

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**SAULT  
COLLEGE**

**COURSE OUTLINE**

**COURSE TITLE:** SOLAR PV ENERGY SYSTEMS INSTALLATION

**CODE NO.** RET105 **SEMESTER:** 2

**PROGRAM:** RENEWABLE ENERGY & GREEN CONSTRUCTION  
TECHNIQUES

**AUTHOR:** KIERAN O'NEILL

**DATE:** January 2013 **PREVIOUS OUTLINE  
DATED:** January 2012

**APPROVED:** *"Corey Meunier"*  
CHAIR DATE

**TOTAL CREDITS:** FOUR

**PREREQUISITE(S):** RET101

**HOURS/WEEK:** FOUR

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**For additional information, please contact Corey Meunier, Chair**  
**School of Technology & Skilled Trades**  
**(705) 759-2554, Ext. 2610**

**I. COURSE DESCRIPTION:**

The course will provide an in depth understanding of solar PV installation techniques. Students will become familiar with many aspects of solar PV system design and components.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will:

- Demonstrate proficiency in understanding of safety precautions necessary to install solar PV systems.
- Demonstrate proficiency in understanding of solar PV electrical basics.
- Demonstrate proficiency in understanding of solar PV energy/module fundamentals.
- Demonstrate proficiency in understanding of solar PV balance of system components.
- Demonstrate proficiency in understanding of solar PV installation, monitoring & maintenance.

**III. TOPICS:**

1. INTRODUCTION TO SOLAR PV INSTALLATION
2. FALL PROTECTION CERTIFICATION
3. SOLAR PV ELECTRICAL BASICS
4. SOLAR ENERGY FUNDAMENTALS
5. PV MODULE FUNDAMENTALS
6. BALANCE OF SYSTEM COMPONENTS
7. SOLAR PV INSTALLATION, MONITORING & MAINTENANCE

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

**None.**

**V. EVALUATION PROCESS/GRADING SYSTEM:**

Attendance:	10%
Assignments	60%
-Assignment 1	(5%)
-Assignment 2	(50%)
-Assignment 3	(5%)
Practical TEST 1 (30%)	30%

The following semester grades will be assigned to students:

<b>Grade</b>	<b><u>Definition</u></b>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
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.	

**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.

**VII. COURSE OUTLINE ADDENDUM:**

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