



ENGR 495

Engineering Internship

Instructor	Internship Supervisor: Engineering Program Director, Student's Faculty Advisor or Designee Smith Science Center Telephone: TBD Email: TBD
Class Times	Varies according to work schedule
Credits	3 (engineering topic); Required
Required Text	Engineering Workplace Competencies Gap Analysis Worksheet and Internship Work Hours Log
Pre-/co-requisites	None
Course Description	Course Restrictions: permission of major advisor and approved contract) Students are professionally supervised in an approved external or campus-based organization while working 50 hours during a semester for each credit hour enrolled. Three forms must be appended to this syllabus for a complete internship application. Students are required to read and sign form; <i>Code of Professional and Ethical Conduct for Student Interns</i> . Students must complete and sign the <i>Internship Learning Contract</i> , and obtain signatures from the Employer Supervisor and Faculty Advisor OR Engineering Program Director. Finally, Students must obtain a <i>Memorandum of Understanding</i> signed by their Employer Supervisor and Academic Advisor or Engineering Program Director. During the internship period, students are required to maintain an <i>Engineering Workplace Competencies Gap Analysis Worksheet</i> and <i>Internship Work Hours Log</i> . The Employer Supervisor will also complete the <i>Engineering Workplace Competencies Gap Analysis Worksheet</i> to assess the student's performance. The course may be repeated for up to 10 total credit hours. F, S, Su
Course Objectives	The main objective for this course is for students to acquire and apply new knowledge as needed, using appropriate learning strategies in a workplace environment while developing core competencies for advancement and success in the engineering profession. Students will: <ol style="list-style-type: none">1. Acquire knowledge of a particular engineering job or industry and the profession

	<ol style="list-style-type: none"> 2. Gain practical work and resume-building experience within the industry where the internship is done 3. Apply knowledge and skills learned in the classroom in a work setting 4. Have opportunities to develop business contacts (networking) 5. Conduct himself/herself responsibly, safely and ethically in a professional environment
ABET Student Outcomes	<p>This course directly supports assessment of ABET's student outcome #7.</p> <ol style="list-style-type: none"> (1) An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (2) An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors (3) An ability to communicate effectively with a range of audiences (4) An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts (5) An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives (6) An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (7) <i>An ability to acquire and apply new knowledge as needed, using appropriate learning strategies</i>
Topics	<p>The course covers the following main topics (not necessarily in this order):</p> <ol style="list-style-type: none"> (1) American Association of Engineering Societies and U.S. Department of Labor Competency Model; https://www.careeronestop.org/competencymodel/competency-models/engineering.aspx <ul style="list-style-type: none"> • Tier 1 – Personal effectiveness competencies • Tier 2 – Academic competencies • Tier 3 – Workplace competencies • Tier 4 – Industry-wide technical competencies

Assignments	<p>Weekly mentor meetings: During the internship period, student and Employer Supervisor will arrange and hold a brief weekly meeting, to discuss the nature of the work, the skills the students are working on developing at the job site (as listed on the Engineering Workplace Competencies Gap Analysis Worksheet) and the overall quality of the experience.</p> <p>Written Report: Students will complete the Student Evaluation of Internship form at the conclusion of the internship.</p> <p>Other: Students must submit a completed Internship Work Hours Log.</p>
Grading	<p>Grades will be assigned based on performance on assigned tasks discussed above. Weighting of learning tasks is as follows:</p> <ul style="list-style-type: none"> • Weekly mentor meeting and Engineering Workplace Competencies Gap Analysis Worksheets: 50% • Written Report: 25% • Other: Work Hours Log: 25%
Grading Scale	<ul style="list-style-type: none"> • A 89.5% and above • B+ 84.5% — 89.4% • B 79.5% — 84.4% • C+ 74.5% — 79.4% • C 69.5% — 74.4% • D+ 64.5% — 69.4% • D 59.5% — 64.4% • F 59.4% and below
ADA statement	<p>Coastal Carolina University is committed to equitable access and inclusion of individuals with disabilities in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. Individuals seeking reasonable accommodations should contact Accessibility & Disability Services (843-349-2503 or https://www.coastal.edu/disabilityservices/).</p>