

Flowchart for Standard Plan (Entered Fall 2025 or later)

Rose-Hulman Institute of Technology

Mechanical Engineering Curriculum Flowchart

Prerequisite	()	R	= R	recitation hrs./wk.
Co-requisite	↓	L	= L	laboratory hrs./wk.
Offered this quarter only	□	C	= C	credit hours

Freshman				Sophomore				Junior				Senior					
Fall		Winter		Spring		Fall		Winter		Spring		Fall		Winter		Spring	
HSSA Elective Fall or Winter		4 0 4				HSSA Elective		4 0 4		HSSA Elective		4 0 4		HSSA Elective		4 0 4	
First-Year Writing Seminar HUM H190 Winter or Fall		4 0 4						Free Elective		Tech and Prof Communication ENGL H290 Spring or Winter (HUM H190)		4 0 4		Math/Science Elective ² Fall or Winter		Technical Elective ³	
Calculus I MA 111		5 0 5				Matrx Alg & Diff Eqns I MA 221		4 0 4		Engrg Statistics I MA 223		4 0 4		St & Mech Mat'ls II EM 204		4 0 4	
		(MA 111)						(MA 221)		(MA 111, HUM H190)		(EM 121)		(EM 104)		(MA 221, ES 312)	
Found Sc PH 111		3.5 1.5 4				Found Sc BIO 101* or CHEM 111		3 3 4		Numerical Methods ME 227		3 3 4		Fluid Systems ES 312		3 3 4	
		(PH 111, MA 111)						(ME 123, MA 222)		(ES 201 ¹)		(CHEM 111)					
Graph Comm EM 104		1 2 2				Cns & Acn Principles ES 201		4 0 4		Mech Systems ES 214		3 3 4		Mechatronic Systems ME 230		3 3 4	
		(MA 111)				(PH 111, EM 121, MA 113)				(ME 123, ES 201 ¹)		(ME 123, ES 213)		(MA 222, ES 213, ES 214)		(MA 222, ES 213, ES 214)	
RH Success RHIT 100		1 0 1				Electrical Systems ES 213		3 3 4		App of Thermo ME 201		4 0 4		System Dynamics ES 305		3 3 4	
						(PH 112, MA 113, EM 121)				(ES 201 ¹)				(MA 222, ES 213, ES 214)		(MA 222, ES 213, ES 214)	
														Measurement Systems ME 321 Spring or Winter		3 3 4	
														(EM 103, MA 223, ES 305)			
														Vibration Analysis EM 306		3 3 4	
														(ES 305)			
														Mach Comp Design ME 380		4 0 4	
														(EM 204)			
														OR			
														Control Systems ME 306		3 3 4	
														(ES 305)			

Course	Main Offering	Alternate Quarters	Prerequisites*
EM 103 Introduction to Design	Spring		--
EM 104 Graphical Communications	Fall		--
EM 121 Statics & Mechanics of Materials I	Winter	Fall Spring	MA 111
EM 204 Statics & Mechanics of Materials II	Fall	Winter Spring	EM 121 or ENGD 205 or BE 122 (with a grade of C or better) or EM 120
EM 306 Vibration Analysis	Winter	Spring	ES 305
ES 201 Conservation & Accounting Principles	Fall	Winter	PH 111 and (EM 121 or ENGD 205 or BE 122 or EM 120) and MA 113
ES 312 Fluid Systems	Fall	Winter	ES 201 or ENGD 215 or BE 132 or CHE 201, with a grade of C or better
ES 213 Electrical Systems	Fall	Winter Spring	PH 112 and MA 113 and (EM 121 or ENGD 205 or BE 122 or EM 120)
ES 214 Mechanical Systems	Winter	Spring	(ME 123 or CSSE 120 or BE 100 or ENGD 120) and (ES 201 or ENGD 215 or BE 132, with a grade of C or better)
ES 305 System Dynamics	Fall	Winter	MA 222 and (ES 213 or ECE 203 or ENGD 120 or BE 131) and (ES 214 or EM 202)
ME 123 Computer Programming	Spring	Fall Winter	ME/PHOE major or permission of instructor
ME 201 Applications of Thermodynamics	Winter	Spring	ES 201 or ENGD 215 or BE 132 or CE 205 or CHE 201, with a grade of C or better
ME 302 Heat Transfer	Spring	Fall	MA 221 and (ES 212 or CHE 301 or EM 301)
ME 317 Design for Manufacturing	Winter	Fall	EM 104 or BE 118 or ENGD 100
ME 321 Measurement Systems	Winter Spring	Fall (permission only)	(EM 103 or MDS 201 or BE 118 or ENGD 100 or ECE 160) and MA 223 and ES 205
ME 227 Numerical Methods	Spring	Fall	(ME 123 or CSSE 120 or BE 100 or ENGD 120) and MA 222
ME 328 Materials Engineering	Winter Spring		CHEM 111 or CHEM 112
ME 306 Control Systems	Winter	Spring	ES 205
ME 421 ME Lab	Fall Winter		(ME 321 or BE 211) and ENGL H290
ME 230 Mechatronic Systems	Spring	Fall	(ME 123 or CSSE 120 or BE 100 or ENGD 120) and (ES 213 or ECE 203 or ENGD 120 or BE 131)
ME 470 Capstone Design I	Fall	Spring	ME 230 and ME 302 and ME 321 and ME380
ME 471 Capstone Design II	Winter	Fall	ME 470
ME 472 Capstone Design III	Spring	Winter	ME 471
ME 380 Machine Component Design	Spring	Fall	EM 204 or BE 222 or EM 203

* Prerequisites in bold are those normally expected for ME majors following the standard curriculum flowchart. Equivalent prerequisites are shown to accommodate various situations (e.g., ME students pursuing minors and students who changed majors to ME). Some of these equivalencies might not be automatic and may require permission from the relevant department head(s).

Updated: April 01, 2025