

# Dakota County Technical College

## HCEM 2145: Hydrostatic Systems

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 1

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Students study basic principles of operations, system components, testing procedures, repair techniques, adjustments, and preventive maintenance procedures. Prerequisites: HCEM1101 and HCEM2135 or instructor's approval

**B. COURSE EFFECTIVE DATES:** 03/22/1998 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

### D. LEARNING OUTCOMES (General)

1. demonstrate shop safety
2. test hydrostatic drive systems
3. explain variable piston pump operation
4. disassemble fixed piston motor
5. use test instruments
6. explain variable displacement motor operation
7. use specialized tooling
8. explain control valve operation
9. explain charge pump operation
10. troubleshoot a hydrostatic system using a hydraulic schematic
11. explain hydrostatic drives principles
12. analyze flow checks
13. identify hydrostatic drives
14. explain fixed piston motor
15. explain flow meter operation

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted