

I. 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 related equipment.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. *List, describe, and comply with all safety rules and procedures pertaining to lifting, hoisting and moving machinery.*

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

2. *Plan a lift.*

Potential Elements of the Performance:

- Calculate the weight of the load
- Using load charts select the correct size of slings.
- State the SWL limits
- Describe an assessment of the load characteristics

3. *Select, Inspect and Maintain hoist and rigging equipment.*

Potential Elements of the Performance:

- Describe the construction of wire rope
- List two methods for lubricating wire ropes
- Name three types of slings
- List the key points for inspecting chains
- Explain the use of Skates, Rollers
- 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
- Describe the draw back relating to pancake jacks
- Explain why you would select a block and winch.
- List five points to note when inspecting ladders and scaffolding
- Describe the difference between a chain fall and a come-along

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

Potential Elements of the Performance:

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

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

Potential Elements of the Performance:

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

6. Demonstrate the ability to tie common knots used in rigging.

Potential Elements of the Performance:

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

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

Potential Elements of the Performance:

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

III. TOPICS:

1. Safe lifting procedures
2. Planning a lift
3. Selecting, Inspecting and Maintaining equipment
4. Overhead and Mobile cranes
5. Hoisting signals
6. Common knots used in rigging
7. Practical Rigging

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Crane and Rigging Handbook
Handouts

V. EVALUATION PROCESS/GRADING SYSTEM:

Topic quizzes	Reinforcement
Theory test	80%
Practical test	20%

The following semester grades will be assigned to students:

Grade	Definition	<i>Grade Point Equivalent</i>
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.	

VI. SPECIAL NOTES:Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Prior Learning Assessment:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question. Please refer to the Student Academic Calendar of Events for the deadline date by which application must be made for advance standing.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

Substitute course information is available in the Registrar's office.

Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. A professor/instructor may assign a sanction as defined below, or make recommendations to the Academic Chair for disposition of the matter. The professor/instructor may (i) issue a verbal reprimand, (ii) make an assignment of a lower grade with explanation, (iii) require additional academic assignments and issue a lower grade upon completion to the maximum grade “C”, (iv) make an automatic assignment of a failing grade, (v) recommend to the Chair dismissal from the course with the assignment of a failing grade. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Student Portal:

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations. Announcements, news, the academic calendar of events, class cancellations, your learning management system (LMS), and much more are also accessible through the student portal. Go to <https://my.saultcollege.ca>.

Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.