

Bachelor of Science in Mechanical and Electrical Engineering

Name _____

I.D. No. _____

Curriculum Sheet (Effective Fall 2024)

First Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
ENG 100 Intensive Writing or ENG 101	3		W/C	ESC 102 Tech. Writing or ENG 102 English II	3		W/C
MTH 181 Calculus I	4	X	M	MTH 182 Calculus II	4	X	M/QL
CHM 261 General Chemistry I	3	X	NS	PHY 241/243 University Physics I	5	X	NS/WAC
ESC 120 Introduction to Engineering Design	2	X		ESC 151 C Programming or ESC152 Mat	3	X	
ESC 100 Orientation*	1	X	INTRO	MCE 181 Computer Aided Engineering II	2	X	
MCE 180 Computer Aided Engineering I	2	X					
Semester Total	15			Semester Total	17		

Second Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
ESC 250 Differential Equations	3	X		ESC 202 Dynamics	3	X	
ESC 201 Statics	3	X		ESC 301 Fluid Mechanics	3	X	
EEC 310 Electric Circuits I	4	X		ESC 211 Strength of Materials	3	X	
EEC 312 Circuits Lab	2	X		General Education Elective	3		DIV US
MCE 276 Materials & Manufacturing Processes	3	X		EEC 313 Electronics I	3	X	
MCE 286 Manufacturing Proc Lab	1	X		EEC 315 Electronics Lab	2	X	
Semester Total	16			Semester Total	17		

Third Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
MCE 371 Vibrations	3	X		EEC 384 Digital Systems Lab	2	X	
MCE 362 Machine Analysis	3	X		ESC 350 Linear Algebra for Engineers	3	X	
EEC 383 Digital Systems	3	X		EEC Technical Elective	3	X	
ESC 321 Engineering Thermodynamics	3	X		MCE 470 Eng Measurements	3	X	
General Education Elective	3		SS	MCE 480 Measurements Lab	1	X	A&H
Semester Total	15			Semester Total	12		

Fourth Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
MCE 450 or EEC 493 Design Proj I	2	X		MCE 451 or EEC 494 Design Proj II	3	X	
MCE 441 Intro Linear Controls	3	X		PHL 215 Engineering Ethics	3	X	AH & WAC
MCE or EEC Elective	3	X		MCE or EEC Elective	3	X	
ESC 282 Engineering Economy	3	X	SS	MCE Lab Elective	3	X	
General Education Elective	3		DIV AA	General Education Elective	3		AH
Semester Total	14			Semester Total	15		

Degree Total hours: 121

Gen Ed Key:	SS = Social Sciences Req (2 courses, one of which must be focused outside the US**)
INTRO = Introduction to University Life Requirement (one course)	A&H = Arts & Humanities Requirement (2 courses, one must be focused outside the US**)
W/C = Writing/Composition Requirement (two courses; C or better required)	DIV = Social Diversity Req (2 courses; one US Diversity and one African American Exp.)
M/QL = Mathematics/Quantitative Literacy Requirement (two courses)	WAC/SPAC = Writing/Speaking Across the Curriculum Req (3 courses, one in the major)
NS = Natural Sciences (two courses, one of which must have a lab)	CAP = Capstone Requirement
* ESC 100 is waived for transfer students.	
** of the SS and A&H courses focused outside the US, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)	

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