

MECHANICAL ENGINEERING BSME ADVANCED ENGINEERING ELECTIVES (LIST 1)



A minimum of six credits must be selected from this list.

(Up to 13 credits may be selected from this list)

Courses are three credits except where noted.

Courses are typically taken senior year of degree.

Most courses are offered on a two year cycle except where noted.

Mechanical Engineering

627	Automotive Design* - Sorem	757	Biomechanical Systems – Wilson
633	Basic Biomechanics* - Fischer	758	Physiological System Dynamics – Wilson
636	Internal Combustion Engines – Depcik	760	Biomedical Product Development* - Friis
637	Steam Power Plants – Dougherty	765	Biomaterials* - Friis
639	Alternative Energy Systems – TenPas	767	Molecular Biomimetics – Tamerler
696	Design for Manufacturability – Maletsky	770	Conductive Heat Transfer – Dougherty
702	Mechanical Engineering Analysis – Dougherty or Yang	774	Radiative Heat Transfer – Bergman
712	Advanced Engineering Thermodynamics – Dougherty	788	Optimal Estimation – Fang
718	Fundamentals of Fuel Cells – Li	790	Special Topics (1-5 credits)
720	Advanced Dynamics of Machinery – Maletsky	790	Advanced Heat and Mass Transfer – Bergman
722	Modeling Dynamics of Mechanical Systems – Luchies	790	Energy Storage Systems and Control – Fang
733	Gas Dynamics – TenPas	790	Materials Engineering for Electrochemical Energy Storage and Conversion – Liu
736	Catalyst Modeling – Depcik	790	Hybrid and Electric Vehicle Modeling – Depcik
750	Biomechanics of Human Motion – Luchies	790	Biomedical Microdevices – Soper
751	Experimental Methods of Biomechanics – Luchies	790	Fundamentals of Num Heat & Mass Transfer – Li
752	Acoustics – Yang	790	Intro to Surface & Interface Science – Kwon
753	Bone Biomechanics – Fischer	797	Materials for Energy Applications – Liu
754	Biomedical Optics – Yang		
755	Computer Simulation in Biomechanics - Fischer		

* Indicates course taught on a yearly basis.