Bachelor of Science Engineering Physics College of Engineering

Physicists are concerned with an extremely broad range of natural phenomena extending from the submicroscopic world of elementary particles to the vast reaches of the cosmos and the origins of the universe, from the simplest of everyday activities to the behavior of matter at the furthest extremes in energy, temperature, distance, and time. The defining characteristic of physics is the quest for the underlying logic, the theoretical structure that unifies and explains all the different phenomena that are studied experimentally. Engineering Physics majors combine the knowledge and content from Physics coursework with the applied focus of Engineering coursework while taking electives in one of several Engineering disciplines: Aeronautical and Aerospace, Computer and Information Science, Electrical and Computer, Industrial and Systems, Chemical and Biomolecular, Materials Science, Mechanical, or Nuclear.

# **Career Areas/Job Titles:**

Science and Technology Applied Physicist Aircraft/Automotive Engineer Computer Programmer Electrical/Computer Engineer Nuclear Engineer Product Engineer Software Engineer Systems Developer & Engineer Laboratory Technician Particle Accelerator Operator Research Scientist Satellite Data Analyst Journalist/Photographer

#### Management and Industry

Lighting Technology Designer Mechanical Design Engineer Web Communications Spec. Technical Writer Technology Business Analyst Quality Control Expert Instrumentation Specialist

### Education

Agency R&D

K-12 Science Teacher Professor Academic/Career Counselor **Government/Politics** Science Patent Examiner Alternative Fuels Researcher Government

\* Some careers may require licensure, certification, or further education. Talk to an advisor about specific requirements.

## **Transferable Skills:**

- Basic Computer Skills Computer Programming Engineering Fundamentals Mathematic Skills Physics Foundation Speaking Effectively Technical Writing Use Technology Effectively Written Communication Teamwork Conceptualization
- Creativity/Imagination Defining Needs Developing Evaluation Strategies Experimental Design Forecasting/Predicting Gathering Information Identifying Problems Research Skills Setting Goals Adaptability/Flexibility
- Attention to Detail Judgment & Decision Making Implementing Decisions Planning Prioritizing Tasks Creating Innovative Solutions Multi-Tasking Quantitative Reasoning Data Analysis Analytical/Critical Thinking Problem Solving

\*This is not an extensive list of transferable skills. See larger list of skills you might develop here: <u>http://ccss.osu.edu</u>

### **Professional Links:**

American Institute of Physics: <u>http://www.aip.org/</u> American Physical Society: <u>http://www.aps.org/</u> Society of Engineering Science: <u>http://www.sesinc.org/</u> National Society of Professional Engineers: <u>http://www.nspe.org/index.html</u>