

# Junior Seminar (Phys 345)

## Syllabus

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### 1 Basics

The best way to reach me is **e-mail**, [edis@truman.edu](mailto:edis@truman.edu). My office phone is 785-4583, but I don't check messages often.

My office is MG 3004, and my office hours are: Tuesdays and Thursdays: 10:30–11:45, 13:30–14:50; Wednesdays: 14:30–15:20. I will almost always be in my office then. I will usually be around Mondays 14:30–18:00, but that's less of a guarantee. Monday 10:00–13:30 is also usually good, but it's best to **e-mail** me first. There is some slight week-to-week variation in my schedule, so it's always a good idea to check my **calendar** ([edis.sites.truman.edu/schedule/](https://edis.sites.truman.edu/schedule/)) online to make sure.

We meet in MG 1099, 15:30 to 17:20 on Wednesdays when there is no Physics Colloquium. On the days when there is a colloquium, we will stop at 16:20 and move to MG 1096 for the colloquium—colloquium attendance is part of the course.

### 2 Course Description

Junior Seminar is for reviewing the knowledge base common to physics majors and to shake some of the rust off of physics you have half-forgotten. Furthermore, we will look toward your future, developing some of the skills you need as graduation approaches.

### 2.1 Career skills

The first four weeks of our time, up to and including our meeting on February 6, will be devoted to several activities relating to graduate school and career development. You will work on a résumé, and either a personal statement for graduate school applications or a cover letter for a job application. You will learn about career and graduate school options, and how to locate resources for learning more. You will learn about how to pursue letters of recommendation.

If you are applying for REU's during this time, you may submit materials you have put together for an REU application.

### 2.2 GRE practice

Starting on February 12, the rest of our time will be spent reviewing and discussing physics. Our approach to the physics review will be organized according to the various subfields that make up the standard physics curriculum: Classical Mechanics, Electricity & Magnetism, Circuits, Quantum Mechanics, Relativity, Optics, Modern Physics, Thermodynamics, etc. We will practice by solving relevant sample problems extracted from past GRE exams that will then become the basis for further discussion and review.

Please note that the review of physics that we undertake in Physics 345 is relevant to all of you, regardless of your future plans. Obviously, the focus on the GRE in this class is especially beneficial to those students who expect to continue their physics studies in a graduate program, but others also need the review.

### 2.3 Colloquia

The second hour of class overlaps with the regular Physics Colloquium time. On days when there are colloquia, I will finish by 16:20 to allow us to attend. Indeed, colloquium attendance is mandatory and part of this course. The speakers I invite will be especially relevant to you, considering that thinking about graduate school and other post-graduation options is a major theme of Junior Seminar.

On days when we have no colloquium, I will often finish early.

### 3 Grades

Grades for this course should not be a major concern. They are not connected to how well you do on the GRE practice exams. If you complete all assignments on time, participate actively in class discussions, spend half an hour per week outside of class working on the practice exams, and show up for the colloquia, you will earn a good grade.

Grades will be based on:

- **Participatory Attendance – 45%:** You are expected to participate in class discussions and demonstrate that you are reading and working on the assigned materials. In addition, there will be one 3-hour session at the end of the course for you to practice taking a full GRE physics sample test. Participation includes presence and asking questions in colloquia.
- **Résumé – 10%:** You have to submit a “kitchen sink” version, a first draft, and a revised final draft.
- **Personal Statement or Cover Letter – 10%:** You have to submit a first draft and a revised final draft.
- **Letter of recommendation exercise – 5%:** You have to talk to a faculty member about a letter of recommendation.
- **Practice Exams – 30%:** You will receive a number of practice GRE segments as homework assignments. Your grade will be based on how seriously you take the practice exams, *not* the scores you receive. (The idea is to review and identify your strengths and weaknesses.)

### 4 Academic Integrity

I care about maintaining academic integrity, and I will apply all Truman policies concerning **academic dishonesty**. I expect you to be familiar with the **Student Conduct Code**.

Do not present something that is not your own work as your own, whether you get it from another student or online. In any case, I do not expect academic dishonesty, nor will I go out of my way to look for it.

## 5 Lawyer Avoidance

The minimum investment of time by the average Truman student necessary to achieve the learning goals in this course are not less than one hour (50 minutes) of classroom instruction and a minimum of two hours of out of class student work each week per credit hour awarded or at least the equivalent of three hours (2:50) of laboratory work, internships, practica, and other academic work each week per credit hour awarded. This average time per week for an average student may have weekly variations.

If you have a disability for which you are or may be requesting an accommodation, please contact both your instructor and the [Disability Services](#) office (x4478).

In each classroom on campus, there is a [poster of emergency procedures](#) explaining best practices in the event of an active shooter/hostile intruder, fire, severe weather, bomb threat, power outage, and medical emergency. Students should be aware of the classroom environment and note the exits for the room and building. For more detailed information, please consult the [Emergency Guide for Academic Buildings](#). A [six-minute video](#) provides some basic information on how to react in the event there is an active shooter in your location.

Truman students, faculty, and staff can sign up for the TruAlert emergency text messaging service via TruView. TruAlert sends a text message to all enrolled cell phones in the event of an emergency at the University. To register, sign in to TruView and click on the “Truman” tab. Click on the registration link in the lower right of the page under the “Update and View My Personal Information” channel on the “Emergency Text Messaging” or “Update Emergency Text Messaging Information” link. During a campus emergency, information will also be posted on the [TruAlert website](#).

Truman State University and its faculty are committed to supporting our students and fostering an environment that is free from bias, discrimination, and harassment. If you have encountered any form of sexual misconduct (e.g., sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you report this to the University. If you speak with a faculty member about an incident of misconduct, that faculty member is a “mandated reporter” and must notify Truman State University’s Title IX Coordinator (Violette Hall 1308, 785-4354) and share the basic facts of your experience. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with resources both on and off campus. If you would prefer to have a confidential conversation about an experience, the counselors at University Counseling Services are *not* mandated reporters and they can be reached at 660-785-4014. For after-hours crisis counseling, call 660-665-5621. For more information regarding Truman’s policies and procedures relating to any form of gender discrimination, please consult Truman’s [Non-discrimination Policy](#) and [Complaint Reporting and Resolution Procedure](#).

Education records are subject to the Family Education Right to Privacy Act ([FERPA](#)). As a result, course grades, assignments, advising records, etc. cannot be released to third parties without your permission. There are, however, several exceptions about which you should be aware. For example, education records can be disclosed to employees or offices at Truman who have an “educational need to know.” These employees and offices may

## 5 *LAWYER AVOIDANCE*

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include your academic advisor, the Institutional Compliance Officer, the Registrar's Office, or Student Affairs depending on the type of information.

Behavior that persistently or flagrantly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be asked to leave class pending discussion and resolution of the problem and may be reported to the Office of Student Conduct.