University of Wisconsin - Madison
College of Engineering [EGR]
Last Offered: 2013-2014 Fall [1142]
Direct Link to this Syllabus:
http://aefis.wisc.edu/index.cfm/page/CourseAdmin.ViewABET?coursecatalogid=222&pdf=True

1. E C E 463, Computers in Medicine
2. Credits: 3    Contact Hours: 4.7

   a. Other Supplemental Materials: None

   • Specific Course Information:

   a. Brief description of the content of the course (Course Catalog Description): Study of microprocessor-based medical instrumentation. Emphasis on real-time analysis of electrocardiograms. Labs and programming project involve design of biomedical digital signal processing algorithms.

   b. Pre-requisites or Co-requisites: ECE 330, Comp Sci 302

   c. This is a Selected Elective course.

   • Specific Goals for the Course:

   a. Course Outcomes:

   1. Select and properly use the optimal instrument for measuring medical variables;
   2. Select and properly use the optimal instrument for measurement in biological research;
   3. Search for, select, organize, and present information on a new topic.

   • ABET Student Learning Outcomes:

   (a) Ability to apply mathematics, science and engineering principles.
   (e) Ability to identify, formulate and solve engineering problems.
(k) Ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

- **Brief List of Topics to be Covered**: Students write a paper of 1500 to 2000 words plus 2 to 4 figures on a topic of their choice and approved by the instructor.