

# NorthWest Arkansas Community College

Ergonomics OSHA 2403

## Standard Course Outline

### Catalog Description:

This course is designed and developed to address key components of an ergonomic Program identified by OSHA (Occupational Safety and Health Administration). Elements of the program include information regarding the risk factors, signs, and Symptoms of work-related musculoskeletal disorders (MSD's). A multi-disciplinary course dealing with the interactions between man and his working environment. Topics include: ergonomic work-site analysis, OSHA Ergonomic audits, ergonomic hazard prevention and control.

### Prerequisite:

There are no prerequisites for this course.

### Credit hours/ Contact hours/ Load hours:

3/3/3

### Required Methods of Instruction:

Students will have the opportunity to learn through lecture, videos, overhead, discussion groups, slide projector presentations, and lab practice with equipment to reinforce learning that occurred in the classroom. Field studies to conduct ergonomic evaluations of various workstations will be conducted throughout the course.

### Target Audience & Transfer:

Designed for students majoring in environmental and regulatory science, this course provides an introduction to ergonomics in the workplace. This course does not transfer to the University of Arkansas but will transfer to the Missouri Southern through articulation agreement.

### Essential Course Outcomes:

The student will gain knowledge and skills in basic ergonomic practices associated with the evaluation of work environments.

The student will gain an understanding of the development of an ergonomics programs as required by federal (OSHA) regulation to date.

The student will be able to identify workplace hazards as related to ergonomics and how to perform appropriate job hazard assessments.

The student will gain an understanding of ergonomic hazard prevention and control as it relates to back injuries and material handling, tool selection, and video display terminals (VDT).

Higher Order thinking Skills

Apply their understanding of the principles of ergonomics to comprehend, evaluate and solve problems of a safety and health risk nature.

Information Literacy:

Identify and use information sources to further their knowledge of ergonomics.

Communication skills: Each student will develop and present a 15 minute training exercise. Students should have opportunities in college to improve their oral communication skills through class presentations.

Required Text(s):

Ergonomic Problems in the Workplace—A Guide to Effective Management  
James E. Roughton 1996.

Topics:

XX

Required Forms of Assessment:

Students will be given periodic exams covering selected topics of the course so that when the course has been completed, students will have been tested on all topics listed above. Each test will contain a critical thinking element to measure the students understanding of analytical matters and their competency in rational thinking.

Resources

| <u>Item</u>                        | <u>Description</u> |
|------------------------------------|--------------------|
| Industrial Ergonomics              | Video              |
| Ergonomics Today                   | Video              |
| Office Ergonomics                  | Video              |
| Employee Involvement in Ergonomics | Video              |

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|--|----------|
| Video Display Terminals  | Video    |
| Back Injuries in Industry  | Video    |
| Repetitive Motion Injuries   | Video    |
| Identifying Ergonomic Risk Factors (Interactive)                                   | Video    |
| Computers with internet access   | Computer |
| Computer software for NIOSH lifting  | Software |
| Computer software for workstation design   | Software |
| Computer software for VDT terminals  | Software |
| Variety of examples of PPE for ergonomics<br>Wrist rests, foot rest, stress balls. |          |
| Managers Guide to Workplace Ergonomics ---BLR Training Series Workbook             |          |
| Computer Workstation Design materials from ALIMED                                  |          |