

## GRADUATION CHECKLIST

Students must pass all the stated courses and assessment in this checklist to graduate. It is the responsibility of the students to ensure that all courses and assessment are taken and passed. Students who do not complete any of the assessments are not allowed to graduate.

NO.	CODE	COURSE	CREDIT EARNED (JKD)	CREDIT COUNTED (JKK)	TICK (✓) IF PASSED
<b>SCHOOL OF MECHANICAL ENGINEERING COURSES</b>					
1	UXXX XXX3	University Elective (1 course)			
2	UKMP 0010	Research Methodology			
3	MKMR XX00	Research (Minimum 2 semesters)			
4		Thesis			
5		Publication (minimum one (1) publication from journal article or conference proceeding or book chapter)			

**Field of Research @ School of Mechanical Engineering**

<p><b>Applied Mechanics &amp; Design:</b></p> <ul style="list-style-type: none"> <li>• Adaptive Control and Intelligent System</li> <li>• Computational Solid Mechanics</li> <li>• Mechatronics &amp; Instrumentation</li> <li>• Artificial Intelligence</li> <li>• Elasticity &amp; Plasticity</li> <li>• Automatic Control &amp; System Engineering</li> <li>• Fatigue and Fracture Mechanics</li> <li>• Biomechanics &amp; Biomedical Engineering</li> <li>• Finite Element Method</li> <li>• Functional Control Systems</li> <li>• CAD &amp; Virtual Reality</li> <li>• Guided Wave &amp; Acoustic</li> <li>• Composite Structure &amp; Ballistic Impact</li> <li>• Structural Dynamic &amp; mechanics</li> <li>• Structural Impact &amp; Crashworthiness</li> <li>• Thin-Walled and Polymeric Materials</li> <li>• Tissue Engineering Scaffolds</li> <li>• Porous Structures</li> <li>• Reliability &amp; Engineering Design</li> <li>• Shells &amp; Pressure Vessels</li> <li>• Structural Vibration and condition Monitoring</li> </ul> <p><b>Thermofluids:</b></p> <ul style="list-style-type: none"> <li>• Advanced Refrigeration and Air-Conditioning System</li> <li>• Combustion &amp; heat transfer</li> <li>• Compressible Flow</li> <li>• Computational Fluid Dynamics</li> <li>• Fuel, biomass and energy</li> <li>• Heating &amp; Ventilation</li> <li>• Micro-Cooling</li> <li>• Sustainable Energy Technology</li> <li>• Thermofluids Measurement and Diagnostics</li> <li>• Energy Management</li> <li>• Tribology &amp; lubrication</li> </ul>	<p><b>Materials, Manufacturing &amp; Industry:</b></p> <ul style="list-style-type: none"> <li>• Additive Manufacturing</li> <li>• Advanced Manufacturing Processes</li> <li>• Advanced Materials</li> <li>• Automation in Manufacturing</li> <li>• CAD/CAPP/CAM/CNC</li> <li>• Carbon Nanomaterials</li> <li>• Casting technology</li> <li>• Ceramics and Composites</li> <li>• Ceramics Coating</li> <li>• Corrosion</li> <li>• Ferrous metallurgy</li> <li>• Shape memory alloys</li> <li>• Solder Metallurgy Technology</li> <li>• Solid State Kinetics</li> <li>• Surface Coating</li> <li>• Surface Treatment</li> <li>• Industrial Engineering</li> <li>• Surface Engineering &amp; Composites Machining</li> <li>• Sustainable Product Design</li> <li>• System Dynamic Modelling</li> <li>• Virtual Manufacturing</li> <li>• Work Design</li> <li>• Quality improvement and design of experiment</li> <li>• Operations management</li> <li>• Operations research</li> <li>• Plasma Technology</li> <li>• Life cycle assessment</li> <li>• Supply chain management</li> <li>• Lean manufacturing</li> <li>• Facility design and management</li> <li>• Ergonomics</li> <li>• Safety and health</li> </ul>	<p><b>Automotive, Aeronautic &amp; Offshore:</b></p> <ul style="list-style-type: none"> <li>• Advanced ICE</li> <li>• Aerodynamics</li> <li>• Airspace Safety Monitoring System</li> <li>• Automotive Tribology</li> <li>• Avionics and Antennae</li> <li>• Biofuel and Multiphase Flow</li> <li>• Brake Design &amp; Safety</li> <li>• Combustion Technology</li> <li>• Computer Vision</li> <li>• Contact Mechanics</li> <li>• Electric and Hybrid Vehicles</li> <li>• Engine Air Management</li> <li>• Ethnographic Factors in Fishing Boat Design</li> <li>• FEM &amp; Model Updating</li> <li>• Flight Guidance and Control</li> <li>• Flight Simulation</li> <li>• Helicopter Technology</li> <li>• Aircraft Structures</li> <li>• Rocket Propulsion</li> <li>• Wind Tunnel Testing</li> <li>• Turbo machinery &amp; Aero acoustics</li> <li>• Unsteady Aerodynamics</li> <li>• Vehicle Powertrain</li> <li>• Vehicle Stability and Control</li> <li>• Vehicle Dynamics and Control</li> <li>• Vortex Induced Vibration</li> <li>• Wave Structure Interaction</li> <li>• Hull-Riser-Mooring Coupled Dynamics</li> <li>• Hydromechanics</li> <li>• Low Emission Combustor</li> <li>• Marine Active Control</li> <li>• Marine Safety and Environment</li> <li>• Marine Transport and Management</li> <li>• Mega-Float Design &amp; System Modelling</li> <li>• Ship Dynamics</li> <li>• Smart Offshore Structure</li> <li>• Stability &amp; Design</li> <li>• Subsea &amp; Offshore Engineering System</li> <li>• Energy@Waste Heat Recovery</li> </ul>
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