MECHANICAL ENGINEERING CURRICULUM

4 - Year Program (Effective September 2015)

Student: ID: Advisor:

FALL		Grade	SPRING		Grade
ENG 101	College Composition (3 cr.)	_____	COS 220	Intro to C++ Programming (3 cr.)	_____
			or ECE 177	Programming for Engineers (4 cr.)	
MAT 126	Calculus I (4 cr.)	_____	MAT 127	Calculus II (4 cr.)	_____
MEE 101	Intro to Mech. Eng. (1 cr.)	_____	MEE 150*****	Statics (3 cr.)	_____
MEE 120	Eng Graphics & CAD (2 cr.)	_____	PHY 122	General Physics II (4 cr.)	_____
PHY 121	General Physics (4 cr.)	_____	Elective (2)	HVSC Elective	
Elective (1)	HVSC Elective				
CHY 121/3	Intro to Chemistry/Lab (4 cr.)	__/__	ECE 209	Fund of Electric Circuits (3 cr.)	_____
or	CHY 131/3 Chemistry for Engineer/Lab				
MAT 228	Calculus III (4 cr.)	_____	MAT 258	Differential Equations (4 cr.)	_____
MEE 230*****	Thermodynamics I (3 cr.)	_____	MEE 231	Thermodynamics II (3 cr.)	_____
MEE 251*****	Strength of Materials (3 cr.)	_____	MEE 270*****	Dynamics (3 cr.)	_____
Elective (3)	HVSC Elective		Elective (4)	Basic Science Elective	
STS 332	Statistics for Engineers (3 cr.)	_____	MEE 320	Materials (3 cr.)	_____
MEE 360	Fluid Mechanics (3 cr.)	_____	MEE 341	Mechanical Lab I (3 cr.)	_____
MEE 370	Controls (3 cr.)	_____	ECP 341	Technical Writing I (1 cr.)	_____
MEE 380	Design I (3 cr.)	_____	MEE 381	Design II (3 cr.)	_____
Elective (5)	HVSC Elective		MEE 456	Intro to Finite Elements (3 cr.)	_____
			MEE 471	Mechanical Vibrations (3 cr)	_____
MEE 432	Heat Transfer (3 cr.)	_____	MEE 443	Mech. Lab. III (2 cr.)	_____
MEE 442	Mech. Lab II (2 cr.)	_____	MEE 488	Design IV (4 cr.)	_____
ECP 487	Technical Writing II (1 cr.)	_____	ECP 488	Technical Writing III (1 cr.)	_____
MEE 487	Design III (3 cr.)	_____	Elective (8)	MEE Technical Elective (3 cr.)	
Elective (6)	MEE Technical Elective (3 cr.)		Elective (9)	HVSC Elective	
Elective (7)	MEE Technical Elective (3 cr.)		Elective (10)	HVSC Elective	

Basic Science (4 cr.) _____

Technical Electives (9 cr.)

(See the other side of this sheet for listings of appropriate technical electives).

Course	Grade	Mechanics of solids & structures	Thermal science & fluid mechanics	Dynamics & Control	Engineering Science Credits	Design Credits

Students are required to complete a minimum of **3 design credits** from the list of approved technical electives. A maximum of 2 courses can be used from a subject area to satisfy the technical electives requirements.

Human Values and Social Context

(18 credit hours required)

Course	Grade	Western Cultural Tradition	Social Contexts & Institutions	Cultural Diversity & International Perspectives	Population & Environment	Artistic & Creative Expression	Ethics

Students are required to complete **18 credit hours** in human values and social context, selected from lists of approved courses to satisfy each of the six sub-categories listed. Each sub-category must be satisfied, although a single course can be applied in each appropriate sub-category

* Students who joined the program beginning Fall 2015 must earn a "C" or better in MEE 150, MEE 230, MEE 251 and MEE 270 in order to use them as prerequisites.

BASIC SCIENCE ELECTIVES (one required - 4 cr)

AST 109/110 or AST215/Lab	General Astronomy I with Laboratory
BIO 100	Basic Biology
BIO 208	Anatomy and Physiology
BIO 326	General Entomology
BMB 300/305	General Microbiology with Laboratory
CHY 122/124	The Molecular Basis of Chemical Change
ERS 101	Introduction to Geology (*formerly GES 101)*
ERS 102*	Environmental Geology of Maine
PHY 223/PHY 236	Special Relativity/Introductory Quantum Physics

* Satisfied the population and the Environment requirement. It can not be counted as both a basic Science Elective and a HVSC Elective.

MECHANICAL ENGINEERING TECHNICAL ELECTIVES

Mechanics of Solids and Structures

		Engineering Science Credits	*Design Credits*
MEE 450	Mechanics of Composite Materials	2	1
MEE 453	Experimental Mechanics	2	1
MEE 455	Advanced Strength of Materials	3	0

Thermal Sciences and Fluid Mechanics

		Engineering Science Credits	*Design Credits*
MEE 433	Solar-Thermal Engineering	1	2
MEE 434	Thermodynamic Design of Engines	1	2
MEE 462	Fluid Mechanics II	3	0
MEE 475	Fuel Cell Science and Technology	1	2
MEE 480	Wind Energy Engineering	1	2
MEE 483	Turbomachine Design	1	2
MEE 484	Power Plant Design and Engineering	1	2
MEE 486	Refrigeration & Air Conditioning System Design	1	2
MEE 489	Offshore Floating Systems Design	1	2

Dynamics & Controls

		Engineering Science Credits	*Design Credits*
MEE 444	Robot Dynamics and Control	2	1
MEE 445*	Aeronautics	2	1
MEE 446*	Astronautics	2	1
MEE 547*	Flight Dynamics and Control of Aircraft	2	1

* Only one of the aerospace courses MEE 445, MEE 446 and MEE 547 may be used to satisfy part of the technical electives requirement.

400 level (and higher) engineering science courses offered by other engineering programs may, with advisor approval, be used to satisfy the engineering science elective requirement.