Course Requirements for the Physics Major

Three foundational courses in physics. It is strongly recommended that students begin this sequence and take calculus in the fall semester of their first year.

PHYS 141L — Physics I: *Mechanics (and Math-131)*
PHYS 231L — Physics II: *Electricity & Magnetism and Waves (and Math-132)*
PHYS 232L — Physics III: *Optics & Modern Physics*

Two upper-level courses in mathematical and experimental methods. PHYS 300 should be taken as early as possible, preferably in the spring semester of the sophomore year.

PHYS 300 — *Mathematical Methods of Physics*
PHYS 320 — *Modern Physical Measurements*

Two core courses. The third may be taken as the upper-level elective course.

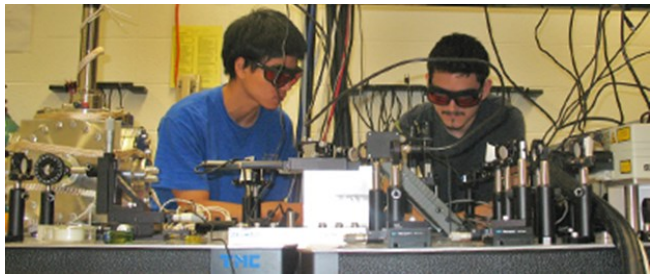
PHYS 301 — *Classical Mechanics*
PHYS 302 — *Electrodynamics*
PHYS 313 — *Quantum Mechanics*

One upper-level physics elective; either the remaining core course or a course chosen from the list below

PHYS 304 — *Statistical and Thermal Physics*
PHYS 315 — *Contemporary Optics*
PHYS 316 — *Experimental Laser Optics*
PHYS 317 — *Relativity and Fundamental* Particles
PHYS 325 — *Condensed Matter Physics*

Senior integrating experience
PHYS 405 — *Senior Exercise*

Three courses in other departments
MATH 231 — *Multivariable Calculus*
MATH 234 — *Differential Equations*
CHEM 111 — *Introductory Chemistry I*



Research students Jonathan Handali and Erik Quinonez are two of the students who are helping to build an ultrafast electron microscope, which will be able to image atomic-scale processes taking place over femtosecond (10^{-15} second) timescales.

Trinity College Department of Physics

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Read more about the department at:
www.trincoll.edu/academics/majorsandminors/physics

For further information about applying to Trinity or visiting campus, contact:

Trinity Admissions Office
hwww.trincoll.edu/Admissions
(860) 297-2180
admissions.office@trincoll.edu

Trinity College Department of PHYSICS

Physics undergraduate Pratistha Shakya working in the ultrafast quantum optics lab

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Why Major in Physics?

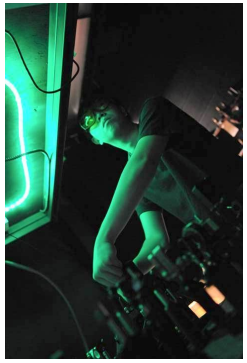
Physics asks the big questions and paves the way for new technologies

Physics is a wide-ranging and fundamental science that asks deep questions about the nature of the physical world. Physicists seek to understand the origin of the universe, the properties of black holes, and how elementary particles interact to form matter.

Physics is the most basic of all of the sciences, and provides the theoretical framework central to all of the physical and applied sciences. Lasers, MRI, and high-speed computing are but a few of the technological advances made possible by the applications of the principles of physics.

Physics prepares you for a wide variety of different careers

Students who major in physics gain a broad-based training in science, develop an analytical and creative approach to problem-solving, and become adept at dealing with mathematical models. This training makes them adaptable to changing situations and is good preparation for a variety of challenging and interesting careers, many of which cross outside the bounds of what you might think of as "physics."



Young Ho Shin aligns a photon detector

Employers looking for flexible problem-solvers who can think analytically like to hire physicists, and bachelor's-degree physicists can expect to earn among the highest salaries in the sciences, comparable to those of engineers and computer scientists.

Considering law or medicine? On average, physics majors score higher than any almost any other undergraduate major on both the LSAT and the MCAT.

Why Choose Trinity Physics?

Our majors are accepted into excellent graduate programs

About 2/3 of our majors go on to advanced degree programs in a wide variety of fields including chemistry, electrical and mechanical engineering, law, computer science, geophysics, medicine, medical physics, and theoretical and experimental physics.

Recent graduate have gone on to schools such as Harvard, Cornell, Yale School of Medicine, Imperial College London, University of Wisconsin-Madison, University of Connecticut, University of Michigan, Brown University, Boston College Law School, Georgia Institute of Technology, University of Maryland, and Duke University.

Can I double major? Study abroad?

Yes! It is not uncommon for physics majors to double major in another field such as engineering, mathematics, chemistry, or computer science. We've also had double-majors in biology, economics, and even classics.

The department strongly supports interdisciplinary study and has worked to ensure that requirements for the major be rigorous enough for those who intend to continue their studies at the graduate level, yet flexible enough to accommodate double majors, students who wish to study abroad, and students who plan to use physics as a springboard into other careers.

Sarthak Khanal designing & testing electronics used to investigate photon entanglement

Research opportunities

Brandon Clary in front of the radio telescope he helped construct

An important part of our curriculum is the opportunity for undergraduate students to work one-on-one with faculty on research projects, either during the semester or over the summer. Faculty members in the physics department have interests ranging from the theoretical to the applied. Research students are encouraged to present their work at the annual Trinity Science Symposium. Some even become authors on papers published in scientific peer-reviewed journals.

Join our community!

Society of Physics Students

The small size of the department fosters a close relationship between faculty and students. Our students not only work in research labs, but many get the chance to develop their teaching skills by working alongside faculty as Laboratory and Teaching Assistants.

Each month we bring in a seminar speaker who presents interesting research at a level accessible to undergraduate students.

And the Trinity chapter of the national Society of Physics Students welcomes any student with an interest in physics. Our chapter is a three-time winner of the SPS Outstanding Chapter Award for its outreach work with local middle schools.