

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**SAULT  
COLLEGE**

**COURSE OUTLINE**

**COURSE TITLE:** Prints 2

**CODE NO. :** ELR725                      **SEMESTER:** Intermediate  
Level

**PROGRAM:** Construction and Maintenance Electrician  
Apprenticeship

**PROFESSOR:** STEFAN TANNINEN

**DATE:** May                      **PREVIOUS OUTLINE**                      October  
2015                      **DATED:**                      2014

**APPROVED:**

***"Corey Meunier"***  
**CHAIR**

**TOTAL CREDITS:**

**PREREQUISITE(S):**

**HOURS/WEEK:**

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**For additional information, please contact Corey Meunier, Chair**  
**Technology & Skilled Trades**  
**(705) 759-2554, Ext. 2610**

**I. COURSE DESCRIPTION:**

This course introduces the student to electrical installation methods for commercial applications. The Canadian Electrical Code is covered in conjunction with interpretation of construction drawings and specifications for an industrial installation.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

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

1. ***Upon successful completion of this course, the student will demonstrate the ability to: Interpret and revise specifications and drawings for a small commercial construction project.***

Potential Elements of the Performance:

- Determine utility location and site features that affect electrical installations through the use of site drawings.
- Use architectural and structural drawings to determine methods of construction as they affect electrical installation.
- Use architectural and structural drawings to determine dimensions and elevations as they affect electrical installation.
- Use mechanical drawings to determine the electrical characteristics of mechanical equipment and systems.
- Use mechanical drawings to determine the layout of mechanical equipment and systems as they affect electrical installation.
- Select the correct wiring methods and electrical equipment for a commercial installation.
- Use a complete set of drawings and specifications to lay out commercial distribution and service equipment and wiring.
- Describe common lighting systems and their applications.
- Lay out commercial branch circuit wiring, lighting, and equipment using drawings and specifications.
- Use a complete set of drawings, specifications, manufacturers' drawings, ULC Standards, the National Building Code and the CEC to lay out a fire alarm system.

- Lay out a control system or a communication system as per drawings and specifications.
- Use a complete set of drawings, specifications, manufacturers' drawings, and the CEC to prepare a material take off.
- Prepare sketches to solve and document construction problems and solutions.
- Prepare as-built drawings to document electrical construction.
- Read and develop basic single line, schematic, and wiring diagrams.

### III. TOPICS:

1. Commercial print reading.

### IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- *Canadian Electrical Code or Ontario Electrical Safety Code (current edition)*
- *Electrical Wiring Commercial (Current Canadian edition published by Delmar)*

Tests will be open book so the above texts may be highlighted but may not contain any text, diagrams, pictures, calculations other than the original published document.

### V. EVALUATION PROCESS/GRADING SYSTEM:

Completion of Unit Questions 20%  
4 Tests equally weighted 80%\*  
\*see special notes.

The following semester grades will be assigned to students:

<b>Grade</b>	<b><u>Definition</u></b>	<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:****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.

If a student misses a test or deadline he/she must have a valid reason (i.e. medical or family emergency – documentation may be required). In addition, the instructor must be notified prior to the test sitting or deadline. If this procedure is not followed the student will receive a mark of zero on the test or assignment with no make-up option. Make-ups for missed tests (only with valid reason and documentation) will be written the week following the end of the intake. If this is not practical for the instructor an X grade may be issued.

Deadlines will be specified for submission of assignments (unit questions) for grading. Late assignments will not be accepted and a grade of 0 will be assigned. Students are advised to submit early to avoid unforeseen circumstances like 'my car broke down so I was late'.

If a student misses class time due to sickness, family emergency or other reason beyond his/her control the student must at his/her first opportunity meet with the course faculty to discuss if the missed time has placed the student at an increased risk of failing. The student must follow up the meeting by emailing the faculty with a summary of the meeting's discussions. Documentation validating the missed time may be required. It is the student's responsibility to catch up on missed material.

Required texts are brought to each class. Sections of the course text books may be highlighted however they are not to be written in. Tests will be 'open book' as far as the textbooks are concerned. However, use of a book containing markings other than the aforementioned highlights is not permitted and will be considered as academic dishonesty. Students are responsible for supplying their own texts for tests. Sharing books during a test is not permitted.

Use of cell phones/PDAs for any form of communication (voice, text...) during class or lab time is strictly prohibited. **Cell phones/PDAs must be silenced during regular class and lab times and must be turned off and kept out of sight during test sittings. Failure to follow the latter requirement during a test sitting will result in a grade of 0 being assigned.**

Students may not wear earphones of any kind during lab activities or test sittings. This does not include hearing aids required for the hearing impaired.

Students are expected to maintain an active Sault College email account. They are required to check this email account daily. The instructor may announce details of lab and test requirements and scheduling through the Sault College email system (as well as sharing other important information).

## VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.