

Course Revision: SAFE 347 Ergonomics

Part II. Description of the Curriculum Change

1. A new Syllabus of Record appears in Appendix A.
2. A summary of the proposed revisions:

The following are the revisions this course:

- Course content has been revised to include the following topics: cumulative trauma disorders, hand tool selection and design, and assessment techniques to determine cost

APPENDIX A: NEW SYLLABUS OF RECORD

I. Catalog Description

SAFB 247E

Explores the principles which control human performance and its effect upon the safety and reliability of systems. Engineering anthropometrics, human perception, biomechanics of motion and work posture.

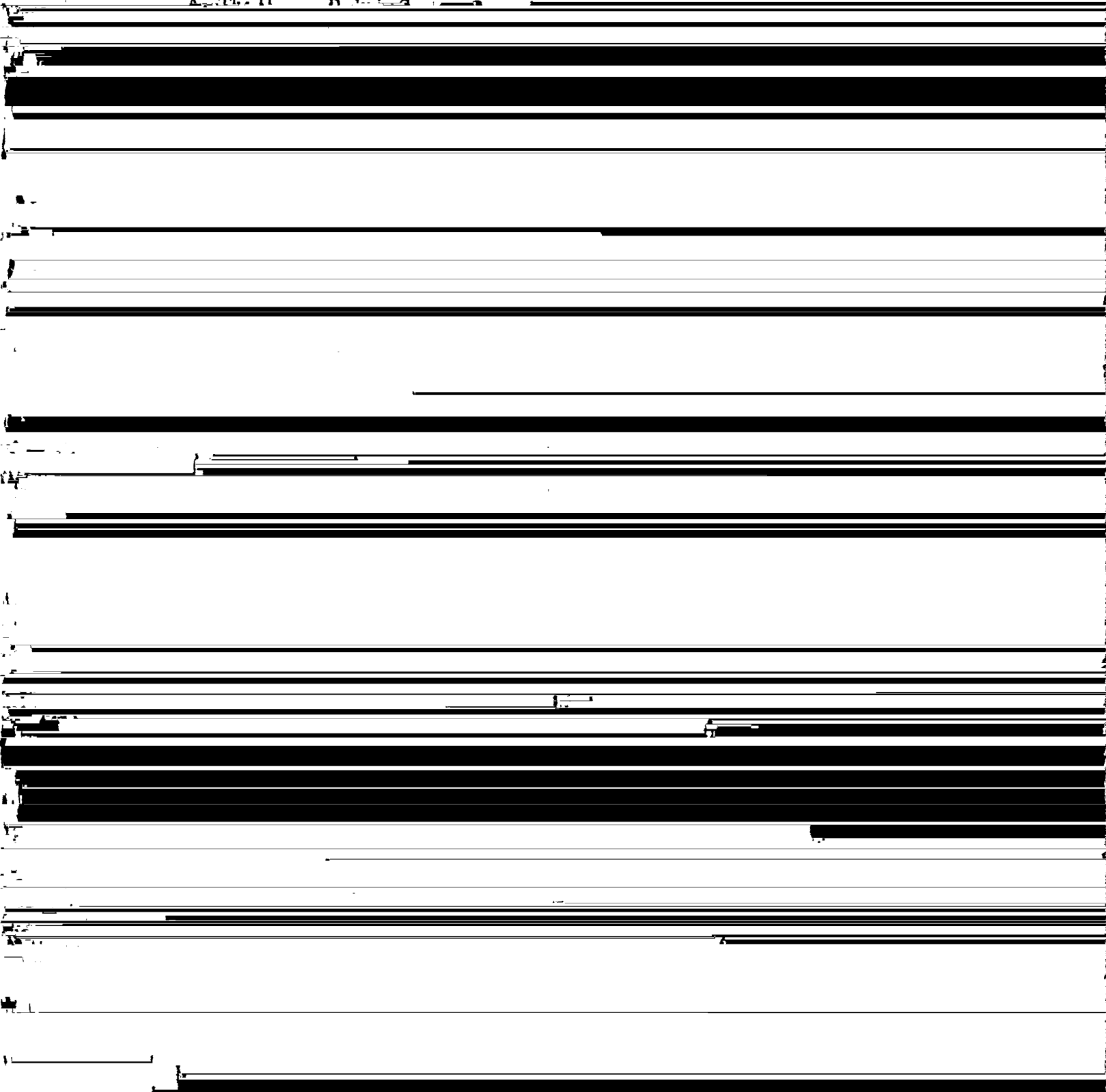
J. Evaluate ergonomic modifications in terms of their cost effectiveness in reducing occupational injuries and illnesses.

