

**ÇİZELGE 2a. DİSİPLİNLERARASI ENERJİ MÜHENDİSLİĞİ ANABİLİM DALI
ENERJİ MÜHENDİSLİĞİ İNGİLİZCE TEZLİ YÜKSEK LİSANS PROGRAMI
ZORUNLU DERSLERİ**

1. Dönem

Dersin Kodu	Dersin Adı	T	U	L	AKTS
ENE589.1	Special Studies	6	0	0	6
ENE501	Energy Engineering and Management	3	0	0	6
NAS560	Partial Differential Equations	3	0	0	6
Seçmeli		3	0	0	6
Seçmeli		3	0	0	6

2. Dönem

Dersin Kodu	Dersin Adı	T	U	L	AKTS
ENE589.2	Special Studies	6	0	0	6
ENE502	Sustainable Energy Systems	3	0	0	6
NAS502	Research Methods	2	0	0	3
ENE590	Seminar	0	2	0	3
Seçmeli		3	0	0	6
Seçmeli		3	0	0	6

3. Dönem ve Sonrası

Dersin Kodu	Dersin Adı	T	U	L	AKTS
ENE589.3	Special Studies	6	0	0	6
ENE500	MSc Thesis	0	1	0	24

**ÇİZELGE 2b. DİSİPLİNLERARASI ENERJİ MÜHENDİSLİĞİ ANABİLİM DALI
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SEÇMELİ DERSLERİ**

Seçmeli dersler 4 ana grupta toplanmıştır.

Energy & Engineering Fundamentals

Dersin Kodu	Dersin Adı	T	U	L	AKTS
ENE503	Fundamentals of Thermal and Fluid Sciences	3	0	0	6
ENE504	Multiphase Flow in Pipes and Annulus	3	0	0	6
NAS511	Artificial Intelligence Methods in Engineering	3	0	0	6
NAS514	Advanced Numerical Methods in Engineering	3	0	0	6
NAS516	Experimental Design& Statistical Data Analysis	3	0	0	6
NAS517	Fuzzy Logic	3	0	0	6
NAS518	Artificial Neural Networks	3	0	0	6
NAS519	Optimization	3	0	0	6
NAS520	Operations Research	3	0	0	6
NAS521	Introduction to Finite Element Methods	3	0	0	6
ME520	Numerical Methods of Heat Transfer	3	0	0	6

Energy Systems (Solar, Geothermal, Wind, Nuclear etc.)

Dersin Kodu	Dersin Adı	T	U	L	AKTS
ENE505	Fundamentals of Renewable Energy	3	0	0	6
ENE506	Wind Energy Principles	3	0	0	6
ENE507	Applications of Wind Energy	3	0	0	6
ENE508	Exergy Analysis of Renewable Energy Systems	3	0	0	6
ENE509	Thermodynamics for Solar Energy Systems	3	0	0	6
ENE510	Water Resources and Energy	3	0	0	6
ENE511	Geothermal Production and Process Engineering	3	0	0	6
ENE512	Geothermal Drilling Engineering	3	0	0	6
ENE513	Production of Electrical Energy	3	0	0	6
ENE514	Biofuels	3	0	0	6
ENE515	Photovoltaic Systems	3	0	0	6
ENE516	Biomass Energy	3	0	0	6

Fluid Energy Resources (Petroleum, Natural Gas, CO₂, Geothermal Steam)

Dersin Kodu	Dersin Adı	T	U	L	AKTS
ENE517	Fluid Flow and Energy Transport Through Porous Media	3	0	0	6
ENE518	Advanced Natural Gas Engineering	3	0	0	6
ENE519	Enhanced Oil Recovery Methods	3	0	0	6

Energy Efficiency & Management

Dersin Kodu	Dersin Adı	T	U	L	AKTS
ENE520	Energy Policy Analysis	3	0	0	6
ENE521	Energy Foresight	3	0	0	6
ENE522	Energy System Analysis	3	0	0	6
ENE523	Energy Efficiency in Buildings	3	0	0	6
ENE524	Nanotechnology in Energy and Environment	3	0	0	6
ENE525	Materials for Energy Applications	3	0	0	6
ENE526	Use of Composite Materials for Energy Industry	3	0	0	6
ENE527	Heat Insulating Materials	3	0	0	6

Energy Conversion and Equipment (Conversion system, boilers, exchangers etc.)

Dersin Kodu	Dersin Adı	T	U	L	AKTS
ENE528	Advanced Energy Conversion	3	0	0	6
ENE529	Measurement Techniques for Energy Systems	3	0	0	6
ENE530	Heat Pumps and Applications	3	0	0	6