RECOMMENDED ACADEMIC PLAN – MECHANICAL ENGINEERING

Semester I		Semester II	
ENGL 015 Rhetoric and Composition or 030 Honors Freshman Composition (GWS)	3	***PHYS 211 Physics: Mechanics (GN)***	4
MATH 140 Calculus with Analytic Geometry I (GQ)	4	***MATH 141 Calculus with Analytic Geometry II (GQ)***	4
EDSGN 100S Introduction to Engineering Design	3	CMPSC 201 Programming for Engineers with C++ or CMPSC 202 Programming for Engineers with FORTRAN (CMPSC 121 Introduction to Programming Techniques may be substituted)	3
CHEM 110 Chemical Principles (GN)	3	MATH 220 Matrices	2
*CHEM 111 Experimental Chemistry (GN)	1	*ECON 002 Introductory Microeconomic Analysis and Policy or 004 Introductory Macroeconomic Analysis and Policy (GS)*	3
Arts GA	3		
	17		16
Semester III		**Semester IV**	
E MCH 211 Statics	3	**E MCH 212 Dynamics**	3
PHYS 212 General Physics: Electricity and Magnetism (GN)	4	**E MCH 213 Strength of Materials**	3
MATH 230 Calculus and Vector Analysis	4	**M E 300 Engineering Thermodynamics I**	3
MATH 251 Ordinary and Partial Differential Equations	4	E E 211 Electrical Circuits and Power Distribution (E E 210 Circuits and Devices or E E 212 Introduction to Electronic Measuring Systems may be substituted)	3
Health and Physical Education (GHA)	1.5	*PHYS 214 General Physics: Wave Motion and Quantum Physics	2
		Humanities (GH)	3
	16.5		17
Semester V		**Semester VI**	
ENGL 202 C Technical Writing (GWS)	3	*CAS 100 Effective Speech (GWS)*	3
MATSE 259 Properties and Processing of Engineering Materials	3	**M E 345W Instrumentation, Measurements, and Statistics**	4
M E 320 Fluid Flow	3	**M E 357 System Dynamics**	3
M E 347 Computer-Aided Engineering	3	**M E 367 Machine Design**	3
M E 365 Materials Testing Laboratory	1	**M E 410 Heat Transfer**	3
M E 380 Machine Dynamics	3		
	16		16
Semester VII		**Semester VIII**	
M E 448 Engineering Design Concepts	3	**M E 449 Engineering Design Projects**	3
M E 468 Engineering for Manufacturing	3	+4xx Engineering Elective	3
M E 308 Fluid Flow and Heat Transfer Laboratory or M E 465 Introduction to Manufacturing Laboratory for Engineering Elective	1	+4xx Engineering Elective	3
		Humanities (GH)	3
+4xx Engineering Elective	3	Social Science (GS)	3
+4xx Engineering Elective	3	Health and Physical Education (GHA)	1.5
Arts (GA)	3		
	16		16.5

Advising Notes

- **Bold type** require a grade of C or better.
- *Italics* indicates courses that satisfy both major and General Education requirements.
- ***Bold Italics*** indicates courses requiring a quality grade of C or better and that satisfy both major and General Education requirements.
- GWS, GHA, GQ, GN, GA, GH, and GS are codes used to identify General Education requirements.
- US, IL, and US;IL are codes used to designate courses that satisfy University United States/International Cultures requirements.
- W is the code used to designate courses that satisfy University Writing Across the Curriculum requirements.

Students must complete a 3-credit course in "United States Cultures (US)" and a 3-credit course in "International Cultures (IL)."

* Students may substitute either CHEM 112 (3) OR BIOL 141 (3) for the combination of CHEM 111 (1) AND PHYS 214 (2).

+ 4xx Engineering Electives include M E 402 Power Plants, M E 408 Energy Systems, M E 431 Internal Combustion Engines, M E 455 Automatic Control Systems, M E 460 Advanced Machine Design Problems, M E 461 Finite Element Analysis, ENVE 430 Sustainable Engineering, and others offered by the program