

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-3040	Energy Systems	3.00	0.00	0.00	3.00	6.00
Course Detail						
Course Language	: Turkish					
Qualification Degree	: Bachelor					
Course Type	: Optional					
Preconditions	: Not					
Objectives of the Course	: General information about energy systems and developments about their applications.					
Course Contents	: The older generation energy sources, Petroleum, Coal, Natural Gas provides information on production and consumption. New generation energy sources are introduced					
Recommended or Required Reading	: Fossil Energy Production, Mkyer Kutz-Ali Elkamel 2020, Non conventional and Renewable Energy Sources, SS Thipse 2014					
Planned Learning Activities and Teaching Methods	: Lecture, homework, application					
Recommended Optional Programme Components	: Current research topics for student.					
Instructors	: Prof. Dr. Caner Çiçek					
Instructor's Assistants	: No					
Presentation Of Course	: Face to face					

Course Outcomes

Upon the completion of this course a student :

- 1 Learns what is energy. Knows the old generation energy resources. Learns to use today.
- 2 Learns new generation energy resources. Examines current situations. Learns about energy investments.
- 3 Compares old and new generation energy sources. Analyzes the last current situation.

Preconditions

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Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods
1.Week	*What is energy.				
2.Week	*The concept of the older generation of energy.				
3.Week	*What is petroleum energy.				
4.Week	*Oil production and view of the current situation.				
5.Week	*Coal energy and its definition.				
6.Week	*Coal consumption and thermal power plants				
7.Week	*Natural gas energy and resources, use.				
8.Week	*Exam				
9.Week	*Obtaining and using solar energy.				
10.Week	*Wind energy and wind power plants.				
11.Week	*Geothermal energy resources in the world and Turkey				
12.Week	*Other New Energy sources.				
13.Week	*Nuclear energy overview.				
14.Week	*Comparison of energy efficiency in the use of old and new				

Assesment Methods %

1 Md Term Exam 1 : 40.000

2 Final : 60.000

ECTS Workload

Activities	Count	Time(Hour)	Sum of Workload
Vize	1	3.00	3.00
Final	1	3.00	3.00
Individual study before lecture	14	3.00	42.00

