

<b>MENG547 – Energy Management and Utilization</b>		
<b>Instructor: Prof. Dr. Uğur Atikol</b> <a href="http://staff.emu.edu.tr/uguratikol/">http://staff.emu.edu.tr/uguratikol/</a>		
<b>Department:</b> Mechanical Engineering		
<b>Program Name:</b> Mechanical Engineering	<b>Program Code:</b> 23	
<b>Course Code:</b> MENG547	<b>Credits:</b> 3 (3,0)	<b>Year/Semester:</b> 2022 - 2023 Fall
<b>Prerequisite(s):</b> N/A		
<b>Catalog Description:</b> A brief background to energy and environmental problems. Energy fundamentals. Feasibility assessment in energy studies. Economic analysis and life cycle costing. Energy utilization strategies. Renewable energy and challenges. Energy efficiency in buildings. Energy storage. Utility demand-side management (DSM).		
<b>Course Web Page:</b> <a href="http://staff.emu.edu.tr/uguratikol/en/teaching/courses/meng547-energy-management-and-utilization">http://staff.emu.edu.tr/uguratikol/en/teaching/courses/meng547-energy-management-and-utilization</a>		
<b>Textbook(s):</b> <i>Course notes/presentations are available at the bookstore.</i>		
<b>Indicative Basic Reading List :</b> (There are many books related to our topics in the library)		
<b>Topics Covered and Class Schedule:</b> (3 hours of lectures per week)		
Week 1	Introduction to Energy Management	
Weeks 2-3	Energy Fundamentals	
Weeks 4-5	Feasibility Evaluation	
Weeks 6-7	Energy Utilization Strategies	
Weeks 8-9	<b>Mid-Term Examination</b>	
Weeks 10-11	Energy Utilization Strategies	
Weeks 12-13	Energy Storage	
Week 14-15	Utility Demand-Side Management	
Weeks 14	Term Project Presentations	
Week 15:	<b>Final Examination</b>	

<b>Term Assignment:</b> Each student is expected to choose a term project and produce a paper at the end of the semester. Students are also required to make presentations during the semester. <u>Completion of the term assignment is a requirement to pass the course.</u>			
<b>Assessment</b>	<b>Method</b>	<b>Dead-Line</b>	<b>Percentage</b>
	Midterm Exam	N/A	20%
	Assignment-1 (Presentation)*	21 <sup>st</sup> December 2017	10 %
	Assignment-2 (Report)**	21 <sup>st</sup> December 2017	30%
	Final Examination	N/A	40%
<b>Prepared by:</b> Prof. Dr. Uğur Atikol			<b>Date Prepared:</b> September 2022

\* Short presentation on the selected seminar topic (30 - 45 mins)

\*\* Submission of the report on the seminar topic in the format of a paper.