

BS in Mechanical Engineering Curriculum (1)

3/15/2013

FIRST YEAR

Fall Semester	Units	Spring Semester	Units
Math 132 Calculus II	3 ___	Math 233 Calculus III	3 ___
Phys 197 Physics I (or Phys 117A)	4 ___	Phys 198 Physics II (or Phys 118A)	4 ___
MEMS 202 CAD	3 ___	MEMS 101 Intro to MEMS (2) or Free Elective	2 or 3
_____ H&SS Elective (3)	3 ___	CSE 200 Eng and Scientific Computing	3 ___
		_____ H&SS Elective (3)	3 ___
Semester Total 13		Semester Total 15 - 16	

SECOND YEAR

Fall Semester	Units	Spring Semester	Units
Math 217 Differential Equations	3 ___	ESE 318 Engineering Mathematics	3 ___
MEMS 253 Mechanics I	3 ___	MEMS 255 Mechanics II	3 ___
Chem 111A Chemistry	3 ___	ESE 326 Eng Probability and Statistics	3 ___
Chem 151 Lab	2 ___	MEMS 350 Mechanics III	3 ___
ESE 230 Intro to Circuits	4 ___	_____ H&SS Elective (3)	3 ___
Semester Total 15		Semester Total 15	

THIRD YEAR

Fall Semester	Units	Spring Semester	Units
MEMS 301 Thermodynamics	3 ___	GenEng 310 Technical Writing	3 ___
MEMS 3410 Fluid Mechanics	3 ___	MEMS 311 Machine Elements	4 ___
MEMS 361 Materials Science	4 ___	MEMS 342 Heat Transfer	4 ___
ESE 319 Engineering Mathematics	3 ___	MEMS 3411 Fluid Mechanics Lab	1 ___
Free Elective	3 ___	_____ H&SS Elective (3)	3 ___
Semester Total 16		Semester Total 15	

FOURTH YEAR

Fall Semester	Units	Spring Semester	Units
MEMS 431 Dynamics and Vibrations	4 ___	MEMS 4301 Simulation and Control	3 ___
MEMS 411 ME Design Project	3 ___	MEMS 412 Design of Thermal Systems	3 ___
MEMS Elective (4)	3 ___	GenEng 4501, 4502 and 4503 (6)	3 ___
MEMS Elective (4)	3 ___	MEMS Elective (4)	3 ___
_____ H&SS Elective (3)	3 ___	Physical or Life Science Elective (5)	3 ___
Semester Total 16		Semester Total 15	

1. A minimum of 120 units are required for the BSME degree
2. MEMS 101 Intro to MEMS, MEMS 1001 Shop Practicum and MEMS 1003 ME Design and Build are suggested but not required
3. 18 units of H&SS electives are required.
4. 300 level or above from the approved list, 9 units are required
5. 200 level or above with NS attribute (natural science) in physical or life science in EPSc, EnSt, Physics, Chem, or Bio
6. Three one unit courses are required: GenEng 4501 Ethics, 4502 Leadership and 4503 Management (all are classified as SS)