



COURSE OUTLINE

RIG101

Prepared: Neal Moss Approved:

Course Code: Title	RIG101: RIGGING AND HOISTING
Program Number: Name	4039: MECH. ENG. TN-MANUFA
Department:	MECHANICAL TECHNIQUES PS
Semester/Term:	17S
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
Substitutes:	CCT101, OEL1074
Essential Employability Skills (EES):	#3. Execute mathematical operations accurately. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #6. Locate, select, organize, and document information using appropriate technology and information systems. #7. Analyze, evaluate, and apply relevant information from a variety of sources.
General Education Themes:	Science and Technology
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.
 W Student has withdrawn from the course without academic penalty.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Attendance	15%
final exam	10%
labs	30%
Tests	45%

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.

List, describe, and comply with all safety rules and procedures pertaining to lifting, hoisting and moving machinery as outlined in the OH&S ACT.

Learning Objectives 1.

Potential Elements of the Performance:

- List five safety rules
- Describe the steps taken to complete one lifting procedure
- Demonstrate a good comprehension of lifting techniques

Course Outcome 2.

Select, Inspect and Maintain hoist and rigging equipment.

Learning Objectives 2.

Potential Elements of the Performance:

- Describe the construction of wire rope
- Name three types of slings
- List the key points for inspecting chains
- Describe the difference between a Spreader bar and an Equalizer beam
- Describe how to inspect and measure a hook
- Explain the main reason to inspect eye bolts, shackles and turn buckles
- Explain why you would select a block and winch.
- Describe the difference between a chain fall and a come-along

Course Outcome 3.

Describe the principles and operation of hoists both overhead and mobile.

Learning Objectives 3.

Potential Elements of the Performance:

- Describe the major differences between overhead and mobile cranes
- Explain the advantages and disadvantages of both styles of hoists

Course Outcome 4.

Demonstrate signals to ensure that correct and safe hoisting operations are performed.

Learning Objectives 4.

Potential Elements of the Performance:

- Identify each hand signal
- Demonstrate each signal
- Explain the procedure for signaling via radio

Course Outcome 5.

Demonstrate the ability to tie common knots used in rigging.

Learning Objectives 5.

Potential Elements of the Performance:

- Square or reef knot
- Clove hitch
- Timber hitch
- Bowline
- Bowline on a bite
- Double bowline

Course Outcome 6.

Demonstrate methods of rigging, hoisting and moving machinery and equipment safely into position.

Learning Objectives 6.

Potential Elements of the Performance:

- Explain the choice of rigging
- Describe the hoist selection
- Safely move a load

Date:

Monday, April 23, 2018

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