

ECE 3090: Technical Writing and Presentations

Course Description

Technical writing and communications skills.

Transcript Abbreviation: Tech Writ & Pres

Grading Plan: Letter Grade

Course Deliveries: Classroom

Course Levels: Undergrad

Student Ranks: Junior, Senior

Course Offerings: Autumn, Spring

Flex Scheduled Course: Never

Course Frequency: Every Year

Course Length: 14 Week

Credits: 1.0

Repeatable: No

Time Distribution: 1.0 hr Lec

Expected out-of-class hours per week: 2.0

Graded Component: Lecture

Credit by Examination: No

Admission Condition: No

Off Campus: Never

Campus Locations: Columbus

Prerequisites and Co-requisites: Prereq: Credit for a first writing course, and enrollment in ECE major.

Exclusions:

Cross-Listings:

Course Rationale: Existing course.

The course is required for this unit's degrees, majors, and/or minors: Yes

The course is a GEC: No

The course is an elective (for this or other units) or is a service course for other units: No

Subject/CIP Code: 14.1001

Subsidy Level: Baccalaureate Course

Programs

Abbreviation	Description
CpE	Computer Engineering
EE	Electrical Engineering

Course Goals

Master principles of effective technical writing, including citation of sources
Master presenting data effectively
Master giving an effective technical presentation
Be familiar with teamwork and collaborative development of communication

Course Topics

Topic	Lec	Rec	Lab	Cli	IS	Sem	FE	Wor
Editing, polishing and organizing technical reports	2.0							
Technical descriptions	2.0							
Writing instructions	2.0							
Reporting and presenting of data	2.0							
Technical presentation skills	2.0							

Representative Assignments

Write a technical lab report
Write a description of an electrical component
Write instructions for a process or manual
Oral presentation explaining a technical subject

Grades

Aspect	Percent
Participation assignments	9%
Peer reviews of assignments	13%
Technical Description	13%
Instructions	13%
Data graphic/diagram	13%
Test report	13%
Technical presentation (team)	13%
Presentation visual aid (individual contributions)	13%

Representative Textbooks and Other Course Materials

Title	Author
<i>Technical Communication</i>	John Lannon and Laura Gurak

ABET-EAC Criterion 3 Outcomes

Course Contribution		College Outcome
*	a	An ability to apply knowledge of mathematics, science, and engineering.
	b	An ability to design and conduct experiments, as well as to analyze and interpret data.
	c	An ability to design a system, component, or process to meet desired needs.
*	d	An ability to function on multi-disciplinary teams.
	e	An ability to identify, formulate, and solve engineering problems.
	f	An understanding of professional and ethical responsibility.
***	g	An ability to communicate effectively.
	h	The broad education necessary to understand the impact of engineering solutions in a global and societal context.
*	i	A recognition of the need for, and an ability to engage in life-long learning.
	j	A knowledge of contemporary issues.
	k	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

CpE ABET-EAC Criterion 9 Program Criteria Outcomes

Course Contribution		Program Outcome
	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

EE ABET-EAC Criterion 9 Program Criteria Outcomes

Course Contribution		Program Outcome
	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

Additional Notes or Comments

Add exclusion for ECE 582.

Added "or 292 or 294 (Spring 2011) " to prereqs 4/11/12

Corrected textbook 11/8/12

Added transfer student courses to prereqs 10/20/13

Make consistent with university tool 2/13/14

Update goals and representative assignments from course supervisor's and USC's reviews for ABET 7/3/14 - gjv

Update prereqs to allow students to take it earlier. 105/15 BLA

Updated contributions to outcomes a) and d) and grading breakdown. Recommendations from spring 2016 course and curriculum review. 6/2/16 - gjv

updated text info, 5/10/17, CED

Update course goals and assignments 8/2/17 BLA

Change to 14 weeks and update course goals 10/3/17 BLA/TJR

Changed prerequisite from 2nd writing to first writing and added contributions to new ABET student outcomes, per Sp19 course and curriculum review. 5/23/19 GJV

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