**MUĞLA SITKI KOÇMAN ÜNİVERSİTESİ / MÜHENDİSLİK FAKÜLTESİ**
**DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING**
**METALURJİ VE MALZEME MÜHENDİSLİĞİ BÖLÜMÜ**
**EĞİTİM-ÖĞRETİM PROGRAMI**

| **Ders Kodu** | **Ders Adı** | | | **Kredi** | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **T** | **U** | **L** | **K** | **Z/S** | **Ön Koşul** | **Yan Koşul** |
| CHEM 1851 | General Chemistry I | 1 | 1 | 3 | 0 | 2 | 6 | Z | | |
| ENG 1803 | Academic Writing and Oral Presentation Skills I | 1 | 1 | 1 | 2 | 0 | 2 | Z | | |
| MATH 1851 | Calculus I | 1 | 1 | 4 | 2 | 0 | 6 | Z | | |
| MME 1005 | History of Metallurgy | 1 | 1 | 2 | 0 | 0 | 3 | Z | | |
| PHYS 1851 | General Physics I | 1 | 1 | 3 | 0 | 2 | 6 | Z | | |
| ISG 1801 | Occupational Health and Safety I | 1 | 1 | 2 | 0 | 0 | 2 | Z | | |
| TDB 1801 | Turkish I | 1 | 1 | 2 | 0 | 0 | 2 | Z | | |
| | Free Elective (BDS/BIS) | 1 | 1 | | | | 3 | S | | |
| | | | | | | **AKTS** | **30** | | | |

| | | | | **T** | **U** | **L** | **K** | **Z/S** | **Ön Koşul** | **Yan Koşul** |
|---|---|---|---|---|---|---|---|---|---|---|
| CHEM 1852 | General Chemistry II | 1 | 2 | 3 | 0 | 2 | 6 | Z | | |
| ENG 1804 | Academic Writing and Oral Presentation Skills II | 1 | 2 | 1 | 2 | 0 | 2 | Z | | |
| MATH 1852 | Calculus II | 1 | 2 | 4 | 2 | 0 | 6 | Z | | |
| MME 1004 | Materials in Practice | 1 | 2 | 3 | 0 | 0 | 3 | Z | | |
| PHYS 1852 | General Physics II | 1 | 2 | 3 | 0 | 2 | 6 | Z | | |
| ISG 1802 | Occupational Health and Safety II | 1 | 2 | 2 | 0 | 0 | 2 | Z | | |
| TDB 1802 | Turkish II | 1 | 2 | 2 | 0 | 0 | 2 | Z | | |
| MME 1006 | Technical Drawing | 1 | 2 | 1 | 2 | 0 | 3 | Z | | |
| | | | | | | **AKTS** | **30** | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| ATB 2801 | Principles of Kemal Ataturk I | 2 | 3 | 2 | 0 | 0 | 2 | Z | | |
| MATH 2853 | Differential Equations | 2 | 3 | 3 | 0 | 0 | 4 | Z | | |
| MME 2007 | Mechanical Behavior of Materials | 2 | 3 | 3 | 0 | 0 | 4 | Z | | |
| MME 2013 | Ceramic Materials I | 2 | 3 | 3 | 0 | 0 | 4 | Z | | |
| MME 2015 | Metallurgical Thermodynamics I | 2 | 3 | 3 | 0 | 0 | 5 | Z | | |
| STA 2801 | Engineering Statistics | 2 | 3 | 3 | 0 | 0 | 4 | Z | | |
| | Technical Elective (BIS) | 2 | 3 | | | | 4 | S | | |
| | Free Elective (BDS/BIS) | 2 | 3 | | | | 3 | S | | |
| MME 2505 | Nano Materials and Nano Technology | 2 | 3 | 3 | 0 | 0 | 4 | S | | |
| MME 2507 | Metallurgy in Turkey | 2 | 3 | 2 | 0 | 0 | 3 | S | | |
| MME 2513 | Materials Physics | 2 | 3 | 3 | 0 | 0 | 4 | S | | |
| | | | | | | **AKTS** | **30** | | | |

