

TO: The Engineering Faculty  
FROM: The Faculty of the School of Civil Engineering  
DATE: February 25, 2003  
SUBJECT: New Undergraduate Course

The Faculty of the School of Civil Engineering has approved the following new undergraduate course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

**CE 399      Oral and Written Communications for Civil Engineers.**

Sem. 1 and 2, Class 3, cr. 3,

Prerequisite: A course in English composition and COM114

Oral and written communication as utilized in professional/business environments. Technical writing and presentation style: purpose, audience, voice, format, and illustration. Practice in preparing written correspondence and reports; practice in preparing and delivering oral presentations.

**Reason:** As emphasized by current ABET criteria and advice from the practitioners, the practice/business of civil engineering requires excellence in communication. This course provides a vehicle for practice in producing written documents (email, letters, memorandums, resumes, executive summaries, reports, etc.) and oral presentations in simulated professional settings. An extant 1 cr. hr version of this course (CE 292) is deficient in that insufficient time is available for coverage of subject matter and conduct of practice writing and speaking exercises. The 3 cr hr course proposed herein will provide for expanded topical coverage and weekly practice exercises. This course is to be a (required) upper level core course in a revised curriculum.

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Fred L. Mannering, Head  
School of Civil Engineering

## Supporting Documentation

1. Justification: This course provides increased credit hours needed for writing and presentation practice.
2. Level: upper level undergraduate course
3. Instructor: S. Karberg, Communication Specialist for the School of Civil Engineering. Mrs. Karberg has been the instructor for the existing CE 292 1 cr. course for 9 years.
4. Text: "Writing That Works, Communicating Effectively on the Job," Walter E. Oliu, Charles T. Brusaw, Gerald J. Alred, Bedford/St. Martin's Press, seventh edition
5. Course Objectives: CE 399 students will be expected to:
  - Develop and understand strategy for planning and researching
  - Develop and understand strategy for drafting, revising and editing documents
  - Develop organizational skills necessary to present information concisely
  - Develop effective oral communication skills
  - Develop clear technical writing style
  - Demonstrate ability to write technical and business documents
  - Demonstrate report writing skills
  - Have knowledge of formats for proposals, reports, memorandums, electronic, and other business correspondence
  - Gather and manage data, graphics and information effectively
  - Present information in a manner appropriate for the audience
  - Understand that accuracy is an ethical consideration of technical communication
6. Course topics include:
  - Understanding the Writing Process (1 week)\*
    - Outlining a document
    - Drafting a document
    - Using the word processor as a tool
    - Revising a document
  - Research and documentation (1 week)\*

Organizing Information (1 week)\*

- Basic patterns of organizing information
- Problems–methods-solution
- Managing graphics
- Managing data

Drafting and Revising Definitions and Descriptions (1 week)\*

- Understanding the role of definitions
- Using graphics in definitions and descriptions
- Using data in definitions and descriptions
- Using examples in definitions
- Using partitions in definitions
- Describing a principle of operation

Designing the Document (1 week)\*

- Understanding the goals of document design
- Using visual contrast to emphasize important information
- Arranging information clearly on the page and in the document
- Striving for moderation
- Managing data, figures, and graphics

Writing Business Documents (7 weeks, includes final project, formal proposal)\*

- Letters
- Memorandums
- Emails
- Instructions
- Minutes of meetings
- Polices and procedures
- Reports
- Instructions and manuals
- Proposals

Preparing Job-Application Materials (1 week)\*

- Researching potential employers
- Online application
- Resumes
- Letters

Preparing and Delivering Oral Presentations (3 weeks)\*\*

- Preparation
- Using the computer as a tool
- Delivery skills

\*Weekly assignments offering individual writing practice based on scenarios taken from civil engineering practice.

\*\* A minimum of three oral presentations per student delivered in simulated practice settings.