

Mechatronics & Biomedical Engineering Program Road Map 2022-23

This program layout applies to students registered in 2022-2023.

Where there are discrepancies in this document, the published [Academic Calendar](#) will always take precedence.

For a detailed breakdown of your course requirements, please refer to your Advisement Report in Mosaic.

MECHATRONICS & BIOMEDICAL - LEVEL II						
	TERM 1			TERM 2		
TRON CORE	Engineering Mathematics III	MATH 2Z03	3	3	MATH 2ZZ3	Engineering Mathematics IV
	Computational Mechanics: Statics	ENGPYS 2P04	4	3	MECHENG 2BA3	Mechanical Engineering Measurements
	Computation Mechanics: Dynamics	ENGPYS 2CD4	4	3	MECHTRON 2MD3	Data Structures & Algorithms for Mechatronics
	Programming for Mechatronics	MECHTRON 2MP3	3			
IBIOMED CORE	Inquiry II: Biochemistry	HTHSCI 2E03	3	3	IBEHS 2P03	Health Solutions Design Projects II: Introduction to Genetic Engineering
	Human Physiology & Anatomy I	HTHSCI 2F03	3	3	HTHSCI 2FF3	Human Physiology & Anatomy II
				3	CHEM 1AA3	Introductory Chemistry II
	TOTAL TERM 1 UNITS		20	18	TOTAL TERM 2 UNITS	
	TOTAL UNITS:		38			

MECHATRONICS & BIOMEDICAL - LEVEL III						
	TERM 1			TERM 2		
TRON CORE	Thermal Systems Design	ENGPYS 2NE3	3	3	MECHENG 2BA3	Mechanical Engineering Measurements
	Computation Mechanics: Dynamics	ENGPYS 2CD4	4	3	MECHENG 2DA3	Mechanical Engineering Design Elements
	Software Development	MECHTRON 3K04	4	4	MECHTRON 2TA4	Embedded Systems Design I
IBIOMED CORE	Statistics & Epidemiology 1	HTHSCI 2G03	3	3	HTHSCI 3G03	Critical Appraisal of the Medical Literature
	Biomedical Signals and Systems	IBEHS 3A03	3	4	IBEHS 3P04	Health Solutions Design Projects III: Analysis and Decision Making
				3	CHEM 1AA3	Introductory Chemistry II
	TOTAL TERM 1 UNITS		17	20	TOTAL TERM 2 UNITS	
	TOTAL UNITS:		37			

MECHATRONICS & BIOMEDICAL - LEVEL IV

		TERM 1			TERM 2		
TRON CORE	Complementary Studies	ELECTIVE	3	4	MECHTRON 3TB4	Embedded Systems Design II	
				3	SFWRENG 3SH3	Operating Systems	
IBIOMED CORE	Biomechanics	IBEHS 4B03	3	3	IBEHS 4A03	Biomedical Control Systems	
	Biomedical Instrumentation and Measurement	IBEHS 4F04	4	3	IBEHS 4C03	Statistical Methods in Biomedical Engineering	
	Health Solutions Design Projects IV: Economics and Project Management	IBEHS 4P04	4	3	IBEHS 4D03	Introduction to Medical Imaging	
	Introductory Organic Chemistry OR Organic Chemistry I	CHEM 2E03 OR CHEM 20A3	3	4	ELECTIVE	IBEHS Technical Elective	
TOTAL TERM 1 UNITS			17	20	TOTAL TERM 2 UNITS		
TOTAL UNITS:			37				

MECHATRONICS & BIOMEDICAL - LEVEL V

		TERM 1			TERM 2		
TRON CORE	Robotics	MECHENG 4K03	3	3	ENGINEER 4A03	Ethics, Equity and Law in Engineering	
	Real-Time Systems and Control Applications	MECHTRON 4AA4	4	3	MECHENG 4H03	Mechatronics	
	Scientific Computation	MECHTRON 3X03	3	3	ELECTIVE	Complementary Studies	
	Technical Electives from List A	ELECTIVE	3	3	ELECTIVE	Technical Electives from List B	
IBIOMED CORE	Biomedical Capstone Design Project	TRONBME 5P06A	3	3	TRONBME 5P06B	Biomedical Capstone Design Project	
	Modelling of Biological Systems	IBEHS 4QZ3	3	4	ELECTIVE	IBEHS Technical Elective	
TOTAL TERM 1 UNITS			19	19	TOTAL TERM 2 UNITS		
TOTAL UNITS:			38				