

WASHTENAW COMMUNITY COLLEGE
COURSE SYLLABUSDepartment: Fluid PowerNew Course ☒Course Number: FLP174Existing Course ☐Course Title: CoOp Education I Fluid PowerCredit Hours: Varies (1-3)Prerequisites: Successful completion of first semester courses and faculty approval.

Corequisites: _____

Catalog Course Description: In this course, the student gains skills from a new experience in an approved, compensated, industry-related position.Together with the instructor, the employer and CoOp Placement Office, the student determines work assignments and learning objectives to connect classroom learning with career-related work experience.

Contact Hours per week in a lecture/recitation setting

☐

Contact Hours per week in a laboratory setting

☐

Contact Hours per week in a clinical setting

☐

Contact Hours per week in a work setting

☒8-24 (variable)Total Contact Hours (per semester): VARIES minimum: 120 hours/1 credit
maximum: 360 hours/3 credits

Course Justification: (Check all that apply.)

☒ program specialty☐ college transfer☐ support course☐ division core☐ industry training☐ personal development☐ core curriculumPrepared By _____
(Faculty Member)

Date _____

Reviewed By George Agin
(Department Chair for Department)Date 8/29/94Approved By R.R. Burton
(Dean)Date 8/29/94

none

MAJOR INSTRUCTIONAL UNITS: A Major instructional unit is a grouping of topics which naturally relate to one another.

(List, in order, the major instructional units)

1. COOP Work Experience
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.

COURSE OBJECTIVES: Use student outcome based language and format. (Ex: The student will define and state the cause of the six major respiratory diseases.)

(Use one page for each instructional unit).

Major Instructional Unit# 1 Heading:

Objective #1: The student with the instructor and employer will complete a Cooperative Education Work Agreement which will include hours of work, location, rate of pay and specific assignments.

Objective #2: Using the Student Learning Objectives Form, the student with the instructor and employer will complete a learning plan for the semester. This plan will include a minimum of three learning objectives and criteria for evaluation specific to the students work experience.

Objective #3: Using the Student Report on Cooperative Work Experience Form, the student will write a final report on the COOP experience containing the following items:

- *A description of the assignment
- *A summary of skills and abilities used on the job
- *Ways in which coursework was integrated into job tasks
- *An assessment of how well the objectives established at the beginning of the assignment were achieved.
- *Other reactions to and/or impressions of the experience.

Objective #4:

Objective #5:

Objective #6:

Objective #7:

(Add additional pages if necessary)

INSTRUCTIONAL METHODS: (Check the appropriate boxes and describe as needed.)

- | | | |
|-------------------------------------|--------------------------------------|---|
| ☐ Lecture | ☐ Seminar | ☐ Laboratory |
| ☐ Clinical | ☐ Telecourse | ☒ On-Site Work Experience |
| ☐ Self-Paced | ☐ Other _____ | |

EVALUATION CRITERIA: (Check the appropriate boxes and describe as needed).

- | | |
|--|---|
| ☒ Attendance _____ | ☐ Quizzes _____ |
| ☐ Class Discussion _____ | ☐ Tests _____ |
| ☐ Papers _____ | ☐ Midterm _____ |
| ☐ Portfolio _____ | ☐ Final Exam _____ |
| ☒ Project _____ | ☐ Independent Study _____ |
| ☒ Reports _____ | ☐ Other (Audition, etc.) _____ |
| ☒ Work Performance _____ | |

ATTENDANCE REQUIREMENTS: (For Certification or nonevaluative purposes).

SPECIAL EQUIPMENT/FACILITY AND ACTIVITY REQUIREMENTS: (Check the appropriate boxes and describe as needed).

- | | |
|--|---|
| ☐ Lab equipment | ☐ Testing in Testing Center |
| ☐ LRC Reserves | ☐ Student Regional Competitions |
| ☐ Computers | ☐ Off Campus Sites |
| ☐ Field Trips | ☒ Other Faculty site visits _____ |

(Attach an additional page if necessary).

