

MECHANICAL ENGINEERING - Class of 2018

Total Credits = **122**

Freshman Year *Fall Semester*

Course Code	Description	Cr	
CHM 101	General Chemistry I Lec [GE-N]	3	
CHM 102	General Chemistry I Lab	1	
EGR 105	Foundations of Engineering I	1	
MTH 141	Intro Calculus w/Analytic Geom [GE-MQ]	4	
	General Education Elective*	3	
	General Education Elective*	3	

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Freshman Year *Spring Semester*

Course Code	Description	Cr	
ECN 201	Principles of Microeconomics [GE-S]	3	
EGR 106	Foundations of Engineering II	2	
MTH 142	Intermed Calc with Analytic Geom [GE-MQ]	4	
PHY 203	Elementary Physics I Lect [GE-N]	3	
PHY 273	Elementary Physics I Lab [GE-N]	1	
	General Education Elective*	3	

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Sophomore Year *Fall Semester*

Course Code	Description	Cr	
ISE 240	Mfg Processes and Systems	3	
ISE 241	Mfg Processes and Systems Laboratory	1	
MCE 201	Engineering Graphics	3	
MCE 262	Statics	3	
MTH 243	Calculus for Functions of Several Vars	3	
PHY 204	Elementary Physics II Lec [GE-N]	3	
PHY 274	Elementary Physics II Lab [GE-N]	1	

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Sophomore Year *Spring Semester*

Course Code	Description	Cr	
CVE 220	Mechanics of Materials	3	
ISE 220	Indust and Systems Engrg Seminar**	1	
MCE 263	Dynamics	3	
MTH 244	Differential Equations	3	
PHY 205	Elementary Physics III Lec [GE-N]	3	
PHY 275	Elementary Physics III Lab [GE-N]	1	

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Junior Year *Fall Semester*

Course Code	Description	Cr	
CHE 333	Engineering Materials	3	
MCE 301	Application of Mechanics in Design	3	
MCE 341	Fundamentals of Thermodynamics	3	
MCE 354	Fluid Mechanics	3	
MCE 372	Engineering Analysis I	3	

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Junior Year *Spring Semester*

Course Code	Description	Cr	
ELE 220	Passive and Active Circuits	3	
MCE 302	Design of Machinery	3	
MCE 313	Intro to MCE Experimentation	3	
MCE 348	Heat and Mass Transfer	3	
MCE 366	System Dynamics	3	

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Senior Year *Fall Semester*

Course Code	Description	Cr	
MCE 401	Mechanical Engrg Capstone Design I	3	
MCE 414	Mechanical Engineering Experimentation	3	
	Professional Elective**	3	
	Professional Elective**	3	
	General Education Elective*	3	

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Senior Year *Spring Semester*

Course Code	Description	Cr	
MCE 402	Mechanical Engrg Capstone Design II	3	
	Professional Elective**	3	
	Professional Elective**	3	
	General Education Elective*	3	
	Free Elective	3	

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* **Note:** Refer to *specific* Mechanical Engineering General Education *course requirements* (see 2018 MCE Check Sheet).

** **Professional Electives:** Must be satisfied by a minimum of *three (3) three (3)-credit* MCE courses (no more than *two (2)* courses from the MCE47*/CHE47* series), *two (2)* of which must be taken at URI; the *fourth* course may be a 300-, 400-, or 500-level course offered by the College of Engineering, CHM, CSC, or PHY; or a 400 or 500-level MTH course. Professional elective courses taken outside URI are subject to URI transfer credit rules and require prior written approval.

SPECIFIED MATH, SCIENCE, AND ENGINEERING COURSES											
INTRODUCTORY ENGINEERING						ENGINEERING SCIENCE AND DESIGN					
Sem	Course	Cr	Grade	QP	Note	Sem	Course	Cr	Grade	QP	Note
	EGR 105	1					CHE 333	3			
	EGR 106	2					CVE 220	3			
		3					ELE 220	3			
MATHEMATICS							ISE 220	1			
	MTH 141 [GE-MQ]	4					ISE 240	3			
	MTH 142 [GE-MQ]	4					ISE 241	1			
	MTH 243	3					MCE 201	3			
	MTH 244	3					MCE 262	3			
		14					MCE 263	3			
NATURAL SCIENCES							MCE 301	3			
	CHM 101 [GE-N]	3					MCE 302	3			
	CHM 102	1					MCE 313	3			
	PHY 203 [GE-N]	3					MCE 341	3			
	PHY 273 [GE-N]	1					MCE 348	3			
	PHY 204 [GE-N]	3					MCE 354	3			
	PHY 274 [GE-N]	1					MCE 366	3			
	PHY 205 [GE-N]	3					MCE 372	3			
	PHY 275 [GE-N]	1					MCE 401 [capstone]	3			
							MCE 402 [capstone]	3			
							MCE 414	3			
								56			
						*PROFESSIONAL ELECTIVES					
								3			
								3			
								3			
								3			
		16						12			
GENERAL EDUCATION [GE] COURSES											
BREADTH At least one course in <i>each</i> of the Gen Ed Areas						DEPTH At least one additional course in <i>3 different</i> Gen Ed Areas Remainder are taken in <i>any</i> Gen Ed Area/Area					
Sem	Course	Cr	Grade	QP	Note	Sem	Course	Cr	Grade	QP	Note
**English Communication-Writing [GE-ECw]						Natural Sciences [GE-N]					
	WRT	3				---	<i>Satisfied by Required Courses</i>	12	---	---	---
Mathematical and Quantitative Reasoning [GE-MQ]						Mathematical and Quantitative Reasoning [GE-MQ]					
	<i>Satisfied by MTH 141</i>	4	---	---	---		<i>Satisfied by MTH 142</i>	4	---	---	---
Fine Arts & Literature [GE-A]						**One additional course from: EC/ECw; A; FC; L; S					
		3					[GE-EC/ECw; A; FC; L; S]	3			
Foreign Language/Culture [GE-FC]						Free Elective					
		3						3			
Letters [GE-L]						Other Courses (not for degree credit)					
		3									
Natural Sciences [GE-N]											
	<i>Satisfied by CHM 101</i>	3	---	---	---						
Social Sciences [GE-S]											
	ECN 201	3									

* Professional Electives: Must be satisfied by a minimum of *three (3) three (3)-credit* elective MCE courses (no more than *two (2)* courses from the MCE47*/CHE47* series), *two (2)* of which must be taken at URI; the *fourth* course may be a 300-, 400-, or 500-level course offered by the College of Engineering, CHM, CSC, or PHY; or a 400-, or 500-level MTH course. Professional elective courses taken outside URI are subject to URI transfer credit rules and require prior written approval.

** Note the following *specific* requirements and restrictions for General Education [GE] electives:

-[GE-ECw] *Must* take at least *one (1)* General Education course in *writing* [GE-ECw].

-[GE-ECw] Can only take *one (1)* of the following **100-level** writing courses for General Education credit [GE-ECw]: WRT 104, WRT 105, WRT 106.