

Syllabus

BCN1597: Intro to Solar Energy: 21270 INTRODUCTION TO SOLAR ENERGY

Spring 2023

Instructor's Name: Elena Canton

Office Location: online

Office Hours: Wed (1pm-2pm)

Telephone: (321)-960-6056 (emergencies only please)

Email Address: (cantone@scf.edu)

Course Description:

BCN 1597 Introduction to Solar Energy (3) (A.S./ A.A.S.)

This course is an introduction to the characteristics of solar energy and the passive and active uses of solar energy in heating and cooling situations in typical, residential construction. The course explores the characteristics of solar energy, its adaptation by the earth's atmosphere, and current and future methods available to harness, control, and best utilize this source of energy. The course emphasizes the potential advantages available in the sustainability of this natural resource.

The course will focus on the climate of the southeastern United States, and will emphasize the use of solar photovoltaic technology.

Student Learning Outcomes:

- 1. The student will demonstrate an understanding of the relationship of the sun to the various seasons in the earth's northern and southern hemispheres.***
- 2. The student will demonstrate an understanding of passive and active solar gain and cooling technologies with regard to orientation, exposure, and seasons, emphasizing the climatology of the southeastern United.***
- 3. The student will demonstrate an understanding of the relationships between the use, or misuse, of solar energy for sustainability.***
- 4. The student will demonstrate an understanding of solar photovoltaics technology in both stand-alone and grid-interactive applications.***
- 5. The student will demonstrate an understanding of life -cycle cost, return on investment, and pay back time.***

Text and Materials: Photovoltaic: Fundamentals, Technology, and Practice. Konrad Mertens; Second edition.

Attendance Policy:

There are no required face -to-face meetings for this class; attendance will be based on assignment completion in Canvas. Two weeks with no assignments submitted will result in automatic withdrawal from the class. Emphasis is placed on completing assignments in a timely manner. Penalty will be given for all late assignments. But....I understand that life happens so....a reasonable reason may waive some or all late work penalty (especially if it's really good).

No-Show Policy:

Students who do not drop a course that they have never attended will be reported as a No-Show by the course instructor during the

No-Show period. This drop may have financial aid implications for the student who is dropped.

Grading Policy:

Weight final grade on assignments groups:

Quiz.	_____	20%	
Discussion/Project	_____	30%	Total 100%
Subject Report/Discussion	_____	20%	
Final Project	_____	30%	

Scale:	90-100%-A
	80-89%.- B
	70-79%.—C
	60-69%—D
	0—59%—F

Prohibiting Recording Device:

The use of recording devices during class is prohibited, except when the use of such devices is approved as an accommodation through the college.

Disability Resource Center.

In such cases the student must provide a copy of their Memo of Accommodation and meet with the instructor to discuss how best to provide the approved accommodation.

Recording in Go Live with SCF Online Course Teams Sessions:
If this course is a Go Live with SCF Online course, the instructor may record live class discussions and instructor presentations. Therefore, as a student in this class, your participation in live class discussions may be recorded by the instructor. These recordings will be made available only to students enrolled in the class to assist those who cannot attend the live session or to serve as a resource for those who would like to review content that was presented. Where recordings are made, a notice that recording has started is presented to students in the class using the Teams session.

Technical Support Information:

Technical Support Information	<p>For technical issues with Canvas, contact Canvas technical support by clicking the question mark icon in the lower left-hand corner of the Canvas window and choosing “Report a Problem” or “Chat with Canvas Support.” Also, Canvas support can be contacted via phone at 844-920-2764.</p> <p>For technical issues with My SCF, contact SCF technical support by calling (number) or emailing helprequest@scf.edu.</p> <p>For technical issues with the publisher sites (if applicable) contact their technical support at:</p>
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Email:

Students are required to communicate with their instructor using their official SCF email address “cantone@scf.edu”

Withdrawal Policies:

Students should consult the College Catalog for a complete listing of withdrawal policies.

A withdrawal is a change in the student's course schedule where one or more courses are withdrawn before the end of the term.

Withdrawn courses appear on the student's transcript as a "W" and are classified as attempts.

No refunds are permitted for withdrawn courses.

Withdrawing from a course(s) - Course withdrawal is defined as withdrawal from one or more classes for a term but not complete withdrawal from the college. Failure to completely process a drop form or drop a class online may result in the student being assigned a grade of "F".

Financial Aid Impact:

Withdrawing from one or more courses during the semester, without complete withdrawal from the college, may have an impact on both the amount of aid received for the semester and a student's academic eligibility to continue receiving financial aid for future enrollment. Students should contact the Office of Financial Aid for further information regarding the impact of withdrawing from one or more courses.

Faculty Withdrawal:

Before the course withdrawal deadline and upon approval of the Department Chair, Assistant Dean, or other appropriate academic administrator, a faculty member may withdraw a student when the student has stopped attending or engaging in the class for an extended period of time as defined in the course syllabus, and has not formally withdrawn from the course, resulting in their inability to successfully pass the class.

If a student's absences, tardiness, or misconduct is causing disruption, the faculty member may file a code of conduct violation with the Dean of Students. The Dean of Students will work with the faculty member and the appropriate academic administrator before determining if a withdraw is appropriate. In the event of an approved faculty withdrawal, a grade of W will be recorded. The grade is recorded on the student's permanent academic record. Fees are applied for all courses accordingly and are counted as attempted courses.

