

Yale Physics Ph.D. Program – Typical Timeline for Academic Requirements as a Graduate Student (Fall 2016 and beyond)

Year 1

Summer Bootcamp:

- The Bootcamp on Physics Fundamentals is an optional two-week program in August intended to help students review Quantum physics and Classical Mechanics before the first-year classes begin.

First Semester:

- Begin course requirements: Five foundational courses + one advanced elective + one PHYS 990: Special Investigations (SI) + two research seminars.
- PHYS 500: Advanced Classical Mechanics + PHYS 508: Quantum Mechanics I + an advanced elective or PHYS 990: Special Investigations (SI) + PHYS 515: Topics in Modern Physics Research
- **Required teaching:** Teaching Fellows Program, 10 hrs/week

Second Semester:

- PHYS 502: Electromagnetic Theory I + PHYS 512: Statistical Physics I + PHYS 608: Quantum Mechanics II* + advanced elective or PHYS 990: Special Investigations (SI) + PHYS 590: Responsible Conduct in Research for Physical Scientists

*PHYS 608 can be postponed until second year

- **Required teaching:** Teaching Fellows Program, 10 hrs/week

Summer:

- Work as Assistant in Research to identify potential thesis research advisers
- English language training to prepare for SPEAK test through the Center for Language Study (International students)
- Qualifying Examination preparation

Year 2

First semester:

- Sit for Qualifying Examination at the start of the Fall semester.
- **Required teaching:** Teaching Fellows Program, 10 hrs/week
- Once course requirements are finished, take desired advanced electives
- Work as Assistant in Research to identify potential thesis research advisers

Second semester:

- Enroll in PHYS 608: Quantum Mechanics II if not taken in the first year
- **Required teaching:** Teaching Fellows Program, 10 hrs/week
- Once course requirements are complete, take advanced electives as desired
- Work as Assistant in Research to identify potential thesis research advisers

Summer:

- Finalize thesis adviser and begin dissertation research.

Year 3

First Semester:

- Sit for Qualifying Examination portions and Oral exam if not completed at the beginning of second year
- Preliminary Dissertation Research
- Establish a 3 faculty "Core Thesis Committee", including thesis adviser

Second Semester:

- Prepare Thesis Prospectus

End of Third Year/Summer:

- Submit Thesis Prospectus with oral defense to the core thesis committee
- Admission to Candidacy after Thesis Prospectus approval
- Work with thesis adviser to complete **initial** Dissertation Progress Report (DPR) sent out by the Graduate School; due **30 days** after Admission to Candidacy.

Years 4 & 5

- Continue dissertation research
- Identify 4th faculty member for core thesis committee
- Work with thesis adviser to identify an external reader for core thesis committee
- Meet with core thesis committee at minimum once a year to review and discuss progress towards dissertation; includes oral presentation of research progress to committee
- Complete Dissertation Progress Report (DPR) with thesis advisor; DPR is sent out by the Graduate School **before May 1st** of each year.

Years 5+

- Continue dissertation research
- Work with thesis adviser to complete the Dissertation Progress Report (DPR) sent out by the Graduate School **before May 1st** of each year.

When you and your advisor agree you are ready:

- Notify department of intent to submit dissertation by August for December degree or February for May degree (dates determined by Graduate School)
- Schedule Thesis Defense and oral examination by core thesis committee. Submit written dissertation to 4 internal core thesis committee members to read, 3 weeks in advance of scheduled defense. The Graduate School will send dissertation out to the external reader after the oral defense and official submission.
- Official submission of written dissertation to the Graduate School by October for December degree or March for May degree (dates determined by Graduate School)
- Reader's reports from all core thesis committee members (including external reader) due one month after submission of written dissertation
- Degree awarded