

**ANKARA UNIVERSITY**  
**Department of Energy Engineering**  
**ENE 501 – Advanced Thermodynamics**

### **COURSE SYLLABUS**

#### **Instructor**

Işık Semerci  
Assistant Profesör of Energy Engineering  
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#### **Course Objectives**

The aim of this course is to extend the undergraduate thermodynamic knowledge (thermodynamic's laws, phase and chemical equilibria, stability criteria) of the students, deal with the statistical aspects of thermodynamics and show that the concepts of thermodynamics are applicable to energy conversion processes.

#### **Classroom Hours**

Not determined yet.

#### **Office Hours**

You are welcomed to email me at any time.

#### **Web site**

You can follow the course content from the website: <https://acikders.ankara.edu.tr>. Your homeworks will be posted on this website as well.

#### **Textbooks**

Jefferson W. Tester and Michael Modell, "Thermodynamics and Its Applications", 1996, Prentice Hall.  
Ismail Tosun, "The Thermodynamics of Phase and Reaction Equilibria", 2012, Elsevier.

#### **Exams**

Two midterm exams will be given. Dates have not been determined yet.

Please don't expect these dates to change. If you miss an exam with a certified medical excuse, you may take a make-up exam (after the exam but it will be CHALLENGING. All exams will be open-book. Bring your textbook, calculator, graph papers and ruler to all exams. If you have difficulty with English, you may also bring a dictionary with you for the exam.

#### **Grading**

A weighted average grade will be calculated as follows:

Midterm exams: 40% (20% each)

Homeworks and Quizzes: 10%

Final exam: 50%

#### **Classroom rules**

Always bring your textbook and calculator to the class.

Be prepared for pop quizzes or scheduled quizzes.

Do not arrive late to the class.

Turn off your mobile phones, do not use it during the class even in case of finding a relevant information.

You are required to attend at least 70% of the total lecture hours.

## Homeworks

You are encouraged to work on the homework assignments with your classmates but you should submit your homeworks independently. You should not copy solutions from a classmate. Presenting someone else's work as your own is plagiarism (or cheating) and will be dealt accordingly.

For your homeworks:

- Use an A4 size paper.
- Use a pencil. Do not use a pen.
- Use one side of each page.
- Add page number on the top of each page.
- Start each problem on a new page.
- Clearly indicate the your answer by drawing a box around it.
- Use the standard abbreviations.
- Do not forget to indicate the units of the values. You will lose points if your answer doesn't have a unit.
- Provide a neat sketching on the graphs, use a ruler if necessary.
- Provide a neat sketching for the flowcharts, use a ruler if necessary.
- HOMEWORKS should be submitted in the beginning of the course on Fridays. Late homework may be accepted up to ONE WEEK - You will lose 40% of the total points. You are granted this privilege only 3 times.

At the first page, please indicate your information as follows:

ENE 501	Name	HW1	13/4/1982
<b>Problem 1</b>			
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