

Mechanical Engineering Concentration Outline

Fall Semester			Spring Semester		
Freshman					
ENGR120	Intro to Engineering & Design	2	ENGR180	Material Science (CHEM131)	4
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 ,	4	RELT100	God & Human Life	3
ENGL115	College Writing I	3	COMM104	Communication Skills	3
HLED120/F	Fit for Life/Fitness Activity	<u>1</u>			
		<u>17</u>			<u>17</u>
Sophomore					
ENGR225	Circuit Analysis (MATH191)	3	ENGR285	Engineering Dynamics (ENGR185, PHYS241 , and MATH192; Co: MATH286)	3
PHYS241/2	Physics for Scientists I (MATH192, Co: PHYS271)	5	ENGR275	Electronics I (ENGR225)	3
MATH240	Calculus III (MATH192)	4	PHYS242/2	Physics for Scientists II (MATH 192 and PHYS 241, Co: PHYS272)	5
ENGL220/E	Tech Writing/College Writing II (ENGL115 or ENGL117)	3	CPTR151	Computer Science I	3
FTES	Physical Fitness Activity	<u>1</u>	MATH286	Differential equations (MATH192)	3
		<u>16</u>			<u>17</u>
Junior					
MATH215	Linear Algebra (MATH182, MATH191, or MATH195)	3	ENGR310	Linear Systems Analysis (MATH2	3
ENGR320	Manufacturing Processes (ENGR180)	3	STAT340	Probability/Statistical Ap (MAT	3
ENGR 330	Thermodynamics (PHYS241)	3	ENGR391	Electric Motors (ENGR275)	1
ENGR340	Mechanics of Materials (ENGR185)	3	ENGR360	Fluid Dynamics (ENGR285, ENGR330, MATH286)	3
GEN ED	Social Sciences	3	ENGR390	Engineering Measurements (ENGR330, ENGR340)	4
GEN ED	History	<u>3</u>	RELT340	Religion & Ethics	<u>3</u>
		<u>18</u>			<u>17</u>

Senior				
ENGR491	Review of Engineering Design	1	ENGR492 Senior Design Project (ENGR385 or ENGR390)	3
ENGR450	Engineering Economy (MATH145 or MATH191)	2	GEN ED Religion (RELB, RELG, RELT)	3
ENGR410	Feedback Control Systems (ENGR 275 ENGR 285 ENGR 310)	4	ENGR440 Heat & Mass Transfer (ENGR360, MATH286)	3
ENGR420	Machine Design (ENGR320, ENGR390)	3	GEN ED Arts/Humanities	3
GEN ED	Religion (RELB, RELG, RELT)	3	ENGR ENGR Elective	3
ENGR	ENGR Elective	<u>3</u>	ENGR485 Community Service	<u>2</u>
		<u>16</u>		<u>17</u>

Suggested 4-year course outline per Bulletin 2019-2020

Total Credits for Graduation 135