

Course Outline

Course Title:	Personal, Work-Site and Equipment Safety		
Course Number:	MECH428	Approval Date:	2025/11/27
Course Hours:	48 hours	Academic Year:	2025
Academic School:	School of Trades & Technology		
Program Co-ordinator or Equivalent:	Jordan Dysart - Jordan.Dysart@flemingcollege.ca		
Dean (or Chair):	Lisa Fenn - Lisa.Fenn@flemingcollege.ca		

Course Description

This course of study consists of acceptable work place practices involving safety and safe operating practices of heavy equipment. Safety regulations and applicable report in procedures will be identified. Personal protection equipment, hand signals, and equipment transportation methods will be emphasized.

Prerequisites: None.

Corequisites: None.

Course Delivery Type

Hybrid - Synchronous

Some course hours are delivered online using web conferencing software at specified meeting times (synchronously) and some hours are delivered in person. Delivery locations and times are specified on the academic timetable.

Learning Outcomes

Upon successful completion of this course, students will be able to:

1. Identify proper personal and work site safety equipment and procedures used in the operation and maintenance of heavy equipment.
2. Read and interpret pertinent government regulations and legislation in order to operate heavy equipment and job related equipment safely.
3. Identify and understand the hazards of being an inexperienced worker in order to protect oneself from work related injury or death.

4. Physically demonstrate knowledge and understanding of proper safety protocol with PPE, Attachment use and safety, Field level hazard assessment, trenching safety device installation, utilities locate reading and exposure, traffic control safety and setup, and equipment/ jobsite housekeeping

All students must attend the labs for evaluations. They must be ready to go with appropriate PPE and any print off's as directed. They must not be impaired in any way.

All students must complete the assigned quizzes and assignment handouts for both lecture and the field labs. Handouts are to be handed in at the end of class for evaluation.

Learning Resources

Occupational Health and Safety Act and Regulations

Book 7

IHSA construction health and safety manual

Mech 428 D2L module and all of the content within.

Online content (youtube)

Costs for learning resources can be found on the Campus Store website, using the links below, or by visiting the Campus Store location at your campus.

- Sutherland: <https://www.bkstr.com/sfleming-sutherlandstore/home>
- Frost: <https://www.bkstr.com/sfleming-froststore/home>

Assessment Summary

Assessment Task	Percentage
Labs	40%
Quizzes	30%
Assignments	20%
Tests	10%

Student Success: Policies and Procedures

Mutually, faculty and learners will support and adhere to college Academic Regulations, and Student Rights and Responsibilities. The following policies and guidelines have been developed to support the learning process.

Please click on the link for information about:

- [Academic Integrity \(2-201A\)](https://department.flemingcollege.ca/hr/attachment/7750/download)
(<https://department.flemingcollege.ca/hr/attachment/7750/download>)

- [Accessibility for Persons with Disabilities \(3-341\)](https://department.flemingcollege.ca/hr/attachment/5619/download)
(<https://department.flemingcollege.ca/hr/attachment/5619/download>)
- [Grading and Academic Standing \(2-201C\)](https://department.flemingcollege.ca/hr/attachment/7752/download)
(<https://department.flemingcollege.ca/hr/attachment/7752/download>)
- [Guidelines for Professional Practice: Students and Faculty](https://flemingcollege.ca/PDF/guidelines-for-professional-practice-students-faculty.pdf)
(<https://flemingcollege.ca/PDF/guidelines-for-professional-practice-students-faculty.pdf>)
- [Student Rights and Responsibilities \(5-506\)](https://department.flemingcollege.ca/hr/attachment/269/download)
(<https://department.flemingcollege.ca/hr/attachment/269/download>)

If you will need academic accommodations (for example if you have a learning disability, mental health condition such as anxiety or depression or if you had an IEP in high school), please contact the [Accessible Education Services \(AES\)](https://department.flemingcollege.ca/aes/) department (<https://department.flemingcollege.ca/aes/>) to meet with a counsellor.

Alternate accessible formats of learning resources and materials will be provided, on request.

Program Standards

The **Ministry of Colleges and Universities** oversees the development and the review of standards for programs of instruction. The **Ministry of Labour Training and Skills Development** oversees the development and the review of standards for programs of instruction for Apprenticeship training in the province of Ontario. Each college is required to ensure that its programs and program delivery are consistent with these standards, and must assist students to achieve these essential outcomes.

