

TRANSPORTATION

— HEAVY CONSTRUCTION EQUIPMENT TECHNOLOGY —

** All students applying for the transportation programs are
REQUIRED to attend a Tuesday Campus Visit*

Delivery: Daytime Classes

Start: Fall Semester, Full-Time

AWARDS

Heavy Construction Equip. Technology A.A.S. Degree 72 cr.

Heavy Construction Equip. Mechanic Diploma 64 cr.

Heavy Construction Equip. Maintenance Certificate 29 cr.

MAJOR DESCRIPTION

Coursework prepares students to succeed as well-trained, mechanically minded, hard-working technicians with heavy equipment dealers and contractors. Instruction involves classroom theory, live shop demonstrations, and repair of heavy equipment currently used in industry. Making repairs on actual equipment is vital to skill development.

WORK ENVIRONMENT

Heavy equipment dealers and earth-moving contractors are top employers. Jobs are also available with mining and logging companies. Most mechanics work in indoor shops, but experienced field service technicians travel to job sites to perform repairs.

POTENTIAL JOB TITLES

- Mobile Heavy Equipment Technician
- Construction Equipment Technician
- Field Service Technician
- Dealer Service Technician

SALARY DATA

See latest data at careerwise.minnstate.edu.

- Average Wage: \$32.61/hour
- Top earners: \$39.88/hour

ACCREDITATION

This program is accredited by the Associated Equipment Distributors Foundation (AED).

ADDITIONAL INFORMATION

Scan the QR code for more program information and specific program costs; some courses may have additional lab or instructional fees.



HEAVY CONSTRUCTION EQUIPMENT TECHNOLOGY A.A.S. DEGREE

This is a suggested sample course sequence.

Please contact your program advisor regarding your academic plans.

First Year - Fall Semester 17 cr

HCEM1102	General Shop Mechanics - Introduction.	3
HCEM1110	Welding and Flame Cutting.	2
HCEM1132	Heavy Duty Electrical.	3
HCEM1140	Diesel Engine Overhaul I.	4
HCEM1150	Applied Failure Analysis	2
ENGL1150	Composition I or	
ENGL1200	Technical Writing.	3

First Year - Spring Semester 21 cr

HCEM1234	Heavy Duty Electronics.	3
HCEM1246	Diesel Engine Overhaul II	3
HCEM1250	Brakes.	2
HCEM1256	Diesel Engine Tune-up.	3
HCEM1262	Preventative Maintenance	2
HCEM1271	CAT Basics Training	2
COMS1020	Interpersonal Communication.	3
PHIL1200	Critical Thinking.	3

Second Year - Fall Semester 17 cr

HCEM2115	Transmissions	4
HCEM2135	Hydraulics I	3
HCEM2177	Machine Electronics I	2
HCEM2238	Hydraulics II	3
HCEM2265	Differentials.	2
BIOL1110	Environmental Science	3

Second Year - Spring Semester 17 cr

HCEM2145	Hydrostatic Systems	3
HCEM2225	Track Drive Systems.	3
HCEM2256	Steering Systems.	2
HCEM2260	Machine Electronics II	2
HCEM2271	CAT Advanced Training.	2
HCEM2280	Climate Control	2
HIST1450	The History of Minnesota	3

TOTAL PROGRAM REQUIREMENTS 72

HEAVY CONSTRUCTION EQUIPMENT MECHANIC DIPLOMA

This is a suggested sample course sequence.

Please contact your program advisor regarding your academic plans.

First Year - Fall Semester 17 cr

HCEM1102	General Shop Mechanics - Introduction.....	3
HCEM1110	Welding and Flame Cutting.....	2
HCEM1132	Heavy Duty Electrical.....	3
HCEM1140	Diesel Engine Overhaul I.....	4
HCEM1150	Applied Failure Analysis.....	2
ENGL1150	Composition I or	
ENGL1200	Technical Writing.....	3

First Year - Spring Semester 21 cr

HCEM1234	Heavy Duty Electronics.....	3
HCEM1246	Diesel Engine Overhaul II.....	3
HCEM1250	Brakes.....	2
HCEM1256	Diesel Engine Tune-up.....	3
HCEM1262	Preventative Maintenance.....	2
HCEM1271	CAT Basics Training.....	2
COMS1020	Interpersonal Communication.....	3
PHIL1200	Critical Thinking.....	3

Second Year - Fall Semester 14 cr

HCEM2115	Transmissions.....	4
HCEM2135	Hydraulics I.....	3
HCEM2177	Machine Electronics I.....	2
HCEM2238	Hydraulics II.....	3
HCEM2265	Differentials.....	2

Second Year - Spring Semester 12 cr

HCEM2145	Hydrostatic Systems.....	3
HCEM2225	Track Drive Systems.....	3
HCEM2256	Steering Systems.....	2
HCEM2260	Machine Electronics II.....	2
HCEM2280	Climate Control.....	2

TOTAL PROGRAM REQUIREMENTS 64

HEAVY CONSTRUCTION EQUIPMENT MAINTENANCE CERTIFICATE

This is a suggested sample course sequence.

Please contact your program advisor regarding your academic plans.

First Year - Fall Semester 14 cr

HCEM1102	General Shop Mechanics - Introduction.....	3
HCEM1110	Welding and Flame Cutting.....	2
HCEM1132	Heavy Duty Electrical.....	3
HCEM1140	Diesel Engine Overhaul I.....	4
HCEM1150	Applied Failure Analysis.....	2

First Year - Spring Semester 15 cr

HCEM1234	Heavy Duty Electronics.....	3
HCEM1246	Diesel Engine Overhaul II.....	3
HCEM1250	Brakes.....	2
HCEM1256	Diesel Engine Tune-up.....	3
HCEM1262	Preventative Maintenance.....	2
HCEM1271	CAT Basics Training.....	2

TOTAL PROGRAM REQUIREMENTS 29



DAKOTA COUNTY
TECHNICAL COLLEGE

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This information is available in an alternate format by calling 651-423-8469 or TTY/Minnesota Relay at 1-800-627-3529.