

Lone Star College Transfer Guide

The Bachelor of Science in Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR) Engineering Technology and Energy Management is project focused and allows students the opportunity to gain valuable real-world experience calculating building HVACR loads, designing and programming building automation systems, managing commercial/industrial/institutional HVACR projects, balancing air and water systems, selecting primary and secondary equipment, and performing energy audits.

The program is available full-time at the main campus in Big Rapids, MI or part-time fully-online (with a week-long summer residency for labs).

General Admission Criteria

- Contact a Ferris Advisor at 231-591-3773 to discuss the differences between the main campus and online program requirements.
- * Denotes courses that must be completed (with a C or higher) prior to entry into the program

Transfer Students-Big Rapids

- Students must have completed the Associate of Applied Science (AAS) in HVACR Technology (HVACR) program at Ferris State University or an equivalent associate program at another institution.
- Combined college or university GPA of 2.50 (on a 4.00 scale) from all institutions attended.
- Successful completion of COMM 121, ENGL 150, (ENGL 211 or ENGL 250), (MATH 115 or MATH 116), a Natural Science with Lab and a Self and Society course, or transfer equivalent course of C or higher.

Transfer Students-Online

- Students must have completed the Associate of Applied Science (AAS) in HVACR or Related degree with HVAC work experience upon program approval.
- Combined college or university GPA of 2.50 (on a 4.00 scale) from all institutions attended.
- Successful completion of ENGL 150, (MATH 115 or MATH 116) and a Natural Science with Lab, or transfer equivalent course of C or higher.
- Recommended completion of (ENGL 211 or ENGL 250), or transfer equivalent course of C or higher.

Communication Competency

| FSU Course | FSU Course Title | FSU Cr. Hrs. | CC Equiv. | Lone Star Course Title | CC Cr. Hrs. |
|--------------------------|---|--------------|---------------|---------------------------|-------------|
| *COMM 121 | Fundamentals of Public Speaking | 3 | SPCH 1315 | Public Speaking | 3 |
| *ENGL 150 | English 1 | 3 | ENGL 1301 | Composition & Rhetoric I | 3 |
| *ENGL 211 or ENGL 250 | Industrial and Career Writing or English 2 | 3 | ENGL 1302 | Composition & Rhetoric II | 3 |
| ENGL 311 | Advanced Technical Writing | 3 | No Equivalent | No Equivalent | 0 |

Quantitative Literacy – See below or Official Pre-2016 Math SAT Score of 590 or Higher, Official Post-2016 Math SAT Score of 620 or Higher, or Official MATH ACT Score of 26 or Higher.

| FSU Course | FSU Course Title | FSU Cr. Hrs. | CC Equiv. | Lone Star Course Title | CC Cr. Hrs. |
|------------|----------------------------------|--------------|-----------|------------------------|-------------|
| *MATH 115 | Intermediate Algebra | 3 | MATH 1314 | College Algebra | 3 |
| MATH 120 | Trigonometry | 3 | MATH 1316 | Trigonometry | 3 |
| MATH 130 | Advanced Algebra-Analytical Trig | 4 | MATH 2412 | Precalculus | 4 |

OR

| FSU Course | FSU Course Title | FSU Cr. Hrs. | CC Equiv. | Lone Star Course Title | CC Cr. Hrs. |
|------------|---------------------------------|--------------|---------------|------------------------|-------------|
| *MATH 116 | Intermediate Algebra-Num Trig | 4 | No Equivalent | No Equivalent | 0 |
| MATH 126 | Algebra-Analytical Trigonometry | 4 | No Equivalent | No Equivalent | 0 |

Students are required to reach the Ferris MATH 126 or MATH 130 level. The path to Ferris MATH 126 is MATH 116 and MATH 126. The path to Ferris MATH 130 is MATH 115, MATH 120, and MATH 130.

Natural Sciences Competency – Two courses are required with a minimum of 6 credits: must have at least one lab course.

| FSU Course | FSU Course Title | FSU Cr. Hrs. | CC Equiv. | Lone Star Course Title | CC Cr. Hrs. |
|------------|---------------------------|--------------|-----------|------------------------|-------------|
| *Varies | Natural Sciences with Lab | 4 | Varies | Varies | 4 |
| Varies | Natural Sciences Elective | 3 | Varies | Varies | 3 |

Culture Competency – Three courses are required with a minimum of 9 credits: must be from 2 different disciplines, have at least 1 at FSU 200 level or higher course.

| FSU Course | FSU Course Title | FSU Cr. Hrs. | CC Equiv. | Lone Star Course Title | CC Cr. Hrs. |
|------------|-------------------------------|--------------|-----------|------------------------|-------------|
| Varies | Culture Electives – 100 level | 3 | Varies | Varies | 3 |
| Varies | Culture Electives – 100 level | 3 | Varies | Varies | 3 |
| Varies | Culture Electives – 200 level | 3 | Varies | Varies | 3 |

Self and Society Competency – Three courses are required with a minimum of 9 credits: must be from 2 different disciplines, have at least 1 at FSU 200 level or higher course.

| FSU Course | FSU Course Title | FSU Cr. Hrs. | CC Equiv. | Lone Star Course Title | CC Cr. Hrs. |
|------------|-------------------------------------|--------------|-----------|------------------------|-------------|
| ECON 201 | Principles of Microeconomics | 3 | ECON 2302 | Microeconomics | 3 |
| *Varies | Self & Society Elective – 100 level | 3 | Varies | Varies | 3 |
| Varies | Self & Society Elective – 100 level | 3 | Varies | Varies | 3 |

Students are encouraged to work with an advisor to select appropriate general education courses or may visit www.ferris.edu/gened.

