SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO


Sault College

COURSE OUTLINE

COURSE TITLE:	EARTHWORK, BARRIERS AND CONTROLS 1		
CODE NO. :	CTT 133	**SEMESTER:**	2
PROGRAM:	CONSTRUCTION TRADES TECHNIQUES		
AUTHOR:	SAM SPADAFORA		
DATE:	JAN. 12, 2009	**PREVIOUS OUTLINE DATED:**	
APPROVED:	**"Corey Meunier"** **CHAIR**		**DATE**
TOTAL CREDITS:	1		
PREREQUISITE(S):	NONE		
HOURS/WEEK:	4		

I. COURSE DESCRIPTION:

This course will focus on earthwork, barrier and environmental control practices and procedures. Students will learn to interpret blueprints and plans related to backfill and compaction procedures. They will learn about methods and procedures used for traffic control in backfill and compaction operations as well as protection board and insulation materials, material placement and compaction activities, installation of vapour barriers and material installation. Students will also learn to interpret work requirements from environmental plans.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Interpret blueprints and plans with regard to backfill and compaction procedures according to industry standards of practice.

Potential Elements of the Performance:

- interpret blueprints and site plans
- list required personal protective equipment requirements
- identify required tool and equipment requirements
- interpret industry standards of practice

2. Describe the methods and procedures required for traffic control during backfill and compaction operations according to highway traffic act and occupational health and safety standards.

Potential Elements of the Performance:

- list required personal protective equipment including: signal vest and radio device
- interpret heavy equipment operator traffic control requirements during backfill and compaction operations
- interpret the role of a signal person during backfill and compaction operations
- describe the placement of signs and barricades, including: caution tape
- demonstrate basic traffic control procedures and applications
- interpret related traffic control requirements found in the Highway Traffic Act
- interpret related occupational health and safety legislation

3. Describe the methods and procedures required for the placement of protection board and insulation materials according to drawings and specifications, company and occupational health and safety standards.

Potential Elements of the Performance:

- list required personal protective equipment
- describe the preparation of materials for placement, including: protection board and insulation
- describe the installation of stated materials
- demonstrate the installation of stated materials
- interpret drawings and specifications
- illustrate related company policies
- interpret related occupational health and safety legislation

4. Describe methods and procedures required for material placement and compaction activities according to job site, company, and occupational health and safety standards.

Potential Elements of the Performance:

- list required personal protective equipment
- identify equipment, including: plate tampers, rollers and jumping jacks
- interpret the selection of stated compaction equipment in relation of the work application
- describe procedures to check equipment fluid levels
- describe procedures required to place fill material
- describe procedures required to compact fill material
- demonstrate the uses of stated compaction equipment
- interpret job site specifications
- describe manufacturers specifications
- illustrate related company policies
- interpret related occupational health and safety legislation

5. Describe methods and procedures required for the installation of vapour barrier according to job site, company and occupational health and safety standards.

Potential Elements of the Performance:

- list required personal protective equipment
- calculate and area measurement
- estimate vapour barrier material requirements
- describe work area preparation procedures fo receipt of the vapour barrier
- describe the process of cutting vapour barrier to fit measurement requirements
- describe the installation for vapour barrier
- describe measures used to secure vapour barrier in place

- demonstrate basic installation of vapour barrier
- interpret job site specifications
- illustrate related company policies
- interpret related occupational health and safety legislation

6. Describe methods and procedures required for material installation according to company and occupational health and safety standards.

Potential Elements of the Performance:

- list required personal protective equipment
- describe the process required in the installation of materials
- describe the process of inspecting work area for the presence of debris
- describe the process of removal of unwanted debris
- interpret process of bringing material to grade
- illustrate related company policies
- interpret related occupational health and safety legislation

7. Interpret work requirements from an environmental plan according to company and occupational health and safety standards.

Potential Elements of the Performance

- list required personal protective equipment
- interpret environmental planning document and activities
- interpret material requirements from environmental plan
- interpret work site methods from environmental plan
- interpret equipment requirements from environmental plan
- describe compliance with work site practices outlined in the environmental plan]
- illustrate related company policies
- interpret related occupational health and safety legislation

III. TOPICS:

1. Interpreting blueprints and plans with regard to backfill and compaction procedures
2. Interpret work requirements from an environmental plan
3. Methods and procedures required for traffic control
4. Placement of protection board and insulation materials
5. Material placement and compaction activities
6. Installation of vapour barrier
7. Material installation

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- TBA
- Various handouts provided by the instructor

V. EVALUATION PROCESS/GRADING SYSTEM:

You will be assigned a final grade based on the successful completion of assignments, quizzes, field work and tests, weighted as follows:

Theory Testing	60%
Application Exercises	20%
Final Examination	20%
Total	**100%**

The following semester grades will be assigned to students:

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.

VI. SPECIAL NOTES:

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.

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.

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*. Students who engage in academic dishonesty will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. 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.

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.

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

VII. 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.

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