SATS School of Applied Technical Sciences

German Jordanian University
School of Applied Technical Sciences
Tree Diagram - Mechanical and Maintenance Engineering
2023/2024

GJU الجامعة الألمانية الأردنية German Jordanian University

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German I GERL101B1
German II GERL102B1/B2
German III GERL201B1/B2
German IV GERL202B1/B2
German V GERL301B1/B2
German VI GERL302B1/B2
Military Science MILS100
University Electives I
University Electives II

Elementary English ENGL0098
Intermediate English ENGL0099
Upper-Intermediate English ENGL1001
Advanced English ENGL1002
National Education / in English NE101 / NEE101
Elementary Arabic ARB0099
Arabic ARB100

Technical Writing and Engineering Ethics IE0281
Field Training MECH3901
International Internship MECH4901
132 CrHr
Graduation Project I MECH5901
Graduation Project II MECH5902

Computing Fundamentals Lab CS1160 ↔ Computing Fundamentals CS116
Technical Elective 1
Technical Elective 2
Technical Elective 3
Technical Elective 4
Computer Aided Engineering Drawing ME0111
Fundamentals of Mechanical Design MECH2101
Machine Design Lab MECH3302 ↔ Machine Design MECH3301

Pre-Math MATH0099
Calculus I MATH101
Calculus II MATH102
Probability and Statistics IE0121
Applied Mathematics for Engineers MATH203
Differential Equations MATH205
Applied Thermodynamics MECH2201
Engineering Economics IE0361
Maintenance Spare Parts Management MECH3401
Computer Aided Mathematics for MECH MECH3801
Reliability for Quality Control MECH5401
Management of Maintenance Systems MECH5402
Artificial Intelligence in Maintenance MECH5801
Vibrations and Control MECH5301

General Chemistry CHEM103
Engineering Workshop IE0141
Materials and Manufacturing Engineering IE0348

Physics I PHYS103
Physics II PHYS104 ↔ Physics Lab PHYS106
Statics and Strength MECH2102
Mechanics of Materials Lab MECH2103
Electrical Circuits and Machines ME0212 ↔ Electrical Circuits and Machines Lab ME2103
Fluid Flow and Heat Transfer MECH2202
Dynamics MECH2104
Computer Aided Thermal Engineering MECH3202
Thermofluids Lab MECH3201
Instrumentation & Measurements ME0346 ↔ Instrumentation & Measurements Lab ME0347

Placement Tests
ARB0099 AND ENGL0099 are pre-requisites for most of the school and program courses
University Requirements
School Requirements
Program Requirements (Common)
Program Requirements (Track)
Department Approval
Prerequisites for the German year
CO-Requisite

Thermal Systems Track

Heating Ventilation and Air Conditioning MECH5501
Building Automation MECH5502
Turbomachinery MECH5504
Thermal Systems Lab MECH5503
Thermal System Design MECH5505
Computational Fluids Dynamics MECH5506

Prerequisites: MECH3202,MECH2201,MECH2202,ME0212

Automotive & E-Mobility Track

Theory of Machines MECH5601
Fundamentals of Vehicle Structure MECH5604
Automotive Systems MECH5602 ↔ Automotive Systems Lab MECH5603
Vehicle Electrical and Electronics Systems MECH5605
Hybrid and Electric Vehicles MECH5606

Prerequisites: MATH203,MECH2102,MECH3301,ME0212

Additive Manufacturing Track

Material Design and Surface Engineering MECH5702
Fundamentals of Additive Manufacturing MECH5701 ↔ Additive Manufacturing Lab MECH5703
Design and Optimization for Additive Manufacturing MECH5705
Applications in Additive Manufacturing MECH5704
Advances in additive Manufacturing MECH5706

Prerequisites: MECH3301,IE0348

(Additive Manufacturing Track is on hold)