PHYSICS

Bachelor of Science

CLARK UNIVERSITY

Introduction to the Major

Physicists study phenomena spanning from the subatomic realms to the expansive universe and use this understanding to transform the world.

As a physics major at Clark, you will study the fundamental laws and principles governing the universe, using theory, experiments, models, mathematical analysis, and computational techniques. We teach you to understand physical phenomena and to develop your problem-solving and analytical-thinking skills. You will be encouraged to participate in research in our world-class research facilities and engage in collaborative work with faculty and graduate students.

Highlights

Pursue your undergraduate degree in a department that's been home to some of the most influential physicists in the world, including Arthur Gordon Webster, founder of the American Physical Society; Albert Michelson, the first American Nobel laureate in science; and Robert Goddard, the father of modern rocketry.

"You will explore the laws governing the natural universe and develop broad skills to address the diverse problems of the world."

- Professor Michael Boyer, Chair of the Physics Department

What can I do with my major?

JOBS & EMPLOYERS

Physics teaches you to analyze and solve complex problems. Students learn valuable workplace skills such as solving technical problems, working in teams, designing and developing new technologies, and working with scientific equipment.

Students go on to work in academia, engineering, technology, education, medicine, policy, law, and finance.

GRADUATE PROGRAMS

Recent physics majors have gone on to graduate programs at Stanford, Chicago, Cornell, Brown, Carnegie-Mellon, Berkeley, USC, and British Columbia.

Foundational Courses

The major offers three tracks: the Comprehensive Physics track, the Applied Physics track, and the General Physics track.

The requirements enable students to choose their courses in line with their specific career goals. Foundational courses include:

- PHYS 120 and 121 - Introductory Physics - Part I and II
- PHYS 123 - Methods of Physics
- PHYS 130 - Oscillations, Waves and Optics
- PHYS 131 - Quantum Physics and Relativity

Find out more at clarku.edu/programs/major/physics-bs/

YOUR CLARK EXPERIENCE >

- Discover and Demonstrate your Purpose
- Cultivate Your Communities
- Engage Locally & Globally
- Develop your Professional Identity

Year 1

Explore the Physics department

Email physics@clarku.edu to coordinate a visit to the Math-Physics building and meet our faculty and staff. Ask about 3/2 Engineering. Explore our laboratories which use state-of-the-art equipment. Talk with students and professors and review the department website to learn more about the physics major/minor.

Get connected

Talk with graduate students about their research. Consider joining the Society of Physics Students and/or Women in STEM. Go to ClarkFEST to learn about undergraduate research. Join faculty and peers during a weekly cookie time to chat informally with us.

Explore off campus

Talk to students and faculty about their collaborations around the world. Volunteer at science outreach events.

Year 2

Dig in and define your interests

Choose your major and track. Work with your physics faculty adviser to identify which track best matches your post-Clark plans.

If you are interested in the 3/2 Engineering program, meet with the program committee chair to review your plan.

Prepare for research

Attend the undergraduate research meeting in the spring semester to learn more about faculty research and opportunities you might want to pursue.

Start networking

Start making connections with faculty, peers, and researchers by attending the department's weekly cookie minutes and seminar series. Drop in to the Career Lab for support building a portfolio or a LinkedIn profile.

Year 3

Become a researcher

Physics research takes place in both the lab and the classroom. Opportunities are available to engage in research in the summer or during the semester as a directed study.

Plan for senior year and beyond

Talk with your adviser about selecting a capstone project. If you are considering an honor's thesis, meet with your research adviser to develop a scope for this project and a plan of action.

Go beyond the classroom

Work as a Peer Learning Assistant (PLA) for one of our introductory physics or astronomy courses. Mentor first- and second-year students.

Find an internship for fall, spring, or summer. Meet with your career adviser to get started and join the Alumni Job Shadow Program to experience a day on the job in a physics-related field.

Year 4

Pull it together with your capstone

Identify a capstone project that satisfies the requirements of your track, such as independent research or high-level coursework. Discuss these options with your adviser.

Share what you have learned

You can share your research at school events, regional conferences, and international meetings. If you are pursuing an honor's thesis, you will present your work to the department.

What's next?

Explore if graduate school is right for you and speak to a faculty member. Connect with companies and organizations that interest you.

Having learned the laws and principles that shape our universe, you should now ask yourself what you want to do with them. What change do you want to make in the world?