

Biomedical and Instruments Engineering

Study Plan

	Course Code	Course Title	Course Type	Pre-R	Co-R	Credit Hours	Contact Hours
Semester 1	ENL101	English for Academic Studies	UM	IEP099 or Equivalent	DPS095	3	3
	GEN150	Professionalism and Ethics	UM			3	3
	MAT101	Calculus I	UM	IMP099 or Equivalent		3	3
	PHY101	Physics I	UM		MAT101	3	3
	CHM101	Chemistry I	CM	IMP099 or Equivalent		3	3
	PHY105	Physics I Lab	CM		PHY101	1	3
	CHM105	Chemistry I Lab	CM		CHM101	1	3
<i>Total</i>						17	21
Semester 2	ENL102	English Composition	UM	ENL101 DPS095		3	3
	INF120	Computers and Information Systems	UM	DPS095		3	3
	MAT102	Calculus II	CM	MAT101		3	3
	PHY102	Physics II	CM	PHY101 MAT101		3	3
	PHY107	Physics II Lab	CM	PHY105	PHY102	1	3
	MAT202	Linear Algebra	CM	MAT101		3	3
<i>Total</i>						16	18
Semester 3	BIE101	Human Biology for Engineers	PM	CHM101		3	3
	HST101	Islamic Culture and Values	UM			3	3
	MAT201	Calculus III	CM	MAT102		3	3
	ENG204	Engineering Mechanics	CM	PHY102		3	3
	MAT240	Differential Equations	CM	MAT102		3	3
	ENG205	Electrical and Electronic Circuits	CM	PHY102 MAT102		3	3
<i>Total</i>						18	18

	Course Code	Course Title	Course Type	Pre-R	Co-R	Credit Hours	Contact Hours
Semester 4	ENL201	Writing and Research	UM	ENL102		3	3
	ENG207	Programming	CM	MAT202		3	3
	ENG208	Introduction to Energy and Sustainability	CM	PHY102 CHM105		3	3
	ENG206	Electrical and Electronic Circuits Lab	CM	ENG205 PHY107		1	3
	BIE203	Human Anatomy and Physiology	PM	BIE101		3	3
	BIE201	Biochemistry	PM	CHM101 BIE101		3	3
	BIE202	Biochemistry Lab	PM		BIE201	1	3
Total						17	21

Semester 5	XXXX	Arts and Humanities Elective Group I	UM			3	3
	ENG304	Engineering Probability & Statistics	CM	MAT102		3	3
	ENG308	Numerical Methods	CM	MAT202 MAT240		3	3
	BIE301	Biofluids and Biomedical Transport Phenomena	PM	ENG204 MAT240		3	3
	BIE350	Signal Measurement Principles and Control Systems	PM	ENG205 ENG304		3	3
	BIE351	Signal and control systems Lab	PM		BIE350	1	3
Total						16	18

Semester 6	XXXX	Global Citizen (Elective)	UM			3	3
	XXXX	Innovation and Creativity (Elective)	UM			3	3
	BIE302	Biomaterials	PM	BIE203 BIE202		3	3
	BIE303	Biomaterials Lab	PM		BIE302	1	3
	BIE304	Biomechanics	PM	BIE203 BIE301		3	3
	BIE352	Instrumentation, Measurement and Data Acquisition	PM	BIE350		3	3
	BIE353	Instrumentation, Measurement and Data Acquisition Lab	PM		BIE352	1	3
Total						17	21

	Course Code	Course Title	Course Type	Pre-R	Co-R	Credit Hours	Contact Hours
Semester 7	XXXX	Arts and Humanities Elective Group II	CM			3	3
	BIE371	Medical Imaging Systems	PM	MAT201 BIE350		3	3
	BIE451	Instrumentation Design	PM	BIE352		3	3
	BIE452	Instrumentation Design Lab	PM		BIE451	1	3
	BIE490	Capstone Design 1	PM	Pass 96 CH		3	3
	ENG309	Engineering Project Management and Economics	CM	ENG207 ENG208		3	3
<i>Total</i>						16	18

Semester 8	BIE491	Capstone Design 2	PM	BIE490		3	3
	BIE401	Biomedical Molecular and Nano Devices	PM	BIE304 BIE371		3	3
	XXXX	Program Elective	PM	Prerequisite Program Elective		3	3
	XXXX	Program Elective	PE	Prerequisite Program Elective		3	3
	XXXX	Program Elective	PE	Prerequisite Program Elective		3	3
<i>Total</i>						15	15

Note that the University Mandatory (UM), College Mandatory (CM), Program Mandatory (PM), and Program Elective (PE) courses