SCHEME OF STUDIES
BIOMEDICAL ENGINEERING

Batch 2016-17

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
SPRING	MT-100 Introduction to Mathematics (for pre-medical students)		NC	
	BM-100 Introduction to Biology (for pre-engineering students)			
	BM-100 Introduction to Biomedical Engg	1	1	1
	CY-106 Chemistry	3	1	4
	PH-126 Physics	3	1	4
	HS-104 Functional English	3	0	3
	BM-108 Computer Aided Engineering Graphics	1	3	2
	BM-113 Engineering Mechanics	3	1	4
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	BM-114 Anatomy	3	1	4
	BM-115 Physiology-I	2	1	3
	HS-105 Pakistan Studies OR	2	0	2
	HS-127 Pakistan Studies (for Foreigners)			
FALL				

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 17-18	BM-209 Basic Electronics	3	1	4
	CS-107 Computer Programming	3	1	4
	MT-114 Calculus	3	0	3
	BM-210 Biochemistry	3	1	4
	BM-116 Physiology-II	2	1	3
	MT-272 Linear Algebra & Geometry	3	0	3
SPRING 2018	BM-203 Cellular and Molecular Biology	2	0	2
	EE-217 Circuit Theory	3	0	3
	CS-205 Logic Design and Switching Theory	3	1	4
	HS-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior			
	BM-208 Biomedical Electronics	3	1	4

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2018	BM-307 Bioinformatics	2	1	3
	EE-217 Circuit Theory	2	0	2
	BM-306 Biomechanics & Measurements-I	3	1	4
	CS-430 Microprocessor Programming and Interfacing	3	1	4
	BM-309 Fundamentals of Fluid Mechanics	3	1	4
	MT-223 Ordinary Differential Equations & Fourier Series	3	0	3
	BM-310 Control Systems for Biomedical Engineers	2	1	3
SPRING 2019	*EF-305 Engineering Economics and Management	3	0	3
	BM-311 Biomechanics & Measurements-II	3	1	4
	BM-312 Biostatistics	2	1	3
	BM-313 Biomaterials	3	1	4

* Changed Vide AC-146th Meeting

FOURTH YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2019	BM-401 Numerical Methods for Biomedical Engineering	3	0	3
	*HS-202 Business Communication	3	0	3
	BM-402 Digital Signal Processing	3	1	4
	BM-406 Biomedical Imaging	2	1	3
	BM-499 Electives			
	BM-413 Bio-Medical Engineering Project	0	3	3
	BM-411 Bio-Medical Engineering Project	0	3	3
	MG-481 Entrepreneurship	3	0	3
SPRING 2020	***BM-402 Modelling and Simulation for Biomedical Engineers**	2	1	3
	BM-499 Electives			
	*HS-219 Professional Ethics	2	0	2
	BM-499 Electives-4			

* Changed Vide AC-149th Meeting
** Changed Vide Resolution No.AC-146.4

Elective Courses

Course Code	Course Title	Cred Hrs Th	Pr	T
BM-421	Genetic Engineering	3	0	3
BM-422	Biotechnology	2	1	3
BM-423	Introduction to Robotics	2	1	3
BM-424	Fluid Dynamics	3	0	3
BM-425	Telemedicine	2	1	3
BM-426	Ergonomics	3	0	3
BM-427	Product Design in Biomedical Engg	2	1	3
BM-429	Tissue Engineering	2	1	3
BM-430	Rehabilitation Engineering	3	0	3
BM-431	Biophotonics	3	0	3
BM-432	Neuroscience & Neural Networks	2	1	3
***BM-404	**Biomechanics**	2	1	3

* Changed Vide AC-148th Meeting

Batch 2017

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 17-18	BM-100 Introduction to Mathematics (for pre-medical students)		NC	
	BM-100 Introduction to Biology (for pre-engineering students)			
	BM-100 Introduction to Biomedical Engg	1	1	1
	CY-106 Chemistry	3	1	4
	PH-126 Physics	3	1	4
	HS-104 Functional English	3	0	3
	BM-108 Computer Aided Engineering Graphics	1	3	2
	BM-113 Engineering Mechanics	3	1	4
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	BM-114 Anatomy	3	1	4
	BM-115 Physiology-I	2	1	3
	HS-105 Pakistan Studies OR	2	0	2
	HS-127 Pakistan Studies (for Foreigners)			
	***HS-220 Chinese Language-I**		**NC**	
SPRING 2018				

