



# ENGR 356

## Supply Chain Engineering

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### Course Syllabus

<b>Instructor</b>	Mr. Reggie Bell Smith Science Center	(843) 349- 2985 <a href="mailto:rbell3@coastal.edu">rbell3@coastal.edu</a>
<b>Class Times</b>	Tuesdays and Thursdays 12:15 pm → 1:30 pm	
<b>Location</b>	By Appointment	
<b>Webpage</b>	<a href="https://moodle.coastal.edu">https://moodle.coastal.edu</a>	
<b>Required Text</b>	Chase, R. Jacobs. <i>Operations and Supply Chain Management</i> , 15e ISBN 9781259666100.	
<b>Course Pre-Requisites</b>	Prereq: ENGR 201, or permission of the instructor	
<b>Course Description</b>	ENGR 356 - Supply Chain Engineering (3 credits). (Prereq: ENGR 201, or permission of the instructor). This course utilizes mathematical modeling and solution tools for logistics and service operations. We study manufacturing and logistic activities across the global supply chain. Emphasis is on supply chain technical design, implementation, and safety functions. Topics include transportation and distribution networks, inventory requirements, demand planning, materials handling and warehousing, supply chain contracts, manufacturing flexibility, product design, and using available SAP or other ERP systems. F.	
<b>Course Objectives</b>	The objectives of this course are to encourage engineering students to: <ul style="list-style-type: none"><li>• Utilize mathematical modeling and solution tools for logistics and service operations. These solutions include analytics, data management, and ERP, as well as other platforms.</li><li>• Analyze strategic, tactical, and operational decisions including facility location, vehicle routing, and inventory management.</li><li>• Analyze case studies based on real world logistics and engineering operations decisions.</li><li>• Complete project-based supply chain exercises and assess their ability to use quantitative methodologies, demonstrate analysis that supports operations and supply chain decisions, use ERP tools, and develop analytical spreadsheet models.</li></ul>	

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**ABET  
Student  
Outcomes**

This course directly supports ABET student outcome number seven.

- (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) An ability to acquire and apply new knowledge as needed, using appropriate learning strategies**

**Course  
Structure**

Access to a personal computer to download a student trial version of SAP. Students are expected to have computer and internet access. Standard software, i.e. MS Office suite, and a pdf reader are required. Students should expect to have additional reading assignments and materials. The additional reading assignments and materials will be distributed via MOODLE.

**Grading**

The final letter grade reported for the course is based on contributions from four categories with the following weights:

	<u>Points</u>
Participation/Quizzes	50
Homework	50
Assignments	50
Exams 1 - 3	300
Final Exam	<u>100</u>
<b>Total</b>	<b>550</b>

Based on the following scale the total points earned dictates the final letter grade assigned for the course:

A	495 - 550
B+	469 - 494
B	440 - 468
C+	418 - 439
C	385 - 417
D+	363 - 384
D	330 - 362
F	<330

**Attendance** Class attendance is vital to your understanding of the material. In accordance with the university's attendance policy, attendance will be taken every class period. If you miss more than eight classes (excused or unexcused), you may automatically receive a failing grade for the course.

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**Office Hours** Office hours are posted on the course page in Moodle. This time is made available for students to address specific questions or concerns regarding the course, or receive general course related guidance. If there's a scheduling conflict with office hours, the student is encouraged to contact the professor by email.

**Academic Integrity** The university's academic integrity policy can be found on the web at <https://www.coastal.edu/academicintegrity/code/>. In this class, students' signatures on every assignment are confirmations of the students' honor pledges and will be treated as such. Some assignments are meant to be collaborative (labs, group activities), some are meant to be largely your own effort with limited outside help allowed (homework assignments), and some are meant to be completely your own effort (exams). For this course, a first cheating or plagiarism violation will result in a 'zero' grade for that assignment. A second violation will result in an automatic failing grade for the course.

To ensure academic integrity, students may be required to submit written assignments into Turnitin and/or other plagiarism checkers.

**Americans with Disabilities Act** 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 at (843) 349-2503 or <https://www.coastal.edu/disabilityservices/>.

The Americans with Disabilities Act indicates, "title II and title III entities must permit service animals to accompany people with disabilities in all areas where members of the public are allowed to go". Service animals are permitted in lab settings at Coastal Carolina University. Emotional support animals are not permitted in lab settings unless it is approved as a classroom accommodation. Students with service animals are strongly encouraged, but not required, to inform lab instructors of the use of a service animal. This communication provides both the student and the instructor with an opportunity to discuss and plan for the safety of the service animal as well as any other safety concerns. Students and instructors should contact Accessibility & Disability Services at (843) 349-2503 or <https://www.coastal.edu/disabilityservices/> regarding any potential accommodations or for support and assistance.

**Revisions** This is our roadmap and organizer for the course; as such, the syllabus and schedule are tentative and subject to change by the instructor with notice to the student as the semester progresses.

**NOTE: MAKE CERTAIN TO CHECK MOODLE AND EMAIL EACH DAY FOR ANNOUNCEMENTS.**