SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE:	Industrial Health and Safety		
CODE NO.:	ENV102	**SEMESTER:**	ONE
PROGRAMS:	Pre-Trades & Technology Mechanical Engineering Technician – Manufacturing Mechanical Techniques – Millwright Mechanical Techniques – Machine Shop		
PROFESSOR:	Cam Pucci		
DATE:	September 2015	**PREVIOUS OUTLINE DATED:**	September 2014
APPROVED:	*"Corey Meunier"* **CHAIR**		**DATE**
TOTAL CREDITS:	TWO		
PREREQUISITE(S):	None		
HOURS/WEEK:	TWO		

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.

Potential Elements of the performance:

- 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 categories of controlled substances and review the Regulation 833 Biological And Chemical Agents.
- 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. **Topics**

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:

- Pocket Ontario Health and Safety Act and Regulations by Carswell
- 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%*
Personal performance, Attendance, Attitude	*10%*
Tests	*50%*
Final exam	*20%*

The following semester grades will be assigned to students:

Grade	Definition	*Grade Point Equivalent*
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	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.

If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services in an effort to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

VI. SPECIAL NOTES:

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

VI. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located in D2L and on the portal form part of this course outline.