The Applied Physics Graduate Program (APP) includes faculty from the departments of electrical and computer engineering, physics and astronomy, bioengineering, chemistry, chemical and biomolecular engineering, materials science and nanoengineering, and statistics.

A joint effort of both the Wiess School of Natural Sciences and the George R. Brown School of Engineering at Rice where the application of physics principles is beneficial, and overseen by the Smalley-Curl Institute (SCI), the Applied Physics Graduate Program is administered by a committee composed of members from the participating departments mentioned above. The objective is to provide an interdisciplinary graduate education in the basic science that underlies important technology. The faculty believes that the experience obtained by performing research at the intellectually stimulating interface of physical science and engineering is particularly effective in producing graduates who succeed in careers based on new and emerging technologies.

Due to the interdisciplinary nature of the program, students can involve virtually any of the research facilities in either the natural sciences or engineering schools of Rice University, as well as institutions in the Texas Medical Center. Prospective students are urged to contact the Program Chair or the Applied Physics Admissions Committee (APAC) for detailed descriptions of research facilities and ongoing research projects.

Applied Physics does not currently offer an academic program at the undergraduate level.

**Master's Program**

- Master of Science (MS) Degree in the field of Applied Physics*

**Doctoral Program**

- Doctor of Philosophy (PhD) Degree in the field of Applied Physics [https://ga.rice.edu/programs-study/departments-programs/interdisciplinary/applied-physics/applied-physics-phd/]

  * Although students are not directly admitted to a Master of Science (MS) degree program, graduate students must earn the MS in lieu of a qualifying exam as they work toward the PhD.

**Chair, Applied Physics Graduate Program**

Junichiro Kono

**Director, Smalley-Curl Institute**

Naomi J. Halas

For Rice University degree-granting programs:

To view the list of official course offerings, please see Rice's Course Catalog [https://courses.rice.edu/admweb/ISWKSCAT.cat?p_action=cata]

To view the most recent semester's course schedule, please see Rice's Course Schedule [https://courses.rice.edu/admweb/ISWKSCAT.cat]

**Applied Physics (APPL)**

APPL 490 - RQI - REU SUMMER RESEARCH PROGRAM

Short Title: UNDERGRAD SUMMER RESEARCH-REU

Department: Applied Physics

Grad Mode: Standard Letter

Course Type: Research

Credit Hours: 1-6

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Description: Research experience under supervision of graduate students and faculty. Summer semester only. Department Permission Required.

APPL 677 - SPECIAL TOPICS

Short Title: SPECIAL TOPICS

Department: Applied Physics

Grad Mode: Standard Letter

Course Type: Internship/Practicum, Lecture, Seminar, Laboratory

Credit Hours: 1-4

Restrictions: Enrollment is limited to Graduate or Visiting Graduate level students.

Course Level: Graduate

Description: Topics and credit hours may vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.

APPL 750 - INTERNATIONAL RESEARCH INTERNSHIP

Short Title: INTERNATIONAL RESEARCH INTERN

Department: Applied Physics

Grad Mode: Standard Letter

Course Type: Internship/Practicum

Credit Hours: 3

Restrictions: Enrollment is limited to Graduate level students.

Course Level: Graduate

Description: Research internship in a foreign laboratory at institutes and universities in Mainz, Germany and Toulouse, France. Department Permission Required.

APPL 800 - RESEARCH AND THESIS

Short Title: RESEARCH AND THESIS

Department: Applied Physics

Grad Mode: Standard Letter

Course Type: Research

Credit Hours: 1-15

Restrictions: Enrollment is limited to Graduate level students.

Course Level: Graduate

Description: Thesis research under the supervision of faculty. Repeatable for Credit.

**Description and Code Legend**

*Note: Internally, the university uses the following descriptions, codes, and abbreviations for this academic program. The following is a quick reference:

**Course Catalog/Schedule**

- Course offerings/subject codes: Courses from various subjects may apply toward the graduate degree
Program Description and Code

• Applied Physics: APPL

Graduate Degree Descriptions and Codes

• Master of Science degree: MS
• Doctor of Philosophy degree: PhD

Graduate Degree Program Descriptions and Codes

• Degree Program for Applied Physics students in Bioengineering: APBI
• Degree Program for Applied Physics students in Chemical and Biomolecular Engineering: APCB
• Degree Program for Applied Physics students in Chemistry: APCH
• Degree Program for Applied Physics students in Computational and Applied Mathematics: APCA
• Degree Program for Applied Physics students in Earth Science: APEA
• Degree Program for Applied Physics students in Electrical Engineering: APEL
• Degree Program for Applied Physics students in Materials Science and Nanotechnology: APMS
• Degree Program for Applied Physics students in Mechanical Engineering: APME
• Degree Program for Applied Physics students in Physics: APPH
• Degree Program for Applied Physics students in Statistics: APST
• Degree Program offered to students in Applied Physics (1st year students only): APPL

CIP Code and Description

• APBI Major/Program: CIP Code/Title: 14.1201 - Engineering Physics/ Applied Physics
• APCA Major/Program: CIP Code/Title: 14.1201 - Engineering Physics/ Applied Physics
• APCB Major/Program: CIP Code/Title: 14.1201 - Engineering Physics/ Applied Physics
• APCH Major/Program: CIP Code/Title: 40.0899 - Physics, Other
• APEA Major/Program: CIP Code/Title: 40.0899 - Physics, Other
• APEL Major/Program: CIP Code/Title: 14.1201 - Engineering Physics/ Applied Physics
• APME Major/Program: CIP Code/Title: 14.1201 - Engineering Physics/ Applied Physics
• APMS Major/Program: CIP Code/Title: 14.1201 - Engineering Physics/ Applied Physics
• APPH Major/Program: CIP Code/Title: 40.0899 - Physics, Other
• APPL Major/Program: CIP Code/Title: 40.0899 - Physics, Other
• APST Major/Program: CIP Code/Title: 14.1201 - Engineering Physics/ Applied Physics

Classification of Instructional Programs (CIP) 2020 Codes and Descriptions from the National Center for Education Statistics: https://nces.ed.gov/ipeds/cipcode/