

## ADVANCED ERGONOMICS

SFT 661

FALL 2007

**TEXT:** Applied Ergonomics Manual, Latest Edition, Humantech, Inc.  
Humantech.com

**COMPUTER REQUIREMENTS:** Computer literacy and the ability to use the Internet to obtain information for the research required in preparation of course projects and papers.

**INSTRUCTOR:** Professor James D. McIntosh, CIH, CSP  
332 Graduate College, S. Charleston

**Office Hours:** M –W 1:00 – 2:00 & 3:30- 4:00 pm Huntington  
Th 1:00 – 4:00 pm S Charleston  
Other Times: by appointment

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**CREDITS:** Three

**PREREQUISITE:** SFT 660

**COURSE DESCRIPTION:** The course will cover a wide variety of ergonomic issues and problems that both the industrial hygienists and safety professionals will in counter in their practices. The course will also present solutions to various ergonomic problems.

**LEARNING OUTCOME:** The course is designed to provide the Industrial Hygienist/Safety professional with an understanding of the concepts and principals of the field of ergonomics. The student will learn how ergonomics can enhance diverse businesses. Further, the student will have the capacity to address vital human resource issues such as an aging workforce and employees with disabilities.

**EVALUATION AND MEASUREMENTS OF STUDENT PROGRESS:** The student will be responsible for both lecture and textbook material. The lecture material will not necessarily follow the reading assignments, listed in the course outline. A project / term paper on an Ergonomic topic will be required. A 15 minute oral presentation summarizing the project/ term paper is required. The term paper should be at least 10 pages in length and have at least 12 references. The paper is also expected to be consistent with good scholarship and should reflect graduate level research on the part of the student. The format of the paper should be that found in leading Industrial Hygiene and Ergonomic journals.

**GRADING POLICY:** Mid term Exam 33%  
Final Exam 33%  
Project/paper/ presentation 33%

Both the mid-term and final examination will be a combination of multiple choices, short answer fill in the blanks, true/false questions and problems. If you miss an exam, you will only be able to make it up by having a University excused absence or Doctor's excuse. Be prompt in notifying me if you have an excused absence.

Attendance and Class Participation is part of the course, your responsibility and **is expected.**

**POLICY STATEMENT:**

**Plagiarism/Academic Honesty/Academic Integrity**  
University policies shall be followed.

**COURSE OUTLINE**

1. Overview of the Ergonomics Process
2. The Business Aspects of Ergonomics
3. Establishing a Common Dialogue in Ergonomics
4. Controlling Cumulative Trauma Disorders
5. Ergonomics in Design
6. Controlling Lower Back Disorders
7. Hierarchy of Controls
8. Ergonomic Risk Prioritization
9. Ergonomic Process Management
10. Medical Management
11. OSHA & Other Standards
12. Ergonomics & Productivity