HVACR Engineering Technology and Energy Management

Official Program Checksheet

Why Choose HVACR Engineering Technology?

The Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) Engineering Technology curriculum is a two-year, upper-division sequence leading to a Bachelor of Science degree. Instruction is aimed at developing expertise in system and controls design, retrofitting, testing and adjusting, system balancing and building operations with microcomputer controls.

Students learn up-to-date methods of identifying and performing efficiency evaluations on different types of heating, ventilation and air conditioning systems found in commercial and industrial buildings. They also learn methods of adjusting and balancing equipment for maximum performance.

In addition to classroom study, students perform energy and HVACR systems analysis for West Michigan businesses and industries. An energy systems laboratory includes equipment, computers and instrumentation found in commercial or industrial buildings. The lab includes a ten-ton variable air volume, four-zone system that controls cooling, heating and ventilation with computerized energy management. There also is a paid internship in the summer semester between the junior and senior year.

Career Opportunities

The HVACR Engineering Technology program addresses designing, retrofitting, testing and balancing on a problem-solving level to prepare technologists to fill the wide technological gap between service technicians and engineers.

Challenging careers abound in manufacturing, contracting, building operations and in the engineering of commercial, institutional and industrial building systems.

These industries look for trained HVACR engineering technicians for a variety of positions, including applications engineer, project engineer, systems control, estimator, field technician, systems representative, control systems trainer and in-plant engineer. There also are many opportunities to be found with architectural and engineering firms.

Graduate placement rate has been near 100% since the program was founded in 1984, with starting salaries currently averaging $58,000 per year.

Admission Requirements

Students entering the HVACR Engineering Technology program must have completed the
HVACR Technology program at Ferris or an equivalent A.A.S. program at another institution (or equivalent) with a minimum college GPA of a 2.5. In addition, students should possess computer literacy skills and have completed college intermediate algebra and a scientific understanding course.

**General Education Requirements**

All University General Education requirements can be found here: [http://www.ferris.edu/HTMLS/academics/general-education/requirements/BA-BS.htm](http://www.ferris.edu/HTMLS/academics/general-education/requirements/BA-BS.htm)

Please consult this link for a complete listing of General Education Electives:  [http://www.ferris.edu/HTMLS/academics/general-education/courses/index.htm](http://www.ferris.edu/HTMLS/academics/general-education/courses/index.htm)

Consult the official checksheet or program advisor for program specific General Education requirements.

**Graduation Requirements**

The HVACR Engineering Technology program at Ferris leads to a Bachelor of Science degree.

Students must

- maintain a 2.00 cumulative FSU GPA
- have 40 credits at the 300/400 level
- have 30 credits of Ferris classes (FSU Residency requirement)
- have a minimum 120 total credits to earn a bachelor degree
- earn a “C-“ or better in all HVAC coursework
- complete all general education requirements as outlined on the General Education website

**More Information**

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