COURSE NUMBER: Ve496	**COURSE TITLE: Advanced Technical Communication**
CREDIT: 2	**PREREQUISITES:** Ve300, must be taken concurrently with a Major Design Experience course or Capstone Design course.
TEXTBOOKS/REQUIRED MATERIAL: *The Craft of Scientific Presentations*, by John Alley; excerpts from *Technical Communication*, by John M. Lannon &Don Knepp; *The MIT Guide to Science and Engineering Communication*, by James G. Paradis & Muriel Zimmerman.	**PREPARED BY:** Mary Frances Cappiello **DATE OF PREPARATION:** Oct. 25, 2012 **DATE OF UC APPROVAL:** Oct. 30, 2013
INSTRUCTOR(S): Mary Frances Cappiello	**SCIENCE/DESIGN:** n/a
CATALOG DESCRIPTION: Engineers must be able to express their ideas clearly. Building communication skills, both written and verbal, is as important for an engineer's career success as is building a base of technical knowledge. Therefore, the course will cover the conventions of several types of documents engineers will have to produce during their working life. Students will then apply their knowledge by writing some of these documents. As verbal communication and presentation skills are essential for engineers as well, students will read about how to craft a successful scientific presentation, and apply this knowledge by making a presentation with partners during the second half of the semester.	**COURSE TOPICS:** 1. Statements of purpose 2. Business/formal letters 3. Resumes 4. Memos 5. Progress reports 6. Journal articles 7. Graphic aids (charts, graphs, tables) 8. Scientific posters 9. Scientific presentations a. Adapting message b. Structuring c. Using visual aids d. Creating effective PowerPoint slides e. Delivery
COURSE STRUCTURE/SCHEDULE: Lecture: One per week; 90 minutes	

COURSE OBJECTIVES [Course Outcomes in brackets]	1. To teach students to write several different types of documents they will need during their professional lives. [1-4, 10] 2. To teach students that these documents require close attention to detail. [1-6, 10] 3. To teach students how to make a successful technical/scientific presentation. [7-9, 11] 4. To teach students how to make a poster for a poster presentation. [10, 11] 5. To give students the opportunity to write these types of documents. [1-4, 10] 6. To give students the opportunity to make a presentation.
COURSE OUTCOMES [Program Outcomes in brackets]	After completing Ve495, students should be able to: 1. Write a properly formatted, persuasive business/formal letter. [g] 2. Write an American-style resume, understanding what is important to include. [g] 3. Write a persuasive statement of purpose. [g] 4. Write a progress report in a memo format. [g] 5. Put data in the form of a graph or table. [a, g] 6. Choose whether data is best presented in graph, table, or diagram form. [a, g] 7. Make an effective technical presentation. [g] 8. Create effective PowerPoint slides. [g] 9. Effectively use visual aids during a presentation. [g] 10. Present the results of an experimental project in a poster format suitable for peers, advisors, and industry representatives. [a, g] 11. Work effectively and professionally together in diverse teams. [g, d]
ASSESSMENT TOOLS [Course Outcomes in brackets]	In-class assignments [1-5, 11] Quizzes [1-10] Statement of purpose or letter [1, 3] Resume [2] Memo [4] Group oral report [7, 8, 9, 11] Scientific poster [10, 11] Graph [5, 6] Final exam [1, 10]