

Mechanical Engineering Concentration Outline

()=Pre-requisites, Co=Co-requisites

Fall Semester			Spring Semester		
Freshman					
ENGR120	Intro to Engineering & Design	2	ENGR181	Material Properties and Processes	3
ENGR125	Engineering Graphics	3	MATH192	Calculus II (MATH191 or MATH195)	4
Math191	Calculus I (P5 or MATH167 or MATH168 with grade no lower than C)	4	ENGR185	Engineering Statics (MATH191)	3
CHEM131	General Chemistry I (P3, MATH165 , MATH166 , MATH168, or MATH191 , MATH195)	4	RELT100	God & Human Life	3
ENGL115	College Writing I	<u>3</u>	COMM104	Communication Skills	<u>3</u>
		16			16
Sophomore					
ENGR225	Circuit Analysis (MATH191)	3	ENGR285	Engineering Dynamics (ENGR185, PHYS241 , and MATH192; Co: MATH286)	3
PHYS241/	Physics for Scientists I (MATH192, Co: PHYS271)	4	ENGR275	Electronics I (ENGR225)	3
PHYS271	Physics for Scientists Lab I (Co: PHYS241)	1	PHYS242/	Physics for Scientists II (MATH 192 and PHYS 241, Co: PHYS272)	4
MATH240	Calculus III (MATH192)	4	PHYS272	Physics for Scientists Lab II (Co: PHYS242)	1
ENGL215	College Writing II	3	CPTR151	Computer Science I	3
HIST110	Worldviews, Cultures, and God	3	MATH286	Differential equations (MATH192)	3
		<u>18</u>			<u>17</u>
Junior					
MATH215	Intro to Linear Algebra (MATH182, MATH191, or MATH195)	3	ENGR310	Linear Systems Analysis (MATH215, MATH286, CPTR151)	3
ENGR320	Manufacturing Processes (ENGR181)	3	ENGR391	Electric Motors (ENGR275)	1
ENGR 330	Thermodynamics (PHYS241)	3	ENGR360	Fluid Dynamics (ENGR285, ENGR330, MATH286)	3
ENGR340	Mechanics of Materials (ENGR185)	3	ENGR390	Engineering Measurements (ENGR330, ENGR340)	4
GEN ED	Social Sciences	3	STAT340	Probability/Statistical Ap (MATH191 or MATH195)	3
GEN ED	Arts/Humanities	<u>3</u>	REL	Religion	<u>3</u>
		18			17
Senior					
ENGR491	Review of Engineering Design	1	ENGR492	Senior Design Project	3
ENGR450	Engineering Economy (MATH145 or MATH191)	2	ENGR440	Heat & Mass Transfer (ENGR360, MATH286)	3
ENGR410	Feedback Control Systems (ENGR 275 ENGR 285 ENGR 310)	4	ENGR	ENGR Elective	3
ENGR420	Machine Design (ENGR320, ENGR390)	3	REL	Religion (RELB, RELG,RELT)	3
REL	Religion (RELB,RELG,RELT)	3	GEN ED	Arts/Humanities	3
HLED135	Wellbeing 360 Degrees	<u>3</u>			<u>15</u>
		16			15

Suggested 4-year course outline per Bulletin 2022-2023

Total Credits for Graduation

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