

ISE 210
Human Factors and Ergonomics
Dr. Abbas Moallem

General Information

Professor: Dr. Abbas Moallem
Office Hours: by appointment
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CREDIT: 3 units.
TIME / PLACE: Engineering Building 486, 6:00PM - 8:50PM

Objectives

This course will introduce the student to the field of Human Factors Engineering and the science of Ergonomics (HF/E). The student will become familiar with the scope of HF/E and its applications. In particular, the student will learn to evaluate workplace and living situations from the perspective of HF/E, and determine factors which could lead to reduced employee risk, improved worker performance, improved reliability, reduced cost and/or improved quality. Also, the course will seek to improve the written and oral communication skills of each student.

Process: One (140 minutes) Lecture per week, Class Discussion, Group Project and Text Reading

Requirements

Each class will focus on a different topic within HF/E. To prepare for class, each student will be expected to complete the assigned reading assignment.

All students must:

- Attend lecture/discussion session.
- Read all assigned material and submit all assignments by the specified due date.
- Participate in class discussion.
- Participate in team project.

Lecture / Discussion

- All students must attend the 2:50 hours of Lecture/Discussion. Reading and projects are assigned based on schedule.
- Students are required discussion selected topics in class and are expected to be prepared for class.

Teams

Students must form teams to conduct project.

Teams will normally have up to 3 members. Some may have 4 members.

Each team will receive a grade for each project based on a written report and presentation.

Quizzes

All students must take all 13 quizzes, 1 homework and complete 4 projects.

Projects

Four workplace evaluation projects will be assigned and will be submitted in written format. The second project will be assigned and it should also be presented orally to the class during the scheduled class period. To complete the projects, the student will conduct a comprehensive HF/E evaluation of a real workplace, on or off campus.

Reading Material-Textbook

Selected chapters from

Principles and Applications in Engineering Series- Occupational Ergonomics: Principles of Work Design and Engineering and Administrative Control

Edited by W. Karwowski and W.S. Marras

ISBN 0-8493-1802-5 (alk paper)

Selected Reading and Supplemental Materials:

Grading

Class attendance is expected, and grading will reflect attendance and contribution to the overall goals of the course. Students who must miss a scheduled class session are requested to notify Dr. Moallem in advance. Late work will not be accepted, unless lateness is due to illness or catastrophic event. The following weights will apply for determining the student's course grade: The quizzes are administered only at the beginning of each session.

Grading	Point
Class and team participation	60
13 Quizzes @ 10 points each and 1 Homework	140
4 projects @ 100 points each	400
1 Midterm @ 140 points	140
Final Exam	260
Total 1000 points	1000
850 points >= A-, A, A+ >= 1000 points	
700 points >= B-, B, B+ >= 849 points	
600 points >= C-, C, C+ >= 699 points	
500 points >= D-, D,	