

Alanya Alaaddin Keykubat University | Rafet Kayış Faculty of Engineering
 Mechanical Engineering Department
 2021-2022 Spring Semester
SYLLABUS

Code/Name	MEC 306/ Manufacturing Processes II
Type	Required
Credit/ECTS	6/6
Hour per Week	4 (4+0+0)
Level/Year	Undergraduate/3
Semester	Spring
Classroom	TBA
Content	Introduce principles of manufacturing processes and equipment, and examine characteristics of different processes in terms of quality, cost, lead-time, volume etc. Development of basic background for process selection and analysis
Prerequisites	None
Textbooks	<p><i>Primary</i></p> <ul style="list-style-type: none"> - Groover, M., Fundamentals of Modern Manufacturing: Materials, processes, and systems, John Wiley, 1999 <p><i>Supplementary</i></p> <ul style="list-style-type: none"> - S. Kalpakjian and S.R. Schmid, Manufacturing Processes for Engineering Materials, Prentice Hall, 2008.
Objectives	<ol style="list-style-type: none"> 1. Recognize, understand and develop working knowledge of broad range of manufacturing processes that are used in the industry. 2. To compare the existing technologies used in casting, shaping, forming, property enhancing, joining and assembly process. 3. To apply the limitations and advantages of different manufacturing processes with an economic point of view to the industry. 4. To learn how component can be manufactured in sustainable manner and learn about the environmental hazards of different manufacturing processes.
Course Outcomes	<p>In this course you will be able to:</p> <p>CO1 Apply appropriate manufacturing processes for a product and determine its parameters</p> <p>CO2 Analyze process dynamics and performance of different manufacturing processes.</p>

Weekly Schedule of Topics

W	Topic
1-3	Rubber Processing Technology, Mechanical Assembly
4-6	Composites and Shaping Processes for Polymer Matrix Composites
7-8	Powder Metallurgy
9-10	Fundamentals of Welding
11-13	Welding Processes
14	Brazing-Soldering-and-Adhesive-bonding

Contribution to Program Outcomes*

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	1	3	1	2	2	0	3	2
CO2	3	3	3	1	3	1	2	2	0	3	3

* Contribution Level | 0: None | 1: Very Low | 2: Low | 3: Medium | 4: High | 5: Very High

Special Conditions	<ul style="list-style-type: none">• Students work in groups for presentation and assignment.• The consequence of violation of the attendance rule is to receive a grade of NA.								
Requirements	Basic knowledge of a dynamic analysis software								
Evaluation	<table><tr><td>Midterm Exam</td><td>25%</td></tr><tr><td>Quizzes</td><td>25%</td></tr><tr><td>Final Exam</td><td>50%</td></tr><tr><td>Total</td><td>100%</td></tr></table>	Midterm Exam	25%	Quizzes	25%	Final Exam	50%	Total	100%
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Total	100%								
Course Policy	<ol style="list-style-type: none">1. You must attend at least 70% of the sessions including add-drop period.2. Be in the class on time.3. English should always be used to communicate with one another.4. Mobile phone should be switched off and put away during the class.5. You cannot talk to your friends during class no matter what the subject is.								
Cheating & Plagiarism	<ul style="list-style-type: none">• Copying or letting someone to copy your work on exams, assignments, or reports is cheating.• Cutting and pasting text, figures and tables from the web sources or any other electronic source is plagiarism.• The consequence of academic dishonesty is to receive a grade of F for the course.								

Instructor			
Name/Surname	Bertan Beylergil	Email	bertan.beylergil@alanya.edu.tr
Room	233	Office Hours	TBA

Prepared by Bertan Beylergil on September 12, 2022