# WASHKEWICZ COLLEGE CO-OP EXPERIENCE SYLLABUS ESC 300 and ESC 400 – Spring Semester 2021

Cleveland State University, Washkewicz College of Engineering

Lead Administrator: Dr. Brian Davis, Associate Dean for Academic Affairs, Washkewicz College of Engineering

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#### **Faculty Mentors (Course Instructors):**

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

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

Electrical & Computer Engineering – Dr. Murad Hizlan, email: <a href="mailto:m.hizlan@csuohio.edu">m.hizlan@csuohio.edu</a>

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### **Fenn Co-Operative Program Contact:**

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**CEEL Coordinator for Special Programs:** Angela Benton-Smith, MBA, email: <u>a.bentonsmith@csuohio.edu</u> **Coordinator for Special Academic Programming:** Niclole Tischler, M.A., email: n.tischler51@csuohio.edu

**CATALOG DESCRIPTION:** ESC 300 Cooperative Education Experience (6 cr.) or ESC 400 Cooperative Education Experience (1 cr.). Prerequisites: Acceptance into the Cooperative Education Program with sophomore standing. Work with a designated faculty advisor 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, and it may be repeated for a maximum of four co-op periods.

**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.

#### 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 Co-op Orientation, 2.2 GPA, and acceptance into the Fenn Co-op Program.

## **CLASS EXPECTATIONS:** Students are expected to:

- 1) Notify the CEEL (Center for Engineering Experiential Learning) Office of the Washkewicz College of Engineering that they have accepted a co-op by completing and submitting the Co-op Placement Information 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 CEEL Office. Both the students' and the Faculty Mentor/Course Instructor's 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 CEEL Office.
- 4) Complete a Co-operative Education Student Evaluation form at the end of the co-op (see deadline below) and submit it to CEEL Office.
- 5) Request supervisor to complete the Assessment of Student's Professional Development at least two weeks before the assignment ends, so the student and the employer have a chance to review it together. Employer's signature is required and should be submitted electronically by the deadline listed below.

All forms may be submitted to the Washkewicz College Engineering Dean's Office and electronically, where applicable.

# **SCHEDULE/DEADLINES:**

Co-op Period Sequence of Events	Due Date
Utilize resources (co-op office, handshake, gradleaders, other) 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.	Monday, January 11, 2021
Complete <b>Co-op Placement Information</b> form and send to Fenn College Engineering Co-op Office	Monday, January 11, 2021
Contact Faculty Mentor/Course Instructor for mid-term update on experience	Monday, March 8, 2021
Co-op Coordinator contacts student for his/her feedback	Monday, March 8, 2021
Student submits final report to Co-Op Employer (Supervisor) for review	Friday, April 9, 2021
Student submits <u>final report</u> to Faculty Mentor/Course Instructor who assigns final grade	Friday, April 16, 2021
Complete Student Co-op Evaluation form. Send to Co-op Coordinator	Friday, April 23, 2021
Have co-op supervisor complete the <b>Assessment of Student's Professional Development.</b> Both the student's signature and the co-op supervisor's signature are required. The form should be sent to Co-op Coordinator	Friday, April 30, 2021
Forward a copy of the graded final report to Co-op Coordinator	Friday, April 30, 2021

**GRADES:** This course is graded on a satisfactory/unsatisfactory basis by the Faculty Mentor/Course Instructor.

The final grade (S/U) will be based on the completion of all required assignments including the following items:

- 1. Cooperative Placement Information (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 Assessment of 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.