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| **DEPARTMENT OF MECHANICAL ENGINEERING****Courses Pool of Master’s Degree in Mechanical Engineering with Thesis**  |
| **COURSE****CODE** | **COURSE NAME** | **CREDIT** | **ECTS** | **C / S** | **INSTRUCTOR** |
| LUEE701 | Scientific Research Techniques and Science Ethics | 3+0+3 | 8 | C | Prof. Dr. HASAN GÖKKAYA |
| MKM7002 | Biomimetics in Engineering and Design | 3+0+3 | 8 | S | Lecturer Dr. CEVAT ÖZARPA |
| MKM7004 | Additive Manufacturing and Applications | 3+0+3 | 8 | S | Prof. Dr. MUSTAFA GÜNAY |
| MKM7006 | Optimization and Prediction Techniques | 3+0+3 | 8 | S | Assoc. Prof. Dr. SAMET USLU |
| MKM7008 | Advanced Failure Analysis II | 3+0+3 | 8 | S | Prof. Dr. BİLGE DEMİR |
| MKM701 | Engineering Mathematics | 3+0+3 | 8 | S | Lecturer Dr. Mehmet BAKIRCI |
| MKM7014 | Special Industrial Steels | 3+0+3 | 8 | S | Prof. Dr. FATİH HAYAT |
| MKM7015 | Joining Technologies | 3+0+3 | 8 | S | Prof. Dr. FATİH HAYAT |
| MKM703 | Design and Manufacturing Systems | 3+0+3 | 8 | S | Lecturer Dr. ABDULLAH UĞUR |
| MKM705 | Advanced Computer-Aided Design | 3+0+3 | 8 | S | Res. Assist. Dr. MUSTAFA MUŞTU |
| MKM709 | Study of Vibrations with Analytical Methods | 3+0+3 | 8 | S | Lecturer Dr. ENGİN YILDIRIM |
| MKM711 | Energy Methods in Industry | 3+0+3 | 8 | S |  Prof. Dr. YAŞAR YETİŞKEN |
| MKM712 | Computer-Aided Manufacturing Applications | 3+0+3 | 8 | S |  Prof. Dr. MUSTAFA GÜNAY |
| MKM713 | Advanced Thermodynamics | 3+0+3 | 8 | S |  Prof. Dr. MEHMET ÖZALP |
| MKM716 | Advanced Fluid Dynamics | 3+0+3 | 8 | S |  Assoc. Prof. Dr. CÜNEYT UYSAL |
| MKM724 | Experimental Methods for Engineers | 3+0+3 | 8 | S | Lecturer Dr. SEZER PIÇAK |
| MKM736 | Hydraulic and Pneumatic System Design | 3+0+3 | 8 | S |  Assoc. Prof. Dr. RECEP DEMİRSÖZ |
| MKM741 | Material Selection in Machine Design | 3+0+3 | 8 | S | Lecturer Dr. AHMET EMRAH ERDOĞDU |
| MKM742 | CNC Control Systems and Industrial Applications | 3+0+3 | 8 | S |  Assoc. Prof. Dr. GÖKHAN SUR |
| MKM744 | Air Pollution and Control Technology | 3+0+3 | 8 | S | Lecturer Dr. ALİ CAN |
| MKM745 | Energy Management I | 3+0+3 | 8 | S | Prof. Dr. YAŞAR YETİŞKEN |
| MKM747 | Operations Research in Energy Systems | 3+0+3 | 8 | S | Prof. Dr. YAŞAR YETİŞKEN |
| MKM748 | Engineering Applications in Matlab | 3+0+3 | 8 | S | Lecturer Dr. KERİM GÖKHAN AKTAŞ |
| MKM749 | Mathematical Operations in Matlab | 3+0+3 | 8 | S | Lecturer Dr. FATİH PEHLİVAN |
| MKM754 | Advanced HVAC Systems | 3+0+3 | 8 | S | Prof. Dr. EMRAH DENİZ |
| MKM762 | Combustion in Internal Combustion Engines | 3+0+3 | 8 | S | Assoc. Prof. Dr. MEHMET ÇELİK |
| MKM765 | Measurement Techniques in Vehicle Engines | 3+0+3 | 8 | S | Prof. Dr. MUSTAFA BAHATTİN ÇELİK |
| MKM766 | Active and Passive Control of Mechanical Vibrations | 3+0+3 | 8 | S | Lecturer Dr. ENGİN YILDIRIM |
