



## Course Number and Title: AET 290 Co-op Work Experience

**Campus Location:**

Georgetown, Dover, Stanton

**Effective Date:**

2018-52

**Prerequisite:**

AET 125, AET 164

**Co-Requisites:**

None

**Course Credits and Hours:**

3.00 credits

0.00 lecture hours/week

9.00 lab hours/week

**Course Description:**

This course is a paid cooperative educational work experience. Students develop technical skills, investigate career choices, build confidence, network with people in the field, and transition for entry into the workforce.

**Required Text(s):**

Obtain current textbook information by viewing the [campus bookstore - https://www.dtcc.edu/bookstores](https://www.dtcc.edu/bookstores) online or visit a campus bookstore. Check your course schedule for the course number and section.

**Additional Materials:**

Transportation, suitable work apparel

**Schedule Type:**

Classroom Course

**Disclaimer:**

None

**Core Course Performance Objectives (CCPOs):**

1. Evaluate the project development process. (CCC 3, 4, 5; PGC 3, 6)
2. Evaluate the means and methods used to create contract documents. (CCC 2, 3, 4, 5, 6; PGC 1, 2, 3, 4, 5, 6)
3. Describe the project design team's internal management activities. (CCC 3, 4, 5; PGC 6)
4. Examine the participants and processes involved in the construction phase. (CCC 2, 3, 4, 5, 6; PGC 3, 6)
5. Demonstrate professional and ethical conduct as expected in industry. (CCC 1, 2, 3, 4, 5, 6; PGC 6)
6. Evaluate the placement organization and the co-op experience. (CCC 1, 4, 5; PGC 6)

See Core Curriculum Competencies and Program Graduate Competencies at the end of the syllabus. CCPOs are linked to every competency they develop.

**Measurable Performance Objectives (MPOs):**

Upon completion of this course, the student will:

1. Evaluate the project development process.
  1. Inspect building programming documents.
  2. Compare and contrast codes and regulations for site, building, and building sub-systems.
  3. Discuss design review board (DRB) standards and zoning regulations.
  4. Summarize the schematic design, design development (DD) and construction documentation (CD) phases.
  5. Examine estimates of project costs for each of the three design phases.
  6. Examine drawings and documents related to the site, landscaping, architecture, structural, mechanical, electrical, lighting, and specialties.
2. Evaluate the means and methods used to create contract documents.
  1. Compare and contrast typical activities performed by the drafter, designer, and project manager.
  2. Prepare reports on issues unique to the contract document phase.
  3. Summarize the various software packages and related tools used to create contract documents.
  4. Record the various processes used to coordinate the drawing set.
3. Describe the project design team's internal management activities.
  1. Identify the project design team members and their required scope of services, roles, and responsibilities (e.g., architects, engineers, and specialty consultants).
  2. Explain how the firm allocates expertise, time, and expenses to its projects.
  3. Discuss the firm's accounting system, how the firm accounts for indirect expenses and overhead, and how costs are allocated and tracked.
  4. Compare and contrast resource and workload allocation for two or more projects.
  5. Describe value engineering, cost control, inventory control, schedule checking, subcontractor monitoring, and problem resolving.
  6. Interview one or more office personnel to learn their responsibilities.
4. Examine the participants and processes involved in the construction phase.
  1. Determine the construction phase office responsibilities of the project team.
  2. Review a standard agenda for an owner-architect-contractor (OAC) meeting.
  3. Review bid documents, including addenda.
  4. Describe the purpose of meeting reports.
  5. Review change orders and related documents.
  6. Review shop drawings.
  7. Attend one or more job site meetings as a silent observer.
5. Demonstrate professional and ethical conduct as expected in industry.
  1. Identify the need for self-discipline and time management in technical industries.
  2. Communicate and function effectively as a member of a team.
  3. Demonstrate appropriate workplace behavior, such as punctuality, dependability, team work, and problem solving.
  4. Describe the key role of human safety and welfare in the design process.
  5. Evaluate the implications of the American with Disabilities Act (ADA) on building and site design.
  6. Describe the impact of sustainable design standards.
6. Evaluate the placement organization and the co-op experience.
  1. Assess and evaluate personal managerial strengths and weaknesses.
  2. Evaluate career options, and determine what education is needed for various architectural engineering technology careers.
  3. Summarize each day's activities, terminology, problems, and possible solutions.

**Evaluation Criteria/Policies:**

Students must demonstrate proficiency on all CCPOs at a minimal 75 percent level to successfully complete the course. The grade will be determined using the Delaware Tech grading system:

92	-	100	=	A
83	-	91	=	B
75	-	82	=	C
0	-	74	=	F

Students should refer to the [Student Handbook - https://www.dtcc.edu/handbook](https://www.dtcc.edu/handbook) for information on the Academic Standing Policy, the Academic Integrity Policy, Student Rights and Responsibilities, and other policies relevant to their academic progress.

**Final Course Grade:**

Calculated using the following weighted average

Evaluation Measure	Percentage of final grade
Discussion Board Assignments (formative)	20%
Short Essays (summative)	20%
Mentor Presentation (summative)	20%
Weekly Work Reports (summative)	10%
Student Self Evaluation and Reflection (summative)	30%
TOTAL	100%

**Core Curriculum Competencies (CCCs are the competencies every graduate will develop):**

1. Apply clear and effective communication skills.
2. Use critical thinking to solve problems.
3. Collaborate to achieve a common goal.
4. Demonstrate professional and ethical conduct.
5. Use information literacy for effective vocational and/or academic research.
6. Apply quantitative reasoning and/or scientific inquiry to solve practical problems.

**Program Graduate Competencies (PGCs are the competencies every graduate will develop specific to his or her major):**

1. Research and analyze existing site conditions.
2. Apply principles of sustainability to the built environment.
3. Employ the architectural design process.
4. Interpret and apply building codes.
5. Create technical drawings and presentation graphics.
6. Demonstrate a commitment to quality, timeliness, professional development and continuous improvement.

**Disabilities Support Statement:**

The College is committed to providing reasonable accommodations for students with disabilities. Students are encouraged to schedule an appointment with the campus Disabilities Support Counselor to request an accommodation needed due to a disability. A listing of campus Disabilities Support Counselors and contact information can be found at the [disabilities services - https://www.dtcc.edu/disabilitysupport](https://www.dtcc.edu/disabilitysupport) web page or visit the campus Advising Center.