

ANKARA UNIVERSITY
Department of Energy Engineering
ENE 204 – Energy and Environment

COURSE SYLLABUS

Instructor
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Course Objectives: This course comprises the composition and combustion characteristics of a variety of fuels such as gasoline, diesel and gaseous fuels and as well as addresses their negative impacts on the environment from fuel-consuming devices and activities associated with fuel and energy applications.

Classroom Hours: Tuesdays between 09.30-12:15 (BME-5)

Textbook: Ghazi A. Karim, Fuels, Energy and the Environment, 1st Edition, CRC Press.

Exams: Two midterm exams will be given on the following dates:

Midterm Exam # 1: April 3, 2018.
Midterm Exam # 2: May 15, 2018.

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).

Please read the faculty rules carefully: <http://www.eng.ankara.edu.tr/ogrencilerin-saglik-raporu-alirken-dikkat-etmeleri-gereken-kurallar/> if you miss an exam. All exams will be closed -book.

Grading

A weighted average grade will be calculated as follows:

Midterm exams: 49% (20% each)
Homeworks: 10%
Final exam: 50%

COURSE CONTENT

- 1- Fuels in general
- 2- Fuels classification
- 3- Fuels consuming energy systems
- 4- Stoichiometry and thermodynamics
- 5- Chemical kinetics and fuel combustion
- 6- Exhaust emissions from combustion of fuels
- 7- Combustion and flames
- 8- Petroleum
- 9- Refining petroleum
- 10- Gasoline
- 11- Diesel Fuels and some other liquid fuels
- 12- Solid fuels
- 13- Natural Gas and the other gaseous fuels