

Mechanical Engineering Curriculum

(Option A: last Name begins with A-K)

SEMESTER 1				SEMESTER 2			
Course		Credits		Course		Credits	
	FYS	First Year Seminar	1	(c)	CHEM 112	Chemical Principles II	3
	ENGL 015	Rhetoric and Composition -or-	3	(j)	ECON 102	Microeconomic Analysis & Policy (GS) -or-	3
	ENGL 030	Honors Freshman Composition			ECON 104	Microeconomic Analysis & Policy (GS)	
	EDSGN 100	Introduction to Engineering Design	3	(j)	AHS course	(GA, GH, or GS)	3
(j)	AHS course	(GA, GH, or GS)	3	(a,d)	PHYS 211	Mechanics	4
(a,b,d)	MATH 140	Calculus with Analytic Geometry I -or-	4	(a,b,d)	MATH 141	Calc with Analytic Geometry II -or-	4
	MATH 140E	Calc with Engineering Applications I			MATH 141E	Calc with Engineering Applications II	
(a,d)	CHEM 110	Chemical Principles	3				
Total Semester Credits			17	Total Semester Credits			17
SEMESTER 3				SEMESTER 4			
Course		Credits		Course		Credits	
	CMPS 200	MATLAB	3	(d)	E MCH 212	Dynamics	3
	CAS 100A/B	Effective Speech	3	(d)	E MCH 213	Strength of Materials -or-	3
(d)	E MCH 211	Statics	3		EMCH 213D	Strength of Materials with Design	
(a,d)	MATH 251	Ordinary and Partial Differential Eq.	4	(i)	GHA	Health/Physical Activity	1.5
(a,d)	PHYS 212	Electricity and Magnetism	4	(d)	M E 300	Engineering Thermodynamics I	3
					MATH 231	Calculus of Several Variables	2
					MATH 220	Matrices	2
					PHYS 214	Wave Motion and Quantum Physics	2
Total Semester Credits			17	Total Semester Credits			16.5
SEMESTER 5				SEMESTER 6			
Course		Credits		Course		Credits	
	E E 212	Intro to Electronic Measuring Systems	3		ENGL 202C	Technical Writing	3
	I E 312	Product Design & Mfg Processes	3		E MCH 315	Mechanical Response of Engr. Mat'l.	2
	MATSE 259	Properties & Processing of Engr. Mat'l.	3	(d)	M E 340	Mech. Engr. Design Methodology	3
(d)	M E 370	Vibrations of Mechanical Systems	3	(d)	M E 360	Mechanical Design	3
(d)	M E 345	Instrumentation, Measurements, and Statistics	4	(d)	M E 320	Fluid Flow	3
				(i)	GHA	Health/Physical Activity	1.5
Total Semester Credits			16	Total Semester Credits			15.5
SEMESTER 7				SEMESTER 8			
Course		Credits		Course		Credits	
(e)	ETE	Engineering Technical Elective	3	(e)	ETE	Engineering Technical Elective	3
(j)	AHS course	(GA, GH, or GS)	3	(j)	AHS course	(GA, GH, or GS)	3
(d)	M E 410	Heat Transfer	3	(j)	AHS course	(GA, GH, or GS)	3
(d)	M E 450	Modeling of Dynamic Systems	3	(h,i)	GTE	General Technical Elective	3
(g)	METE	M E Technical Elective	3	(f)	M E Lab		1
(f)	M E Lab		1		M E 440W	Senior Capstone Project -or-	3
					M E 441W	Senior Capstone Project (option II)	
Total Semester Credits			16	Total Semester Credits			16
SEMESTER 7				SEMESTER 8			
Course		Credits		Course		Credits	
**OPTIONAL SEQUENCE				** OPTIONAL SEQUENCE			
(k)	M E 442W	Senior Capstone Project (option III)	2	(k)	M E 443W	Senior Capstone Project (option III)	1
Total Semester Credits with ME 442W + ME 443W sequence			18	Total Semester Credits with ME 442W + ME 443W sequence			14

- a) Courses listed in **boldface italic type** require a C or better for entrance to major.
- b) MATH 140E & 141E are only available at University Park in the semester listed.
- c) Students may substitute BIOL 141 for CHEM 112.
- d) Courses listed in **boldface type** require a C or better for graduation in this major.
- e) An Engineering Technical Elective is any three credit, 400-level engineering course NOT required for the major.
- f) To graduate, one of the following lab courses must be taken: ME 315, 325, 355 or 375. EMCH 316 will satisfy the second lab requirement. 1 credit of ME 445 can also be used as 1 credit of a ME lab course and a Mechanical Engineering Technical Elective (METE)
- g) A Mechanical Engineering Technical Elective (METE) is any three-credit, 400-level ME or NUC E course that is not required for the major. ME 494 or ME 496 may not be used.
- h) Three credits of co-op may also be used for the GTE after completion of three co-op rotations.
- i) Six ROTC credits may be substituted for three credits of GHA plus three GTE credits upon completion of the basic ROTC Program.
- j) An elective course to satisfy General Education AHS requirements: GA - General Arts, GH - Humanities, GS - Social & Behavioral Sciences, selected from the lists published in the University General Education Handbook.
- k) Both M E 442W and M E 443W must be completed to satisfy the Senior Design Project (Capstone) requirement.