SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE: Industrial Health and Safety

CODE NO.: ENV 102 SEMESTER: 1

PROGRAM: Mechanical Programs

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DATE: January 2009 **PREVIOUS OUTLINE** Sept.

DATED: 2008

APPROVED:

"Corey Meunier"

CHAIR DATE

TOTAL CREDITS: 2

PREREQUISITE(S): None

HOURS/WEEK: 2

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I. COURSE DESCRIPTION:

This is an introductory course for all those interested in pursuing a future in an industrial field from the standpoint of industrial health and safety practices. The course examines provincial legislation and other related regulations that define the workers rights and responsibilities. Recognition, evaluation, control methods, safe work practices, WHMIS, confined spaces, lockouts, and fire safety are also examined.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Goal: Introduce Health and Safety to participants who are interested in pursuing a future in an Industrial Field.

Objectives: Examine safety practices, regulations and standards, and define workers rights and responsibilities by recognizing, evaluating and controlling workplace hazards. Participants will review safe work practices, WHMIS, confined spaces, lockout, and fire safety.

Elements: Participants will be able to:

- Relate the impact of legislation on Occupational Health and Safety
- Understand and demonstrate the ability to recognize, assess and control hazards
- Understand the principles of personal protection in the control of hazards
- Improve health and wellness in the work environment

Upon completion of this course, the students will demonstrate the ability to:

1. Integrate health and safety procedures into the work environment.

<u>Potential Elements of the performance</u>:

- Differentiate between the terms health and safety
- Differentiate between accidents and injury
- List the functions of the industrial hygienist
- List the elements of a successful health and safety program
- List and explain the causes of accidents and injuries
- Identify the major items on a safety policy
- Review accident reporting and the preparation of an accident report
- Review the safety audit process
- Differentiate between sampling and monitoring

2. Relate legislation from The Occupational Health and Safety Act and Regulations.

Potential Elements of the performance

- Explain the basic rights of workers under the OHSA
- · Identify who is covered and who is not
- State when and how joint committee is required
- List the roles of JHSC members, employers, certified members and workers
- Explain the process for the steps to follow under the right to refuse work and the right to stop work
- Discuss WHMIS and explain how information is relayed to workers.
- Name the six categories of controlled substances
- List and explain the responsibilities of the supplier, employer and worker under WHMIS

3. Understand and demonstrate the ability to deal with hazards.

Potential Elements of the performance

- Explain the steps to deal with hazards
- List the factors to determine the degree of hazard
- Differentiate between the terms hazardous and toxic
- Differentiate between the terms acute and chronic
- Define the terms relates to health hazards
- Identify physical hazards
- Understand noise production, measurement and control
- Understand how to protect from exposure to noise
- Discuss heat stress and cold stress and how to be protected

4. Introduce methods of control which will reduce exposure to hazards.

Potential Elements of the performance

- Identify work practices and controls that can reduce exposure levels
- Identify different protective devices to minimize exposure to hazards
- Define general ventilation and exhaust systems to maintain safe work environments
- Differentiate between qualitative and quantitative respirator systems
- Review lock out and isolation systems

III. <u>Topics</u>

- 1. Introduction to engineering safety
- 2. Legislation/Internal Responsibility System
- 3. Chemical and physical hazards
- 4. Assessing and controlling hazards
- 5. Safe work practices, emergency evacuation
- 6. Electrical/mechanical Hazards
- 7. Slips, trips, falls
- 8. Personal Protective Equipment
- 9. WHMIS
- 10. Confined space
- 11. Basic fire safety and emergency evacuation

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Carswell 2008 Pocket guide to OHS, Ontario, Access to Internet, E Laws\current consolidated law\Occupational Health and Safety Act, Regulations for Industrial Establishments

V. EVALUATION PROCESS/GRADING SYSTEM:

Activities and assignments 20% Attendance, Attitude and tests 50% Final exam 30%

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	Grade Point Equivalent
A+ A	90 – 100% 80 – 89%	4.00
B C D F (Fail)	60 – 69% 70 - 79% 60 - 69% 50 – 59% 49% and below	3.00 2.00 1.00 0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	

X A temporary grade limited to situations

with extenuating circumstances giving a student additional time to complete the

requirements for a course.

NR Grade not reported to Registrar's office.
W Student has withdrawn from the course

without academic penalty.

VI. SPECIAL NOTES:

Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of "academic dishonesty" in *Student Code of Conduct*. Students who engage in academic dishonesty will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.