



## COURSE OUTLINE: ENV102 - INDUS HEALTH/SAFETY

Prepared: Randy Clouthier

Approved: Corey Meunier, Chair, Technology and Skilled Trades

|  |  |
|--|--|
| <b>Course Code: Title</b>  | ENV102: INDUSTRIAL HEALTH AND SAFETY   |
| <b>Program Number: Name</b>  | 4039: MECH. ENG. TN-MANUFA<br>4040: MACHINE SHOP<br>5082: MECH.TECH.IND.MAINT.   |
| <b>Department:</b>   | MECHANICAL TECHNIQUES PS   |
| <b>Semesters/Terms:</b>  | 18F, 19W   |
| <b>Course Description:</b>   | This is an introductory course for all those interested in industrial practices from the standpoint of industrial hygiene and industrial health and safety. Students will become familiar with pertinent legislation, industry and workers rights and responsibilities, recognition, evaluation and control methods and safe working practices. WHMIS, confined spaces, lockouts, and fire safety are also examined. |
| <b>Total Credits:</b>  | 3  |
| <b>Hours/Week:</b>   | 2  |
| <b>Total Hours:</b>  | 30   |
| <b>Prerequisites:</b>  | There are no pre-requisites for this course.   |
| <b>Corequisites:</b>   | There are no co-requisites for this course.  |
| <b>Vocational Learning Outcomes (VLO's) addressed in this course:</b>                                | <b>4039 - MECH. ENG. TN-MANUFA</b>   |
| <b>Please refer to program web page for a complete listing of program outcomes where applicable.</b> | VLO 3 Comply with current health and safety legislation, as well as organizational practices and procedures.   |
| <b>Essential Employability Skills (EES) addressed in this course:</b>                                | EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.<br>EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.<br>EES 10 Manage the use of time and other resources to complete projects.   |
| <b>General Education Themes:</b>   | Civic Life<br>Social and Cultural Understanding<br>Personal Understanding  |
| <b>Course Evaluation:</b>  | Passing Grade: 50%, D  |
| <b>Other Course Evaluation &amp; Assessment Requirements:</b>  | Grade<br>Definition Grade Point Equivalent<br>A+ 90 - 100% 4.00<br>A 80 - 89%  |



SAULT COLLEGE | 443 NORTHERN AVENUE | SAULT STE. MARIE, ON P6B 4J3, CANADA | 705-759-2554

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.

**Books and Required Resources:**

Pocket Ontario Health and Safety Act and Regulations by Carswell  
 Publisher: Thomsom Reuters  
 ISBN: 978-0-7798-6072-2

**Course Outcomes and Learning Objectives:**

| <b>Course Outcome 1</b>  | <b>Learning Objectives for Course Outcome 1</b>   |
|--|---|
| 1. Upon completion of this course, the students will demonstrate the ability to Integrate health and safety procedures into the work environment.              | 1.1 Differentiate between the terms health and safety<br>1.2 Differentiate between accidents and injury<br>1.3 List the functions of the industrial hygienist<br>1.4 List the elements of a successful health and safety program<br>1.5 List and explain the causes of accidents and injuries<br>1.6 Identify the major items on a safety policy<br>1.7 Review accident reporting and the preparation of an accident report<br>1,8 Review the safety audit process<br>1.9 Differentiate between sampling and monitoring   |
| <b>Course Outcome 2</b>  | <b>Learning Objectives for Course Outcome 2</b>   |
| 2. Upon completion of this course, the students will demonstrate the ability to Relate legislation from The Occupational Health and Safety Act and Regulations | 2.1 Explain the basic rights of workers under the OHSA<br>2.2 Identify who is covered and who is not<br>2.3 State when and how joint committee is required<br>2.4 List the roles of JHSC members, employers, certified members and workers<br>2.5 Explain the process for the steps to follow under the right to refuse work and the right to stop work<br>2.6 Discuss WHMIS and explain how information is relayed to workers.<br>2.7 Name the categories of controlled substances and review the Regulation 833 Biological And Chemical Agents.<br>2.8 List and explain the responsibilities of the supplier, employer and worker under WHMIS |
| <b>Course Outcome 3</b>  | <b>Learning Objectives for Course Outcome 3</b>   |
| 3. Upon completion of this course, the students will Understand and demonstrate the ability to deal with hazards.  | 3.1 Explain the steps to deal with hazards<br>3.2 List the factors to determine the degree of hazard<br>3.3 Differentiate between the terms hazardous and toxic<br>3.4 Differentiate between the terms acute and chronic<br>3.5 Define the terms relates to health hazards<br>3.6 Identify physical hazards<br>3.7 Understand noise production, measurement and control<br>3.8 Understand how to protect from exposure to noise<br>3.9 Discuss heat stress and cold stress and how to be  |

|   |  |
|---|--|
|   | protected  |
| <b>Course Outcome 4</b>   | <b>Learning Objectives for Course Outcome 4</b>  |
| 4. Upon completion of this course, the students will be able to Introduce methods of control which will reduce exposure to hazards. | 4.1 Identify work practices and controls that can reduce exposure levels<br>4.2 Identify different protective devices to minimize exposure to hazards<br>4.3 Define general ventilation and exhaust systems to maintain safe work environments<br>4.4 Differentiate between qualitative and quantitative respirator systems<br>4.5 Review lock out and isolation systems |

**Evaluation Process and Grading System:**

| Evaluation Type                      | Evaluation Weight | Course Outcome Assessed |
|--------------------------------------|-------------------|-------------------------|
| Activities and Assignments           | 20%               |                         |
| Final Exam                           | 30%               |                         |
| Performance, attendance and Attitude | 10%               |                         |
| Tests                                | 40%               |                         |

**Date:**

January 2, 2019

Please refer to the course outline addendum on the Learning Management System for further information.

