

Changes to the Graduate Curriculum to start in Fall 2021

After a year long committee and faculty review, there have been several recent changes to Yale's graduate curriculum including course changes, and a move from a pass-fail Qualifying exam to non pass-fail, written and research qualifying events seen as learning milestones. The new program, to start in Fall of 2021, is described in below. It is based on the following learning objectives

Learning Objectives

1. Students will acquire a general foundational knowledge of physics at the graduate level and the necessary accompanying methodological aspects of mathematics, computing, and instrumentation.
2. Students will learn to identify and solve problems at the frontier of physics knowledge, uphold standards of scientific integrity, and disseminate their research.
3. Students will become educators and communicators with the ability to promote an understanding and appreciation of physics across the university and in society.
4. Department members and students will work together to develop and realize, in the department and in the community, progress and success in diversity, equity, and inclusion in all aspects of the scientific enterprise.

Graduate Curricular Requirements as of Fall 2021

Overview of Course requirements

- 6 required core courses (Classical Mechanics, Quantum Mechanics I and II, Statistical Mechanics, Electricity and Magnetism, Math Methods)
- one advanced elective (from approved list or by approval of the DGS)
- Phys 990 Special investigations in research to be conducting with a faculty member
- Two seminars, 515 and 590

Qualifying Events

- Written qualifying event: 4 part event with 4 questions for each part covering Classical and Quantum Mechanics, E&M, and Statistical Mechanics. The problems will be marked up and returned to students and we ask students to make corrections and re-submit the problems within a week's time. *This was previously a high stakes, pass/fail exam and is now a non-pass/fail, learning milestone.* All students complete this written qualifying event at the start of their second year, fall semester.
- Research qualifying event: Presentation at the completion of PHYS 990 based on the project undertaken. Written feedback on the presentation will be provided. Students complete this learning milestone when they take Phys 990