

Energy/HVAC Minor

Program Description

The Energy/HVAC (heating, ventilating, air conditioning) minor concentrates on the design and operation of heat and mass transfer systems, which produce the needed environments for manufacturing operations, industrial processes, and human comfort. Systems utilizing mechanical equipment are focused on such as pumps, blowers, fans, air compressors, heat exchangers, internal combustion engines, steam turbines, and boilers.

The profession includes fields as diverse as air conditioning, low temperature metallurgy, food preservation, chemical processing, and industrial manufacturing. Energy/HVAC occupations include:

- HVAC systems engineers – for consulting firms and mechanical contractors
- Manufacturers' sales representatives
- Process plant engineers – in the petrochemical and pulp and paper industry
- Engineers – for power generation plants
- Maintenance supervisors
- Sales representatives – for manufacturers



This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

Admission, Enrollment, and Graduation Policies

Admission Requirements

This program does not have specific admission requirements and only Admissions to Kennesaw State University is required.

Graduation Requirements

Each student is expected to meet the requirements outlined in the Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION.

Program Course Requirements

Required Courses

Students must take the following two courses:

- ME 3410: Thermodynamics *

or

- MET 3401: Thermodynamics I **
- MET 3402: Thermodynamics II

*ME students must take ME 3410

**MET students must take MET 3401

Electives

Select three courses from the following:

- ME 3440: Heat Transfer *
- or
- MET 4401: Heat Transfer *
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- MET 4411: Refrigeration
 - ENGR 4412: Air Conditioning
 - MET 4431: Plant and Power Applications

Required Basic and Engineering Science and Mathematics Prerequisite Courses

Most of the engineering disciplines require these courses.

Non-engineering students may have to take these courses before they can take the minor courses.

- ENGR 2214: Engineering Mechanics – Statics
- ENGR 3343: Fluid Mechanics
- MET 3101: Fluid Mechanics Principles and Applications
- PHYS 1111: Introductory Physics I
- PHYS 2211: Principles of Physics I

Note: ME students must take PHYS 2211 and ENGR 3343. MET student may take either PHYS 1111 or PHYS 2211 and MET 3101 or ENGR 3343

Program Total (15 Credit Hours)