

Master Course Description for EE-393 (ABET sheet)

Title: Advanced Technical Writing in Electrical Engineering

Credits: 4

Course Coordinator: Alexander Mamishev, Electrical and Computer Engineering

UW Course Catalog Description

Practical skills for day-to-day engineering communication as well as an advanced exploration of how to prepare persuasive documents and presentations for technical and non-technical audiences.

Goals: This advanced course in technical communication is designed to help students develop the writing skills that will enable them to produce clear and effective technical documents. The course material focuses on writing and formatting conventions for the electrical engineers and on an organized team approach to developing a complex technical document.

Learning Objectives: At the end of this course, the students will be able to:

1. Create technical documents based on their purpose, audience and context
2. Identify and apply the principles of clear, concise, cohesive, and “noise-free” writing
3. Revise documents for content, organization, and writing style;
4. Learn auto-formatting features for long documents
5. Properly format equations
6. Create effective graphics for technical documents
7. Familiarize with the latest developments in artificial intelligence related to technical writing.

Prerequisites by Topic: None

Topics: In this course, students will learn to:

1. Organize the process of writing a complex document in a team;
2. Use Kanban techniques for project management;
3. Format long documents with auto-formatting features using Microsoft Word;
4. Use the latest AI developments for different stages of writing;
5. Avoid common pitfalls;
6. Revise documents based on feedback;

Course Structure: Two two-hour interactive sessions per week.

Computer Resources: All work can be completed on any personal computer.

Laboratory Resources: None.

ABET Student Outcome Coverage: This course addresses the following outcomes:

H = high relevance, M = medium relevance, L = low relevance to course.

1. An ability to communicate effectively with a range of audiences. **(H)** This course is the culmination of the ECE students’ coursework in written and oral communications, preparing them to complete material required in their capstone project and as professional engineers.

Prepared By: Alexander Mamishev

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