



Wayne County Community College District

COURSE SYLLABUS

MCT 207 HYDRAULICS AND PNEUMATICS

CREDIT HOURS: 2.00

CONTACT HOURS: 45.00

COURSE DESCRIPTION:

Survey of basic industrial hydraulics and pneumatics, including hydraulic laws and principles, necessary calculations, ANSI symbols, drawing of complete schematic diagrams of circuits studied, controls and motors used in hydraulic and pneumatic systems measuring devices and complete hydraulic and pneumatic systems. Lab coat is required.

PREREQUISITE: *NONE*

EXPECTED COMPETENCIES:

Upon successful completion of this course, the student will be able to:

- Distinguish basic pneumatic and hydraulic principles.
- Understand basic physical laws.
- Understand hydraulic symbols.
- Understand the operation of reservoirs and accessions.
- Understand the principles of hydraulic pump operation.
- Understand the principles of hydraulic valve operation.
- Understand the operation of hydraulic pumps and compressors.
- Understand hydraulic piping and fittings.
- Discuss common practices with regard to leakage and sealing.
- Discuss the various types of actuators.
- Discuss the various fluid filtrations in hydraulic circuits.
- Discuss remote control of hydraulic circuits.
- Discuss trouble shooting hydraulic circuits.

ASSESSMENT METHODS:

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE:

90%-100% = A
80%-89.9% = B
70%-79.9% = C
60%-69.9% = D
<60% = E