Course alpha, number, title

ME 489 Technical Communications for Engineers

Required or elective

Elective

Course (catalog) description

Investigation of technical communication in the engineering workplace. Drafting, revising, and editing communications directed at a variety of audiences. Includes team writing activities, presentations, style, and flow.

Prerequisite(s)

Junior in the College of Engineering

Textbook(s) and/or other required material

None

Class/Lab schedule:

Total Credits: 2 *Lecture/Laboratory/Discussion Hours: 2/0/0*

Topics covered

a. Audience in writing
b. Critical thinking in communication
c. The issue of grammar
d. Real world communication
e. Career communication
f. Flow and Structure
g. Presentation preparation
h. The elements of scientific writing
i. The language of communication
j. Ethics
k. Editing
l. The variety of writing styles

Course learning objectives

Upon successful completion of this course, students can:

1. Prepare papers directed at audiences of interested parties, peer audiences, and higher level of competence readers.
   [L: Application] [M: Audience directed papers]
2. Create a presentation to an audience of peers
   [L: Application] [M: Presentation]
3. Analyze papers written by others in class
   [L: Analysis [M: Identify elements needing change in other's written text]
4. Identify grammatical elements in text.
   [L: Knowledge, Evaluation] [M: Assess parts of speech in text]
5. Identify the elements of technical text
   [L: Synthesis, Evaluation] [M: Text evaluation, questions in exams]
6. Create text that follows specific structures in writing with elements of flow
   [L: Synthesis, Evaluation] [M: Semester project]
7. Demonstrate and defend ethical behavior
   [L: Synthesis, Evaluation] [M: In-class Presentation]

Key: L – Level of Learning, M – Method of Measurement

Relationship of course to ME program outcomes

The following measurement standard is used to evaluate the relationship between the course outcomes and the educational-program outcomes:
2 = Strong Emphasis, 1 = Some Emphasis, 0 = Little or No Emphasis.

(a) an ability to apply knowledge of mathematics, science, and engineering—0
(b) an ability to design and conduct experiments, as well as to analyze and interpret data—0
(c) an ability to design a system, component, or process to meet desired needs within

realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability—0

(d) an ability to function on multidisciplinary teams—1
(e) an ability to identify, formulate, and solve engineering problems—0
(f) an understanding of professional and ethical responsibility—2
(g) an ability to communicate effectively—2
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context —2
(i) a recognition of the need for and the ability to engage in life-long learning—2
(j) a knowledge of contemporary issues—2
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice—0

Contribution to professional component:	% Engineering Science % Engineering Design
Person(s) who prepared this description	Craig Gunn
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