| MKM767 | Finite Element Method with Matlab | 3+0+3 | 8 | S | Lecturer Dr. KERİM GÖKHAN AKTAŞ |
| MKM779 | Advanced Simulation and Analysis | 3+0+3 | 8 | S | Assoc. Prof. Dr. MEHMET ERDİ KORKMAZ |
| MKM784 | Production and Properties of Rail Steels | 3+0+3 | 8 | S | Assoc. Prof. Dr. HARUN ÇUĞ |
| MKM786 | Advanced Heat Treatment and Applications | 3+0+3 | 8 | S | Prof. Dr. BİLGE DEMİR |
| MKM790 | Metal Joining Methods | 3+0+3 | 8 | S | Prof. Dr. KHANGARDASH ASGAROV |
| MKM791 | Process Modeling in Welding Processes | 3+0+3 | 8 | S | Lecturer Dr. AHMET FATİH YILMAZ |
| MKM797 | MSc Seminar | 0+2+0 | 6 | C | All Faculty Members in the Program |
| MKM798D | Course Specialised Field | 4+0+0 | 4 | C | All Faculty Members in the Program |
| MKM798T | Thesis Specialised Field | 4+0+0 | 4 | C | All Faculty Members in the Program |
| MKM799 | MSc Thesis Research | 0+1+0 | 26 | C | All Faculty Members in the Program |
| MKM7007 | Advanced Technologies in Hybrid and Electric Vehicles | 3+0+3 | 8 | S | Assoc. Prof. Dr. MEHMET ÇELİK |
| MKM7009 | Mechanics of Composite Materials | 3+0+3 | 8 | S | Lecturer Dr. ÖZDEN İŞBİLİR |
| MKM7013 | Industrial Hydraulic and Pneumatic Applications | 3+0+3 | 8 | S | Lecturer Dr. ADEM FATİH ÖZALP |
| MKM702 | Dynamics of Mechanical Systems | 3+0+3 | 8 | S | Prof. Dr. İSMAİL ESEN |
| MKM715 | Advanced Heat and Mass Transfer | 3+0+3 | 8 | S | Lecturer Dr. ABDULRAZZAK AHMED SALEH AKROOT |
| MKM733 | Advanced Manufacturing Methods | 3+0+3 | 8 | S | Prof. Dr. REFİK POLAT |
| MKM737 | Sheet Metal Forming Mechanics | 3+0+3 | 8 | S | Lecturer Dr. CEVAT ÖZARPA |
| MKM746 | Heating Ventilation and Air Conditioning System Design | 3+0+3 | 8 | S | Prof. Dr. YAŞAR YETİŞKEN |
| MKM755 | Performance and Fuel Economy in Internal Combustion Engines | 3+0+3 | 8 | S | Prof. Dr. SELAMİ SAĞIROĞLU |
| MKM760 | Energy Economics and Applications | 3+0+3 | 8 | S | Prof. Dr. YAŞAR YETİŞKEN |
| MKM771 | Product Processing Machinery and Design | 3+0+3 | 8 | S | Prof. Dr. REFİK POLAT |
| MKM773 | Vehicle Emissions and Control | 3+0+3 | 8 | S | Prof. Dr. MUSTAFA BAHATTİN ÇELİK |
| MKM774 | Problem-Solving Techniques and TRIZ Principles | 3+0+3 | 8 | S | Lecturer Dr. CEVAT ÖZARPA |
| MKM777 | Smart Vehicle Technology | 3+0+3 | 8 | S | Prof. Dr. SELAMİ SAĞIROĞLU |
| MKM782 | Energy Efficiency, Fuels and Lubricants in Rail Systems | 3+0+3 | 8 | S | Lecturer Dr. MEHMET EMİN AKAY |
| MKM789 | Safety and Comfort Systems in Motor Vehicles | 3+0+3 | 8 | S | Assoc. Prof. Dr. MUSTAFA KARAGÖZ |
| MKM792 | Smart Transportation Vehicles and Cybersecurity | 3+0+3 | 8 | S | Lecturer Dr. CEVAT ÖZARPA |
| MKM795 | Continuous Transport Systems | 3+0+3 | 8 | S | Assoc. Prof. Dr. RECEP DEMİRSÖZ |
| MKM796 | Semester Project | 0+1+0 | 14 | C | All Faculty Members in the Program. |