

## COURSE OUTLINE: ELR621 - ELECTRONICS I

Prepared: S Hager

proved: Corey Meunier, Chair, Technology and Skilled Trades
---

Course Code: Title	ELR621: ELECTRONICS - LEVEL 1				
Program Number: Name	6520: CONST & MTCE ELE BAS				
Department:	ELEC. APPRENTICES				
Semesters/Terms:	18F, 19W, 19F				
Course Description:	This course introduces the student to semiconductors and their applications. Simple digital logic devices and circuits are also covered.				
Total Credits:	5				
Hours/Week:	4				
Total Hours:	32				
Prerequisites:	There are no pre-requisites for this course.				
Corequisites:	There are no co-requisites for this course.				
General Education Themes:	Science and Technology				
Course Evaluation:	Passing Grade: 50%, D				
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 W Student has withdrawn from the course without academic penalty.				
Books and Required Resources:	Electronics For Electricians by Stephen L. Herman Edition: Current				
Course Outcomes and Learning Objectives:	Course Outcome 1	Learning Objectives for Course Outcome 1			
	This is a course in electronics which includes topics such as series, parallel and combination DC circuits, diodes, LEDs, NPN	<ul> <li>Describe TTL and CMOS logic gate technology</li> <li>Describe the operation of basic logic gates including NOT, AND, OR, NAND and EXCLUSIVE OR gates</li> <li>Identify the schematic symbols both North American and European for basic logic gates.</li> </ul>			

SAULT COLLEGE | 443 NORTHERN AVENUE | SAULT STE. MARIE, ON P6B 4J3, CANADA | 705-759-2554

	and PNP bipolar tr used as a switch, gates.	- Štate ti - Design gates. - Demor system. - The pro- - State ti - Connet complete - Descrit - Descrit - Descrit - State co germani - Demor diodes a - Explair selecting - Descrit PNP trai - Identify transisto - Descrit Switch - Descrit		be and demonstrate the operation of a bipolar diode. urrent and voltage requirements for silicon diodes, um and light emitting diodes (LEDs). strate requirements for silicon diodes, germanium nd LEDs to be forward and reverse biased. the important diode characteristics used when replacement diodes be the operation and biasing requirements of NPN and hisistors the schematic symbols for NPN and PNP bipolar
Evaluation Process and Grading System:	Evaluation Type	Evaluation	n Weight	Course Outcome Assessed
Grauniy System.	Projects/Labs	50%		
	Tests	50%		
Date:	August 20, 2018			
	Please refer to the information.	course out	line adder	ndum on the Learning Management System for further

SAULT COLLEGE | 443 NORTHERN AVENUE | SAULT STE. MARIE, ON P6B 4J3, CANADA | 705-759-2554