Cleveland State University
Department of Electrical Engineering and Computer Science

EEC 414: Writing in Electrical and Computer Engineering

Catalog Description: EEC 414 Writing in Electrical and Computer Engineering (2-0-2).
Pre-requisites: None.
This course is designed to enhance the ability of students to write effectively on topics within the discipline of electrical and computer engineering. A substantial written report is one of the requirements. Students enrolled in EEC 414 must be concurrently enrolled in any 300- or 400-level content-based EEC course excluding laboratory courses and Senior Design. Prior to registering for EEC 414, students must obtain a written agreement of the instructor of the content-based course certifying that that instructor will serve as a grader of the writing required in EEC 414. The content course instructor, in consultation with the student, will determine the topic of the written report.

Textbook: Technical Communication, Eighth Edition, by Mike Markel

References:

1. The Elements of Style, by Oliver Strunk
2. Guide to Grammar and Style, by Jack Lynch
3. Writing in the Life Sciences, by Laurence Greene
4. Writing and Speaking for Technical Professionals, by Martin Roden and Teressa Murphy
5. A Guide to Writing as an Engineer, by David Beer and David McMurrey

Coordinator: Dr. Dan Simon, Professor
Department of Electrical Engineering and Computer Science.

Course Objectives: This course is designed to teach students to:

1. Avoid plagiarism, and give proper attribution of sources
2. Write effectively on topics with the discipline of electrical and computer engineering
3. Give effective presentations
4. Write professional reports, papers, proposals, emails, and resumes
5. Effectively integrate graphics into technical writing and reports

Expected Outcomes: Upon completion of this course, students should be able to:

1. Recognize different types of plagiarism
2. Write professional-quality technical papers
3. Give professional-quality technical presentations
4. Write effective and professional-quality emails
5. Write persuasive and professional-quality proposals
6. Understand common problems with graphics in technical reports and presentations
7. Effectively integrate graphics into reports and presentations
8. Critique the reports and presentations of others

Fulfills the Following Electrical Engineering Program Objectives and Outcomes:

Objectives:

1. Observe engineering ethics in the practice of electrical and computer engineering
2. Communicate effectively with technically diverse audiences
3. Develop their knowledge beyond the undergraduate level and keep current with advancements in electrical and computer engineering.

Outcomes:

(f) Understanding of professional and ethical responsibility
(g) Ability to communicate effectively
(i) Recognition of the need for, and an ability to engage in life-long learning

Contribution of Course to Meeting the Professional Component:

Math & Basic Science: 0 credits;
Engineering Topics: 2 credits;
General Education: 0 credits

Prerequisites by Topic: None

Topics:

1.	Introduction	2
2.	Ethics in writing	2
3.	The writing process	2
4.	Writing effective sentences	2
5.	How to do research	2
6.	Structuring your paper	2
7.	Graphics and tables	2
8.	Letters, memos, and emails	2
9.	Job applications and resumes	2
10.	Writing proposals	2
11.	Writing instruction manuals	2
12.	Oral presentations	4
13.	Technical typesetting	2
14.	Holidays	2
	Total	30

Computer Usage: Writing assignments

Design Projects: None

Non-Design Projects:

The student will be required to write one draft report and one final report, each of which includes a title page, abstract, and reference section. The report format specifications include:

- 8.5 × 11 page size
- One-inch margins with ragged right margins
- Double-spacing
- 12-point Times New Roman font
- Several numbered equations, at least one table, and at least one figure

Draft report

- Submit to both the instructor of the content course and the instructor of the writing course for grading
- Between eight and ten pages of text, not including references
- At least five references listed in a correct and consistent format
  - ✓ At least one book, at least one journal paper, and at least one conference paper
- If the above requirements are not met, the content course instructor should return the ungraded paper to the student to rewrite.
- If the above requirements are met, the instructor of the content course instructor should provide written feedback on the draft report to the student, focusing on the organization and quality of the report. The student will use the feedback to write an improved final version of the report.

Final report

- Submit to both the instructor of the content course and the instructor of the writing course for grading
- Between 12 and 14 pages of text, not including references
- At least 10 references listed in a correct and consistent format
  - ✓ At least two books, at least two journal papers, and at least two conference papers

Prepared by: Dr. Dan Simon

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