green** even though they are not part of the Seminar/RCR course.

Topic	Date	Time
GAP Mentoring Meeting 1: Prepping for Success	Friday, August 28	11:00am - 11:50am
RCR Lecture 1: Introduction and Course Requirements; Research Misconduct; Physics and Society	Friday, August 28	2:00pm - 3:50pm
Seminar 1: TBD	Friday, September 4	2:00pm - 2:50pm
Seminar 2: TBD	Friday, September 4	3:00pm - 3:50pm
RCR Lecture 2: Lab Safety Training [Guest Lecture by TBD from GT EHS]	Friday, September 11	2:00pm - 3:50pm
Deadline: Group Selection (individual assignment)	Sunday, September 13	11:59pm
Seminar 3: TBD	Friday, September 18	2:00pm - 2:50pm
Seminar 4: TBD	Friday, September 18	3:00pm - 3:50pm
GAP Mentoring Meeting 2: Advisors and Special Problems	Friday, September 25	11:00am - 11:50am
RCR Lecture 3: Authorship and Publication; Collaborations; Peer Review	Friday, September 25	2:00pm - 3:50pm
NO MEETING [Friday before Fall Break]	Friday, October 2	N/A
Seminar 5: TBD	Friday, October 9	2:00pm - 2:50pm
Seminar 6: TBD	Friday, October 9	3:00pm - 3:50pm
GAP Mentoring Meeting 3: Tailoring your PhD to you	Friday, October 16	11:00am - 11:50am
RCR Lecture 4: Data Management, Conflicts of Interest and Commitment	Friday, October 16	2:00pm - 3:50pm
Deadline: Presentation Topic (group assignment)	Sunday, October 18	11:59pm
Seminar 7: TBD	Friday, October 23	2:00pm - 2:50pm
Seminar 8: TBD	Friday, October 23	3:00pm - 3:50pm
Deadline: Online CITI RCR Training	Friday, October 23	11:59pm
RCR Lecture 5: Animal Subjects; Human Subjects; Effective and Responsible use of AI in Research	Friday, October 30	2:00pm - 3:50pm
GAP Mentoring Meeting 4: Surviving your PhD	Friday, November 6	11:00am - 11:50am
Seminar 9: TBD	Friday, November 6	2:00pm - 2:50pm
Seminar 10: TBD	Friday, November 6	3:00pm - 3:50pm
RCR Lecture 6: Mentorship; Ethical conduct towards others	Friday, November 13	2:00pm - 3:50pm

Seminar 11: TBD	Friday, November 20	2:00pm - 2:50pm
Seminar 12: TBD	Friday, November 20	3:00pm - 3:50pm
Deadline: Presentation Outline (group assignment)	Sunday, November 22	11:59pm
NO MEETING [Thanksgiving Break]	Friday, November 27	N/A
Deadline: Presentation Slides (group assignment)	Friday, December 4	2:00pm
Group Presentations	Friday, December 4	2:00pm - 3:50pm
Deadline: Presenting with your group (individual assignment)	Friday, December 4	3:50pm

Grading Policy

This course will be taken on a pass/fail basis. To pass the class, you must earn a minimum of **25 points**. See below for details on how to earn points.

1. Attend and participate in ALL SIX RCR in-person training meetings

- You must be engaged in the class discussion for your attendance to count.
- Attendance will be taken with a sign-up attendance sheet.
- If you are absent, you **MUST** do a makeup assignment to cover the material missed.
- You earn **1 point** for each RCR class meeting you attend (6 points total).

2. Attend a minimum of 9 faculty research seminars

- There will be a total of 12 seminars this semester.
- Attendance will be taken with a sign-up attendance sheet.
- You earn **1 point** for each individual seminar you attend (minimum 9 points, maximum 12 points).

3. Research and prepare a 10-minute group presentation on a topic related to research ethics in physics

- Full details: [Group Presentations Project](#)
- Important dates:
- Sunday, September 13: [self-select into groups](#)
- Sunday, October 18: [submit presentation topic](#)
- Sunday, November 22: [submit presentation outline and work distribution](#)
- Friday, December 4: [submit presentation slides](#) before the start of class and [present with your group](#) in class
- The Group Presentations Project is worth a total of **5 points**

4. Complete a minimum of 2 homeworks

- These will be related to the RCR material and/or the faculty seminars, and can be found under [Assignments](#).
- Each assignment will be published on a Friday and will be **available until the Sunday one week after publishing**. For example, the first homework opens on Friday August 28, and its deadline is Sunday September 6.
- Assignment deadlines are at **11:59pm** Atlanta time.
- **The use of generative AI (e.g., ChatGPT, Copilot, Gemini, etc) to complete assignments is strictly prohibited.**

To pass the class you must earn a minimum of 25 points

There are 22 points which are mandatory:

- Exactly **6 points** must be from attending and participating in RCR sessions
- At least **9 points** must be from attending seminars
- Exactly **5 points** must be from the group presentation project
- At least **2 points** must be from homeworks

Beyond those 22 points, the remaining 3 points needed to pass the class can be earned by **attending more seminars** than the required minimum and/or from **completing additional homeworks**.

There will be plenty of opportunities to earn points. I anticipate you'd be able to earn around 30 points, if not more, if you attend all the seminars and complete all possible assignments.

Course Policies

These are our general guidelines for handling absences, getting help, or academic misconduct. If you are unsure about any of the course policies, please contact me for help.

Attendance Policy

Attendance to RCR Lectures is mandatory. Class participation is expected in the form of lively discussions.

Attendance to faculty seminars is required as listed above (in the [Grading Policy](#) section). Class participation is expected in the form of questions to the speaker.

Excused Absences

If you need to be absent due to a reasonable excuse (e.g., illness, emergency, professional travel, religious obligation), then you **must** notify me via email **in advance** of the absence, or **as soon as possible** afterwards if the absence is unexpected.

Missed RCR lectures **must be made up** by completing a makeup assignment.

Academic Integrity

Students are expected to maintain the highest standards of academic integrity. All work submitted must be original and properly cited. Plagiarism, cheating, or any form of academic dishonesty will result in immediate consequences as outlined in the university's academic integrity policy.

The policy on academic honesty as stated in the [Honor Code](#) will be fully enforced during this course for both the instructors and student. All Honor code violations will be referred to the Dean of Students office.

The use of generative AI (e.g., ChatGPT, Copilot, Gemini, etc) is strictly prohibited unless the instructor EXPLICITLY allows it.

Late Work

Each homework has a **Sunday 11:59pm** deadline and a one-day grace period. Late work will **NOT** be accepted beyond the end of the grace period.

Assignments associated with the **Group Presentations Project** have either Sunday or Friday deadlines. Please look at each assignment for the specifics.

Accommodations for Students with Disabilities

A student with learning needs that require special accommodation should contact the Office of Disability Services at 404-894-2563 or <https://disabilityservices.gatech.edu/> to make an appointment to discuss their special needs and to obtain an accommodations letter. Once a letter is obtained, you should email the Course Coordinator in order to set up a time to discuss your learning needs. In general we are able to accommodate all requests given advanced notice.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The [Student-Faculty Expectations](#) articulate some basic expectations that you can have of us and that we have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, we encourage you to remain committed to the ideals of Georgia Tech while in this class.

Campus Support Services

It is not usual for any of us to find ourselves in need of support during stressful periods. For a full list of student support resources please see the [GT Student Resources](#) link in the nav-links on the left-side menu.