Diversity Competency – 2 Courses Required

If not met by courses taken for Culture, Self and Society, or MTA, a student must meet the following:

- 1 course with the Global Diversity attribute
- 1 course with the U.S. Diversity attribute

Major Requirements – 84 Credits Required

| FSU Course | FSU Course Title | FSU Cr. Hrs. | CC Equiv. | Lone Star Course Title | CC Cr. Hrs. |
|------------|---------------------------------------|--------------|---------------|------------------------|-------------|
| *Varies | AAS in HVACR Technology or Equivalent | 42 | Varies | AAS Coursework | 42 |
| HVAC 285 | HVAC System Design using BIM | 2 | No Equivalent | No Equivalent | 0 |
| HVAC 312 | Control Theory - Application | 4 | No Equivalent | No Equivalent | 0 |
| HVAC 321 | HVAC Air System Select Design | 4 | No Equivalent | No Equivalent | 0 |
| HVAC 325 | HVAC Hydronic System Select Design | 4 | No Equivalent | No Equivalent | 0 |
| HVAC 342 | Load Analysis - Energy Modeling | 4 | No Equivalent | No Equivalent | 0 |
| HVAC 350 | Contracting Issues in HVACR | 4 | No Equivalent | No Equivalent | 0 |
| HVAC 393 | Summer Internship | 4 | No Equivalent | No Equivalent | 0 |
| HVAC 415 | Direct Digital Control | 4 | No Equivalent | No Equivalent | 0 |
| HVAC 451 | Energy Audit and Analysis | 4 | No Equivalent | No Equivalent | 0 |
| HVAC 462 | HVAC Primary Equip Selection | 4 | No Equivalent | No Equivalent | 0 |
| HVAC 499 | Commercial HVAC System Design | 4 | No Equivalent | No Equivalent | 0 |

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|--|------------|
| Total Credits Required for Degree | 124 |
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No more than 90 credits may be transferred from Lone Star College to Ferris State University.

Program Delivery Locations and Contact Information:

Main Campus, Big Rapids

College of Engineering Technology

(231) 591-3773 | hvacrprogram@ferris.edu | www.ferris.edu/CET/built-env/hvacr/

Ferris Statewide - Online

(231) 591-2340 | online@ferris.edu | www.ferris.edu/online | [Financial Aid Consortium Eligible](#)

Select courses may be delivered online and/or in a mixed delivery format (i.e. a mix of online and face-to-face instruction at the Ferris Main Campus or at an off-campus location).

Steps to Apply

- Complete a free application at www.ferris.edu/apply.
 - Submit Official transcripts from every school attended to transfer@ferris.edu or
 - Ferris State University Admissions Office, 1201 S. State St, CSS 201, Big Rapids, MI 49307
- Submit Test Scores (if required)
 - ACT Scores; go to www.act.org. Ferris State University School Code: 1994
 - SAT, CLEP and AP Scores; go to www.collegeboard.org. Ferris State University School Code: 1222

Advising Notes

It is recommended that potential applicants meet with an advisor to review the degree, course schedule, and have any questions answered prior to completing an application. Students who are completing the MTA may have different general education course requirements for the particular degree selected. Meeting with a Ferris advisor prior to the selection of general education or elective course work may reduce the chance of completing a course that will not apply toward the selected degree. Once admitted, students must continue to meet with an advisor as they work toward graduation.

Transfer Student Orientation

All new students to Ferris State University are required to complete an orientation.

Reverse Transfer Agreement

The Community College and Ferris have entered into a partnership in order to work collaboratively and creatively to increase student completion of associate and bachelor degrees. The partners work together to provide a seamless transfer experience and increase student retention and completion at both the community college and Ferris.

Michigan Transfer Agreement (MTA)

Ferris participates in the Michigan Transfer Agreement (MTA). This agreement will facilitate the transfer of general education requirements from one Michigan institution to another. Students may complete the MTA as part of a degree program or as a stand-alone package. The MTA consists of a minimum of 30 general education credit hours as identified by the college or university.

Students transferring to Ferris with the Michigan Transfer Agreement (MTA) and entering a degree program will have met a 30-hour block of lower-level general education courses. However, this does not exempt students from completing program specific prerequisites or higher-level general education course requirements. Students should contact their advisor regarding classes that meet the MTA.

Students must work with their Ferris advisor to declare a Minor or Concentration and for selection of Directed Electives.

Disclaimer

This is a guide for students who plan to transfer to Ferris State University. This guide is not intended to be a contract with Ferris. The information on this guide is subject to change. **Students should contact their community college or Ferris to keep informed of changes.** Final responsibility for verifying all transfer information lies with the student. Please refer to effective and/or revised date on the bottom of this guide and the Ferris Catalog at www.ferris.edu/catalog.

Partners may contact the Transfer Services Center with questions or updates at transferguidesarticulations@ferris.edu.