# SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

# **SAULT STE. MARIE, ONTARIO**



# **COURSE OUTLINE**

COURSE TITLE: CANADIAN ELECTRICAL CODE, LEVEL II

**CODE NO.:** ELR 723 **SEMESTER:** Two

**PROGRAM:** CONSTRUCTION & MAINTENANCE ELECTRICIAN

**APPRENTICESHIP** 

**AUTHOR:** S. Hager

DATE: Dec. 08 PREVIOUS OUTLINE DATED:

**APPROVED:** 

"Corey Meunier"
CHAIR

DATE

**TOTAL CREDITS:** 

PREREQUISITE(S):

HOURS/WEEK: 4

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(705) 759-2554, Ext. 2610

# I. COURSE DESCRIPTION:

This course is a continuation of ELR623, Canadian Electrical Code Level I. The primary focus will be on code sections relating to commercial wiring practices.

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

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

# 1. Interpret the Canadian Electrical Code (CEC) requirements pertaining to commercial installations.

Potential Elements of the Performance

- Calculate the minimum ampacity of conductors and overcurrent devices for:
  - Apartment and Similar Buildings
  - Schools
  - Hospitals
  - Hotels, motels, dormitories, and buildings of similar occupancies
  - Other types of occupancies
- Interpret the CEC regulations for protection including fuses, circuit breakers and ground fault protection and control devices including switches, panelboards and solid state devices (Section 14).
- List and explain the requirements for different classifications of hazardous locations.
- Interpret the CEC regulations pertaining to hospitals (Section 24).
- Interpret the CEC regulations pertaining to Storage Batteries.
- Explain the CEC installation requirements as applicable to branch circuits, overload, and overcurrent protection for individual continuous and non-continuous duty service motors (Section 28).
- Interpret the CEC regulations as applicable to interior and exterior lighting equipment (Section 30).

 Interpret CEC regulations governing the installation of optical fibre cables including non-conductive optical fibre, conductive optical fibre and hybrid cables (Section 56); coaxial cables including protection, grounding, indoor, outdoor, overhead and underground installations (Section 54); and communication cables including protection, grounding, indoor, outdoor, overhead and underground installations (Section 60).

### III. TOPICS:

1. Canadian Electrical Code, Commercial Rules

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

Canadian Electrical Code, Part 1, 20th Edition/2006

# V. EVALUATION PROCESS/GRADING SYSTEM:

Quizzes (may be unannounced) 1% each to A maximum of 20%

0 to 20%

3 or 4 Tests\* equally weighted

80 to 100%

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	Grade Point Equivalent
A+	90 – 100%	4.00
Α	80 – 89%	4.00
В	70 - 79%	3.00
С	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	
U	placement or non-graded subject area. Unsatisfactory achievement in field/clinical placement or non-graded	
	subject area.	

<sup>\*</sup>See special notes.

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.

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 <u>prior</u> to the test sitting. If this procedure is not followed the student will receive a mark of <u>zero</u> 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. Requires 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.

### 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.