



**I. COURSE DESCRIPTION:**

This course introduces the student to installation practices, print reading and interpretation of specifications relating to commercial electrical installations. This course will require the student to work independently and / or in groups during unsupervised hours and for home work assignments. The student will also be required access information from Electrical Code Book, Electrical Wiring Commercial Text Book including the Pints associated with the Text Book and other sources that maybe available to solve and answer assigned questions.

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

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

**1. *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:**

- Ontario Electrical Safety Code (current edition) or Canadian Electrical Code Part 1 (Current Edition)
- Electrical Wiring Commercial (Current Canadian Edition published by Delmar)

### **V. EVALUATION PROCESS/GRADING SYSTEM:**

3 or 4 tests = 80%

Assignments = 10%

Class attendance, and/or Participation, and or Quizzes = 10%

**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%	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:

### 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.

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

If a student misses a test 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. If this procedure is not followed the student will receive a mark of zero on the test with no make-up option.

Deadlines will be specified for submission of assignments for grading. Late assignments will not be accepted and a grade of 0 will be assigned.

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

Required texts are to be 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 text books 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.

**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.