

## Study Plan Guide – BSc. In Mechanical and Maintenance Engineering – Dual Study Program

First Year		
First Semester Courses (17 CH)	Second Semester Courses (17 CH)	Summer Semester Courses (5 CH)
<b>CHEM103</b> General Chemistry <b>CS116</b> Computing Fundamentals <b>CS1160</b> Computing Fundamentals Lab <b>ENGL101</b> English III <b>GERL101</b> German I <b>MATH101</b> Calculus I <b>PHYS103</b> Physics I	<b>IE0121</b> Probability and Statistics <b>ARB100</b> Arabic <b>ENGL102</b> English IV <b>GERL102</b> German II <b>MATH102</b> Calculus II <b>PHYS104</b> Physics II <b>PHYS106</b> General Physics Lab	<b>ME0111-DS</b> Computer-Aided Engineering Drawing <b>DS101</b> Dual Study Practical I

Second Year		
First Semester Courses (19 CH)	Second Semester Courses (18 CH)	Summer Semester Courses (5 CH)
<b>MECH0211</b> Fundaments of Mechanical Design <b>MECH0221</b> Thermodynamics <b>ME0212</b> Electrical Circuits and Machines <b>CEE201</b> Statics <b>ENGL201</b> English V <b>GERL201</b> German III <b>MATH205</b> Differential Equations	<b>MECH0213</b> Mechanics of Materials <b>MECH0214</b> Mechanics of Materials Lab <b>MECH0215</b> Dynamics <b>MECH0341</b> Power and Refrigeration Cycles <b>ENGL202</b> English VI <b>GERL202</b> German IV <b>MATH203</b> Applied Math for Engineers	<b>IE0281-DS</b> Technical Writing and Engineering Ethics <b>DS201</b> Dual Study Practical II

Third Year		
First Semester Courses (16 CH)	Second Semester Courses (19 CH)	Summer Semester Courses (3 CH)
<b>MECH0222</b> Fluid Mechanics <b>MECH0321</b> Thermofluids Lab <b>MECH0361</b> Computer-Aided Mathematics for MECH <b>IE0348</b> Materials and Manufacturing Engineering <b>ME0344</b> Control Systems I <b>IE0141</b> Engineering Workshop <b>GERL301</b> German V	<b>MECH0331</b> Theory of Machines <b>MECH0332</b> Machine Design <b>MECH0333</b> Machine Design Lab <b>ENE321</b> Heat Transfer <b>BM371</b> Numerical Methods for Engineers <b>BM3710</b> Numerical Methods for Engineers Lab <b>GERL302</b> German VI <b>ME0346</b> Instrumentation & Measurements <b>ME0347</b> Instrumentation & Measurements Lab	<b>IE0361-DS</b> Engineering Economics <b>DS301</b> Dual Study Practical III

Fourth Year (in Germany)	
First Semester Courses (12 CH)	Second Semester Courses (12 CH)
Four elective courses at German Partner University	<b>MECH0491</b> International Internship

Fifth Year	
First Semester Courses (15 CH)	Second Semester Courses (16 CH)
<b>MECH0531</b> Mechanical Vibrations <b>MECH0532</b> Mechanical Vibrations Lab <b>MECH0541</b> Heating Ventilation & Air Conditioning <b>MECH0342</b> Thermal Systems Lab I <b>MECH0591</b> Graduation Project I <b>MECH0533</b> Applied Mechanical Design <sup>1</sup> <b>MECH0551</b> Reliability & Quality Control <sup>2</sup> <b>MILS100</b> Military Science	<b>MECH0543</b> Internal Combustion Engines <b>MECH0544</b> Building Services <b>MECH0545</b> Applied Thermal Systems <sup>1</sup> <b>MECH0552</b> Management of Maintenance Systems <sup>2</sup> <b>MECH0592</b> Graduation Project II <b>MECH0542</b> Thermal Systems Lab II <b>NE101</b> National Education

<sup>1</sup>: for applied track

<sup>2</sup>: for maintenance track

Approved by MECH Department (16/11/2022)