

INDUSTRIAL HYGIENE I

SFT 454/554

TEXT: Fundamentals of Industrial Hygiene. Plog, Barbara, Editor, 5th ed., 2001, National Safety Council, Itasca, IL. ACGIH , TLVs and BEIs, American Conference of Governmental Industrial Hygienists, Cincinnati, OH

INSTRUCTOR: Dr. John A. Singley, 212C Communications Building. Office hours are posted in the department. See the Division Administrative Secretary for an appointment. Phone X3067, E-mail Singley@marshall.edu

COMPUTER REQUIREMENTS: Computer literacy and the ability to move about the Internet are required.

CREDITS: Three

PREQUISITES: Chemistry 212 and Mathematics 140 or equivalents.

LEARNING OUTCOME: This course is designed to equate the student with the elementary aspects of industrial hygiene. The text will serve as a guide to safety and health professionals after graduation who need concise information in dealing with the day-to-day work industrial hygiene problems.

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 term paper about a topic that is germane to the industrial hygiene field is required. The term papers are expected to be consistent with good scholarship and should reflect good research on the part of the student. The length of the paper should be no less than 10 pages, with no less than 12 references. For those student enrolled in SFT 554, a 15 minute oral presentation is required. The time for these oral presentations will be determined by the instructor. The term papers are due on the 11th week of class.

GRADING POLICY: The term paper and oral presentation (where required) is worth 20% of the final grade. The quizzes are worth 75% of the final grade. Classroom attendance and classroom participation are worth 5% of the final grade.

POLICY STATEMENT: There will be three hour quizzes, no mid-term and no final examinations. The use of tobacco in any form is prohibited in the classroom. Hats may not be worn in the classroom, unless they are required for medical or religious purposes. Issues of academic dishonesty, absenteeism and grading will be as specified in the Marshall University catalog. Quizzes can be made up subject to the approval of the instructor on a case by case basis.

ATTENDANCE POLICY; Attendance at each session is expected and attendance will be taken. There will be no classes during any official Marshall University break or holiday.

COURSE OUTLINE:

- Wk 1 The history of Occupational Health and Toxicology. Pp 3-32, 123-149.
- Wk 2 Preventing Occupational Diseases: Anticipation, scientific concepts, Laws, codes, regulations and standards. Pp 807-889, Appendix B.
- Wk 3 Preventing Occupational Diseases: Surveillance, Dermatitis, Occupational medicine and diseases. Pp 727-803, 51-81.
- Wk 4 Hour Quiz 1
- Wk 5 Preventing Occupational Diseases: Control, Respiratory protection. Pp 585-606, 35-50, 667-725.
- Wk 6 Sound, Noise and Hearing. Pp 83-98, 207-255.
- Wk 7 Ionizing and Non-ionizing radiation. Pp 257-325.
- Wk 8 Hour Quiz 2
- Wk 9 Thermal Environments. Pp 327-355.
- Wk 10 Ventilation. Pp 607-665.
- Wk 11 Indoor Air Quality. Continue reading for week 10.
- Wk 12 Ergonomics and Human Factors. Pp 357-418.
- Wk 13 Biological Hazards. Pp 419-477.
- Wk 14 Hour Quiz 3.

BIBLIOGRAPHY:

Modern Industrial Hygiene, Vol, 1, Jimmy L. Perkins, 1997, Van Nostrand Reinhold, NY

Air Monitoring Instrumentation, Carol E Malansky and David Malansky, 1993, Van Nostrand Reinhold, NY.

NIOSH Pocket Guide to Chemical Hazards, 1997, National Institute of Occupational Safety and Health, Cincinnati OH.

AIHA, 2001, Emergency Response Planning Guide and Workplace Environmental Exposure Level Guides Handbook, 2001, American Industrial Hygiene Association, Fairfax VA.