

# COURSE SYLLABUS

Course Title:	Introduction to Machine Technology		Date submitted:	4/30/2018 (18-28)
Department:	Advanced Manufacturing Technology			
Curriculum:	Technology Studies			
Course Descriptors: Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.	Course Code: (eg. ACC 101)	MFG*150	Prerequisites:	
	Course Type:	X	None	
	A: Clinical B: Lab D: Distance Learning I: Individual/Independent L: Lecture N: Internship M: Seminar P: Practicum U: Studio X: Combined Lecture/Lab Y: Combined Lecture/ Clinical/Lab Z: Combined Lecture/Studio			
	Elective Type:	G		
	AH: Art History E: English FA: Fine Arts FL: Foreign Language G: General HI: History HU: Humanities LAS: Liberal Arts & Sciences M: Math S: Science SS: Social Science			
	Credit Hours:	4		
	Developmental: (yes/no)	No		
	Lecture:	3		
	Clinical:	0		
	Lab:	1		
Studio:	0			
Other:	0			
TOTAL:	4	Corequisites:		
Class Maximum:		30	None	
Semesters Offered:		Fall, Spring		
Other Requirements:		None		
Catalog Course Description:	Introduction to Machine Technology introduces the student to the fundamentals of Metal Machining Technology. The student is introduced to the basic metal machining equipment including Lathe, Miller, Drill Press, Saw, and Grinding Wheels. Students will perform basic lathe operations, which will consist of facing, center-drilling, chuck turning, turning between centers, boring, grooving, tapers, knurling, and single point threading. Students will identify the major parts of the vertical & horizontal mill, align a vise, use an indicator, edge finder, and boring head, determine speeds and feeds, perform simple indexing, mill flat, square surfaces and slots, drill, bore, and tap holes.			

## Introduction to Machine Technology COURSE SYLLABUS — page 2

<p>Topical Outline: List course content in outline format.</p>	<p>[The outline should be in title case and use the numbering format below. You may not have subtopics, but if you do, here is the format.]</p> <ol style="list-style-type: none"> <li>1. Machine Shop Safety</li> <li>2. Introduction to Metal Machining Equipment</li> <li>3. Introduction to Lathe</li> <li>4. Introduction to Milling Centers</li> </ol>
<p>Outcomes: Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p>	<p>Upon successful completion of this course, the student will be able to do the following:</p> <p>COURSE: Abilities should start with a measurable verb that students do. You do not need any punctuation at the end. Examples of some verbs you could use follow and more can be found at <a href="http://online.bcit.ca/guidelines/step2/Outclass.htm">http://online.bcit.ca/guidelines/step2/Outclass.htm</a> (Note: The examples below are cognitive abilities. See the website for others.)</p> <ol style="list-style-type: none"> <li>1. Demonstrate an understanding of Personal Protective Equipment [PPE].</li> <li>2. Demonstrate an understanding of lockout/tagout safety systems.</li> <li>3. Demonstrate an understanding of Machine Guarding Mechanisms.</li> <li>4. Demonstrate an understanding of Confined Space Entry.</li> <li>5. Demonstrate a basic understanding of Drill Press, Saw, and Grinding equipment.</li> <li>6. Demonstrate a basic understanding of the Lathe.</li> <li>7. Demonstrate a basic understanding of Milling Centers.</li> </ol> <p>PROGRAM: <i>Electronics Technology Certificate and A.S. Degree</i></p> <p>[Any Program Abilities should be cut and pasted here as they appear in the current catalog, including numbers. Please note that MSWord may have numbered these automatically, so when you cut and paste, make sure the numbers are correct – you will need to make them “hard” numbers rather than auto numbers.]</p> <ol style="list-style-type: none"> <li>1. Demonstrate an understanding of Shop Safety.</li> <li>2. Demonstrate an understanding the theory of electrical structure, voltage, current, resistance, and electrical circuit and their measurement.</li> <li>3. Demonstrate an understanding of the basic laws of arithmetic.</li> <li>4. Demonstrate an understanding of several number systems and codes that are the foundation of digital theory and digital applications.</li> <li>5. Make comparisons with personal computers; as well as, develop an understanding of its origin and growth since conception.</li> <li>6. Demonstrate an understanding of the fundamentals of Automated Manufacturing systems.</li> </ol> <p>GENERAL EDUCATION: <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> <p>[Select the General Education Abilities from the listing below.]</p> <p>No General Education outcomes.</p>

## Introduction to Machine Technology COURSE SYLLABUS — page 3

<p>Evaluation: List how the above outcomes will be assessed.</p>	<p>Assessment will be based on the following criteria:</p> <ol style="list-style-type: none"> <li>1. Quizzes</li> <li>2. Exams</li> <li>3. Laboratory Projects</li> </ol>
<p>Instructional Resources: List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.</p>	<p>Required: Full manufacturing machine lab including basic metal machining equipment (lathe, miller, drill press, saw, and grinding wheels), vertical and horizontal mills, and all necessary accessories.</p> <p>Desired: None</p>
<p>Textbook(s)</p>	<p>None</p>