

Mechanical & 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.

MECHANICAL & BIOMEDICAL - LEVEL II						
	TERM 1			TERM 2		
MECH CORE	Engineering Mathematics III	MATH 2Z03	3	3	MATH 2ZZ3	Engineering Mathematics IV
	Mechanical Engineering Design Elements	MECHENG 2D03	3	3	MECHENG 2B03	Mechanical Engineering Measurements
	Statics and Mechanics of Materials	MECHENG 2P04	4	4	MECHENG 2W04	Thermodynamics
	Engineering Mechanics: Kinetics and Dynamics	MECHENG 2Q04	4	3	MECHENG 3A03	Engineering Mechanics
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
	TOTAL TERM 1 UNITS		20	19	TOTAL TERM 2 UNITS	
	TOTAL UNITS:		39			

MECHANICAL & BIOMEDICAL - LEVEL III						
	TERM 1			TERM 2		
MECH CORE	Partial Differential Equations for Engineering	MATH 3I03	3	3	MECHENG 3R03	Heat Transfer
	Manufacturing Engineering	MECHENG 3C03	3	3	MATLS 3M03	Mechanical Behaviour of Materials
	Composite Laboratory	MECHENG 3M03A	1.5	1.5	MECHENG 3M03B	Composite Laboratory
	Fluid Mechanics	MECHENG 3O04	4			
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		17.5	17.5	TOTAL TERM 2 UNITS	
	TOTAL UNITS:		35			

MECHANICAL & BIOMEDICAL - LEVEL IV

		TERM 1			TERM 2		
MECH CORE	Modelling and Numerical Solutions	MECHENG 3F04	4	5	MECHENG 3E05	Mechanical Engineering Design Theory and Project II	
	Electrical Circuits and Power	ELECENG 2MM3	3				
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	21	18	TOTAL TERM 2 UNITS		
		TOTAL UNITS:	39				

MECHANICAL & BIOMEDICAL - LEVEL V

		TERM 1			TERM 2		
MECH CORE	Composite Laboratory	MECHENG 4P03A	1.5	1.5	MECHENG 4P03B	Composite Laboratory	
	Mechanical Vibrations	MECHENG 4Q03	3	3	ENGINEER 4A03	Ethics, Equity and Law in Engineering	
	Thermo-Fluids Systems Design & Analysis	MECHENG 4V03	3	3	ELECTIVE	Program Option Courses or Approved Technical Electives	
	Program Option Courses or Approved Technical Electives	ELECTIVE	4	3	ELECTIVE	Complementary Studies	
				3	ELECTIVE	Complementary Studies	
IBIOMED CORE	Biomedical Capstone Design Project	MECHBME 5P06A	3	3	MECHBME 5P06B	Biomedical Capstone Design Project	
	Modelling of Biological Systems	IBEHS 4QZ3	3	4	ELECTIVE	IBEHS Technical Elective	
		TOTAL TERM 1 UNITS	17.5	20.5	TOTAL TERM 2 UNITS		
		TOTAL UNITS:	38				