

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE: Installations Methods I

CODE NO. : ELR624

APP LEVEL: One

PROGRAM: Construction & Maintenance Electrician – Level 1

AUTHOR: Sean Hager

DATE: August
2016

PREVIOUS OUTLINE DATED: August
2015

APPROVED:

“Corey Meunier”
CHAIR

TOTAL CREDITS:

PREREQUISITE(S): None

HOURS/WEEK: 6

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I. COURSE DESCRIPTION:

This hands-on course introduces the student to residential wiring practices.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

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).*

Potential Elements of the Performance:

- 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.
- 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, 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.

III. TOPICS:

1. Residential Wiring Practices.

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Ontario Electrical Safety Code current version

Electrical Wiring Residential (current Canadian edition)

Published by Nelson

V. EVALUATION PROCESS/GRADING SYSTEM:

Lab: Shop activities, labs and practical work : 50%

Theory: Final Drawings and Code report 25%

Testing 25%

100%

- You must complete and pass all sections of the above breakdown.
- You must complete all labs listed on page 12 of this course outline during scheduled class time to pass the course.
- Tests will not be returned but will be available for review.

*See special notes.

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
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.

If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services in an effort to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

VI. SPECIAL NOTES:

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. *It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers will not be granted admission to the room.*

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.

If a student misses class time due to sickness, family emergency or other reason beyond his/her control the student must at his/her first opportunity meet with the course faculty to discuss if the missed time has placed the student at an increased risk of failing. The student must follow up the meeting by emailing the faculty with a summary of the meeting's discussions. Documentation validating the missed time may be required.

Any material covered during any absence legitimate or not is the responsibility of the student.

There are no make-up tests, assignments or extra work allowed for any reason.

Any material covered during any absence legitimate or not is the responsibility of the student.

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

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.

Required 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' (Code Book only) 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.

VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located in D2L and on the portal form part of this course outline.