

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: Construction Tools
CODE NO. : CTT102-4 **SEMESTER:** 1
PROGRAM: Construction Trades Techniques
AUTHOR: Jamie Holmes
DATE: Sept. 5 **PREVIOUS OUTLINE DATED:**
2007
APPROVED:

	_____	_____
	DEAN	DATE

TOTAL CREDITS: 4
PREREQUISITE(S): n/a
HOURS/WEEK: 4

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For additional information, please contact
School of
(705) 759-2554, Ext.

I. COURSE DESCRIPTION: Upon successful completion of this course, the student will be able to describe the methods and procedures for the safe use of hand and power tools, powder actuated tools and cutting torches according to industry standards of practice. The student will also be able to demonstrate the basic skills required to safely operate the previously mentioned tools.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Hand Tools

- Describe the methods and procedures for the use of hand tools according to manufacturer and safety standards.
- List the required personal protective equipment
- Select a tool based on an assessment of work to be performed
- Identify misc. hand tools
- Use misc. hand tools
- Interpret related occupational health and safety legislation

2. Power Tools

- Describe the methods and procedures for the use of power tools according to manufacturer and safety standards
- List the required personal protective equipment
- Identify misc. power tools
- Identify misc. cutting blades and wheels
- Describe the operational considerations related to the use of power tools in wood, steel and concrete applications
- Perform Inspections on various power tools
- Describe the maintenance procedures related to various tools
- Interpret related occupational health and safety legislation

3. Powder Actuated Tools

- Describe the methods and procedures for the operation of a powder actuated tool according to manufacturer and safety standards
- List the required personal protective equipment
- Identify a powder actuated tool
- Identify various fasteners uses and parts
- Identify power loads and strengths
- Describe the selection of powder load in relation to the application
- Describe the selection of a fastener in relation to the application

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- Illustrate the operation of a powder actuated tool in wood, steel and concrete applications
- Illustrate how to clean and maintain a powder actuated tool
- Interpret related occupational health and safety legislation

4.

Cutting Torch

- Describe the methods and procedures related to the operation of a cutting torch according to the manufacturer and safety standards
- List the required personal protective equipment
- Identify an oxygen and an acetylene cylinder
- Differentiate between the physical characteristics and storage media of the two gases
- Identify the regulators, gauges and hoses, noting their respective color and attachment
- Identify and describe the purpose for the use of flashback arresters
- Illustrate the assembly of a torch kit
- Illustrate torch lighting procedures
- Illustrate torch shut down procedures
- Illustrate the use of a cutting torch to pre heat, pierce, and cut mild plate steel
- Describe torch kit storage and handling procedures
- Interpret related occupational health and safety legislation

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Hard Hat, Green Patch Steel Toe Boots, Safety Glasses, Gloves,

V. EVALUATION PROCESS/GRADING SYSTEM:

Tests- 15% 3 multiple choice tests worth 5% each

Application Exercises- 40% Based on the students ability to safely and properly operate tools.

Attendance- 15%

Final Exam- 30% multiple choice/true or false test

The following semester grades will be assigned to students:

<insert course name here>

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Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
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:

Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs 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.

<insert course name here>

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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.

<include any other special notes appropriate to your course>

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.