COURSE OUTLINE: ELR726 - MONIT.& COMM.SYSTEMS

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Course Code: Title	ELR726: MONITORING & COMMUNICATION SYSTEMS
Program Number: Name	6521: CONST & MTCE ELE INT
Department:	ELEC. APPRENTICES
Academic Year:	2024-2025
Course Description:	This course introduces the student to monitoring and communication systems, such as fire alarm systems, nurse call systems and paging systems. Related codes and standards are also covered. Theory is supported by appropriate labs.
Total Credits:	3
Hours/Week:	3
Total Hours:	30
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Vocational Learning Outcomes (VLO's) addressed in this course: **Please refer to program web page for a complete listing of program outcomes where applicable.**	**6521 - CONST & MTCE ELE INT** VLO 1 Const and Maint Electrician - Int
Course Evaluation:	Passing Grade: 50%, D A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Other Course Evaluation & Assessment Requirements:	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 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 W Student has withdrawn from the course without academic penalty.

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
1. Interpret the Canadian Electrical Code (CEC), National Building Code and ULC requirements pertaining to Fire Alarm Systems.	1.1 Describe the principles of operation and installation requirements of single stage, two stage, initiation and supervisory circuits. 1.2 Describe the principles of operation and installation requirements for pull stations, detectors, flow switches, bells, speakers, addressable initiating devices and sprinkler supervisory devices. 1.3 Describe the principles of operation and installation requirements of speaker and ancillary relay circuits, annunciators and emergency phones. 1.4 Describe the basic operation of wet and dry sprinkler systems. 1.5 Describe the uses and dangers of fire suppression agents, the components and systems used for their installation in suppression systems. 1.6 List the ULC standard for the installation, inspection, testing and verification of Fire Alarm Systems. 1.7 Use the Canadian Building Code to determine the installation requirements for fire alarm systems and related equipment. 1.8 Demonstrate the installation, troubleshooting and testing of initiation and supervisory circuits and devices including two stage initiator wiring. 1.9 Demonstrate the installation, troubleshooting and testing of speaker and ancillary relay circuits, annunciators. 1.10 Demonstrate the installation, operation and testing of alarm panels with respect to lights and lamps, power supplies, overcurrent devices, ground fault indicators, annunciator panels and common trouble functions.
Course Outcome 2	**Learning Objectives for Course Outcome 2**
2. Connect intrusion systems and devices.	
Course Outcome 3	**Learning Objectives for Course Outcome 3**
3. Connect the wiring and operation of nurse call systems.	

Evaluation Process and Grading System:	<table><tr><th>Evaluation Type</th><th>Evaluation Weight</th></tr><tr><td>Lab reports/test</td><td>50%</td></tr><tr><td>Theory Tests/ Assignments</td><td>50%</td></tr></table>
Date:	August 9, 2024
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.