



## COURSE OUTLINE: MCH259 - MACH. SHOP PRACT III

Prepared: Howard Gray

Approved: Corey Meunier, Chair, Technology and Skilled Trades

<b>Course Code: Title</b>	MCH259: MACHINE SHOP PRACTICAL III
<b>Program Number: Name</b>	4039: MECH. ENG. TN-MANUFA
<b>Department:</b>	MECHANICAL TECHNIQUES PS
<b>Semesters/Terms:</b>	18F
<b>Course Description:</b>	This course will continue to build on the study of shop machines, with emphasis on the use of milling machines.
<b>Total Credits:</b>	3
<b>Hours/Week:</b>	3
<b>Total Hours:</b>	45
<b>Prerequisites:</b>	MCH121, MCH144, MCH145
<b>Corequisites:</b>	There are no co-requisites for this course.
<b>Substitutes:</b>	MCH223
<b>Essential Employability Skills (EES) addressed in this course:</b>	<p>EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>EES 4 Apply a systematic approach to solve problems.</p> <p>EES 5 Use a variety of thinking skills to anticipate and solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.</p> <p>EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others.</p> <p>EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.</p> <p>EES 10 Manage the use of time and other resources to complete projects.</p> <p>EES 11 Take responsibility for ones own actions, decisions, and consequences.</p>
<b>Course Evaluation:</b>	Passing Grade: 50%, D
<b>Other Course Evaluation &amp; Assessment Requirements:</b>	<p>Grade Definition Grade Point Equivalent</p> <p>A+ 90 - 100% 4.00</p> <p>A 80 - 89%</p> <p>B 70 - 79% 3.00</p> <p>C 60 - 69% 2.00</p> <p>D 50 - 59% 1.00</p> <p>F (Fail) 49% and below 0.00</p> <p>CR (Credit) Credit for diploma requirements has been awarded.</p> <p>S Satisfactory achievement in field /clinical placement or non-graded subject area.</p>



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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 W Student has withdrawn from the course without academic penalty.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:**

Machining Fundamentals by Walker Dixon  
 Publisher: Goodheart-Willcox Edition: 9th  
 ISBN: 978-1-61960-209-0

**Course Outcomes and Learning Objectives:**

Course Outcome 1	Learning Objectives for Course Outcome 1
1. Upon successful completion of this course, the student will demonstrate the ability to follow and apply all shop safety rules	1.1 Identify and correct any shop safety hazards 1.2 Practice equipment lock-out procedures 1.3 Identify and apply WHMIS labels where needed 1.4 Identify and correct other safety issues that arise
Course Outcome 2	Learning Objectives for Course Outcome 2
2. Upon successful completion of this course, the student will demonstrate the ability to set up and operate all machines used in the shop:	2.1 Safely operate all milling machines 2.2 Safely operate all lathes 2.3 Safely operate horizontal grinder 2.4 Safely operate all drilling machines 2.5 Safely assemble the complete project
Course Outcome 3	Learning Objectives for Course Outcome 3
3. Upon successful completion of this course, the student will demonstrate the ability to Design, develop, draw and make group projects using machine tools, equipment following safe shop practices:	3.1 Form student work groups that simulate the work environment in an actual shop 3.2 Develop a project that can be built in the shop 3.3 Produce detailed drawings for each component 3.4 Produce complete assembly drawing 3.5 Build the project using resources available
Course Outcome 4	Learning Objectives for Course Outcome 4
4. Upon successful completion of this course, the student will demonstrate the ability to Plan, Cost and Estimate Time Management.	4.1 Comprise bill of Material for the project. 4.2 Estimate total cost of the project. 4.3 Plan which Machines will be required for each component 4.4 Estimate machining time for each component

**Evaluation Process and Grading System:**

Evaluation Type	Evaluation Weight	Course Outcome Assessed
Assembled Project	30%	
Project components	70%	

**Date:**

August 28, 2018

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



 information.