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2018	BM-209 Basic Electronics	3	1	4
	CS-107 Computer Programming	3	1	4
	MT-114 Calculus	3	0	3
	BM-210 Biochemistry	3	1	4
	BM-116 Physiology-II	2	1	3
	MT-272 Linear Algebra & Geometry	3	0	3
	HS-201 Ordinary Differential Equations & Fourier Series	3	0	3
SPRING 2019	BM-203 Cellular and Molecular Biology	2	0	2
	TC-201 Digital Logic Design	2	1	3
	EF-305 Engineering Economics and Management	3	0	3
	BM-208 Biomedical Electronics	3	1	4

* Changed Vide AC-148th Meeting

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2019	BM-307 Bioinformatics	2	1	3
	*BM-312 Biostatistics	2	1	3
	*EF-305 Economics and Management	3	0	3
	BM-306 Biomechanics & Measurements-I	3	1	4
	CS-430 Microprocessor Programming and Interfacing	3	1	4
	***HS-205 Islamic Studies OR**	2	0	2
	***HS-209 Ethical Behavior**			
SPRING 2020	BM-310 Control Systems for Biomedical Engineers	2	1	3
	BM-311 Biomechanics & Measurements-II	3	1	4
	***HS-202 Business Communication**	3	0	3
	BM-313 Biomaterials	3	1	4
	***EE-493 Digital Signal Processing**	3	1	4

* Changed Vide AC-149th Meeting

FOURTH YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2020	***BM-###** Electives-1			
	***BM-###** Electives-2			
	BM-401 Numerical Methods for Biomedical Engineering	3	0	3
	BM-406 Biomedical Imaging	2	1	3
	***BM-451 Biological Processing**	2	1	3
	BM-413 Bio-Medical Engineering Project	0	3	3
	BM-411 Bio-Medical Engineering Project	0	3	3
	MG-481 Entrepreneurship	3	0	3
SPRING 2021	***BM-402 Modelling and Simulation for Biomedical Engineers**	2	1	3
	BM-499 Electives-3			
	***HS-219 Professional Ethics**	2	0	2
	BM-499 Electives-4			

* Changed Vide AC-148th Meeting

Elective Courses

Course Code	Course Title	Cred Hrs Th	Pr	T
BM-421	Genetic Engineering	3	0	3
BM-422	Biotechnology	2	1	3
BM-423	Introduction to Robotics	2	1	3
BM-424	Fluid Dynamics	3	0	3
BM-425	Telemedicine	2	1	3
***BM-404**	**Biomechanics**	2	1	3
BM-426	Ergonomics	3	0	3
BM-427	Product Design in Biomedical Engg	2	1	3
BM-429	Tissue Engineering	2	1	3
BM-430	Rehabilitation Engineering	3	0	3
BM-431	Biophotonics	3	0	3
BM-432	Neuroscience & Neural Networks	2	1	3

* Changed Vide AC-148th Meeting

Batch 2018

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
SPRING 2018	***BM-100 Introduction to Mathematics**	4	0	4
	***BM-120 Introduction to Biology**	3	1	4
	BM-101 Introduction to Biomedical Engg	1	1	1
	***CY-110 Applied Chemistry for Engineers**	2	1	3
	***PH-127 Applied Physics for Engineers**	2	1	3
	***HS-111 Functional English**	2	0	2
	***CS-113 Introduction to Computing**	2	0	2
SPRING 2019	***MT-114 Calculus**	3	0	3
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	BM-114 Anatomy	3	1	4
	HS-105 Pakistan Studies OR	2	0	2
	HS-127 Pakistan Studies (for Foreigners)			
	***BM-130 Computer Aided Engineering Graphics**	1	1	2
	HS-220 Chinese Language-I	NC		