| | | | | T | U | L | K | Z/S | Ön Koşul | Yan Koşul |
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| ATB 2802 | Principles of Kemal Ataturk II | 2 | 4 | 2 | 0 | 0 | 2 | Z | | |
| MATH 2854 | Basic Linear Algebra for Engineers | 2 | 4 | 3 | 0 | 0 | 4 | Z | | |
| MME 2014 | Ceramic Materials II | 2 | 4 | 3 | 0 | 0 | 4 | Z | MME 2013 | |
| MME 2016 | Metallurgical Thermodynamics II | 2 | 4 | 3 | 0 | 0 | 5 | Z | MME 2015 | |
| MME 2018 | Phase Diagrams | 2 | 4 | 3 | 0 | 0 | 4 | Z | | |
| | Technical Elective (BIS) | 2 | 4 | | | | 8 | S | | |
| | Free Elective (BDS/BIS) | 2 | 4 | | | | 3 | S | | |
| MME 2504 | Heat Treatment of Materials | 2 | 4 | 3 | 0 | 0 | 4 | S | | |
| MME 2506 | Refractory Materials | 2 | 4 | 3 | 0 | 0 | 4 | S | | |
| MME 2508 | Polymeric Materials | 2 | 4 | 3 | 0 | 0 | 4 | S | | |
| MME 2510 | Electronic and Optical Properties of Materials | 2 | 4 | 3 | 0 | 0 | 4 | S | | |
| MME 2514 | Glass and Glass-Ceramics | 2 | 4 | 3 | 0 | 0 | 4 | S | | |
| | | | | | | **AKTS** | **30** | | | |

| | | | | T | U | L | K | Z/S | Ön Koşul | Yan Koşul |
|---|---|---|---|---|---|---|---|---|---|---|
| MME 3000 | Summer Practice I | 3 | 5 | 0 | 0 | 0 | 4 | Z | | |
| MME 3003 | Solidification and Casting I | 3 | 5 | 3 | 0 | 0 | 4 | Z | | |
| MME 3009 | Chemical Metallurgy 1 | 3 | 5 | 3 | 0 | 0 | 4 | Z | | |
| MME 3011 | Materials Characterization Techniques I | 3 | 5 | 4 | 0 | 2 | 5 | Z | | |
| MME 3015 | Physical Metallurgy I | 3 | 5 | 3 | 0 | 0 | 5 | Z | | |
| MME 3017 | Transport Phenomena | 3 | 5 | 3 | 0 | 0 | 4 | Z | | |
| | Technical Elective (BIS) | 3 | 5 | | | | 4 | S | | |
| MME 3509 | Alloys I | 3 | 5 | 3 | 0 | 0 | 4 | S | | |
| MME 3511 | Composite Materials | 3 | 5 | 3 | 0 | 0 | 4 | S | | |
| MME 3513 | Crystallography | 3 | 5 | 3 | 0 | 0 | 4 | S | | |
| | | | | | | **AKTS** | **30** | | | |

| | | | | T | U | L | K | Z/S | Ön Koşul | Yan Koşul |
|---|---|---|---|---|---|---|---|---|---|---|
| MME 3004 | Solidification and Casting II | 3 | 6 | 3 | 0 | 0 | 4 | Z | | |
| MME 3010 | Chemical Metallurgy II | 3 | 6 | 3 | 0 | 0 | 4 | Z | | |
| MME 3012 | Materials Characterization Techniques II | 3 | 6 | 4 | 0 | 2 | 5 | Z | | |
| MME 3014 | Computer Applications in Met. And Mat. Eng. | 3 | 6 | 1 | 2 | 0 | 4 | Z | | |
| MME 3016 | Physical Metallurgy II | 3 | 6 | 3 | 0 | 0 | 5 | Z | | |
| | Technical Elective (BIS) | 3 | 6 | | | | 8 | S | | |
| MME 3518 | Powder Metallurgy | 3 | 6 | 3 | 0 | 0 | 4 | S | | |
| MME 3520 | Alloys II | 3 | 6 | 3 | 0 | 0 | 4 | S | | |
| MME 3522 | Joining and Welding of Materials | 3 | 6 | 3 | 0 | 0 | 4 | S | | |
| MME 3524 | Materials Energy and Balance | 3 | 6 | 3 | 0 | 0 | 4 | S | | |
| | | | | | | **AKTS** | **30** | | | |

