

MS in Mechanical Engineering

Please note that the curriculum outlined below is a guide. All students must meet with their academic advisor to develop a plan of study.

All students are required to take the **four core courses** listed below.

ENGR 5011	Engineering Mathematics I	
ENGR 5311	Deformation and Fracture of Engineering Materials	
ENGR 5012	Engineering Mathematics II	
ENGR 5117	Experimental Methods	

Below is a list of **elective courses** offered by the Department of Mechanical Engineering. Other graduate-level courses within the College of Engineering may also be taken with the permission of the student's academic advisor.

ENGR 5719	Introduction to Bioengineering	
ENGR 5511	Fluid Dynamics	
ENGR 5732	Tissue Biomechanics	
ME 5117	Finite Element Analysis	
ME 5511	Thermodynamic Properties of Materials	
ME 5312	Mechanics of Composite Materials	
ME 5731	Cardiovascular Fluid Dynamics	
ME 5721	Cell Biology for Engineers	
ME 5741	Biomaterials for Engineers	

Students completing the thesis option must complete 24 semester hours of course work and 6 semester hours of thesis. Students completing the project option must complete 27 semester hours of course work and 3 semester hours of a research project. Students completing the non-research option, with the permission of the department, are required to take 30 semesters of course work.