

# PHYSICS AND PHYSICAL OCEANOGRAPHY



FACULTY OF SCIENCE

NOT ONLY IS THE  
UNIVERSE STRANGER  
THAN WE THINK,  
IT IS STRANGER  
THAN WE  
CAN THINK.

*-Werner Heisenberg*



## ABOUT PHYSICS

Based on experimental evidence, physics encompasses the study of Newtonian mechanics, relativity, electricity and magnetism, thermodynamics, quantum mechanics, and much more.

Physics is responsible for technological breakthroughs such as electric power, radio, transistors, solar cells, MRI scanners, nuclear energy, microwave ovens, sonar, and space telescopes.

The approach of physics is to understand the most basic principles governing a system. Through experiments, field work, theory and computer simulations, physicists at Memorial University study a wide range of topics, including how proteins shape cell membranes, black holes, fibre-optic devices, glaciation, superconductivity and physical oceanography.

## DEGREES OFFERED

- B.Sc. minor, major or honours in physics
- B.Sc. major or honours in ocean physics
- B.Sc. major or honours in environmental physics

The following joint honours programs are also offered: applied mathematics/physics (B.Sc. major and honours), chemistry/physics (B.Sc. honours), computer science/physics (B.Sc. major and honours), earth sciences/physics (B.Sc. major and honours), geophysics/physical oceanography (B.Sc. honours), and human biosciences/physics (B.Sc. honours).

Physics majors and honours students have the option to complete a minor in applied science (electrical engineering) through the Faculty of Engineering and Applied Science. Students in computer and electrical engineering may complete a minor in physics.

The joint degree programs have been developed in coordination with other departments. While some care has gone into their design, it is still possible to adjust these programs to suit the needs and interests of individual students.

Students should look to take courses and the program that best reflects their interests and skills.

## PHYSICS AT MEMORIAL

Many of our undergraduates are actively involved in physics research programs. This experience provides both summer employment and an excellent preparation for a career in industrial or university research.

## CAREERS

- Tech industry
- Education
- Health physics
- Meteorology
- Renewable energy
- Photonics
- Data analysis
- Quantitative finance
- Gaming and film effects

## FOR MORE INFORMATION

Department of Physics & Physical Oceanography  
Memorial University  
St. John's, NL  
A1B 3X7

709 864 6111  
physicsapo@mun.ca  
www.mun.ca/physics  
Facebook: @Munphysics  
X: @MunPhysics