**First Year**

**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:** TF10 level, 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:** TF10 level, 10 hrs/week

**Summer:**
- Work as Assistant in Research in research group

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**Second Year**

**First semester:**
- Qualifying Examination given at the start of the Fall semester.
- **Required teaching:** TF10 level, 10 hrs/week
- Once course requirements are finished, take advanced electives as desired
- Work as Assistant in Research to identify potential thesis research advisers

**Second semester:**
- Take PHYS 608: Quantum Mechanics II if not taken in the first year
- **Required teaching:** TF10 level, 10 hrs/week
- Once course requirements are finished, take advanced electives as desired
- Work as Assistant in Research to identify potential thesis research advisers

**Summer:**
- Finalize thesis adviser and start dissertation research

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**Third Year**

**First Semester:**
- Make-up Qualifying Examination portions and Oral if not passed in the beginning of the second year
- Preliminary Dissertation Research
- Establish “Core Thesis Committee” of 3 faculty members, including thesis adviser

**Second Semester:**
- Prepare Thesis Prospectus

**End of Third Year/Summer:**
- Thesis Prospectus with oral defense to the core thesis committee
- Admission to Candidacy after Thesis Prospectus approval
- Work with thesis adviser to fill out initial Dissertation Progress Report (DPR) sent out by the Graduate School; due 30 days after Admission to Candidacy.

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**Fourth & Fifth Year**

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

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**Fifth Year & Beyond**

- Continue dissertation research
- Continue to 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. External reader will read dissertation sent out by the Graduate School 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

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