

**T.C. NECMETTIN ERBAKAN UNIVERSITY ENGINEERING AND ARCHITECTURE FACULTY,  
METALLURGY AND MATERIAL ENGINEERING DEPARTMENT (ENGLISH), 2023-2024 ACADEMIC YEAR CURRICULUM PLAN**

<b>SEMESTER 1</b>							
<b>CODE</b>	<b>COURSE NAME</b>	<b>T</b>	<b>A</b>	<b>Credit</b>	<b>ECTS</b>	<b>COMPULSORY ELECTIVE</b>	<b>Explanation</b>
<b>MME101</b>	Physics-1	2	2	3	5	C	
<b>MME102</b>	Mathematics-1	2	2	3	5	C	
<b>MME103</b>	General Chemistry-1	2	2	3	5	C	
<b>TDL101</b>	Turkish Literature-1	2	0	2	2	C	
<b>YBD101</b>	Foreign Language-1	2	0	2	2	C	
<b>AİT101</b>	Atatürk's Principles & Revolution History-1	2	0	2	2	C	
<b>MME107</b>	Technical English	2	0	2	4	C	
<b>MME108</b>	Introduction to Computer & Information Systems	1	2	2	3	C	
<b>AYD101</b>	Academic Writing	2	0	2	2	C	
<b>AKT101</b>	Akademik Türkçe 1/ Occupational Turkish-1	2	0	2	2	S/E	Sadece yabancı uyruklu öğrenciler için
<b>Total</b>		<b>17</b>	<b>8</b>	<b>21</b>	<b>30</b>		

<b>SEMESTER 2</b>							
<b>CODE</b>	<b>COURSE NAME</b>	<b>T</b>	<b>A</b>	<b>Credit</b>	<b>ECTS</b>	<b>COMPULSORY ELECTIVE</b>	<b>Explanation</b>
<b>MME121</b>	Physics-2	2	2	3	5	C	
<b>MME122</b>	Mathematics-2	2	2	3	5	C	
<b>MME123</b>	General Chemistry-2/	2	2	3	5	C	
<b>TDL102</b>	Turkish Literature-2	2	0	2	2	C	
<b>YBD102</b>	Foreign Language - 2	2	0	2	2	C	
<b>AİT102</b>	Atatürk's Principles & Revolution History -2	2	0	2	2	C	
<b>MME127</b>	Technical Drawing	1	2	2	4	C	
<b>MME128</b>	Introduction to Metallurgical and Materials Engineering	2	0	2	3	C	
<b>KRP102</b>	Career Planning	1	0	1	2	C	
<b>Total</b>		<b>16</b>	<b>8</b>	<b>20</b>	<b>30</b>		

<b>SEMESTER 3</b>							
<b>CODE</b>	<b>COURSE NAME</b>	<b>T</b>	<b>A</b>	<b>Credit</b>	<b>ECTS</b>	<b>COMPULSORY ELECTIVE</b>	<b>Explanation</b>
<b>MME201</b>	Materials Science-1	3	0	3	5	C	
<b>MME202</b>	Extractive Metallurgy	3	0	3	5	C	
<b>MME226</b>	Phase Equilibria	3	0	3	5	C	
<b>MME204</b>	Thermodynamics of Materials-1	2	2	3	5	C	
<b>MME205</b>	Differential Equations	3	0	3	4	C	
<b>BTF201</b>	Scientific History and Philosophy	2	0	2	2	C	
<b>Technical Elective (1 Course)</b>							
<b>MME208</b>	Mineral Processing	3	0	3	4	E	
<b>MME229</b>	Photovoltaic Technologies	3	0	3	4	E	
<b>Total</b>		<b>19</b>	<b>2</b>	<b>20</b>	<b>30</b>		
<b>Müfredat Dışı Seçmeli 1 / Pedagogical Formation Education Elective 1</b>							
<b>PFE3101</b>	Instructional Principles and Methods	3	0	3	4	E	
<b>PFE3102</b>	Introduction to Education	3	0	3	4	E	
<b>Total</b>		<b>25</b>	<b>0</b>	<b>26</b>	<b>38</b>		

**NOT:** Müfredat Dışı Seçmeli derslerin eğitim dili Türkçe olacaktır.

SEMESTER 4								
CODE	COURSE NAME	T	A	Credit	ECTS	COMPULSORY ELECTIVE	Explanation	
MME221	Thermodynamics of Materials-2	2	2	3	5	C		
MME223	Mechanical Metallurgy	3	0	3	5	C		
MME224	Materials Science-2	3	0	3	5	C		
MME225	Fundamentals of Manufacturing Technologies	3	0	3	5	C		
MME230	Iron and Steelmaking	3	0	3	5	C		
<b>Technical Elective (1 Course)</b>								
MME227	X-Ray Diffraction Technique	3	0	3	5	S		
MME232	Surface Treatments	3	0	3	5	E		
<b>Total</b>		<b>17</b>	<b>2</b>	<b>18</b>	<b>30</b>			
<b>Müfredat Dışı Seçmeli 2 /Pedagogical Formation Education Elective 2</b>								
PFE4101	Educational Psychology	3	0	3	4	E		
PFE4102	Instructional Technologies	2	0	2	3	E		
<b>Total</b>		<b>22</b>	<b>0</b>	<b>23</b>	<b>37</b>			