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| MME 4000 | Summer Practice II | 4 | 7 | 3 | 0 | 0 | 4 | Z | | |
| MME 4015 | Application of Materials Processing and Design I | 4 | 7 | 0 | 4 | 0 | 4 | Z | | |
| MME 4017 | Material Selection and Design | 4 | 7 | 2 | 1 | 0 | 3 | Z | | |
| MME 4019 | Materials Characterization Techniques III | 4 | 7 | 3 | 0 | 0 | 3 | Z | | |
| MME 4021 | Materials Processing Laboratory | 4 | 7 | 0 | 1 | 3 | 4 | Z | | |
| | Technical Elective (BIS) | 4 | 7 | | | | 12 | S | | |
| MME 4509 | Advanced Ceramic Materials | 4 | 7 | 3 | 0 | 0 | 4 | S | | |
| MME 4515 | Surface Modification Techniques | 4 | 7 | 3 | 0 | 0 | 4 | S | | |
| MME 4517 | Smart Materials | 4 | 7 | 3 | 0 | 0 | 4 | S | | |
| MME 4519 | Phase Transformations | 4 | 7 | 3 | 0 | 0 | 4 | S | | |
| MME 4521 | Materials for Energy Storage and Conversion | 4 | 7 | 3 | 0 | 0 | 4 | S | | |
| MME 4523 | Plasticity and Deformation Process | 4 | 8 | 3 | 0 | 0 | 4 | S | | |
| | | | | | | **AKTS** | **30** | | | |

| | | | | T | U | L | K | Z/S | Ön Koşul | Yan Koşul |
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| MME 4006 | Application of Materials Processing and Design II | 4 | 8 | 0 | 6 | 0 | 6 | Z | MME 4015 | |
| MME 4008 | Corrosion and Corrosion Protection | 4 | 8 | 3 | 0 | 0 | 4 | Z | | |
| | Technical Elective (BIS) | 4 | 8 | | | | 20 | S | | |
| MME 4506 | Biomaterials | 4 | 8 | 3 | 0 | 0 | 4 | S | | |
| MME 4512 | Archaeometallurgy | 4 | 8 | 3 | 0 | 0 | 4 | S | | |
| MME 4516 | Coating Processes and Evaluation of Turbine Parts Coatings | 4 | 8 | 3 | 0 | 0 | 4 | S | | |
| MME 4522 | Electrochemical Energy Systems | 4 | 8 | 3 | 0 | 0 | 4 | S | | |
| MME 4524 | Failure Analysis | 4 | 8 | 3 | 0 | 0 | 4 | S | | |
| MME 4526 | Iron and Steel Production | 4 | 8 | 3 | 0 | 0 | 4 | S | | |
| | | | | | | **AKTS** | **30** | | | |

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| **Mezuniyet için alınması gereken minimum AKTS kredisi / Minimum ECTS Credit for Graduation** | | **240** |
| **Zorunlu Dersler AKTS / Required Course ECTS** | **Ortak Zorunlu / Common Required** | **12** |
| | **Zorunlu / Required** | **163** |
| **Seçimli Dersler AKTS / Elective Courses ECTS** | **Teknik Seçmeli / Technical Elective (BİS)** | **56** |
| | **Serbest Seçmeli / Free Elective (BDS/BİS)** | **9** |

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| **NOT 1:** | Seçmeli derslerin kredisi birden fazla ders alınarak sağlanabilir. Seçmeli derslerde (BİS/BDS) döneminde alınma şartı aranmaz. |
| **NOT 2:** | Öğrencilerin mezun olabilmesi için 9 AKTS'lik serbest seçmeli ders alması gerekmektedir. Serbest seçmeli dersler döneminde alınma şartı aranmaksızın Bölüm Dışı Seçmeli (BDS) / Bölüm İçi Seçmeli (BİS) dersleri arasından seçilebilir. |
| **NOT 3:** | (MME 3000, MME 4000, MME 4015, MME 4006) dersleri güz ve bahar dönemi omak üzere iki dönemde açılır. |