

# Mechatronics Engineering 2-Year Transfer Pathway 2024-2025

This four-semester transfer pathway is for students who have completed all prerequisite courses including:

Engineering: Introduction to Engineering, Statics, Materials Sci Engineering, Engineering Graphics, Strength of Materials, Circuit Analysis,

Mathematics: Calculus 1, Calculus 2, Multivariate Calculus, Differential Equations and Linear Algebra

Physical Science: General Chemistry 1 with lab, Physics for Engineers 1 and 2

Computer Science: Programming 1 (or Matlab), Data Structures

Fall Junior Courses (15)	Course or GE Title	Units	GE/Major
<b>ENGR 330</b> (prereq = ENGR 130 Statics)	Dynamics	3	Major
<b>ENGR 340</b> (prereq = ENGR 260&260L Circuit Analysis)	Signals	3	Major
<b>ENGR 370</b> (prereq = ENGR 260&260L Circuit Analysis)	Digital Logics	3	Major
<b>Any GE area not completed previous</b>	Any GE not done previously	3	missing GE
<b>Language other than English</b>	Any language other than English	3	C2
Spring Junior Courses (13-14)	Course or GE Title	Units	GE/Major
<b>ENGR 301</b> (GE areas A1, A2, A3, B4)	Technical Writing in Engineering	3	GWAR
<b>ENGR 310</b> (prereq ENGR 260/L & ENGR 370)	Mechatronics	4	Major
<b>ENGR 320</b> (prereq ENG 240 Strength of Materials) <b>OR ENGR 240</b> Strength of Materials	Machine Design <b>OR</b> Strength if materials if not done	3	UDB, Major
<b>ENGR 375</b> (prereq ENGR 330 and 260/L or ENGR 340 and MATH 265 and CST 231)	Feedback Control Systems	3	Major
Fall Senior courses (15-16)	Course or GE Title	Units	GE/major
<b>ENGR 380</b> (prereq ENGR 370)	Embedded Systems	3	Major
<b>ENGR 480</b> (prereq ENGR 310 & pre/coreq ENGR 320)	Mechatronics Design 1	3	Major
<b>ENGR 350</b> (prereq CHEM 110 7 PHYS 210 & MATH 265) <b>or 360 or 397</b>	Thermodynamics or Fluid Dynamics or Independent Study	3	Major
<b>Upper-division service learning</b>	Any UDD	3-4	UDSL
<b>ENGR 320</b> (prereq ENGR 240 Strength of Materials)	Machine Design if not done	3	UDB, major
Spring Senior Courses (16)	Course or GE Title	Units	GE/Major
<b>ENGR 481</b> (prereq ENGR 480)	Mechatronics Design 2	3	Capstone
<b>ENGR 394</b> (prereq ENGR 301 and 310)	Engineering Internship	1	Major
<b>UDC</b>	Any UDC	3	UDC
<b>Any UDD course, recommend HCOM 353 or HCOM 369 if US History not complete</b>	Any upper-division GE area D course	3	UDD (with History)
<b>Any U2&amp;3</b>	Civics	3	US23
<b>Elective</b>	Elective if needed to reach 120 units	3	elective
	<b>Total Mechatronics Transfer</b>	<b>60</b>	