

**CANKAYA UNIVERSITY
FACULTY OF ENGINEERING
MECHANICAL ENGINEERING DEPARTMENT**

**ME 212 THERMODYNAMICS-II
COURSE POLICY
SPRING 2017**

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1. OBJECTIVES: The objectives of this course are as follows:

- a) To provide a through understanding of the application of classical thermodynamics to practical problems. New concepts, energy analysis, generalized thermodynamic relations, and equilibrium analysis. Applications include refrigeration and air conditioning, power plants, internal combustion engines, gas turbine engines, reactive systems.
- b) To provide an introductory treatment of thermodynamics for an expanded range of materials including gas mixtures and reacting systems.
- c) To provide limited design experience for systems requiring significant considerations of thermodynamics.

2. TEXT: Moran, M.J., and Shapiro, H.N., Principles of Engineering Thermodynamics, 8th Ed., J. Wiley & Sons, NY (2012).

3. PREREQUISITE: ME 211 Thermodynamics I or equivalent.

4. ASSIGNMENTS: Reading and homework assignments are provided in the course. As basic preparation for each lecture, students should read the assigned section of the textbook **before** coming to class. The homework problems assigned from the textbook are illustrative of the general material and of problems found on exams. Homework assignments are to be completed by the next class period after the assigned class period.

Homework problems will be assigned.

Solutions to all assigned problems will be posted..

Students must use A4 paper when solving homework problems. Only one side of the paper should be used and only one problem per page should be included. If more than one page is needed for a problem, all pages should be stapled together, in order. If the

EES software or MATLAB is used in solving a problem, an EES or MATLAB printout has to be attached to the write-up and discussion of your solution.

5. TEST: There will be two (2) examinations. All examination dates, times and locations will be announced. A comprehensive final examination will be given during finals week.. Sharing of calculators , tables or textbook will not be allowed, so students should make sure to be well prepared coming in to the exam. Any form of academic dishonesty during an exam will not be permitted.

6. HELP: The instructor will hold office hours during the week. Students may receive help from instructor. Office hours and room numbers will be announced during the first week of classes.

7. GRADING: The course grade will be determined based upon the more favorable of the following two distributions.

Attendance	5%
First Midtem	15 %
Second Midterm	15%
Quizzes	25%
Final Exam	40%

Based on personal criteria (attendance, quizzes , diligence), the instructor also has the option of raising or lowering any border-line grade.