

San José State University
Electrical Engineering Department
EE295, Technical Writing, Sec 2, Fall, 2017

Course and Contact Information

Instructor:	Tom Wrappe, SJSU ID: 012520768
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Office Hours:	Th & Fri, 8:50 am to 9:30am
Class Days/Time:	Th & Fri, 7:30 am to 8:45am
Classroom:	E189
Prerequisites:	Graduate Standing in EE
Course Category	EE295 satisfies Graduation Writing Assessment Requirement (GWAR)

Technology Intensive, Hybrid, and Online Courses (Required if applicable)

This course utilizes a live classroom format complemented by assignments via Canvas Learning Management System. Students can access Canvas at <http://sjsu.instructure.com> utilizing their student ID and password.

Course Description

Students in this course will learn to analyze and write about engineering-related topics from an ethical point of view. Ethics of the person, the process and the product will be explored in this course and applied to a variety of historic and current topics.

Course Goals

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

1. Develop structurally sound organization and flow processes leading to clear, concise technical communications
2. Develop technical writing skills supporting multiple phases of the engineering process-invention, development, and deployment
3. Analyze, assess, critically discuss and effectively communicate the ethics of the engineer, engineering process, and engineered products
4. Describe and interpret the key elements of ethical issues emerging from a consideration of case studies, and report on findings individually and in groups, orally and in writing

Required Texts/Readings (Required)

Textbook

Gene Moriarty, *The Engineering Project: Its Nature, Ethics, and Promise*, (Penn State University Press), 2008. (EP)

Other Readings

Additional materials may be introduced including case studies related to ethics topics as well as timely technology topics intended to illustrate the analysis and writing skills fundamental to this course. The instructor will make these readings available either via Canvas as appropriate for prepared writing assignments or in the classroom for impromptu exercises.

Other technology requirements / equipment / material

Students are expected to provide notebook paper (8.5 by 11 in) and writing instruments for exercises that will be turned in during class.

The course is managed online using the SJSU CANVAS system. This can be found at sjsu.instructure.com
Login with your SJSUone credentials (Student number and password)

Course Requirements and Assignments

The main deliverables of EE295 will consist of writing submissions totaling about 19,000 words during the course. This class-required experience will consist of multiple types of submissions, which will prepare students for writing success as working engineers.

Almost every week:

- 1) An in-class individual writing exercise ($\frac{1}{2}$ page, 125 words x 14 weeks=1750 words) based on a topic introduced in class or identified in advance,
- 2) An in-class group exercise (forming into small groups of 3-5 students, discuss a handout from the literature, and write as a team a $\frac{1}{2}$ page response and have the group's spokesperson, report to the class with each student having the opportunity to report at least once during the semester). These may include revising and writing as a group.
- 3) A take-home writing exercise (1-2 pages, 600 words x 12 weeks=7200 words) based on an assigned topic or reading from the text.

Project papers:

The course will require a midterm and a final project paper, which together will total 10,000 words.

The midterm project paper topics will be assigned and will consist of developing a business case for a technical item such as a commercial product or an invention.

The final project paper topic will be student-selected and must be approved in advance by the instructor. Strong preference is given for topics appropriate to the student's expected engineering specialization.

Extra Credit:

Extra credit may be available on a time-limited basis and must be instructor-approved at least 2 weeks in advance. The extra credit is applied to the homework scores. The extra credit typically takes the form of attending an engineering seminar, and writing a 600 word summary, or performing service such as helping with the EE project presentation day, or other community service activity, and writing 600 words on the experience. The extra credit opportunities will only be available for a short period of time during the semester. You cannot do one later when you recognize the need for extra points. In the spirit of fairness, all extra credit must be available on the same basis to all class members. “Special” or “personal” extra credit opportunity will not be granted.

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus—**SJSU guidelines**.

Final Examination or Evaluation

Students will submit the final project paper a week before the semester ends. Each student will present a short 3 minute summary of why someone should read your paper as the final exam exercise. This final presentation should not contain the final project material, but rather support why someone should read it. This is a focused messaging exercise and will occur during the final exam time with a full class audience.

Grading Information

- **Grading Summary**

Grading will be based on a total points basis weighted as follows:

- Weekly homework and in-class writing submissions (40% of total course)
- Midterm and Final Projects (50% of course total)
- Final Presentation (10% of course total)

- **Weekly homework and in-class writing submissions (40%):**

Weekly submissions will consist of a mix of writing exercises and quizzes, produced both in and out of the classroom. Critical thinking techniques will be required to solve problems and develop ethical arguments. The homework is designed to reinforce lecture concepts and prepare the student for class projects. Homework assignments will be due according to the Canvas online system.

In-class writings and quizzes cannot be made up. You must inform the instructor at least one week in advance if you will miss a class to arrange a substitute writing exercise. Class assessments (quizzes) may be included in the homework scores. Each student needs to solve the homework problems individually.

All weekly submissions will be scored on a scale of 0-10 (10 being the highest). Copied homework will initially receive a score of one (to indicate that it was submitted and graded). Both the source and destination of the copying will ultimately receive the “0” score for the assignment. Online assignments and quizzes must be completed and submitted individually.

