



# COURSE OUTLINE

## ENV102

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<b>Course Code: Title</b>	ENV102: INDUSTRIAL HEALTH AND SAFETY
<b>Program Number: Name</b>	4039: MECH. ENG. TN-MANUFA
<b>Department:</b>	MECHANICAL TECHNIQUES PS
<b>Semester/Term:</b>	18W
<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>Vocational Learning Outcomes (VLO's):</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>	#3. Comply with current health and safety legislation, as well as organizational practices and procedures.
<b>Essential Employability Skills (EES):</b>	#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. #9. Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals. #10. Manage the use of time and other resources to complete projects.
<b>Course Evaluation:</b>	Passing Grade: 50%, D
<b>Other Course Evaluation &amp; Assessment Requirements:</b>	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W Student has withdrawn from the course without academic penalty.

**Evaluation Process and Grading System:**

Evaluation Type	Evaluation Weight
Activities and Assignments	20%
Final Exam	20%
Performance, attendance and Attitude	10%
Tests	50%

**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:**

### Course Outcome 1.

Upon completion of this course, the students will demonstrate the ability to Integrate health and safety procedures into the work environment.

### Learning Objectives 1.

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

### Course Outcome 2.

Upon completion of this course, the students will demonstrate the ability to Relate legislation from The Occupational Health and Safety Act and Regulations

### Learning Objectives 2.

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

### **Course Outcome 3.**

Upon completion of this course, the students will Understand and demonstrate the ability to deal with hazards.

### **Learning Objectives 3.**

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

### **Course Outcome 4.**

Upon completion of this course, the students will be able to Introduce methods of control which will reduce exposure to hazards.

### **Learning Objectives 4.**

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

**Date:**

Tuesday, January 2, 2018

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