



## COURSE OUTLINE: RIG101 - RIGGING AND HOISTING

Prepared: Neal Moss

Approved: Corey Meunier, Chair, Technology and Skilled Trades

<b>Course Code: Title</b>	RIG101: RIGGING AND HOISTING
<b>Program Number: Name</b>	4039: MECH. ENG. TN-MANUFA 5082: MECH.TECH.IND.MAINT.
<b>Department:</b>	MECHANICAL TECHNIQUES PS
<b>Semesters/Terms:</b>	19W, 19S
<b>Course Description:</b>	This course is designed to provide the student with the knowledge and understanding of correct lifting and hoisting procedures and the safe use of all equipment.
<b>Total Credits:</b>	2
<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>Substitutes:</b>	CCT101, OEL1074
<b>Essential Employability Skills (EES) addressed in this course:</b>	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.
<b>Course Evaluation:</b>	Passing Grade: 50%, D
<b>Other Course Evaluation &amp; Assessment Requirements:</b>	Due to the Safety concerns of this course, students who do not attend a minimum of 80% (12 classes) of the scheduled classes will be given an F grade for this course.  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.



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	W Student has withdrawn from the course without academic penalty.	
<b>Books and Required Resources:</b>	BC Millwright Manual (chapter 7) Publisher: Queen`s Printer Government Publication Services ISBN: 0-7718-9473-2	
<b>Course Outcomes and Learning Objectives:</b>	<b>Course Outcome 1</b>	<b>Learning Objectives for Course Outcome 1</b>
	1. List, describe, and comply with all safety rules and procedures pertaining to lifting, hoisting and moving machinery as outlined in the OH&S ACT.	Potential Elements of the Performance: 1.1 List five safety rules 1.2 Describe the steps taken to complete one lifting procedure 1.3 Demonstrate a good comprehension of lifting techniques
	<b>Course Outcome 2</b>	<b>Learning Objectives for Course Outcome 2</b>
	2. Select, Inspect and Maintain hoist and rigging equipment.	Potential Elements of the Performance: 2.1 Describe the construction of wire rope 2.2 Name three types of slings 2.3 List the key points for inspecting chains 2.4 Describe the difference between a Spreader bar and an Equalizer beam 2.5 Describe how to inspect and measure a hook 2.6 Explain the main reason to inspect eye bolts, shackles and turn buckles 2.7 Explain why you would select a block and winch. 2.8 Describe the difference between a chain fall and a come-along
	<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>
	3. Describe the principles and operation of hoists both overhead and mobile.	Potential Elements of the Performance: 3.1 Describe the major differences between overhead and mobile cranes 3.2 Explain the advantages and disadvantages of both styles of hoists
	<b>Course Outcome 4</b>	<b>Learning Objectives for Course Outcome 4</b>
	4. Demonstrate signals to ensure that correct and safe hoisting operations are performed.	Potential Elements of the Performance: 4.1 Identify each hand signal 4.2 Demonstrate each signal 4.3 Explain the procedure for signaling via radio
	<b>Course Outcome 5</b>	<b>Learning Objectives for Course Outcome 5</b>
	5. Demonstrate the ability to tie common knots used in rigging.	Potential Elements of the Performance: 5.1 Square or reef knot 5.2 Clove hitch 5.3 Timber hitch 5.4 Bowline 5.5 Bowline on a bite 5.6 Double bowline
<b>Course Outcome 6</b>	<b>Learning Objectives for Course Outcome 6</b>	
6. Demonstrate methods of rigging, hoisting and moving machinery and equipment	Potential Elements of the Performance: 6.1 Explain the choice of rigging 6.2 Describe the hoist selection	



	safely into position.	6.3 Safely move a load	
Evaluation Process and Grading System:	Evaluation Type	Evaluation Weight	Course Outcome Assessed
	Attendance	15%	
	final exam	10%	
	labs	30%	
	Tests	45%	
Date:	August 28, 2018		
	Please refer to the course outline addendum on the Learning Management System for further information.		