PRIMARY TEXT: (Disregard if text is not used).

Title:
Author:
Publisher:

Copyright Yr:
Est. Cost:

(Attach an additional page if more than one primary text is used).

SUPPLEMENTAL TEXTS OR COURSE PACKS:

1. Title: _____
 Author: _____ Copyright Yr: _____
 Publisher: _____ Est. Cost: _____
2. Title: _____
 Author: _____ Copyright Yr: _____
 Publisher: _____ Est. Cost: _____

(Attach another page if necessary).

SUPPLIES AND/OR UNIFORMS STUDENT WILL HAVE TO OWN OR ACQUIRE FOR COURSE SUCH AS: calculators, uniforms, tools, and software, etc. (Other than pen, pencil, paper, or textbook(s)).

Descriptions	Cost Estimates
_____	_____
_____	_____
_____	_____

REFERENCE MATERIALS STUDENTS WILL BE REFERRED TO SUCH AS: journals, books, manuals, maps, etc.

AUDIO/VISUAL AND COMPUTER MATERIALS TO BE USED SUCH AS: films, video tapes, slides, audio tapes, software, etc.

Title	Source
_____	_____
_____	_____
_____	_____
_____	_____

WASHTENAW COMMUNITY COLLEGE COURSE HANDOUT

The following information compatible with the Official Course Syllabus must be distributed to students at the first meeting of each course:

1. Course name:
2. Course number:
3. Course description:
4. A list of course objectives by unit:
5. Required text(s) and/or course packs:
6. Criteria for evaluation:
7. Requirements (Attendance, Special, or Other):
8. Hours/week required out-of-class:
9. Additional Information:
10. A schedule of class meeting dates with topics and assignments:

Each Instructor teaching this course should attach a copy of their "Student Handout Sheet" to this document.

Washtenaw Community College

Curriculum and Articulation Services

JSV 4/18/01
EJS 9/01

Course Descriptions

Division: Technology

Industrial Technology Department

FLP 111: Fluid Power Fundamentals 4 Credit(s)

Prereqs: None

Coreqs: None

30 lecture, 60 lab, 0 clinical, 0 other, 90 total contact hours

Fulfills Core Elements: 5 18 19

Course Description:

This is a beginning course in fluid power that deals with the basic principles of hydraulics and pneumatics. Directional valves, pressure controls, flow controls, actuators, and basic pump theory are studied. ANSI and ISO symbols are used to design simple circuits. Disassembly of components and assembly of circuits make up the lab experiences.

Last Updated: Winter 2001

Current Syllabus Date: Fall 2000

FLP 174: FLP Co-op Education-I 1-3 Credit(s)

Prereqs: ~~FLP 111 and FLP 213~~ and Consent **REQUIRED**

Coreqs: None

0 lecture, 0 lab, 0 clinical, 120 other, 120 total contact hours

Fulfills Core Elements: None

Course Description:

In this course, students gain skills from a new experience in an approved, compensated, industry-related position. Together with the instructor and employer, students set up work assignments and learning objectives to connect classroom learning with career-related work experience. Instructor consent is required to register for this course.

Last Updated: Fall 1999

Current Syllabus Date: Spr/Sum 1994

FLP 213: Hydraulic Controls 3 Credit(s)

Prereqs: FLP 111

Coreqs: FLP 214

30 lecture, 30 lab, 0 clinical, 0 other, 60 total contact hours

Fulfills Core Elements: 5 7 8 9 10 18 19

Course Description:

FLP 213 parallels FLP 214 concentrating on the controls used in hydraulic circuits. The course further develops the concepts of directional, pressure, and flow controls covered in FLP 111. Print reading is emphasized, with the addition of modular valves such as cartridge valves and stack valves. Ladder logic and timing diagrams describing the sequencing of events within a control circuit are also covered. Lab time is an integral part of the course. FLP 214 is a co-requisite with this course.

Last Updated: Winter 2001

Current Syllabus Date: Fall 2000