Syllabus for ENGR135-01: Heat Transfer

Fall 2018
Instructor: James Palko

Designation:	ENGR 135 Heat Transfer
Catalog Description:	Study of conduction, convection, and radiation heat transfer, with applications to engineering problems.
Text Books and Other Required Materials:	Fundamentals of Heat and Mass Transfer Bergman, Lavine, Incropera & DeWitt 8th Ed., John Wiley
Course Objectives/ Student Learning Outcomes:	After successful completion of this class, the students will be able to: 1) Understand the fundamentals of heat transfer processes occurring in natural and engineered systems and convey that understanding in course homework and exams. 2) Apply analytic procedures, numerical tools and problem solving abilities to heat transfer problems such as those assigned in course homework and exams. 3) Understand and perform experimental measurement techniques for heat transfer measurements as illustrated by written laboratory reports describing methods and results.
Program Learning Outcomes:	
Prerequisites by Topic:	ENGR 120: Fluid Mechanics ENGR 130: Thermodynamics MATH 131: Numerical Methods for Scientists and Engineers
Course Policies:	1. In general, please try to maximize the opportunity to learn in lecture for yourself and your fellow students. Please avoid activities that may distract those around you. 2. Please silence all electronic devices and refrain from using them for anything except lecture related activities during class. 3. Only calculators may be used on exams. No cell phones, laptops, or other electronic devices may be used during exams. 3. Homework assignments will be due at the beginning of class on the due date. No late work will be accepted. 4. There will be no make-ups for missed exams or quizzes. No points will be awarded for any missed midterm exam or quiz, except in case of properly documented (e.g. doctor's note) medical or family emergency or other University approved absence. In cases of documented and approved absences, the student's grade will be determined based on the remainder of the work for the course. No more than one midterm exam can be excused. The final exam is required. In case of documented and approved absences from the final, a grade of incomplete will be given for the course pending completion of an equivalent final examination during the following term.
Academic Dishonesty Statement:	a. Each student in this course is expected to abide by the University of California, Merced's Academic Honesty Policy. Any work submitted by a student in this course for academic credit will be the student's own work. b. You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible

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	cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e mail, an e mail attachment file, a diskette, or a hard copy. Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Policy can also be extended to include failure of the course and University disciplinary action. c. During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.
Disability Statement:	Accommodations for Students with Disabilities: The University of California Merced is committed to ensuring equal academic opportunities and inclusion for students with disabilities based on the principles of independent living, accessible universal design and diversity. I am available to discuss appropriate academic accommodations that may be required for student with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances. Students are encouraged to register with Disability Services Center to verify their eligibility for appropriate accommodations.
Topics:	1. Conduction - Steady-state - Transient 2. Convection - External flow / Internal flow - Forced convection - Free convection - Boiling/condensation 3. Heat exchangers 4. Radiation
Class/laboratory Schedule:	Lecture: 9:00-10:15am, Tuesdays & Thursdays (SSB 160); Lab (SCIENG 158) M 1:30-4:20pm or W 8:30-11:20am or F 1:30-4:20pm or F 8:30-11:20am
Midterm/Final Exam Schedule:	Midterm 1: 09/27/18 (Tentative) Midterm 2: 11/01/18 (Tentative) Final: 3:00-6:00pm, December 11, 2018 (SSB 160)
Course Calendar:	August 22 - December 7, Lecture: 9:00-10:15am, Tuesdays & Thursdays
Professional Component:	Engineering science 80%; Engineering design 20%
Assessment/Grading Policy:	Homework = 5% Quizzes = 15% 1st Midterm = 20% 2nd Midterm = 20% Final = 25% Lab Reports = 15% Grades will be assigned based on the following approximate ranges: A: 92 - 100% B: 82 – 92%

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Coordinator:	James Palko
Contact Information:	Office: SE2-281 Email: jpalko@ucmerced.edu Phone: 209-228-2724
Office Hours:	SE2-281, Tu: 11a-12p, We: 4-5p Additionally, by appointment. Try to arrange appointments well in advance, as it may be difficult to accommodate them on short notice.