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=700&pdf=True

1. I SY E 555, Human Performance and Accident Causation
2. Credits : 3  Contact Hours : 2.5
3. Textbook and Materials : None

a. Other Supplemental Materials : None

• Specific Course Information :

a. Brief description of the content of the course (Course Catalog Description) : A systems view of accident causation, with emphasis on the human performance limitations important in industrial and other accidents. Models of causation, data collection systems, economic evaluation, and safety programs. Small group projects.

b. Pre-requisites or Co-requisites : IE 349 or Psych 225 or equivalent & an intro stats crse or consent of instructor for Grad students

c. This is a Elective course.

• Specific Goals for the Course :

a. Course Outcomes :

b. 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**: Definition of accidents, Theories of accident causation, Human factors aspects of accident causation, Nature of various accidents such as consumer, home, occupational, traffic, air, train, disasters, Accident investigative methodologies, Fitting theory to real life practice, Prevention of accidents.