University of Wisconsin - Madison
College of Engineering [EGR]
Last Offered: 2015-2016 Spring [1164]
Direct Link to this Syllabus:
http://aefis.wisc.edu/index.cfm/page/CourseAdmin.ViewABET?coursecatalogid=121&pdf=True

1. E C E 252, Introduction to Computer Engineering
2. Credits : 2  Contact Hours : 2.5
3. Textbook and Materials : Introduction to Computing Systems; Yale N Patt, Sanjay J Patel.; SECOND; No Year Given
   Introduction to Computing Systems: from bits and gates to C and beyond; Patt and Patel; 2nd; 2003

a. Other Supplemental Materials : None

• Specific Course Information :

a. Brief description of the content of the course (Course Catalog Description) :
   Logic components built with transistors, rudimentary Boolean algebra, basic combinational logic design, basic synchronous sequential logic design, basic computer organization and design, introductory machine- and assembly-language programming.
b. Pre-requisites or Co-requisites : Open to Freshmen
c. This is a Required course.

• Specific Goals for the Course :

a. Course Outcomes :

1. Students will acquire a basic understanding of several aspects of computer engineering practice, including basic hardware design and low-level assembly-language programming.
2. Students will develop awareness of some of the ethical, social, political, and economic influences on and impacts of engineering.
3. Students will acquire introductory skills in teamwork with peers.
• **ABET Student Learning Outcomes** :

(a) Ability to apply mathematics, science and engineering principles.
(b) Ability to design and conduct experiments, analyze and interpret data.
(c) Ability to design a system, component, or process to meet desired needs.
(d) Ability to function on multidisciplinary teams.
(e) Ability to identify, formulate and solve engineering problems.
(f) Understanding of professional and ethical responsibility.
(g) Ability to communicate effectively.
(h) The broad education necessary to understand the impact of engineering solutions in a global and societal context.
(j) Knowledge of contemporary issues.
(k) Ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

• **Brief List of Topics to be Covered** :

Logic components built with transistors, rudimentary Boolean algebra, basic combinational logic design, basic synchronous sequential logic design, basic computer organization and design, introductory machine-and assembly-language programming.