

# Engineering Physics

## WHAT IS ENGINEERING PHYSICS?

The study of Engineering Physics emphasizes the application of basic scientific principles to the design of equipment, which includes electronic and electro-mechanical systems, for use in measurements, communications, and data acquisition.

The program is recommended for students interested in newly developing areas of physics, high technology, instrumentation and communications. Graduates are also qualified for entry into graduate schools in Physics or other disciplines.

## NEEDED SKILLS:

- Decision-making and problem-solving
- Data analysis
- Computer skills
- Active learning – always learning about new ideas, strategies, etc.
- Communication skills, both written and interpersonal
- Time management
- Mathematical reasoning
- Problem solving
- Designing and computing\*\*

## WHAT DO ENGINEERING PHYSICISTS DO?

Engineering physicists find employment in a huge variety of areas. Engineering Physics students develop a thorough understanding of fundamentals of physics and the application of this knowledge to practical problems. This background prepares them for careers in engineering, applied science, or applied physics with positions in industry, national research laboratories, universities or even as scientific entrepreneurs.

## SALARIES

**\$72,683\*\*\***

The nationwide average salary for employees with a bachelor's degree in Engineering Physics

*\*Information from <http://www.bls.gov/ooh/>*

*\*\*Information from: [www.myplan.com](http://www.myplan.com)*

*\*\*\*Information from: [www.payscale.com](http://www.payscale.com)*

*+U of M Engineering Physics Department*

## INDUSTRIES AND OCCUPATIONS

- Research and Development at high-technology industries as well as jobs in national laboratories and universities
- Involved in the development of:
  - Acoustics- sound reproduction
  - Communications- fiber optics, antennas
  - Electronics & Computer Technology- logic circuits and detectors
  - Environmental Science- pollution detection
  - Instrumentation and Control Systems- sensing equipment
  - Lasers and optics- holography, photonics
  - Material science- magnetic films
  - Medicine- medical imaging techniques
  - Microelectronics- circuit designs
  - Nuclear or Plasma Science- reactor design
  - Space Science- instrument design for satellites+

## MORE INFORMATION

- <http://www.princetonreview.com>
- <http://www.engineeringpphysics.net>
- [www.eng-physics.engin.umich.edu](http://www.eng-physics.engin.umich.edu)
- See an Engineering Physics advisor. Sign up on the EAC website or contact the Engineering Physics advisor, Trisha Fountain at 936-3130 or stop by in person at 1919 Cooley.