

Syllabus<sup>1</sup>

<http://users.rowan.edu/~everett/courses/soclii/home.htm>

New information and updates will appear on the course website!

## Sections

<i>Section</i>	<i>Place</i>	<i>Meeting Times</i>	<i>Instructor</i>
01	Lecture: ROW 239 Lab: ROW AUD	TR: 3:15-4:30 <b>M: 3:15-6:00 (Lab)</b>	Jennifer Courtney
02	Lecture: ROW 102 Lab: ROW AUD	TR: 3:15-4:30 <b>M: 3:15-6:00 (Lab)</b>	David Hutto
03	Lecture: ROW 102 Lab: ROW AUD	WF: 3:15-4:30 <b>M: 3:15-6:00 (Lab)</b>	David Hutto
04	Lecture: ROW104 Lab: ROW AUD	WF: 3:15-4:30 <b>R: 8:00-10:45 (Lab)</b>	Roberta Harvey
05	Lecture: ROW104 Lab: ROW AUD	TR: 12:15-1:30 <b>R: 8:00-10:45 (Lab)</b>	Roberta Harvey

## Sophomore Clinic Team

<i>Name</i>	<i>Office</i>	<i>Contact Information</i>
Kevin Dahm <i>Chemical Engineering</i>	Rowan 330	256-5318 <a href="mailto:dahm@rowan.edu">dahm@rowan.edu</a>
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Linda Head* <i>Electrical and Computer Engineering</i>	Rowan 334	256-5335 <a href="mailto:head@rowan.edu">head@rowan.edu</a>
Hong Zhang <i>Mechanical Engineering</i>	Rowan 133	256-5347 <a href="mailto:zhang@rowan.edu">zhang@rowan.edu</a>
David Hutto <i>Composition &amp; Rhetoric</i>	Hawthorn 201	256-4231 <a href="mailto:hutto@rowan.edu">hutto@rowan.edu</a>
Roberta Harvey <i>Composition &amp; Rhetoric</i>	Hawthorn 202	256-4349 <a href="mailto:harvey@rowan.edu">harvey@rowan.edu</a>
Jennifer Courtney <i>Composition &amp; Rhetoric</i>	Hawthorn 212	<a href="mailto:courtneyj@rowan.edu">courtneyj@rowan.edu</a>

\*Course coordinator

<sup>1</sup> Occasionally during the course of an engineering design project, such as the one you will be doing in this course, it is necessary to make changes to the specifications. If the faculty deem it necessary to make changes to the design specifications or the course specifications, you will be given adequate notice.

## Catalog Description

This course provides expanded treatment of the practice of engineering through applications drawn from engineering disciplines and industry. Project work includes a variety of technical communication topics, analytical and computer-based tools, including the design process, engineering ethics, safety, and teamwork. The composition component presents critical thinking, reading, writing, research and argumentation. Evaluation of information, exercises in critical thinking and research design build upon student skills acquired in College Composition I.

Prerequisites: College Composition I, Freshman Engineering Clinic I; Chemistry I and Calculus I; Co-requisite enrollment in-- or credit for--Calculus II and Physics I required.

## Course Goals

The two main goals of the Sophomore Engineering Clinic I are to provide the foundation necessary for students to become:

- creative engineering designers, and
- effective engineering communicators.

Accordingly, during the semester each student will complete a semester-long design project (see below). As in all engineering design projects, written technical communication is integrated throughout.