* Changed Vide AC-148th Meeting

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2019	***EE-217 Circuit Theory OR**	3	0	3
	BM-209 Basic Electronics	3	1	4
	***CS-109 Computer Programming**	2	1	3
	***MT-272 Linear Algebra & Geometry**	3	0	3
	***BM-230 Biochemistry**	2	1	3
	BM-116 Physiology-II	2	1	3
	HS-201 Chinese Language-II	NC		
SPRING 2020	***MT-223 Ordinary Differential Equations & Fourier Series**	3	0	3
	***MT-223 Ordinary Differential Equations & Fourier Series**	3	0	3
	BM-203 Cellular and Molecular Biology	2	0	2
	***TC-201 Digital Logic Design**	2	1	3
	***TC-201 Digital Logic Design**	2	1	3
	***ES-205 Islamic Studies OR**	2	0	2
	***HS-209 Ethical Behavior**			
	BM-208 Biomedical Electronics	3	1	4

* Changed Vide AC-148th Meeting

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2020	BM-307 Bioinformatics	2	1	3
	***BM-312 Biostatistics**	2	1	3
	BM-306 Biomechanics & Measurements-I	3	1	4
	CS-430 Microprocessor Programming and Interfacing	3	1	4
	***HS-205 Islamic Studies OR**	2	0	2
	***HS-209 Ethical Behavior**			
SPRING 2021	BM-310 Control Systems for Biomedical Engineers	2	1	3
	BM-311 Biomechanics & Measurements-II	3	1	4
	***HS-202 Business Communication**	3	0	3
	BM-313 Biomaterials	3	1	4
	***EE-493 Digital Signal Processing**	3	1	4

* Changed Vide AC-149th Meeting

FOURTH YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2021	***BM-###** Electives-1			
	***BM-###** Electives-2			
	BM-401 Numerical Methods for Biomedical Engineering	3	0	3
	BM-406 Biomedical Imaging	2	1	3
	***BM-451 Biological Processing**	2	1	3
	BM-413 Bio-Medical Engineering Project	0	3	3
	BM-411 Bio-Medical Engineering Project	0	3	3
	MG-481 Entrepreneurship	3	0	3
SPRING 2022	***BM-402 Modelling and Simulation for Biomedical Engineers**	2	1	3
	***BM-###** Electives-3			
	***HS-219 Professional Ethics**	2	0	2
	***BM-###** Electives-4			

Elective Courses

Course Code	Course Title	Cred Hrs Th	Pr	T
BM-421	Genetic Engineering	3	0	3
BM-422	Biotechnology	2	1	3
BM-423	Introduction to Robotics	2	1	3
BM-424	Fluid Dynamics	3	0	3
BM-425	Telemedicine	2	1	3
***BM-404**	**Biomechanics**	2	1	3
BM-426	Ergonomics	3	0	3
BM-427	Product Design in Biomedical Engg	2	1	3
BM-429	Tissue Engineering	2	1	3
BM-430	Rehabilitation Engineering	3	0	3
BM-431	Biophotonics	3	0	3
BM-432	Neuroscience & Neural Networks	2	1	3

* Changed Vide AC-148th Meeting

Batch 2019

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2019	MT-100 Introduction to Mathematics	4	0	4
	BM-120 Introduction to Biology	3	1	4
	BM-101 Introduction to Biomedical Engg	1	1	1
	CY-110 Applied Chemistry for Engineers	2	1	3
	PH-127 Applied Physics for Engineers	2	1	3
	HS-111 Functional English	2	0	2
	CS-113 Introduction to Computing	2	0	2
SPRING 2020	MT-114 Calculus	3	0	3
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	BM-114 Anatomy	3	1	4
	HS-115 Physiology-I	2	1	3
	HS-105 Pakistan Studies OR	2	0	2
	HS-127 Pakistan Studies (for Foreigners)			
	BM-130 Computer Aided Engineering Graphics	1	1	2
	HS-220 Chinese Language-I	NC		

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2020	EE-215 Circuit Theory	3	0	3
	BM-209 Basic Electronics	3	1	4
	CS-109 Computer Programming	2	1	3
	MT-272 Linear Algebra & Geometry	3	0	3
	BM-230 Biochemistry	2	1	3
	BM-116 Physiology-II	2	1	3
	HS-201 Chinese Language-II	NC		
SPRING 2021	BM-452 Engineering Mechanics for Biomedical Engineers	3	1	4
	MT-223 Ordinary Differential Equations & Fourier Series	3	0	3
	BM-203 Cellular and Molecular Biology	2	0	2
	TC-201 Digital Logic Design	2	1	3
	ES-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior			
	BM-208 Biomedical Electronics	3	1	4

