



COURSE OUTLINE: RIG101 - RIGGING AND HOISTING

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Approved: Corey Meunier, Chair, Technology and Skilled Trades

Course Code: Title	RIG101: RIGGING AND HOISTING
Program Number: Name	4039: MECH. ENG. TN-MANUFA 5082: MECH.TECH.IND.MAINT.
Department:	MECHANICAL TECHNIQUES PS
Semesters/Terms:	19W, 19S
Course Description:	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.
Total Credits:	2
Hours/Week:	2
Total Hours:	30
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Substitutes:	CCT101, OEL1074
Essential Employability Skills (EES) addressed in this course:	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.
Course Evaluation:	Passing Grade: 50%, D
Other Course Evaluation & Assessment Requirements:	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W Student has withdrawn from the course without academic penalty.

Books and Required Resources:

BC Millwright Manual (chapter 7)
 Publisher: Queen's Printer Government Publication Services
 ISBN: 0-7718-9473-2

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
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
Course Outcome 2	Learning Objectives for Course Outcome 2
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
Course Outcome 3	Learning Objectives for Course Outcome 3
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
Course Outcome 4	Learning Objectives for Course Outcome 4
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
Course Outcome 5	Learning Objectives for Course Outcome 5
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
Course Outcome 6	Learning Objectives for Course Outcome 6
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.