Statement of Plagiarism:

Plagiarism is the use of ideas, facts, opinions, illustrative material, data, direct or indirect wording of another scholar and/or writer—professional or student—without giving proper credit. Expulsion, suspension, or any lesser penalty may be imposed for plagiarism.

Copyright:

The unauthorized copying, sharing, or distribution of copyrighted material is prohibited. It is a violation of the Copyright Act, Academic Ethics, and the Code of Student Conduct. Students who violate copyright are subject to discipline.

Standards of Conduct:

Students are expected to abide by all SCF Student Handbook guidelines.

COVID-19

Like all institutions of higher education, SCF has been impacted by COVID-19. In response, SCF has developed a Return to Campus plan based on the recommendations of the President's

Return to Campus Taskforce and the current recommendations of the Centers for Disease Control (CDC), Department of Health (DOH), Florida Department of Education (FLDOE), Florida College System (FCS), local and state officials.

The plan can be found linked from the College's Coronavirus website listed below. The website includes useful information for students regarding precautions, operations, monitoring, and instruction.

<https://www.scf.edu/Administration/PublicSafety/Coronavirus.asp>

Of particular note, students will be required to wear masks in all classrooms and instructional locations. Student non-compliance with this requirement will be treated the same as any other classroom Code of Conduct violation.

SCF has also established specific protocols for students who show symptoms of COVID-19, been in close contact with anyone who has tested positive for COVID-19, or themselves have tested positive for COVID-19.

Students should refer to the SCF webpage for Coronavirus linked above for the full protocol details. Students who have had direct contact with someone who has tested positive with COVID-19 or themselves have tested positive for COVID-19 are expected to self-isolate for 14 days or until cleared by a medical provider if they have tested positive. Students who are self-isolating as a result of a positive test for COVID-19 or direct exposure to COVID-19 must contact Susanne Walters at walters@scf.edu to advise of the situation.

Disability Resource Center:

State College of Florida, in accordance with the Americans with Disabilities Act, will provide classroom and academic accommodations to students with documented disabilities. Students must submit application and documentation to the Disability Resource Center (DRC). Once registered, the Memorandum of Accommodations containing all approved

accommodations, important information, and links to forms and processes will be emailed to instructors. Students and instructors are encouraged to work collaboratively throughout the semester to facilitate appropriate use of accommodations. DRC Contact Information: Email: drc@scf.edu Phone: 941-752-5295 DRC Website: Disability Resource Center website.

Statement of Nondiscrimination:

State College of Florida, Manatee-Sarasota does not discriminate on the basis of sex (including pregnancy), race, religion, age, national origin/ ethnicity, color, marital status, disability, genetic information and sexual orientation in any of its educational programs, services or activities, including admission and employment. Direct inquiries regarding nondiscrimination policies to: Equity Officer, 941-752-5323, PO Box 1849, Bradenton, FL 34206.

Religious Observances:

Students who expect to be absent due to religious observances must provide their instructor with advance notification, in writing, of the purpose and anticipated length of any absence by the end of the second week of classes. At that time, the instructor and student will agree upon a reasonable time and method to make up any work or tests missed.

Course Summary:

Date	Details	Due
Fri Jan 13, 2023	 Discussion#1 (Introduce yourself.)	due by 11:59pm
Sun Jan 15, 2023	 Subject Report(ch#1)	due by 11:59pm
Mon Jan 16, 2023	 Discussion#2(Climate change)	due by 11:59pm
	 Quiz (ch#1)	due by 11:59pm
Wed Jan 18, 2023	 Discussion/Project#3(Sun path chart)	due by 11:59pm
Thu Jan 19, 2023	 Subject Report#2 (Solar Radiation.)	due by 11:59pm
Mon Jan 23, 2023	 Quiz (ch#2)	due by 11:59pm
	 Subject Report(ch#3)	due by 11:59pm
Wed Jan 25, 2023	 Discussion#4 (Semiconductor's)	due by 11:59pm
Fri Jan 27, 2023	 Quiz (ch#3)	due by 11:59pm
Mon Jan 30, 2023	 Subject Report (ch#4)	due by 11:59pm
	 Subject Report (ch#5)	due by 11:59pm
Wed Feb 1, 2023	 Discussion#5 (Cell Technology)	due by 11:59pm
Fri Feb 3, 2023	 Quiz (ch#4&5)	due by 11:59pm
Mon Feb 6, 2023	 Subject Report (ch#6)	due by 11:59pm
	 Subject Report (ch#7)	due by 11:59pm
Sun Feb 12, 2023	 Subject Report (ch#8)	due by 11:59pm
Wed Feb 15, 2023	 Discussion/Project #6 (Batteries)	due by 11:59pm
	 Quiz (ch.6&7)	due by 11:59pm
Wed Feb 22, 2023	 Quiz (ch#8&9)	due by 11:59pm
Thu Mar 2, 2023	 Connecting batteries in series	due by 11:59pm
	 Final Project	due by 11:59pm
	 PV Module Manufacturing	

