

# Heavy Equip Service Engineering Tech • Bachelor of Science

## Why Choose Heavy Equipment Service Engineering Technology (HSET)?

HSET provides the skills and knowledge required to test, diagnose, service and repair multiple, interfacing and technically sophisticated systems used on equipment in the agricultural, construction, forestry, stationary power and trucking industries. Mechanical, electrical, electronic and hydraulic technology are addressed, along with failure analysis, troubleshooting procedures and techniques, metrology, product design for manufacturing and fleet management.

## Prepare for a Great Career

Increased use of heavy equipment in the agriculture, trucking, construction and auxiliary power industries has created a widespread need for qualified heavy equipment technicians. Estimates suggest less than half of the current demand for technicians in this industry is being met, so skilled graduates are already in high demand.

Employment opportunities exist throughout the various heavy equipment industries. Job titles include diagnostic technician, technician, service engineer, field engineer, service manager, shop foreman, trainer, engineering technician and maintenance team leader.

## Admission Requirements

To enroll in either option of the HSET program at Ferris, students must have successfully completed an associate degree in Heavy Equipment Technology or equivalent.

## Graduation Requirements

The Heavy Equipment Service Engineering Technology program at Ferris leads to a bachelor of science degree. Graduation requires a minimum 2.0 GPA in core classes, in the major and overall. Students must complete all general education requirements as outlined on the General Education website.

## Required Courses

## Credit Hours

General Education		
COMM 221	Small Group Decision Making	3
ECON 221	Principles of Macroeconomics	3
ENGL 311	Advanced Technical Writing	3
MATH 126	Algebra-Analytic Trigonometry	4
PHYS 211	Introductory Physics 1	4
*Elective:	Cultural Enrichment	3
*Elective:	Social Awareness	3
*one must be at 300 level or higher		
Major		
ACCT 201	Principles of Accounting 1	3
HSET 393	Industry Internship	4
HSET 302	Fleet Management	3
HSET 410	Interact Electronic Controls	4
HSET 460	Heavy Eq Adv Hydraulic Systems	4
MATL 240	Intro to Material Science	4
MGMT 301	Applied Management	3
SURE 331	Ethics-Prof in Engineering-Tec	3
HSET 300	Applied Failure Analysis	4
HSET 403	Testing Systems and Analysis	4
Suggested Directed Electives (3 credit hours):		
ISYS 305	Software Systems	3
MFGE 353	Statistical Quality Control	3
BLAW 301	Legal Environment of Business	3
MECH 340	Statics-Strength of Materials	4
Minimum credit hours required for B.S. degree (after completion of an A.A.S. degree):		64



## More Information

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**FERRIS STATE UNIVERSITY**

COLLEGE OF ENGINEERING TECHNOLOGY