

## Engineering Physics & 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.

ENG PHYS & BIOMEDICAL - LEVEL II						
	TERM 1			TERM 2		
ENG PHYS CORE	Engineering Mathematics III	MATH 2Z03	3	3	MATH 2ZZ3	Engineering Mathematics IV
	Analog and Digital Circuits	ENGPYS 2E04	4	4	ENGPYS 2CM4	Computational Multiphysics
	Computational Mechanics: Dynamics	ENPHYS 2CD4	4	4	ENGPYS 2A04	Electricity and Magnetism
	Computational Mechanics: Statics	ENGPYS 2P04	4	3	ENGPYS 2QM3	Introduction to Quantum Mechanics
IBIOMED CORE	Human Physiology & Anatomy I	HTHSCI 2F03	3	3	IBEHS 2P03	Health Solutions Design Projects II: Introduction to Genetic Engineering
				3	HTHSCI 2FF3	Human Physiology & Anatomy II
	<b>TOTAL TERM 1 UNITS</b>		18	20	<b>TOTAL TERM 2 UNITS</b>	
	<b>TOTAL UNITS:</b>		38			

ENG PHYS & BIOMEDICAL - LEVEL III						
	TERM 1			TERM 2		
ENG PHYS CORE	Electronics I: Circuits with Non-Linear and Active Components	ENGPYS 3BA4	4	4	ENGPYS 3BB4	Electronics II: Embedding and Programming a Micro-Controller
	Numerical Methods for Engineering	ENGPYS 3NM4	4	3	ENGPYS 3SM3	Statistical Mechanics
				4	ENGPYS 3L04	Engineering Metrology: Fundamentals and Applications
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
	<b>TOTAL TERM 1 UNITS</b>		14	21	<b>TOTAL TERM 2 UNITS</b>	
	<b>TOTAL UNITS:</b>		35			

## ENG PHYS & BIOMEDICAL - LEVEL IV

		TERM 1			TERM 2		
<b>ENG PHYS CORE</b>	Approved Tech Elective: Note 1 (3 units)	ELECTIVE	3	3	ELECTIVE	Approved Tech Elective: Note 1 (3 units)	
	Approved Tech Elective: Note 1 (3-4 units)	ELECTIVE	4	4	ELECTIVE	Approved Tech Elective: Note 1 (3-4 units)	
<b>IBIOMED CORE</b>	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				
<b>TOTAL TERM 1 UNITS</b>			<b>21</b>	<b>16</b>	<b>TOTAL TERM 2 UNITS</b>		
<b>TOTAL UNITS:</b>			<b>37</b>				

## ENG PHYS & BIOMEDICAL - LEVEL V

		TERM 1			TERM 2		
<b>ENG PHYS CORE</b>	Approved Tech Elective: Note 1 (3-4 units)	ELECTIVE	4	3	ENGINEER 4A03	Ethics, Equality and Law in Engineering	
	Approved Tech Elective: Note 1 (3-4 units)	ELECTIVE	4	3	ELECTIVE	Approved Tech Elective: Note 1 (3 units)	
	Complementary Studies	ELECTIVE	3	3	ELECTIVE	Approved Tech Elective: Note 1 (3 units)	
				3	ELECTIVE	Complementary Studies	
<b>IBIOMED CORE</b>	Biomedical Capstone Design Project	EPHYSBME 5P06A	3	3	EPHYSBME 5P06B	Biomedical Capstone Design Project	
	Modelling of Biological Systems	IBEHS 4QZ3	3	4	ELECTIVE	Approved Tech Elective: Note 1 (3-4 units)	
<b>TOTAL TERM 1 UNITS</b>			<b>17</b>	<b>19</b>	<b>TOTAL TERM 2 UNITS</b>		
<b>TOTAL UNITS:</b>			<b>36</b>				