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# Physics (Applied)

## What does a physics major study?

Physics is at the core of nature; it is the study of the fundamental forces that drive all observable phenomena. Physicists study systems on length scales from the very large, like the origins of the universe, to the very small, like the particles and interactions that make up the nucleus. The applied physics degree at Coastal Carolina University focuses on the application of this knowledge to particular problems. Students in the applied physics program can study dynamic processes in the ocean and atmosphere, the genesis of galaxies, what happens when stars collide, and molecular interactions important to environmental and energy issues.

## Why study physics at Coastal Carolina University?

- Two tracks are available: environmental and traditional. Both of these tracks have a common core of introductory study (General Physics I, II and III with a strong math core) followed by more advanced courses in physics, research and independent study, coupled with applied courses like physical oceanography and/or electronics and computer interfacing.
- Students can easily merge their interest in physics with another subject such as marine science, chemistry, computer science or mathematics through a minor or double major.
- Physics is a good choice of major for students interested in the dual degree engineering program with Clemson University, particularly for students interested in mechanical or civil engineering.
- Students majoring in physics will receive a strong technical background with experience in using computers and in applying physical principles to specific research questions.
- Since research is an integral part of Coastal Carolina University's program, students work closely with faculty to carry out individually-tailored research projects. Students working with University faculty have spent summers in research centers across the country, such as the Jet Propulsion Laboratory, traveled to meetings to present research, and participated in prestigious programs like the National Council on Undergraduate Research Posters on Capitol Hill in Washington, D.C.

## What are some career options for physics majors?

Physicists are involved in all of the following areas/industries:

- Basic research
- Informational technology
- Teaching at all levels
- Technical writing for newspapers, magazines, textbooks and electronic media
- Patent law
- Materials and instrumentation
- Environmental work
- Research in developing new and better technologies

## What kind of courses do physics majors take?

|                  |                               |          |                     |
|------------------|-------------------------------|----------|---------------------|
| PHYS 211/213/214 | General Physics I, II and III | PHYS 430 | Fluid Mechanics     |
| PHYS 302         | Electricity and Magnetism     | PHYS 434 | Atmospheric Physics |
| PHYS 303         | Quantum Mechanics             |          |                     |

## Whom can I contact for more information?

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