



## COURSE OUTLINE: ELR624 - INSTAL. METHODS I

Prepared: shager

Approved: Corey Meunier, Chair, Technology and Skilled Trades

<b>Course Code: Title</b>	ELR624: INSTALLATION METHODS - LEVEL 1					
<b>Program Number: Name</b>	6520: CONST & MTCE ELE BAS					
<b>Department:</b>	ELEC. APPRENTICES					
<b>Semesters/Terms:</b>	18F, 19W, 19F					
<b>Course Description:</b>	This is a hands-on course focusing primarily on residential wiring practices. Installation methods applying to common electrical cables and conduits are also covered.					
<b>Total Credits:</b>	6					
<b>Hours/Week:</b>	6					
<b>Total Hours:</b>	48					
<b>Prerequisites:</b>	There are no pre-requisites for this course.					
<b>Corequisites:</b>	There are no co-requisites for this course.					
<b>General Education Themes:</b>	Science and Technology					
<b>Course Evaluation:</b>	Passing Grade: 50%, D					
<b>Other Course Evaluation &amp; Assessment Requirements:</b>	<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.            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            W Student has withdrawn from the course without academic penalty.</p>					
<b>Course Outcomes and Learning Objectives:</b>	<table border="1"> <thead> <tr> <th>Course Outcome 1</th> <th>Learning Objectives for Course Outcome 1</th> </tr> </thead> <tbody> <tr> <td>Correctly select and safely install common residential electrical wiring systems and equipment within the regulations and standards set out by the Canadian Electrical Code (CEC).</td> <td> <ul style="list-style-type: none"> <li>- Demonstrate the correct installation procedures and wiring connections for common residential switching devices and outlets, ensuring strict adherence to CEC (Canadian Electrical Code) and NBC (National Building Code) regulations.</li> <li>- Demonstrate the proper installation procedures required for the following wiring methods while ensuring strict adherence to CEC regulations: non-metallic sheathed cable, armoured cable, mineral insulated cable, metallic sheathed cable, rigid conduits, flexible conduits, liquid-tight conduit, electrical metallic tubing,</li> </ul> </td> </tr> </tbody> </table>	Course Outcome 1	Learning Objectives for Course Outcome 1	Correctly select and safely install common residential electrical wiring systems and equipment within the regulations and standards set out by the Canadian Electrical Code (CEC).	<ul style="list-style-type: none"> <li>- Demonstrate the correct installation procedures and wiring connections for common residential switching devices and outlets, ensuring strict adherence to CEC (Canadian Electrical Code) and NBC (National Building Code) regulations.</li> <li>- Demonstrate the proper installation procedures required for the following wiring methods while ensuring strict adherence to CEC regulations: non-metallic sheathed cable, armoured cable, mineral insulated cable, metallic sheathed cable, rigid conduits, flexible conduits, liquid-tight conduit, electrical metallic tubing,</li> </ul>	
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and electrical non-metallic tubing.

- Demonstrate the ability to install a complete 100 amp, residential service including the following circuits: hot water heater, range outlet, dryer outlet, split duplex receptacle, bathroom outlet, outside weather-proof receptacle, general branch circuit.
- Prepare a layout drawing for a service mast and indicate the procedure for installation.
- Demonstrate the proper use of common hand tools used in the electrical trade.
- Demonstrate the proper installation of enclosures and fittings common to the electrical trade.
- Demonstrate the proper installation of cable, conduit and enclosure supports common to the electrical trade.
- Demonstrate the proper techniques for the terminating of conductors.
- Identify and terminate copper communication and hard wired cables for telephones.

**Evaluation Process and Grading System:**

Evaluation Type	Evaluation Weight	Course Outcome Assessed
Final Project	25%	
Shop reports/practical work	50%	
Tests	25%	

**Date:**

August 20, 2018

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

