

## UNIVERSITY OF THE DISTRICT OF COLUMBIA SCHOOL OF ENGINEERING AND APPLIED SCIENCES DEPARTMENT OF MECHANICAL ENGINEERING

## **MECHANICAL ENGINEERING PROGRAM**

**Effective Fall 2018 (for newly matriculated students)** 

First Semester			Second Semester				
Course #	Course Name	Credits	Grade	Course # Course Name		Credits	Grade
IGED-110	Found Writ Arts & Hum	3		IGED-111	Found Writ Soc. & Nat Sc.	3	
IGED-130	Found Oral Comm.	3		MECH-108	Programming for Engrs 1		
CHEM-111	General Chemistry I Lec	3		MATH-152	Calculus II Lec 3		
CHEM-113	General Chemistry I Lab	1		MATH-156	Calculus II Lab	1	
MATH-151	Calculus I Lec	3		PHYS-201	University Physics I Lec	3	
MATH-155	Calculus I Lab	1		PHYS-205	University Physics I Lab	1	
CCEN-101	Intro to Engineering	2		MECH-107	· · ·		
	Total	16		Total		15	
Third Semester				Fourth Semester			
Course #	Course Name	Credits	Grade	Course #	Course Name Credits		Grade
PHYS-202	University Physics II Lec	3		CVEN-202	Engineering Mechanics II	3	
PHYS-206	University Physics II Lab	1		MECH-206	Mech of Materials Lec		
CVEN-201	Engineering Mechanics I	3		MECH-207	Mech of Materials Lab	1	
MECH-205	Materials Science	3		MECH-208	Thermodynamics	3	
ELEC-225	Electric Circuits Lec	3		MECH -222	Engr. Measurements Lec	3	
ELEC-226	Electric Circuits Lab	1		MECH -224	Engr. Measurements Lab	1	
MATH-254	Differential Eq. (or 260)	3		MECH-302	Res Exp & Tech Comm*	3	
	Total	17			Total	17	
Fifth Semester		Sixth Semester					
Course #	Course Name	Credits	Grade	Course #	Course Name	Credits	Grade
IGED-140	Found Ethics & Values	3		IGED-210	Discov Expos Writing	3	
CVEN-308	Appl. Num Analysis	3		MATH-253	Calculus III Lec	3	
MECH-381	Microcontrollers in ME	3		MATH-255	Calculus III Lab		
MECH-321	Fluid Mechanics Lec	3		MECH-351	Heat Transfer Lec 3		
MECH-322	Thermo/Fluid Lab	1		MECH-361	Machine Design		
MECH-341	Anal & Synth of Mechsm	3		MECH-371	Design of Control Sys Lec	3	
				MECH-373	ECH-373 Design of Control Sys Lab		
	Total	16		Total		17	
Seventh Semester		Eighth Semester					
Course #	Course Name	Credits	Grade	Course #	Course Name	Credits	Grade
IGED-270	Discov Loc/Glob Cul	3		IGED-280	Discov Civ/Ser/Team	3	
MECH-406	Engineering Economics	3		MECH-462	Design of Energy Systems 3		
MATH-381	Probability & Statistics	3		MECH-492	Capstone Sr. Design Pr. II*	3	
MECH-491	Capstone Sr. Design Proj I*	3		MECH-xxx	**ME Technical Elective	3	
MECH-xxx	**ME Technical Elective	3		MECH-xxx	**ME Technical Elective	3	
	Total	15			Total	15	
					GRAND TOTAL CREDITS	128	

1. *	Contains	intensive	writing	component	
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Department Chair \_\_\_\_\_

\_\_ Date \_\_\_\_\_

<sup>2. \*\*</sup>ME Technical Electives (current concentrations in Adv. Manufacturing, Renewable Energy, and Biomedical): MECH-465, MECH-478, MECH-483, MECH-487, MECH-488, MECH-495, BMEG-301, BMEG-302, BMEG-404, BMEG-495, and ELEC-410.

<sup>3.</sup> A completed copy of this form must accompany each student's Graduation Clearance Form

## **MECHANICAL ENGINEERING Prerequisite Course List**

Course No	Course Name	Co-Req	Pre-Requisite
CCEN-101	Introduction to Engineering	-	-
MECH-107	ME Computer Graphics Lab	-	-
MECH-108	Programming for Engineers	-	-
CVEN-201	Engineering Mechanics-I	-	PHYS-201
CVEN-202	Engineering Mechanics-II	-	CVEN-201
MECH-205	Material Science	-	CHEM-111
MECH-206	Mechanics of Materials Lec	MECH-207	MECH-205, CVEN-201
MECH-207	Mechanics of Materials Lab	MECH-206	-
MECH-208	Thermodynamics	-	PHYS-201
ELEC-225	Electrical Circuits Lec	ELEC-226	PHYS-201
ELEC-226	Electrical Circuits Lab	ELEC-225	-
MECH-222	Eng. Measurements Lec	MECH-224	ELEC-225
MECH-224	Eng. Measurements Lab	MECH-222	ELEC-226
MECH-302	Research Experience & Technical	-	CCEN-101, Permission of
MECH-321	Communication Fluid Mechanics Lec	MECH-322	Instructor MATH-254 or 260
WIECII-321	Tima mechanics Lec	WIECH-322	MECH-208, CVEN-202
MECH-322	Thermo/Fluid Lab	MECH-321	-
MECH-341	Anal. & Synth. of Mechanisms	-	CVEN-202
CVEN-308	Applied Numerical Analysis for Engineers	-	MATH-254 or 260
MECH-351	Heat Transfer	-	MECH-321
MECH-361	Machine Design	_	MATH-254 or 260 MECH-206
MECH-371	Design of Control Sys Lec	MECH-373	MATH-254 or 260,
	,		ELEC-225
MECH-373	Design of Control Sys Lab	MECH-371	MECH-224, ELEC-226
MECH-381	Microcontrollers in ME	-	ELEC-225, Junior Standing
MECH-406	Engineering Economics	-	Senior Standing  Senior Standing
MECH-462	Design of Energy Systems Lec	-	MECH-351
**MECH-465	Advanced Manufacturing	-	MECH-107, MECH-205,
**NECH 470	16.1		Junior Standing
**MECH-478	Mechatronics	-	MECH-381, Senior Standing
**MECH-383	Robot Mechanics & Control	-	MECH-341, MECH-371,
**MECH-487	Photovoltaic and Solar Thermal Energy	-	Senior Standing MECH-205, Senior
	Theorem and Solar Thermal Litergy		Standing
**MECH-488	Fuel Cell Fundamentals & Technologies	-	Senior Standing
MECH-491/492	ME Capstone Sr. Design Proj I/II	-	Senior Standing