



# Kütahya Dumlupınar Üniversitesi

## Simav Technology Faculty

### Mechanical Engineering

#### Makine Mühendisliği

1.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
221911001	Turkish Language I	2+0+0	Compulsory	2
221911005	Mathematics I	4+0+0	Compulsory	5
221911009	Chemistry	3+0+0	Compulsory	4
221911015	Introduction to Mechanical Engineering	2+0+0	Compulsory	3
221911020	Occupational Health and Safety I	2+0+0	Compulsory	3
221911021	Physics I	3+0+0	Compulsory	4
221911022	Technical Drawing	2+2+0	Compulsory	5
221911023	Basic Computer Sciences	2+0+0	Compulsory	2
YDS001	Foreign Language Group of Elective Course I	2+0+0	Elective	2
221911003	English I	2+0+0	Elective	2
221911025	German I	2+0+0	Elective	2
Total ECTS				30

2.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
KP2219101	Career Planning	2+0+0	Compulsory	2
221912002	Turkish Language II	2+0+0	Compulsory	2
221912006	Mathematics II	4+0+0	Compulsory	5
221912010	Material Science	3+0+0	Compulsory	4
221912020	Physics II	3+0+0	Compulsory	4
221912021	Computer Aided Engineering Drawing	2+2+0	Compulsory	4
221912022	Occupational Health and Safety II	2+0+0	Compulsory	3
221912023	Machine Tools	3+3+0	Compulsory	6
YDS002	Foreign Language Group of Elective Course I	2+0+0	Elective	2
221912004	English II	2+0+0	Elective	2
221912025	German II	2+0+0	Elective	2
Total ECTS				32

3.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
221913001	Atatürk's Principles and the History of the Turkish Revolution I	2+0+0	Compulsory	2
221913003	Statics	3+0+0	Compulsory	3
221913005	Thermodynamics I	3+0+0	Compulsory	4
221913007	Differential Equations	4+0+0	Compulsory	4
221913011	Manufacturing Methods	2+2+0	Compulsory	4
221913013	Computer Programming	2+2+0	Compulsory	4
221913020	Measurement and Control Techniques	3+0+0	Compulsory	3
TSD001	Group of Technical Elective Course I	3+0+0	Elective	3
221913022	Engineering Materials	3+0+0	Elective	3
221913023	Optimization Techniques	3+0+0	Elective	3
221913024	Sanitary System	3+0+0	Elective	3
TSD002	Group of Technical Elective Course II	3+0+0	Elective	3
221913026	Renewable Energy Sources	3+0+0	Elective	3
221913027	Mechanism Technique	3+0+0	Elective	3
221913028	Welded Design and Manufacturing	3+0+0	Elective	3
Total ECTS				30

4.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
221914002	Atatürk's Principles and the History of the Turkish Revolution II	2+0+0	Compulsory	2
221914004	Strength	3+0+0	Compulsory	4
221914006	Dynamics	3+0+0	Compulsory	3
221914020	Numerical Analysis	3+0+0	Compulsory	4
221914021	Thermodynamics II	3+0+0	Compulsory	4
221914022	Computer Aided Design I	2+2+0	Compulsory	5
221914023	CNC Machine Tools	2+2+0	Compulsory	5
TSD003	Group of Technical Elective Course III	3+0+0	Elective	3
221914025	Material Inspection Methods	3+0+0	Elective	3
221914026	Casting and Forging Technology	3+0+0	Elective	3