- In class writing exercises must be performed in the classroom and turned in at the designated time. Writings may be assigned at the beginning of the class or later in the class, so tardiness may shorten the student time to generate the submission. In class writing may not be made up later. The class does not grade on attendance, but about 1/2 of the class periods will have an in class writing assignment or quiz.
- Out of class homework shall be submitted on the Canvas system.
 - You can scan paper documents at the academic success center or utilize other means (in all cases, student is responsible for legibility)
 - Homework is to be submitted to the instructor at the assigned delivery time (**never at office hours**). No late homework is accepted.
 - You are expected to do your own homework
 - Developing professional discipline through on-time homework submission is expected and required. The Canvas system will not inform you an assignment is due or late. Late homework is not accepted. Homework must be submitted through the electronic system. No homework is accepted on paper, through email, attached to a Canvas message, or by other means.
 - Online homework will be plagiarism checked, and receive a score of 1 (out of 10) if above 15% turnitin limit!

- **Major papers – Projects (50% of total course points):**

The specifications for these technical papers will be found on Canvas. The minimum acceptable length is 10,000 total aggregated words for both. (2800 midterm 14% of grade, and 7200 final 36% of grade). These Projects will not be accepted late and are subject to the 15% turnitin limit on plagiarism.

- **Final Presentation (10% of total course points):**

This is not a presentation of the paper, but a well-developed argument convincing an audience to read the paper, that will be delivered in the final examination timeslot to a full class audience.

Determination of Grades

96% and above	A
90% - 95%	A-
87% - 89%	B+
83% - 86%	B
80% - 82%	B-
77% - 79%	C+
73%-76%	C
below 70%	F

Classroom Protocol

On time, regular attendance of the class is expected along with appropriate cellphone etiquette. Attendance, per se, will not be taken on a regular basis. However, if absence occurs on a day where there is an in-class writing assignment, students not participating will be assigned a grade of “0” (out of 10) for that assignment. In-class assignments may be assigned at the beginning of the class and the time for submission of the work will be strictly enforced, thus tardy students will have less effective time than if they had been on time.

University Policies (Required)

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs’ [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>”

The Electrical Engineering Department will enforce the following Honor Code that must be read and accepted by all students.

“I have read the Honor Code and agree with its provisions. My continued enrollment in this course constitutes full acceptance of this code. I will NOT:

- 1. Take an exam in place of someone else, or have someone take an exam in my place*
- 2. Give information or receive information from another person during an exam*
- 3. Use more reference material during an exam than is allowed by the instructor*
- 4. Obtain a copy of an exam prior to the time it is given*
- 5. Alter an exam after it has been graded and then return it to the instructor for re-grading*
- 6. Leave the exam room without returning the exam to the instructor.”*

Measures Dealing with Occurrences of Cheating

- 1. Department policy mandates that the student or students involved in cheating will receive an “F” on that evaluation instrument (paper, exam, project, homework, etc.) and will be reported to the Department and the University.*

EE295 / Technical Writing, Fall 2017, Course Schedule

Schedule is subject to change with fair notice by email and class announcement, or on Canvas. The class often gets ahead of the lectures, and then reviews/discusses the concepts for a week.

Course Schedule

Week	Date	Topics, Readings, Assignments, Deadlines
1	Thu, Aug 24, 17	Introduction, Class Overview, Processes, Why we are here
1	Fri, Aug 25, 17	First Writing Rules, Ethics and Engineering
2	Thu, Aug 31, 17	Engineering Project , Chapter One, Process
2	Fri, Sep 1, 17	Technical Writing-Product Description, Organization and Flow
3	Thu, Sep 7, 17	Gadget Day, Organization and flow
3	Fri, Sep 8, 17	Groups and Ethics, the process, Midterm paper topic assignments
4	Thu, Sep 14, 17	Picking a final project
4	Fri, Sep 15, 17	Engineering Project, Chapter Two, Process Ethics
5	Thu, Sep 21, 17	Engineering Project, Chapter Four, Person , Final Project Topic due
5	Fri, Sep 22, 17	Writing a Resume – Forming and supporting a message to your audience
6	Thu, Sep 28, 17	Ethics discussion, Resumes due
6	Fri, Sep 29, 17	Research and Citations, Final Project Topic due
7	Thu, Oct 5, 17	Engineering Project, CH Five, Virtue Ethics
7	Fri, Oct 6, 17	Ethics discussion, My current ethics paper due
8	Thu, Oct 12, 17	Outlines and organization, Final Project references due (15 sources)
8	Fri, Oct 13, 17	Midterm Paper due
9	Thu, Oct 19, 17	Ethics discussions, Final Project outline due
9	Fri, Oct 20, 17	Ethics Situations, 5 page final paper draft due, Zero sum ethics, lose – lose situations
10	Thu, Oct 26, 17	The audience
10	Fri, Oct 27, 17	Ethics Situations, Paper audience due
11	Thu, Nov 2, 17	Ethics discussions, Materialism
11	Fri, Nov 3, 17	Ethics discussions, Elements of high quality paper
12	Thu, Nov 9, 17	Ethics discussions, The engineering process and product
12	Fri, Nov 10, 17	Campus Closed – Veteran’s Day
13	Thu, Nov 16, 17	Presentation Preparation, Ethics discussions -Situation Ethics
13	Fri, Nov 17, 17	Ethics discussions, Presentation Draft due, Situation vs Utilitarianism vs Materialism

Week	Date	Topics, Readings, Assignments, Deadlines
14	Thu, Nov 23, 17	No class *** Thanksgiving
14	Fri, Nov 24, 17	No class *** Thanksgiving
15	Thu, Nov 30, 17	Technical writing review,
15	Fri, Dec 1, 17	Ethics Review, Engineer's place in society, Final Paper Due
16	Thu, Dec 7, 17	Final Review or Presentations (driven by final class size)
16	Fri, Dec 8, 17	Presentations
Final Exam	Fri, Dec 15, 17	07:15 am - 09:30 am (Timeslot may be modified depending on class size)