

WASHKEWICZ COLLEGE CO-OP EXPERIENCE
ESC 400 – Summer Semester 2022 Syllabus
Cleveland State University, Washkewicz College of Engineering

Fenn Co-Operative Program Contacts (Co-op Advisors):

Sr. Manager, Fenn Co-op Program: Erin Elosh, email: e.elosh@csuohio.edu

- *Co-op advisor for Mechanical Engineering and Technology*

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- *Co-op advisor for Chemical Engineering*

Coordinator, Engineering Co-op Program: Nicole Tischler, M.A., email: n.tischler51@csuohio.edu

- *Co-op advisor for Civil, Computer, Electrical Engineering, and Computer Science*

Faculty Mentors (Course Instructors):

Chemical & Biomedical Engineering – Dr. Nolan Holland, email: n.holland1@csuohio.edu

Civil & Environmental Engineering – Dr. Josiah Owusu-Danquah, email: j.owusudanquah@csuohio.edu

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Mechanical Engineering – Dr. Yongxin Tao, email: y.tao19@csuohio.edu

Engineering Technology – Dr. Michael Adams, email: m.l.adams43@csuohio.edu

CATALOG DESCRIPTION: ESC 300 Cooperative Education Experience (6 cr.) or ESC 400 Cooperative Education Experience (1 cr.) is for students completing a co-op and/or participating in the Fenn Co-op Program. A co-op is a work experience that is full-time, related to the major the student is pursuing, and paid. These courses are taken while the student is completing their co-op; in order to link what the student has learned in the classroom to the work they are currently completing in their desired industry. ESC 300 is typically taken by students during the fall or spring semesters. ESC 300 allows students to maintain full-time student status at Cleveland State University while on co-op, as well as defer any scholarships and loans they would like. Although ESC 300 is a 6 credit hour course, students are only charged for one credit hour. ESC 400 is a one credit hour class that is typically taken by students during summer semesters. However, it does not grant the student full time status at Cleveland State University, or allows them defer their scholarships, or loans. Students who take either, or a combination of, ESC 300 or ESC 400 three times are considered to have “completed” the Fenn Co-op Program, and are eligible to receive the Fenn Co-op Scholarship. The Fenn Co-op Scholarship ranges from \$1200 - \$1800, and essentially reimburses the student for the three credit hours they paid to take ESC 300 and/or ESC 400. Prerequisites: Completion of ESC 130 with a satisfactory grade. Work with a designated faculty advisor (course instructor) to establish objectives for the co-op period, review progress during the work period and review results of the experience against objectives. A final report is required. The course must be taken during every cooperative education period.

TEXTBOOK: None.

COURSE OBJECTIVES: The objective of this course is for the student to take the concepts and techniques learned in the classroom and practice them in a professional engineering environment.

FULFILLS THE FOLLOWING ENGINEERING PROGRAM OBJECTIVES AND OUTCOMES:

PROGRAM OBJECTIVES:

1. Practice working in multi-disciplinary engineering teams as well as in teams with non-engineering members (marketing, sales, legal or financial).
2. Learn to address and solve problems which require knowledge in practical and technical areas in and outside the student's chosen field.
3. Learn project management skills.
4. Develop mentoring relationship with faculty advisor (course instructor).

PROGRAM OUTCOMES:

1. Have a broader understanding of engineering disciplines, the types of problems addressed, and the solutions to those problems.
2. Have a better understanding of business requirements and how engineering interfaces with other areas.
3. Be comfortable in solving typical engineering problems upon graduation.
4. Become a well-rounded engineer with knowledge of business requirements that will be valuable to your potential employers.

PREREQUISITES: Successful completion of ESC 130 Engineering Co-op Orientation, 2.2 GPA, and acceptance into the Fenn Co-op Program

CLASS EXPECTATIONS: Students are expected to:

- 1) Notify the Fenn Co-op Office/Co-op Advisor of the Washkewicz College of Engineering that they have accepted a co-op by completing and submitting the Co-op Placement form no later than the deadline shown below.
- 2) Develop work goals and objectives and review them with their Faculty Mentor (Course Instructor) in consultation with site supervisor. Submit the Co-op Learning Objectives Report to the Faculty Mentor (Course Instructor) by the deadline shown below. Forward a copy to the Fenn Co-op Office/Co-op Advisor. Both the student's and the Faculty Mentor's (Course Instructor) signature are required.
- 3) Write a 4-5 page co-op experience report and prior to submitting it to the Faculty Mentor (Course Instructor) for grading by the deadline shown below review the paper with site supervisor to ensure that there are no confidentiality issues. Submit a graded copy to the Co-op Office /Co-op Advisor.
- 4) Complete a Cooperative Education Student Evaluation form at the end of the co-op (see deadline below).
- 5) Request site supervisor to complete the Employer Evaluation at least two weeks before the assignment ends, so the student and the site supervisor have a chance to review it together. Site Supervisor's signature is required and should be submitted electronically by the deadline listed below.

All forms may be submitted to the Washkewicz College Engineering Fenn Co-op Office at Washkewicz Hall 305 and electronically, where applicable.

SCHEDULE/DEADLINES:

Co-op Period Sequence of Events	Due Date
Work with Fenn Co-op Office to secure co-op position	Prior to start of semester
Develop set of objectives to accomplish prior to meeting with Faculty Mentor (Course Instructor). Faculty Mentor (Course Instructor) reviews co-op position description and objectives.	Friday, June 10, 2022
Complete Co-op Placement form and submit electronically	Friday, June 10, 2022
Contact Faculty Mentor (Course Instructor) for mid-term update on experience	Monday, June 27, 2022
Co-op Office/Co-op Advisor contacts student for his/her feedback	Monday, June 27, 2022
Student submits <u>final report</u> to Site Supervisor for review	Monday, July 18, 2022
Student submits <u>final report</u> to Faculty Mentor (Course Instructor) who assigns final grade	Monday, August 8, 2022
Complete Student Evaluation form and submit electronically	Friday, August 12, 2022
Have site supervisor complete the Employer Evaluation . Both the student's signature and the site supervisor's signature are required. The form should be submitted electronically.	Friday, August 12, 2022
Forward a copy of the graded final report to Co-op Office/Co-op Advisor	Friday, August 12, 2022

GRADES: the Faculty Mentor (Course Instructor) grades this course on a satisfactory/unsatisfactory basis. The final grade (S/U) will be based on the completion of all required assignments including the following items:

1. Cooperative Education Placement Form (includes where the student works, the pay rate, the supervisor's name and his/her contact info);
2. Completed Learning Objectives Form signed by the student and the Faculty Mentor (Course Instructor);
3. Co-op Experience Final Report (4-5 pages in length);
4. Student's Co-op Evaluation; and
5. Employer Evaluation (regarding student's professional development).

The students will receive a Satisfactory Grade if they keep in contact with their Faculty Mentor (Course Instructor) and complete all the assignments.