

		Fall					Spring					
Year 1	BME	1010	Introduction to Biomedical Engineering	1	2	2	ELE	2001	Electric Circuits I: Theory and Applications	3	2	4
	BIO	1110	Cell Biology and Genetics	3	2	4	CSC	1310	Introduction to Programming in Python	2	2	3
	MTH	1110	Calculus I	4	0	4	MTH	1120	Calculus II	4	0	4
	PHY	1110	Physics I – Mechanics and Thermodynamics	3	2	4	COM	1001	College Writing	3	0	3
			Elective (Raider Core – Any)	3	0	3			Elective (Raider Core – Exhibit Curiosity)	3	0	3
Year 1 – Fall – 14-6-17						Year 1 – Spring – 15-4-17						
Year 2	BME	2310	Embedded Systems for BMEs	2	2	3	BIO	2510	Human Physiology I	3	0	3
	ELE	2011	Electric Circuits II: Theory and Applications	4	0	4	CSC	2621	Introduction to Data Science	2	2	3
	CSC	2611	AI Tools	2	2	3	CHM	1010	Chemistry I	3	2	4
	MTH	2140	Differential Equations	3	0	3	MTH	2130	Calculus III	4	0	4
	MTH	2340	Linear Algebra with Applications	3	0	3	MTH	2480	Probability and Statistics	3	0	3
							IDS	2020	Career Development	1	0	0
Year 2 – Fall – 14-4-16						Year 2 – Spring – 16-4-17						
Year 3	BME	3710	Biomedical Instrumentation	2	2	3	BME	3010	Medical Device Regulation and Standards	3	0	3
	ELE	3300	Signals and Systems	3	0	3	BME	3310	Sensors, Actuators, and Interfaces	2	2	3
	MEC	2010	Engineering Mechanics I: Statics	3	0	3	ELE	3320	Digital Signal Processing	2	2	3
	BIO	2520	Human Physiology II	3	2	4	CSC	4801	Data Science Practicum	2	2	3
	COM	2001	Writing for the STEM Disciplines	3	0	3	COM	3001	Professional Presentations	3	0	3
Year 3 – Fall – 14-4-16						Year 3 – Spring – 12-6-15						
	Summer	CSC	5120	Software Development for ML	4	0	4					
Year 3 – Summer – 4-0-4												
Year 4	BME	4901	Computer Engineering Senior Design I	1	2	3	BME	4902	Computer Engineering Senior Design II	1	2	3
	BME	3210	Medical Imaging Systems	2	2	3	BME	3410	Biomechanics	3	2	4
	BME	3510	Biotransport Phenomena	4	0	4	BME	4110	Control Systems for Biomedical Applications	3	2	4
	PHL	3102	Ethics of Digital Technologies and AI	3	0	3			Elective (Raider Core – Embrace Diversity)	3	0	3
	CSC	5601	Theory of Machine Learning	4	0	4	CSC	5201	Microservices and Cloud Computing	4	0	4
Year 4 – Fall – 14-4-17						Year 4 – Spring – 14-6-18						
	Summer	CSC	6621	Applied Machine Learning	4	0	4					
		PHL	6001	AI Ethics and Governance	4	0	4					
Year 4 – Summer – 8-0-8												
Year 5	CSC	6605	ML Production Systems	4	0	4						
	CSC	7901	Capstone Project	4	0	4						
			Elective (ML Master's)	4	0	4						
Year 5 – Fall – 12-0-12												

Biomedical Engineering BS with Early Entry
Machine Learning MS V1

2023-02-15