This course contributes to Program Standards as defined by the [Ministry of Colleges and Universities](#) (MCU). Program standards apply to all similar programs of instruction offered by colleges across the province. Each program standard for a postsecondary program includes the following elements:

- **Vocational standards** (the vocationally specific learning outcomes which apply to the program of instruction in question);
- **Essential employability skills** (the essential employability skills learning outcomes which apply to all programs of instruction); and
- **General education requirement** (the requirement for general education in postsecondary programs of instruction that contribute to the development of citizens who are conscious of the diversity, complexity and richness of the human experience; and, the society in which they live and work).

Collectively, these elements outline the essential skills and knowledge that a student must reliably demonstrate in order to graduate from the program. For further information on the standards for your program, follow the MCU link (www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/).

Detail Plan

Term: 2025 Fall

Program Co-ordinator or Equivalent: Jordan Dysart - Jordan.Dysart@flemingcollege.ca

Dean (or Chair): Lisa Fenn - Lisa.Fenn@flemingcollege.ca

Learning Plan

Wks/Hrs Units	Topics, Resources, Learning, Activities	Learning Outcomes	Assessment
Lesson 1	Introduction to Course/PPE/Safe Mounting and Dismounting of Equipment (3 Points Contact)/Hand Signals	1-3	Hand Signals test PPE Quiz
Lesson 1	PPE/Safe Mounting and Dismounting of Equipment (3 Points Contact)/Hand Signals	1-4	Physically demonstrate to faculty correct use of PPE, Three points of contact and hand signals in Field Lab.
Lesson 2	The Human Element	2,3	The Human Element Assignment essay.
Lesson 2	Machine Attachment Safety	1,3,4	Physically demonstrate to faculty safety related to the use of machine attachments
Lesson 3	Occupational Health and Safety Act	2	Occupational Health and Safety Act Assessment
Lesson 3	Identify OHSA Safety compliance and field level hazards	1-4	Physically demonstrate to faculty knowledge and understanding of OHSA jobsite compliance, Complete a Field Level Hazard Assessment in Field lab
Lesson 4	Due Diligence/Lock Out and Tag Out	1,2,3	Due Diligence Quiz and Lock Out and Tag Out Quiz
Lesson 4	Due Diligence/Lock Out and Tag Out	1-4	Demonstrate comprehension of OHSA lockout & tagout compliance by completing the procedure in proper sequence
Lesson 5	Trenching	1,2,3	Trenching Assignment
Lesson 5	Trenching	1-4	Demonstrate comprehension of trenching safety device application. Install Trenching safety components as per OHSA guidelines
Lesson 6&7	Utilities Hazards	1-3	Utilities Hazards Assessment
Lesson 6&7	Utilities Hazards	1-4	Physically demonstrate knowledge and understanding of reading a utilities locate sheet as per the OHSA ,TSSA,ESA in Field Lab Identify specific Utility using Tracing Machine

Wks/Hrs Units	Topics, Resources, Learning, Activities	Learning Outcomes	Assessment
Lesson 8&9	Hoisting and Rigging	1,2,3	Hoisting and rigging assessment to be completed following OHSA regulations.
Lesson 8&9	Hoisting and Rigging/Transporting equipment	1-4	Physically Rig and Hoist object as per guidelines with assigned partner as per OHSA Guidelines 2. Properly load and chain down equipment on float with assigned partner as per OHSA and Operators Manual
Lesson 10	MTO Book 7 Traffic Control	1,2,3	MTO Book 7 Quiz, Traffic Control Assessment
Lesson 10	MTO Book 7 Traffic Control	1-4	Demonstrate comprehension of Traffic Control principles with MTO Book 7 and the OHSA in Field Lab
Lesson 11&12	H2S/Job Site and Equipment Cleanliness/Fall Protection	1,3	Slips & Falls Quiz
Lesson 11&12	Job Site and Equipment Cleanliness	1,3,4	1. Properly physically clean assigned machine and store properly 2. Properly assist in HEO cleanup (housekeeping)
Week 12	Final Exam	1-3	Final Exam of all lecture material. Scramble format. Multiple questions from each module.

Assessment Requirements

Assessment Task	Date/Weeks	Course Learning Outcome	Percentage
Physically demonstrate knowledge and understanding of proper safety protocol with PPE, Attachment use and safety, Field level hazard assessment, trenching safety device installation, utilities locate reading and exposure, traffic control safety and setup, and equipment/ jobsite housekeeping	Lessons 1-12 Field Labs	1-4	45%
Complete quizzes and assignments. Physical evaluations performed by faculty.	Lessons 1-12 Lectures	1-3	45%
Final Exam of all lecture material. Scramble format. Multiple questions from each module. (Students MUST bring their OH&SA book to the exam)	Week 12	2	10%

ATTENDANCE REQUIREMENTS: Regular attendance in ALL aspects of this 12 WEEK ENTRY LEVEL MASTERY TRAINING PROGRAM, in Personal, Work-Site and Equipment Safety, is essential for student success. This is vitally important as skill development, and safety requirement training, builds progressively on a "DAILY" basis. Missed time, due to attendance issues will "NOT" be made up.