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<b>SEMESTER 5</b>							
<b>CODE</b>	<b>COURSE NAME</b>	<b>T</b>	<b>A</b>	<b>Credit</b>	<b>ECTS</b>	<b>COMPULSORY ELECTIVE</b>	<b>Explanation</b>
<b>MME330</b>	Heat Treatment	2	2	3	4	C	
<b>MME302</b>	Materials Characterization	2	2	3	4	C	
<b>MME304</b>	Metallic Materials and Metallography	2	2	3	4	C	
<b>MME305</b>	Materials Processing Lab	0	4	2	3	C	
<b>MME306</b>	Polymer Materials	3	0	3	5	C	
<b>MME307</b>	Summer Practice-1	0	2	1	5	C	
<b>İSGGÜV1</b>	Occupational Health and Safety-1	2	0	1	2	C	
<b>Technical Elective (1 Course)</b>							
<b>MME308</b>	Optoelectronic Materials	3	0	3	3	E	
<b>MME309</b>	Hydrometallurgy	3	0	3	3	E	
<b>Total</b>		<b>12</b>	<b>12</b>	<b>18</b>	<b>30</b>		
<b>Müfredat Dışı Seçmeli 3 / Pedagogical Formation Education Elective 3</b>							
<b>PFE501</b>	Classroom Management	2	0	2	3	E	
<b>Total</b>		<b>14</b>	<b>12</b>	<b>20</b>	<b>33</b>		

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SEMESTER 6								
CODE	COURSE NAME	T	A	Credit	ECTS	COMPULSORY ELECTIVE	Explanation	
MME322	Ceramic Materials	3	0	3	5	C		
İSGGÜV2	Occupational Health and Safety-2	2	0	1	2	C		
MME323	Metallurgical Processing Lab	0	4	2	3	C		
MME324	Kinetics	3	0	3	5	C		
MME325	Casting and Solidification	3	0	3	5	C		
MME326	Physical Metallurgy	3	0	3	5	C		
ELD302	Critical Thinking	2	0	2	2	C		
<b>Technical Elective (1 Course)</b>								
MME327	Energy Materials	3	0	3	5	E		
MME328	Powder Metallurgy	3	0	3	5	E		
MME330	Glass and Glaze	3	0	3	5	E		
<b>Total</b>		<b>17</b>	<b>4</b>	<b>19</b>	<b>30</b>			
<b>Müfredat Dışı Seçmeli 4 / Pedagogical Formation Education Elective 4</b>								
PFE6101	Measurement and Assessment	3	0	3	4	E		
<b>Total</b>		<b>20</b>	<b>4</b>	<b>22</b>	<b>34</b>			

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SEMESTER 7								
CODE	COURSE NAME	T	A	Credit	ECTS	COMPULSORY ELECTIVE	Explanation	
MME401	Principles of Corrosion and Corrosion Protection	2	0	2	3	E		
MME402	Non-ferrous Metal Metallurgy	3	0	3	5	E		
MME404	Materials Engineering Design-1	2	0	2	5	E		
MME405	Summer Practice-2	0	2	1	5	E		
<b>Technical Elective (2 Courses)</b>								
MME406	Electrometallurgy	3	0	3	5	E		
MME407	Non-Destructive Testing of Materials	3	0	3	5	E		
MME409	Composite Materials	3	0	3	5	E		
MME413	Advanced Characterization Techniques	3	0	3	5	E		
MME411	Refractories	3	0	3	5	E		
<b>Non-Technical (1 Course)</b>								
MME411	Philosophy of Science	1	2	2	2	E		
MME412	Business Law	1	2	2	2	E		
GNLÇLŞ	Volunteer Studies	1	2	2	2	E		
BİL101	Informatics Technologics	1	2	2	2	E		
MME206	Scientific Writing Skills	1	2	2	2	E		
EVL401	Marriage and Family Education	1	0	2	2	E		
<b>Total</b>		<b>14</b>	<b>4</b>	<b>16</b>	<b>30</b>			
<b>Müfredat Dışı Seçmeli 5 / Pedagogical Formation Education Elective 5</b>								
PFE701	Guidance and Special Education	3	0	3	4	E		
<b>Total</b>		<b>17</b>	<b>4</b>	<b>19</b>	<b>34</b>			
<b>Joint Education Program Elective 1</b>								
MMEOEP 101	Joint Education Program 1	<b>0</b>	<b>40</b>	<b>20</b>	<b>30</b>	E		

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SEMESTER 8								
CODE	COURSE NAME	T	A	Credit	ECTS	COMPULSORY ELECTIVE	Explanation	
MME421	Graduation Thesis	2	0	2	3	E		
MME423	Materials Engineering Design-2	2	0	2	3	E		
Technical Elective (4 Courses)								
MME434	Organic Chemistry	3	0	3	5	E		
MME425	Welding Metallurgy	3	0	3	5	E		
MME426	Nanomaterials	3	0	3	5	E		
MME427	Advanced Ceramics	3	0	3	5	E		
MME428	Biomaterials	3	0	3	5	E		
MME429	Thin Films Fabrication and Characterization	3	0	3	5	E		
MME432	Material Selection and Design	3	0	3	5	E		
Non-Technical (1 Course)								
MME430	Business Life and Quality Control	2	0	2	2	E		
MME431	Introduction to Research	2	0	2	2	E		
TKNBAG	Technology Addiction	2	0	2	2	E		
Total		19	0	19	30			
Müfredat Dışı Seçmeli 6 / Pedagogical Formation Education Elective 6								
PFE8101	Teaching Methods	3	0	3	4e	E		
PFE8102	Teaching Practice	1	8	5	10	E		
Total		23	8	27	44			
Joint Education Program Elective 2								
MMEOEP 201	Joint Education Program 2	0	40	20	30	E		

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