



COURSE OUTLINE

ELR823

Prepared: Sasha Coleman Approved: Corey Meunier

Course Code: Title	ELR823: CANADIAN ELECTRICAL CODE - LEVEL 3
Program Number: Name	
Department:	ELEC. APPRENTICES
Semester/Term:	18W
Course Description:	This course is a continuation of ELR623 and ELR723, Canadian Electrical Code Level I and II. The primary focus will be on code sections relating to industrial wiring practices.
Total Credits:	3
Hours/Week:	3
Total Hours:	30
Course Evaluation:	Passing Grade: 50%, D
Other Course Evaluation & Assessment Requirements:	<p>EVALUATION PROCESS/GRADING SYSTEM:</p> <p>3 or 4 equally weighted tests: 100%</p> <p>*See special notes.</p> <p>The following semester grades will be assigned to students:</p> <p>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</p> <p>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.</p>

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W Student has withdrawn from the course without academic penalty.

Course Outcomes and Learning Objectives:

Course Outcome 1.

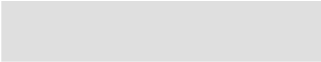
Interpret the Canadian Electrical Code (CEC) requirements pertaining to industrial installations.

Learning Objectives 1.

- Interpret the CEC regulations associated with the installation of two or more continuous and non-continuous duty service motors on a branch circuit or feeder including conductor size and overcurrent device sizes (Section 28).
- Interpret the CEC regulations associated with the installation of a hermetic refrigerant motor-compressor on a branch circuit including conductor size, overload size, and overcurrent device size (Section 28).
- Interpret the CEC regulations regarding the installation of reduced voltage starters including overload size, and overcurrent device size.
- Calculate tap conductor size for motor and compressor branch circuits.
- Interpret the CEC regulations associated with the installation of transformers including dry type and liquid-filled (Section 26).
- Calculate minimum conductor size and maximum overcurrent protection for individual power and distribution transformers including dry-type, liquid-filled, high-voltage and low-voltage on a circuit (Section 26).
- Calculate minimum conductor size and maximum overcurrent for more than one power and distribution transformer including dry-type, liquid-filled, high-voltage and low-voltage on a feeder or branch circuit (Section 26).
- Interpret the CEC regulations regarding welders (Section 42).
- Calculate the minimum conductor size and the maximum overcurrent protection for individual resistance and transformer type welders (Section 42).
- Calculate the minimum conductor size and the maximum overcurrent protection for more than one resistance and/or transformer type welder on a circuit (Section 42).
- Interpret the CEC regulations for the installation of capacitors (Section 26).
- Calculate the minimum conductor size, maximum overcurrent device size and disconnecting means size for capacitors (Section 26).
- Interpret the CEC regulations for placing capacitors in motor circuits (Section 26).
- Select overcurrent devices based on voltage, continuous load, and maximum current interrupting ratings as per manufacturer's specifications, CEC and customer's requirements.
- Interpret the CEC regulations associated with high voltage installations including wiring methods, grounding and bonding (Section 36).

Date:

Wednesday, February 28, 2018



Please refer to the course outline addendum on the Learning Management System for further information.