Respondus Monitor Statement

This course will use Respondus Monitor as a remote proctoring tool to support the administration of electronic examinations and assessments. Fleming College has an institutional license to use Respondus Monitor, a cloud-based service and software that captures video, audio, and other data during student assessment sessions for use in monitoring students. This data is accessible to, and may be used by, authorized individuals at the college to administer student assessments and manage the academic integrity of such assessments. The Student Terms of Use for Respondus Monitor must be agreed to by users (e.g. students) prior to each use of the Respondus Monitor, available at: <https://web.respondus.com/tou-monitor-student/>

By accessing and using Respondus Monitor, you agree to the collection, use, disclosure and retention of your personal information (including personal images) by Respondus Inc. in accordance with its Privacy Policy, available at: <https://web.respondus.com/privacy-policy/>

If you have questions about the collection of your personal information, please contact the Privacy and Policy Officer at freedomofinformation@flemingcollege.ca, or visit Fleming College's [Privacy Statement](https://flemingcollege.ca/privacy-statement) (<https://flemingcollege.ca/privacy-statement>) for more information.

If students choose to opt out of using Respondus Monitor, they must inform their faculty member prior to the scheduled assessment, of their refusal and meet with the faculty to discuss their options.

Exemption Contact

Jordan.Dysart@Flemingcollege.ca EXT.3064

Prior Learning and Assessment and Recognition (PLAR)

PLAR uses tools to help learners reflect on, identify, articulate, and demonstrate past learning which has been acquired through study, work and other life experiences and which is not recognized through formal transfer of credit mechanisms. PLAR options include authentic assessment activities designed by faculty that may include challenge exams, portfolio presentations, interviews, and written assignments. Learners may also be encouraged and supported to design an individual documentation package that would meet the learning requirements of the course. Any student who wishes to have any prior learning acquired through life and work experience assessed, so as to translate it into a college credit, may initiate the process by applying through the Registrar's office. For more information please click on the following link: <http://flemingcollege.ca/admissions/prior-learning-assessment-and-recognition>

Course Specific Policies and Procedures

It is the responsibility of the student to retain this course outline for future reference. Course outlines may be required to support applications for advanced standing and credit transfer to other educational institutions, portfolio development, PLAR and accreditation with professional associations.

Synchronous sessions may be recorded. As a result, your image, voice, name, personal views and opinions, and course work may be collected under legal authority of section 2 of the Ontario Colleges of Applied Arts and Technology Act, 2002. This information will be used for the purpose of supporting student learning. Any questions about this collection can be directed to the Privacy and Policy Officer at freedomofinformation@flamingcollege.ca or by mail to 599 Brealey Drive, Peterborough, ON K9J 7B1.

1. It is VITALLY important for your success to submit ALL assignments and projects at the specified date,time and location as cited. The faculty member will provide all the relevant details. It should be noted that the School of Trades and Technology Office, Student Services, the Library and Admissions and Records will NOT accept any assignments or projects on your behalf. It is YOUR responsibility to submit the assignment or project on time.

2. Final grades in this course are assigned based on the level of academic achievement which corresponds to the assessment componets as cited in this course outline.

3. What ever the reason, missed assignment due dates, exams, and evaluations, including those due to illness, will be dealt with on an "INDIVIDUAL BASIS", by faculty.We cannot evaluate what we can't see. If you are absent for a medical reason, we need a doctor's note to for evaluation purposes. If the student chooses to "skip" classes, they will be recieving a mark of zero.

4. Cell phones and or ANY personal communication devices (IPOD, Phones and smartwatches) are a distraction during class lectures. Their use is NOT ALLOWED during class lecture, in the shop facility, or working field. Their use is only allowed in the designated area (smoking area) ANY FACULTY MEMBER observing a student using them, will be given a mark of "0" and dismissed from class for the day.

5. Health and Safety Issues are paramount in the Heavy Equipment Industry, therefore a constant vigilance in these areas are a must. Safety equipment must be worn and used at all times where required in both the classroom and during lab activities. E.g. approved safety boots, clear lens safety glasses, and long pants or coveralls. (PPE) Personal Safety Equipment is to be worn as per the posted PPE Safety Policy at Fleming College.The faculty has the authority to remove the student from participating in the lectures, labs and exams due to impairment of any kind or if the student is being rude to his/her fellow classmates, staff or the public. If the students challenges our authority, security will be called to remove the student from the learning enviroment.