Prepared: Corey Meunier Approved: Corey Meunier

Course Code: Title	IRN740: MACHINERY MOVING - LEVEL 2
Program Number: Name	6171: IRONWORKER - LEVEL 2
Department:	IRONWKR APPR./WELDING RELATED
Semester/Term:	18W
Course Description:	Upon successful completion, the apprentice will be able to move machinery in accordance with government safety regulations, accepted industry standards and the requirement of assigned trade related projects. This includes explaining the drawings and specifications required to move machinery, fabricating the required members for machinery moving operations, describing the appropriate transportations methods to move machinery, and performing the required installation and securing procedures to move machinery.
Total Credits:	4
Hours/Week:	4
Total Hours:	32
Course Evaluation:	Passing Grade: 50%, D
Other Course Evaluation & Assessment Requirements:	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 W Student has withdrawn from the course without academic penalty.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	**Evaluation Type** | **Evaluation Weight**

Grading System:

Practical	20%
Theory	80%

Course Outcomes and Learning Objectives:

Course Outcome 1.

Blueprint and Drawings:
Upon successful completion, the apprentice is able to explain drawings and specifications required to move machinery, in accordance with accepted industry standards and the requirements of assigned trade related projects.

Learning Objectives 1.

Explain blueprint terms and symbols related to machinery moving:

- identify and explain abbreviations and symbols
- define the trade terms for the layout requirements
- identify types of blueprints used for machinery moving
- explain the overall scope to the machinery moving task

Identify the equipment and components required to move machinery:

- material specifications
- material types and shapes

Describe the required calculations for machinery moving procedures:

- calculate elevations
- calculate loads
- calculate force required for inclined planes
- calculate load on anchor points for rigging
- calculate parts of line required for rigging equipment
- determine shoring requirements
- determine falsework and location requirements

Explain the drawings and layout required for a machinery moving project:

- determine type of drawings and layout methods

Course Outcome 2.

Transportation Methods:
Upon successful completion, the apprentice is able to describe the appropriate transportation methods to move machinery in accordance with government safety regulations, accepted industry standards and the requirements of assigned trade related projects.

Learning Objectives 2.

Describe the equipment installation sequence for safe and efficient machinery moving:
- identify the transportation methods used for machinery moving work

- lateral move
- vertical move
- pick and carry

- stand up/lay down
- identify the specific tools and equipment used to move machinery

- pallet jack
- fork truck
- gantry crane
- hydraulic gantry systems
- skidding systems
- rollers
- multi rollers (skates)
- inclined plane
- strand jacking towers
- jacks
- jacking trailers
- identify the installation steps

Describe the specified rigging requirements for machinery moving work:

- identify related safety hazards
- identify PPE
- describe safe working practices for machinery moving
- determine the equipment and material requirements
- apply the safe working practices for machinery moving rigging activities

Identify the method to assemble required falsework for machinery moving:

- identify applications that require falsework for moving machinery
- determine the required falsework

- floor plate
- shoring
- reinforcing
- perform falsework erection procedures
- perform falsework removal procedures

Identify the necessary accessory equipment assemblies required for machinery moving activities:

- position the required erection equipment
- position the required working platforms
- install the fall-arrest systems

Course Outcome 3.

Installation and Securing:
Upon successful completion, the apprentice is able to install and secure machinery, in accordance with accepted industry standards and the requirements of assigned trade related projects.

Learning Objectives 3.

Describe the required rigging and hoisting procedures to move machinery:

- install the required machinery moving equipment
- select and install the specified safe rigging and hoisting components
- use the appropriate communication methods to rig and hoist machinery

	Identify setup procedures for machinery moving operations: - identify the equipment setup procedures - prepare machine bases - prepare sole plates - confirm anchor layout - confirm elevation, orientation and position Describe machinery moving operations: - describe the precautions to observe when moving machinery - move machinery to required location - set machinery in final position Describe specified securing procedures for machinery moving operations: - identify securing methods - secure machinery according to specifications
Date:	Thursday, March 1, 2018
	Please refer to the course outline addendum on the Learning Management System for further information.