221914027	Energy Efficiency Strategy and Action Plan	3+0+0	Elective	3
			<b>Total ECTS</b>	<b>30</b>

### 5.Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
221915001	Machine Elements I	3+0+0	Compulsory	4
221915003	Engineering Economics	3+0+0	Compulsory	3
221915013	Computer Aided Manufacturing I	2+2+0	Compulsory	4
221915020	Fluid Mechanics	3+0+0	Compulsory	4
221915021	Machine Dynamics	3+0+0	Compulsory	4
TSD004	Group of Technical Elective Course IV	3+0+0	Elective	3
221915023	Central Heating And Ventilation	3+0+0	Elective	3
221915024	Production Planning and Control	3+0+0	Elective	3
221915025	Air Pollution and Control Technologies	3+0+0	Elective	3
TSD005	Group of Technical Elective Course V	3+0+0	Elective	4
221915027	Reverse Engineering and Rapid Prototyping	3+0+0	Elective	4
221915028	Automatic Control	3+0+0	Elective	4
221915029	Natural Gas and LPG Technology	3+0+0	Elective	4
TSD006	Group of Technical Elective Course VI	3+0+0	Elective	4
221915031	Refrigeration	3+0+0	Elective	4
221915032	Industrial Automation	3+0+0	Elective	4
221915033	Engines	3+0+0	Elective	4
			<b>Total ECTS</b>	<b>30</b>

### 6.Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
221916002	Engineering Project Design	2+0+0	Compulsory	4
221916004	Machine Elements II	3+0+0	Compulsory	4
221916020	Heat Transfer	3+0+0	Compulsory	4
221916021	Electrical and Electronical Knowledge	2+0+0	Compulsory	2
TSD007	Group of Technical Elective Course VII	2+2+0	Elective	4
221916023	Hydraulic Pneumatic	2+2+0	Elective	4
221916024	Air Conditioner	2+2+0	Elective	4
221916025	Computer Aided Manufacturing II	2+2+0	Elective	4
TSD008	Group of Technical Elective Course VIII	3+0+0	Elective	4
221916027	Modern Manufacturing Methods	3+0+0	Elective	4
221916028	Wind Energy Technology	3+0+0	Elective	4
221916029	Statistics	3+0+0	Elective	4
TSD009	Group of Technical Elective Course XI	3+0+0	Elective	4
221916031	Sheet Metal Forming	3+0+0	Elective	4
221916032	Solid Waste Management	3+0+0	Elective	4
221916033	Finite Elements	3+0+0	Elective	4
TSD010	Group of Technical Elective Course X	3+0+0	Elective	4
221916035	Vehicle Technology	3+0+0	Elective	4
221916036	Fuels and Combustion	3+0+0	Elective	4
221916037	Technology and R&D Management	3+0+0	Elective	4
			<b>Total ECTS</b>	<b>30</b>

### 7.Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
221917020	Entrepreneurship and Project Management	3+0+0	Compulsory	4
221917021	Graduation Project	0+2+0	Compulsory	6
SSD001	Group of Social Elective Course	2+0+0	Elective	3
221917023	History of Science	2+0+0	Elective	3
221917024	Ottoman History	2+0+0	Elective	3
221917025	Sign Language	2+0+0	Elective	3
221917026	Reporting and Presentation Techniques	2+0+0	Elective	3
TSD011	Group of Technical Elective Course XI	3+0+0	Elective	4
221917028	Solar Energy Applications	3+0+0	Elective	4
221917029	Powder Metallurgy	3+0+0	Elective	4
221917030	Work Molds Design	3+0+0	Elective	4
TSD012	Group of Technical Elective Course XII	3+0+0	Elective	4
221917032	Computer Aided Mold Design	3+0+0	Elective	4
221917033	Steam Boilers	3+0+0	Elective	4
221917034	System Dynamics and Control	3+0+0	Elective	4
TSD013	Group of Technical Elective Course XIII	3+0+0	Elective	3
221917036	Polymer Technology	3+0+0	Elective	3
221917037	Heat Exchangers	3+0+0	Elective	3
221917038	Material Characterization	3+0+0	Elective	3

221917039	Powertrain	3+0+0	Elective	3
TSD014	Group of Technical Elective Course XIV	3+0+0	Elective	3
221917041	Engineering Ergonomics	3+0+0	Elective	3
221917042	Technical English	3+0+0	Elective	3
221917043	Composite Materials	3+0+0	Elective	3
TSD015	Group of Technical Elective Course XV	3+0+0	Elective	3
221917045	Computer Aided Design II	3+0+0	Elective	3
221917046	Transport Technique	3+0+0	Elective	3
221917047	Fuel Cells	3+0+0	Elective	3

**Total ECTS**      **30**

#### 8.Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
221918020	Workplace Training	5+35+0	Compulsory	30

**Total ECTS**      **30**