## Technical Objectives

After successful completion of this course, all Rowan Engineering students will be able to:

- *Formulate* and *present* a written argument based on a reasonable, well-researched point of view.
- *Summarize* and *paraphrase* text.
- *Analyze*, *evaluate*, and *synthesize* multiple sources.
- *Research* thoroughly a complex, college-level subject
- *Analyze* a communication situation and *respond* effectively within its parameters.
- *Communicate* technical information clearly and concisely.
- *Interpret* technical information for various audiences.
- *Produce* properly formatted and edited documents.
- *Integrate* graphics and text.
- *Recognize* the need, *identify* the customer, *assess* the market and *define* the constraints for a design problem.
- *Develop* engineering specifications for a “quality” design.
- *Generate* multiple engineering design solutions using various brainstorming techniques.
- *Choose* the best solution, and see it through to completion.
- *Evaluate* and *benchmark* your design

## Required Texts & Supplies

1. Engineering Lab Notebook (e.g. Boorum #09-9088)
2. Engineering paper
3. Three ring binder

***Please see your individual lecture section syllabus for information on additional specific requirements.***

## Computer Usage

The engineering computer skills to be applied in the course include: (i) word processing; (ii) spreadsheets; (iii) computer-aided design; (iv) symbolic programming; (v) the use of application software; and (vi) data acquisition/analysis/display.

All students are assumed to have a working knowledge of the following software:

Microsoft Word  
Microsoft PowerPoint  
Microsoft Excel  
MATLAB  
SolidWorks

For additional software, instruction will be provided.

## Attendance Policy

The success of this course results, in large part, from the establishment of learning communities in which all members participate. Contribution to such learning communities requires attendance and involvement in class meetings. Furthermore, the particular classroom experiences in writing and laboratory courses cannot be duplicated. Therefore, Sophomore Clinic has established the following attendance policy:

- Whether absences are excused or unexcused, students absent from more than 6 lecture (writing section) or 2 laboratory periods cannot pass the course. Such students will receive an F for the semester or may withdraw, if appropriate.
- Students who are approaching these limits because of serious personal problems or for other reasons should contact the Student Affairs office. The Student Affairs staff can advise these students as to their rights and obligations and inform them of help that is available.

This policy is established in accordance with university policy (see p. 32 of the 2002-2004 *Rowan Undergraduate Catalog*) and with the policy of the Department of Composition and Rhetoric. **Please note that there is no distinction between excused and unexcused absences; all absences count the same.** Further, please note that this policy is **not** meant to suggest that you have six free absences. See below under Participation and Professionalism.

## Deliverables including Percent Contribution to Grade

This course is only offered for grade credit. The grade is determined by evaluating the following:

- (10%) Paper on Engineering Failure – *Individual*
- (10%) Preliminary Design Proposal - *Individual*
- (10%) Cover letter and resume - *Individual*
- (10%) Progress Report – *Individual*
- (10%) Literature Review - *Individual*
- (20%) Design final Report – *Team*
- (20%) Product Performance – *Team*
- (10%) Class Participation and Professionalism – *Individual*

**All of the deliverables must be completed to pass the course.** Details on each assignment are available through the website for each section. For credit, work is due at the beginning of the class period and must be presented in a professional manner.

### Some Notes on Class Participation and Professionalism

#### *Professionalism*

Your professionalism grade will be determined in part by arriving to class *on time*, participating in class or team activities, and behaving in a professional manner. If you anticipate coming late to or missing class or a team meeting, please inform your instructors and/or team members in advance. It is also your responsibility to find out from your instructor or team members what you missed. Frequent absences will result in a lowered grade.

### *Teamwork and Peer Evaluation*

One of the goals of the sophomore engineering clinic is to strengthen your teamwork skills. Because you will be working in teams on many of your assignments this semester, you will be required to evaluate yourself and each of your team members. These evaluations will be considered as part of your Participation and Professionalism grade.

### *Safety*

Safety is of critical importance; it will be discussed numerous times throughout this course and in your later engineering courses. You will receive rules and guidelines that must be followed. Failure to follow safe laboratory practices can lead to accidents that can endanger you and other students. Your grade will be reduced if you fail to follow proper safety procedures.

### *Late Work*

Your instructor will provide you with late submission guidelines.

### Product Performance Assessment

Next week you will receive a handout that fully describes the design project and how your team will be evaluated.