MEC ENG 40 Thermodynamics (CCN 14388)

Fall 2017, Monday, Wednesday, and Friday, 11 am to 12 pm
Wednesday August 23rd to Tuesday December 13th, 2017

Instructor: Dr. David Rich
Email: davidrich@berkeley.edu, rich@reaxengineering.com
Office Hours and Location: Following class, Hesse Hall

GSIs: Claire Funke
Email: csfunke@berkeley.edu
Office hours and location: Tuesdays 3-4pm and Thursdays 4-5pm (before discussion sections) in Hesse Hall

Text: Cengel & Boles, *Thermodynamics: An Engineering Approach*

Lecture: M, W, F, 11-12, 105 Northgate

Discussions: We 5:00 pm – 6:00 pm Etcheverry 3107
Th 5:00 pm – 6:00 pm Etcheverry 3111
Tu 4:00 pm – 5:00 pm Mulford 240

Final Exam: Tuesday, 12/12/17, 7-10 pm

Website: bCourses

Grading:

Homework (Weekly)	15%
Midterms (2)	50%
Final	35%

Homework: Homework is assigned online through **bCourses**. It will be scheduled weekly and due one week from assigned date.

Midterm: 2 mid-terms (1 hour) closed book and notes. One sheet of notes prepared for the exam are permitted.

Final: 1 final (3 hours) closed book and notes. One sheet of notes prepared for the exam are permitted. Comprehensive.

Cheating: Don't do it. If you are unclear what constitutes cheating, ask your GSI. As a member of the campus community, you are expected to demonstrate integrity in your academic endeavors and will be evaluated on your own merits. The consequences of cheating and academic misconduct — including a formal discipline file, possible loss of future internship, scholarship, or employment opportunities, expulsion, and denial of admission to graduate school — are simply not worth it.

Students with a Disability: If you need special accommodations in this class, please inform the course administrator.

Day	Date (2017)	Action
Wednesday	23-Aug	Chpt. 1 Introduction and Basic Concepts
Friday	25-Aug	Chpt. 1 Introduction and Basic Concepts
Monday	28-Aug	Chpt. 2 Energy, Energy Transfer and Analysis
Wednesday	30-Aug	Chpt. 2 Energy, Energy Transfer and Analysis
Friday	1-Sep	Chpt. 3 Properties of Pure Substances
Monday	4-Sep	Academic and Administrative Holiday
Wednesday	6-Sep	Chpt. 3 Properties of Pure Substances
Friday	8-Sep	Chpt. 3 Properties of Pure Substances
Monday	11-Sep	Chpt. 4 Energy Analysis of Closed Systems
Wednesday	13-Sep	Chpt. 4 Energy Analysis of Closed Systems
Friday	15-Sep	Chpt. 4 Energy Analysis of Closed Systems
Monday	18-Sep	Chpt. 5 Mass and Energy Analysis of Control Volumes
Wednesday	20-Sep	Chpt. 5 Mass and Energy Analysis of Control Volumes
Friday	22-Sep	Chpt. 5 Mass and Energy Analysis of Control Volumes
Monday	25-Sep	Chpt. 6 Second Law of Thermodynamics
Wednesday	27-Sep	Chpt. 6 Second Law of Thermodynamics
Friday	29-Sep	Midterm 1
Monday	2-Oct	Chpt. 7 Entropy 1
Wednesday	4-Oct	Chpt. 7 Entropy 1
Friday	6-Oct	Chpt. 8 Exergy
Monday	9-Oct	Chpt. 8 Exergy
Wednesday	11-Oct	Chpt. 9 Gas Power Cycles
Friday	13-Oct	Chpt. 9 Gas Power Cycles
Monday	16-Oct	Chpt. 10 Vapor and Combined Power Cycles
Wednesday	18-Oct	Chpt. 10 Vapor and Combined Power Cycles
Friday	20-Oct	Chpt. 11 Refrigeration
Monday	23-Oct	Chpt. 11 Refrigeration
Wednesday	25-Oct	Review
Friday	27-Oct	Midterm 2
Monday	30-Oct	Chpt. 13 Gas Mixtures
Wednesday	1-Nov	Chpt. 13 Gas Mixtures
Friday	3-Nov	Chpt. 14 Gas Vapor Mixtures and HVAC
Monday	6-Nov	Chpt. 14 Gas Vapor Mixtures and HVAC
Wednesday	8-Nov	Chpt. 14 Gas Vapor Mixtures and HVAC
Friday	10-Nov	Academic and Administrative Holiday
Monday	13-Nov	Chpt 12. Thermodynamic Property Relations
Wednesday	15-Nov	Chpt 12. Thermodynamic Property Relations
Friday	17-Nov	Chpt 12. Thermodynamic Property Relations
Monday	20-Nov	Chpt. 15 Chemical Reactions
Wednesday	22-Nov	Non-Instructional Day
Friday	24-Nov	Academic Holiday (and Thursday 23-Nov)
Monday	27-Nov	Chpt. 15 Chemical Reactions
Wednesday	29-Nov	Chpt. 15 Chemical Reactions
Friday	1-Dec	Formal Classes End
Monday	4-Dec	Reading/Review/Recitation Week
Wednesday	6-Dec	Reading/Review/Recitation Week
Friday	8-Dec	Reading/Review/Recitation Week
Monday	11-Dec	Start of Final Exam Week
Tuesday	13-Dec	Final 7-10 PM