

**FAQs**  
**Coterminal Master's Degree Program**  
**in Applied and Engineering Physics**

1. Is there a coterminal degree in Applied and Engineering Physics?

*YES. It is administered by the Department of Applied Physics.*

2. Who is eligible to apply?

*All applicants must have earned a minimum of 120 units toward graduation as shown on the undergraduate unofficial transcript. This includes allowable Advanced Placement (AP) and transfer credit. See <http://studentaffairs.stanford.edu/registrar/students/coterm> for additional University requirements.*

*Applicants must submit to the Applied Physics Department a hard copy of the following materials to form a complete application package:*

- ***Application for Admission<sup>1</sup>***
- ***Preliminary Program Proposal Form<sup>1</sup>***
- ***Two Letters of Recommendation from Members of the Stanford Faculty<sup>1</sup>***
- ***Statement of Purpose<sup>2</sup>***
- ***Unofficial Transcript***
- ***Supplemental Form<sup>3</sup>***

- <sup>1.</sup> *use University forms available at <http://studentaffairs.stanford.edu/registrar/students/coterm/applyingtocoterm>*
- <sup>2.</sup> *no more than two pages please*
- <sup>3.</sup> *supplemental form available on departmental website at <http://www.stanford.edu/dept/app-physics/cgi-bin/academic-programs/>*

*In order to succeed in our coterminal program, we believe that each student must have formal technical courses in mathematics at the level of MATH 41, 42, 51-53 and physics at the level of PHYSICS 41, 43, 45 as well as exposure to topics in elementary quantum mechanics. In order to fulfill the prerequisite for elementary quantum mechanics, we require that students must have taken one of the following: PHYSICS 130, CHEM 173, MATSCI 157 or equivalent.*

3. Do I need to take the GRE?

*No you do not. It is optional. You may include the scores on the supplemental application if you wish.*

4. Is there any financial aid that coterminal applicants can apply for?

*The Applied Physics Department does not have any financial aid for coterminal students. However, students can contact a Financial Aid Counselor in the Financial Aid Office to discuss their situation.*

<http://studentaffairs.stanford.edu/registrar/students/coterm/financialaid>

5. When can I start?

*Students may begin their coterminal quarter in the autumn, winter or spring quarters. But please keep in mind that many courses are only offered once a year and prerequisites for courses must be carefully reviewed in order to assemble a feasible coterminal preliminary program proposal.*

*Coterminal applications for Autumn 2013 are due by the fourth Friday of Summer Quarter 2013. For Winter 2013-2014 and beyond, applications will be due on the last day of Spring Quarter for Autumn matriculation and on the fourth Friday before the end of the previous quarter for Winter and Spring matriculation.*

6. Is there a minimum GPA for degree conferral?

*Yes. The University requirement of a 3.0 GPA.*

7. Are there sample programs available?

*Yes. They are available on the departmental website.*

8. What are the requirements for completion of the degree?

*A total of 45 units is required for the Applied and Engineering Physics Coterminal Master's Degree*

*a. BREADTH (16 units)*

The following four courses are required.

Course	Units	Title
Applied Physics 201	4	Electrons and Photons
Applied Physics 203	4	Atoms, Fields and Photons
Applied Physics 204	4	Quantum Materials
Applied Physics 205	4	Introduction to Biophysics

*b. DEPTH (9 units minimum)*

Three engineering courses in a depth area. At least one must be at the 300 level, and the other courses must be at the 200 level or above to provide depth in one area. To be approved by the coterminal academic advisor.

*c. LAB (3-4 units)*

One laboratory or methods course from the following is required.

Course	Units	Title
Applied Physics 207	4	Laboratory Electronics
Applied Physics 208	4	Laboratory Electronics
Applied Physics 215	4	Numerical Methods for Physicists and Engineers
Applied Physics 217	4	Estimation and Control Methods for Applied Physics
Applied Physics 232	4	Advanced Imaging Lab in Biophysics
Applied Physics 304	4	Lasers Laboratory
Applied Physics 305	4	Advanced Nonlinear Optics Laboratory
Electrical Engineering 234	3	Photonics Laboratory
Electrical Engineering 251	3	High-Frequency Circuit Design Laboratory
Electrical Engineering 345	3	Optical Fiber Communication Laboratory
Electrical Engineering 410	3-4	Integrated Circuit Fabrication Laboratory
Materials Science & Engineering 322	3	Transmission Electron Microscopy Laboratory
Materials Science & Engineering 331	3	Atom-based Computational Methods for Materials
Engineering 341	3-5	Micro/Nano Systems Design and Fabrication Lab
Engineering 342	3-5	MEMS Lab II

*d. SEMINAR (3 units)*

The seminar requirement can be fulfilled by either (i) taking one formal graduate seminar course for credit each term or (ii) attending a minimum of 8 informal or formal graduate research seminars during each of the three terms. Students who attend 8 informal research seminars must submit a list of the seminars with a paragraph describing the content, signed by the Applied Physics coterminal advisor.

- e. *APPROVED TECHNICAL ELECTIVES* (6 units minimum that brings up the total units to 45)  
See  
<http://www.stanford.edu/dept/app-physics/cgi-bin/aep-approved-technical-electives/> for details.
- f. *Other details.....*
- at least 36 units must be letter graded units
  - at least 36 units must be at or above the 200 level
  - at least 21 units must be letter graded technical courses at the 200 level
  - up to 6 units of Directed Studies in Applied Physics (APPHYS 290) or equivalent independent study course may be counted toward this requirement (Performance courses such as athletics, choir or photography are not allowed.)
  - at least 30 units must be in technical areas (Research, Literature, Directed Studies and Seminar courses cannot be included among these 30 units)
9. *Who should I contact for questions related to the coterminal degree?*

For more information, please contact Professor Yuri Suzuki (ysuzuki1@stanford.edu) or Paula Perron, Staff (pperron@stanford.edu).