

# ENGINEERING SCIENCE (AS)

## undergraduate program

Consistent with the overall mission of the University of Pittsburgh at Bradford, the Associate of Science degree in Engineering Science includes a liberal arts core curriculum.

### Required Skills:

Mathematics  
Problem Solving  
Research  
Communication  
(Written & Oral)  
Organization  
Time Management  
Leadership

### Employment Opportunities:

Corporations  
Industry  
Design Firm  
Government  
Research Firm  
Manufacturing Firm  
College or University



Engineering is about creating new solutions to existing or future problems. Engineers are problem solvers who employ science, math, analysis and synthesis to design unique and practical solutions to everyday problems. They must accomplish this often under the constraints of time, budgets, and safety and health issues. Engineers also must be concerned about the environmental, political and social impact their answers will create.

Engineering Science majors at Pitt-Bradford complete a two-year program that involves courses in engineering, chemistry, calculus, physics and English composition. After completing the two years students have many options available to further their studies in engineering. An associate degree can also help students enhance and advance in an already existing career or job.

### PROFESSIONAL ORGANIZATIONS:

The Institute of Electrical and Electronic Engineering	<a href="http://www.ieee.org">www.ieee.org</a>
American Society of Civil Engineers	<a href="http://www.asce.org">www.asce.org</a>
American Society of Mechanical Engineers	<a href="http://www.asme.org">www.asme.org</a>
American Society of Chemical Engineers	<a href="http://www.aiche.org">www.aiche.org</a>

### FIND OUT MORE ABOUT CAREERS IN ENGINEERING AT:

Engineering Jobs, Jobs Source, Technical Jobs	<a href="http://www.engineerjobs.com">www.engineerjobs.com</a>
Try Engineering	<a href="http://www.tryengineer.org">www.tryengineer.org</a>
Occupational Outlook Handbook	<a href="http://www.bls.gov/ocos027.htm">www.bls.gov/ocos027.htm</a>
Career Services	<a href="http://www.upb.pitt.edu/career/asp">www.upb.pitt.edu/career/asp</a>



## Engineering Science (AS) – Curriculum Guide

Student Name:

Advisor:

### GENERAL EDUCATION REQUIREMENTS

#### COMPETENCIES

*(Minimum grade of C- required in all competencies)*

##### Writing

ENG 0101 English Composition I

##### Mathematics

MATH 0132 Pre-Calculus

#### ARTS & LETTERS

*(Choose ONE Literature, Creative, Fine or Performing Arts, or Language course)*

#### BEHAVIORAL, ECONOMIC, & POLITICAL SCIENCES

*(Choose ONE Behavioral, Economic or Political Science course)*

#### HISTORY, CULTURES, & PHILOSOPHICAL INQUIRY

*(Choose ONE History, Cultures or Philosophical Inquiry course)*

#### ADDITIONAL GE ELECTIVE

*(choose ONE General Education Course)*

#### CORE REQUIREMENTS FOR ENGINEERING SCIENCE:

- CHEM 0101 General Chemistry I (4)
- CHEM 0102 General Chemistry II (4)
- ECE 0031 Linear Circuits I (4)
- ENGR 0015 Engineering Analysis I (3)
- ENGR 0016 Engineering Analysis II (3)
- ENGR 0131 Statics for Civil and Environmental Engineers (3) OR  
ENGR 0135 Statics and Mechanics of Materials I (3)
- ENGR 0081/0082 Engineering Seminar (0)
- ENGR Elective
- ENGR Elective
- MATH 0140 Calculus 1 (4)
- MATH 0150 Calculus 2 (4)
- MATH 0201 Calculus 3 (4) OR  
MATH 0202 Ordinary Differential Equations (3)
- PHYS 0201 Foundations of Physics I (4)
- PHYS 0202 Foundations of Physics II (4)

**According to your Degree Progress Report in MY.PITT.EDU  
upon successful completion of the current term:**

You will have EARNED \_\_\_\_\_ credit hours

You NEED \_\_\_\_\_ for 60 credit hours required for graduation.

NOTE: This guide is unofficial. Completing the requirements on this sheet does NOT guarantee degree completion. Official degree completion information can be found in MY.PITT.EDU. Contact your Faculty Advisor and/or the Registrar's Office with questions or concerns.