

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, (*NOTE: Strength of Materials can be completed after transfer without delay in graduation*)

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, Data Structures

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