SEMINAR/RCR

Note: since this syllabus is so long, the Canvas syllabus page will have in-page links to jump between sections; a link to this PDF will also be included near the top of the Canvas page

Course Information

Instructor: Emily Alicea-Muñoz (ealicea@gatech.edu)
Course Prefix and Number: PHYS 8002 A
Term: 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 Responsible Conduct of Research (RCR) class 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 **APS Guidelines on Ethics**, **APS Ethics Guidelines**, and **APS Ethics in Physics** websites.

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.

* * * 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. In other words, this semester you must do this by **Friday October 23.**

You can find the online CITI RCR Training here: **http://www.rcr.gatech.edu/online-training**

Instructor Information

[picture]	**Instructor:** Dr Emily Alicea-Muñoz (she/her) **Contact:** ealicea@gatech.edu **Office:** Howey C-201 (Howey second floor, center hallway) **Office Hours:** Anytime, remote or in-person, either scheduled by email appointment, or MS Teams private message, or Slack private message, or just dropping by if the door is open and I'm not otherwise occupied

Course Learning Outcomes

This course doubles as a **first-year graduate seminar** and a **Responsible Conduct of Research** (RCR) class. 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 the **Georgia Tech RCR Academic Policy for Doctoral Students' requirement for in person training**.

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:

- Authorship and publication
- Collaborative research
- Conflict of interest
- Data acquisition, management, ownership, and sharing
- Laboratory safety
- Peer review
- Policies regarding the use of human subjects in research
- Policies regarding the use of vertebrate animals in research
- The responsibilities of mentors and mentees
- Equity and inclusion
- Research misconduct and policies for handling research misconduct
- Science and engineering in society
- Effective and responsible use of AI in research

Course Schedule

Topic	Date	Time	Location

TBD

Grading Policy

This course will be taken on a pass/fail basis. In order to pass the course, students must:

1. Attend and participate in ALL six RCR class 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 (6pts 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 (min=9pts; max=12pts)

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

- Full details: **Group Presentations**
- Important dates:
  - Friday, DATE TBD: **self-selection into groups**
  - Friday, DATE TBD: **declaring research topic for presentation**
  - Friday, DATE TBD: **presenting in-class** and **submitting the presentation files**
- All members of each group will earn **1 point** for declaring the topic for the presentation (graded as a group), **1 point** for submitting the presentation file (graded as a group), and **1 point** for presenting (graded individually). **Everyone MUST earn all 3 points for this project.**

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 for one week**, with submission deadline on the following Friday. A two-day grace period will be built-in to each assignment, so each extended deadline ends on a Sunday.
- Assignment deadlines are at **11:59pm** Atlanta time.

To pass the class, you must earn a total of 25 points

- **Exactly 6 pts** must be from attending and participating in RCR classes
- **At least 9 pts** must be from attending seminars
- **Exactly 3 pts** must be from the group presentation project
- **At least 2 pts** must be from homeworks

Beyond those 20 points, the remaining 5 points needed to pass the class can be from attending more seminars than the required minimum and/or from completing additional homeworks. There will be plenty of opportunities to earn points; at maximum, I anticipate you'd be able to earn around 35 points total if you attend all seminars and complete all 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) to complete assignments is strictly prohibited.

Late Work

Each assignment has a **Friday 11:59pm deadline** and a **two-day grace period** that extends the deadline to Sunday at 11:59pm.

Late work will NOT be accepted beyond the end of the grace period.

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 **http://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 Resources

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.