K. Assess workplace and job task characteristics according to the Americans with Disabilities Act (ADA).

III. Course Outline

APPENDIX

APPENDIX



Examination # 2

(1 hour)

H. Environmental and Other Influences on Human Performance
Environmental Stressors

(3 hours)

3. Illumination Levels

4. Other Stressors

I. Assessing Cost Effectiveness of Ergonomic Improvements

(2 hours)

1. Quantifying Ergonomic Losses

2. Establishing Financial Benefits

J. Ergonomics of Disability

(2 hours)

1. Requirements of the Americans with Disabilities Act

2. Accommodation of Disability in the Workplace

K. Culminating Activity (Examination # 3)

(2 hours)

VII. Required Textbook

Mark S. Sanders, Ernest J. McCormick. (1993). Human Factors in Engineering and Design, 7th edition. New York: McGraw-Hill Higher Education

VIII. Special Resource Requirements

None

IX. Bibliography

Chapanis, Alphonse. (1996). Human Factors in Systems Engineering (Wiley Series in Systems Engineering). New York: John Wiley & Sons.

Gavriel Salvendy (Editor). (1997). Handbook of Human Factors and Ergonomics. New York: Wiley-Interscience.

Konz, Stephan A. and Steven Johnson. (1999). Work Design: Industrial Ergonomics. Holcomb Hathaway Publisher.

Pheasant, Stephen. (1996) BodySpace: Anthropometry, Ergonomics and Design.

Burgess, John H. (1986). Designing for Humans: The II

Corlett, Nigel. (1995). The Ergonomics of Work Spaces and Machines. London: Taylor & Francis.

Davies, D.R. (1982). The Psychology of Vigilance. New York: Academic Press.

Eastman Kodak Company. (1983). Ergonomic Design for People at Work.

APPENDIX B: OLD SYLLABUS OF RECORD

I Catalog Description

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SA 347 Ergonomics
Prerequisites: SA 301, BI 155

3 credits
2 lecture hours
3 lab hours
2c-31-3cr

An exploration of the principles which govern the design of work environments and the selection of personnel for these environments.

J. Compare and contrast the influence of various environmental stressors on human health and performance

H. Environmental and Other Influences on Human Performance (4 hours)

1. Environmental Stressors

i. Chemical

ii. Physical

2. Irregular Work Schedules

IV. Evaluation Methods

The faculty person assigned to teach this course could be one of several faculty members within the Department of Safety Sciences. Following is an example of the evaluation methods and weighting used by one of those faculty members.

45% Exam 15% Thesis 10% Lab 10% Project 10% Paper

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New York: Van Nostrand Reinhold, 1983.

Fitts, Paul M. and M.I. Posner. Human Performance. Belmont, CA: Crooks/Cole Publishing Co., 1969.

Hockey, Robert. Stress and Fatigue in Human Performance. New York: Wiley Interscience, 1982.

Evans, E.C. Environment and Human Efficiency. Series C-11. H. G. ...

APPENDIX C: CATALOG DESCRIPTION

SAFE 347 Ergonomics

(2c-31-3cr)

Prerequisites: BIOL 155 and SAFE 301

Explores the principles which control human performance and its effect upon the safety and reliability of systems. Engineering anthropometrics, human perception, biomechanics, C. 1