

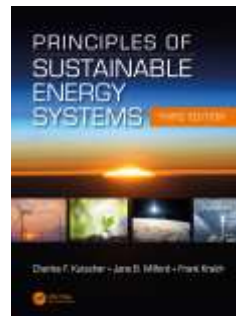
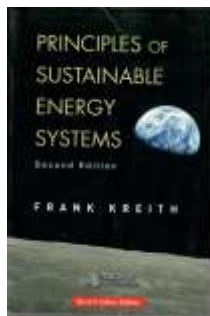
Instructor: Xiaohua Li
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Lecture Time: **Course will be remotely delivered through live zoom meeting**
 Tu & Th 5:30 p.m.-6:50 p.m

Office Hours: Open Office Policy; Email to make appointment for Zoom Meeting

Required Textbook: Principles of Sustainable Energy Systems 3rd Edition (or 2nd Edition)
 Frank Kreith and Susan Krumdieck
 ISB#13:978-1-4665-5696-6, 2014, CRC Press (Taylor & Francis)



Course Description:

3 hours. This lecture and project-based course will cover the following topics: introduction to sustainable energy, economics of energy generation and conservation Systems, wind energy, capturing solar energy through biomass, fundamentals of solar radiation, photovoltaics, and solar heating and cooling of buildings.

Prerequisite(s): MEEN 3110 Thermodynamics II and MEEN 3210 Heat Transfer

Grades: Homework (5)	20%	≥ 90%	A
Quizzes (highest 3/5)	20%	80-89.9%	B
Exam 1	20%	70-79.9%	C
Exam 2	20%	60-69.9%	D
Project & Presentation	20%	< 60%	F
Attendance (5 out of 6)	5%		
Total	105%		

Homework Policy:

1. **“Homework Day”:** **Tuesday**, the day new homework will be assigned (HW will be posted in Blackboard) and previous homework will be collected;
 Homework should be turned in on the due day before the deadline through Canvas. **NO late homework will be collected.**
Exceptions: refer to UNT Policies 06.039.
 An absence may be excused for the following reasons:
 1. religious holy day, including travel for that purpose;

2. active military service, including travel for that purpose;
3. participation in an official university function;
4. illness or other extenuating circumstances;
5. pregnancy and parenting under Title IX; and
6. when the University is officially closed.

Procedure: Please request accommodations/exceptions through UNT “Dean of Students Office”

2. Solutions to Homework Assignments will be available in Canvas after HW has been collected.
3. Having no textbook is not a valid excuse for not doing homework. It is the student’s responsibility to acquire textbook for his/her study
4. All homework assignments should be turned in through Canvas. There will be a window/link in canvas open for submitting HW.

Exam and Quiz Policy:

- (1) Exams and quizzes will be announced in advance and posted in canvas.
- (2) All exams and quizzes will be take-home;
- (3) Students have **48 hours to complete the exam** and submit solution as one pdf file in canvas
- (4) Students have **24 hours to complete the quiz** and submit solution as one pdf file in canvas
- (5) NO late submission will be accepted/graded.
Exceptions: refer to UNT Policies 06.039.
Procedure for Exceptions: Please request accommodations/exceptions through UNT “Dean of Students Office”
- (6) Students are allowed to use the following resources for exam and quizzes: textbook, homework with solution manuals; quizzes with solutions; lecture notes and lecture PPT slides; internet resources; any calculator and/or computer
- (7) The solution submitted for the exam/quiz should be 100% student’s own individual work. Discussions or communications in any format (including but not limited to: in-person discussions; phone calls; text messages; email discussions) with classmates or anyone who has completed a similar course are prohibited. Such Discussions or communications will be considered as “academic dishonesty”. Student who participated in “academic dishonesty” will receive “zero” score in the exam/quiz, and such academic dishonesty activity will be reported to UNT.

Disability Accommodations: If you need academic accommodations for disability you must have document which verifies the disability and makes you eligible for accommodations, then you can schedule an appointment with the instructor to make appropriate arrangements.

Academic Dishonesty:

There is a zero-tolerance policy. Cheating of whatsoever will result in an automatic ‘F’ in this course and the matter will be turned over to the appropriate student disciplinary committee.

Professionalism:

One of the goals of this course is to teach students about professionalism, including the standards and expected behavior of your chosen profession. With this in mind, students are expected to demonstrate a behavior consistent with the conduct of an individual practicing in the engineering profession. Students are expected to: (1) come prepared for class; (2) respect faculty and peers; (3) demonstrate responsibility and accountability for your own actions; (4) sensitivity and appreciation for diverse cultures, backgrounds, and life experiences; (5) offer and accepts constructive criticism in a productive manner; (6) demonstrate an attitude that fosters professional behavior among peers and faculty; (7) be punctual to class meetings; (8) maintain a good work ethic and integrity; and (9) recognize the classroom as a professional workplace.

Classroom Inclusivity Statement

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

NT Official Academic Calendar: Spring 2021

January 11, 2021	First Class Day (Monday)
January 18, 2021	MLK Day (no classes; university closed)
April 2, 2021	No Classes
April 21-22, 2021	Pre-finals Days
April 22, 2021	Last Class Day

MEEN 4110/5110 Alternative Energy Sources
Schedule Overview (Subject to change)

Week	Date	Lecture Topics
#1	Jan.11 - Jan.15	Overview of syllabus Introduction to Sustainable Energy
#2	Jan.18 - Jan.22	Introduction to Sustainable Energy (cont.) Economics of Energy Generation and Conservation Systems
#3	Jan.25 – Jan.29	Economics of Energy Generation and Conservation Systems (cont.) Economics of Energy Generation and Conservation Systems (cont.) (Quiz #1)
#4	Feb.1– Feb.5	Fundamentals of Solar Radiation; Fundamentals of Solar Radiation; (cont.)
#5	Feb.8 – Feb.12	Fundamentals of Solar Radiation; (cont.) Fundamentals of Solar Radiation; (cont.) (Quiz #2)
#6	Feb.15– Feb.19	Exam #1 Photovoltaic
#7	Feb.22– Feb.26	Photovoltaic (cont.) Photovoltaic (cont.)
#8	Mar.1 – Mar.5	Photovoltaic (cont.) (Quiz #3) Solar Heating and Cooling of Buildings
#9	Mar. 8– Mar.12	Solar Heating and Cooling of Buildings (cont.) (Quiz #4) Wind Energy
#10	Mar. 15– Mar.19	Wind Energy (cont.) Wind Energy (cont.)
#11	Mar. 22– Mar.26	Wind Energy (cont.) Exam #2
#12	Mar.29– Apr. 2	Capturing Solar Energy through Biomass Capturing Solar Energy through Biomass(cont.) Energy Storage
#13	Apr. 5 – Apr. 9	Energy Storage(cont.) (Quiz #5) Student project presentation
#14	Apr. 12 – Apr. 16	Student project presentation Student project presentation
#15	Apr. 19– Apr. 23	Student project presentation Student project presentation
#16	Apr. 26– Apr. 30–	Exam week;

Document History: Dr. Xiaohua Li, 1/10/2020