COURSE OUTLINE: MAC102 - ENGINEERING DRAWINGS

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Course Code: Title	MAC102: ENGINEERING DRAWINGS/CAD DATA/LAYOUT PRO
Program Number: Name	6345: GENERAL MACHINIST
Department:	MECHANICAL TECHNIQUES PS
Semesters/Terms:	22W, 22F, 23W
Course Description:	Upon successful completion the apprentice is able to interpret engineered documentation and demonstrate sketching techniques.
Total Credits:	5
Hours/Week:	3
Total Hours:	42
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Essential Employability Skills (EES) addressed in this course:	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. EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication. EES 3 Execute mathematical operations accurately. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others. EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals. EES 10 Manage the use of time and other resources to complete projects. EES 11 Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 70%, B A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Other Course Evaluation & Assessment Requirements:	Other Course Evaluation Requirements: Smart watches, smart phones and similar devices are not allowed during tests or quizzes and must be removed. Grade

In response to public health requirements pertaining to the COVID19 pandemic, course delivery and assessment traditionally delivered in-class, may occur remotely either in whole or in part in the 2021-2022 academic year.

	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.
Books and Required Resources:	Technology of Machine Tools by Steve F. Krar, Arthur R. Gill, Peter Smid, Robert J. Gerritsen Publisher: McGraw Hill Edition: 8th ISBN: 9781260565782 Interpreting Engineering Drawings by Jensen, Helsel, Espin Publisher: Nelson Canada Edition: 7 ISBN: 978-0176531515

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
1.1 Identify types and formats of engineering drawings/CAD data. (1 hr)	
Course Outcome 2	**Learning Objectives for Course Outcome 2**
1.2 Describe graphic language and symbols of engineering drawings/CAD data. (4 hrs)	
Course Outcome 3	**Learning Objectives for Course Outcome 3**
1.3 Describe dimensional terminology and practices. (4 hrs)	
Course Outcome 4	**Learning Objectives for Course Outcome 4**
1.4 Describe the principle views of orthographic projection to identify component features. (6 hrs)	
Course Outcome 5	**Learning Objectives for Course Outcome 5**
1.5 Demonstrate sketch to scale procedures for an isometric/pictorial view from a fully dimensioned orthographic drawing. (6	

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	hrs)
	Course Outcome 6 | **Learning Objectives for Course Outcome 6**
	1.6 Demonstrate sketch to scale for sectional views. (7 hrs)
	Course Outcome 7 | **Learning Objectives for Course Outcome 7**
	1.7 Develop an operational plan for machining methods and operational sequences. (7 hrs)
	Course Outcome 8 | **Learning Objectives for Course Outcome 8**
	1.8 Describe layout procedures, techniques, and equipment. (7 hrs)

Evaluation Process and Grading System:	**Evaluation Type** | **Evaluation Weight** Quizzes and tests | 100%
Date:	January 6, 2022
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.