

# ECE 3090 (Approved): Technical Writing and Presentations

## Course Description

Technical writing and communications skills.

**Transcript Abbreviation:** Tech Writ & Pres

**Grading Plan:** Letter Grade

**Course Deliveries:** Classroom, 100% at a distance

**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:** Co-requisite: ECE 3905, ENGR 5901.01, or ENGR 5902.02

**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

Be competent with principles of effective technical writing, including citation of sources
Be competent presenting data effectively
Be competent 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
	1	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics - pre-2019 EAC SLOs (a) and (e); (k) is implied
	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 - pre-2019 EAC SLO (c); (k) is implied
***	3	an ability to communicate effectively with a range of audiences - pre-2019 EAC SLO (g)
	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 - pre-2019 EAC SLOs (f) (h) and (j)
*	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 - pre-2019 EAC SLO (d)

Course Contribution		College Outcome
	6	an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions - pre-2019 EAC SLO (b); (k) is implied
	7	an ability to acquire and apply new knowledge as needed, using appropriate learning strategies - pre-2019 EAC SLO (i)

### 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

Change goals from "Master" to "Be competent" 3/16/20 BLA

Added online component 6/4/2020

Updated Criterion 3 Outcomes 6/6/2021 Saeedeh Ziaeeefard

**Prepared by:** Saeedeh Ziaeeefard