The PhD in Applied Physics at Yale

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Applied Physics PhD Timeline

1. Choose research advisor
2. Academic coursework
3. Research Committee
4. Area Exam & Dissertation prospectus
5. Admission to candidacy
6. Research
7. Dissertation & Final defense
8. Year 1
9. Year 2
10. Year 3
11. Year 4
12. Year 5
13. Year 6
Applied Physics Coursework

Seven regular courses (5 required + 2 electives) + 2 special investigations

- **2 from QM group**
  - Quantum Mechanics 1 (Physics 508)*
  - Quantum Mechanics 2 (Physics 510)*
  - Quantum Information (APHY 601)
  - Quantum Optics (APHY 691)

- **1 from E&M group**
  - Electromagnetic Theory 1 (PHYS 502)*
  - Principles of Optics (APHY 675)
  - Techniques of Microwave Measurements and RF Design (PHYS 816)

- **2 from CM/advanced studies group**
  - Math (PHYS 506)
  - Solid State 1 (APHY 548)
  - Solid State 2 (APHY 549)
  - Statistical Physics I (PHYS 512)
  - Introduction to Light-Matter Interactions (APHY 676)
  - Principles of Optics (APHY 675)
  - Noise, Dissipation, Amplification, and Information (APHY 677)

- **2 electives may be widely chosen**

No qualification exam, grades simply need to exceed a certain level
A few things to note…

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• Research starts in the first semester with Special Investigations, or even the summer before

• The goal of the Special Investigation is to find a research group, don’t need to switch

• Prospectus and Area Exam focuses on Research – in years 2 or 3
Resources Outside the Department

• Yale Graduate School of Arts and Sciences
  https://gsas.yale.edu/resources-students

• McDougal Graduate Student Center
  https://gsas.yale.edu/resources-students/student-life-community/mcdougal-graduate-student-center

• Yale Office of Career Strategy
  https://ocs.yale.edu/

• Poorvu Center for Teaching and Learning
  https://poorvucenter.yale.edu/

ALL OF NEW HAVEN…
New Haven as a City