* Changed Vide AC-148th Meeting

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2021	BM-307 Bioinformatics	2	1	3
	BM-312 Biostatistics	2	1	3
	EF-305 Economics and Management	3	0	3
	BM-306 Biomechanics & Measurements-I	3	1	4
	CS-430 Microprocessor Programming and Interfacing	3	1	4
	BM-310 Control Systems for Biomedical Engineers	2	1	3
	BM-311 Biomechanics & Measurements-II	3	1	4
SPRING 2022	HS-202 Business Communication	3	0	3
	BM-313 Biomaterials	3	1	4
	EE-493 Digital Signal Processing	3	1	4

FOURTH YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2022	BM-499 Electives-1			
	BM-499 Electives-2			
	BM-401 Numerical Methods for Biomedical Engineering	3	0	3
	BM-406 Biomedical Imaging	2	1	3
	BM-451 Biological Processing	2	1	3
	BM-413 Bio-Medical Engineering Project	0	3	3
	BM-411 Bio-Medical Engineering Project	0	3	3
	MG-481 Entrepreneurship	3	0	3
SPRING 2023	BM-402 Modelling and Simulation for Biomedical Engineers	2	1	3
	BM-499 Electives-3			
	HS-219 Professional Ethics	2	0	2
	BM-499 Electives-4			

Elective Courses

Course Code	Course Title	Cred Hrs Th	Pr	T
BM-421	Genetic Engineering	3	0	3
BM-422	Biotechnology	2	1	3
BM-423	Introduction to Robotics	2	1	3
BM-424	Fluid Dynamics	3	0	3
BM-425	Telemedicine	2	1	3
BM-404	Biomechanics	2	1	3
BM-426	Ergonomics	3	0	3
BM-427	Product Design in Biomedical Engg	2	1	3
BM-429	Tissue Engineering	2	1	3
BM-430	Rehabilitation Engineering	3	0	3
BM-431	Biophotonics	3	0	3
BM-432	Neuroscience & Neural Networks	2	1	3

* Changed Vide AC-148th Meeting

Batch 2020

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2020	MT-100 Introduction to Mathematics	4	0	4
	BM-120 Introduction to Biology	3	1	4
	BM-101 Introduction to Biomedical Engg	1	1	1
	CY-110 Applied Chemistry for Engineers	2	1	3
	PH-127 Applied Physics for Engineers	2	1	3
	HS-111 Functional English	2	0	2
	CS-113 Introduction to Computing	2	0	2
SPRING 2021	MT-114 Calculus	3	0	3
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	BM-114 Anatomy	3	1	4
	HS-115 Physiology-I	2	1	3
	HS-105 Pakistan Studies OR	2	0	2
	HS-127 Pakistan Studies (for Foreigners)			
	BM-130 Computer Aided Engineering Graphics	1	1	2
	HS-220 Chinese Language-I	NC		
	HS-201 Chinese Language-II	NC		
	HS-231 Turkish Language-I	NC		

Vide Resolution No.AC-164.4(i)

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2021	EE-217 Circuit Theory	3	0	3
	BM-209 Basic Electronics	3	1	4
	CS-109 Computer Programming	2	1	3
	MT-272 Linear Algebra & Geometry	3	0	3
	BM-230 Biochemistry	2	1	3
	BM-116 Physiology-II	2	1	3
	HS-231 Chinese Language-II	NC		
SPRING 2022	**HS-232 Turkish Language-II**	NC		
	BM-452 Engineering Mechanics for Biomedical Engineers	3	0	3
	MT-223 Ordinary Differential Equations & Fourier Series	3	0	3
	BM-203 Cellular and Molecular Biology	2	0	2
	TC-201 Digital Logic Design	2	1	3
	ES-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior			
	BM-208 Biomedical Electronics	3	1	4
	HS-205 Community Service	NC		

* Vide Resolution No.AC-164.4(i)

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2022	BM-307 Bioinformatics	2	1	3
	BM-312 Biostatistics	2	1	3
	EF-305 Economics and Management	3	0	3
	BM-306 Biomechanics & Measurements-I	3	1	4
	CS-430 Microprocessor Programming and Interfacing	3	1	4
	BM-310 Control Systems for Biomedical Engineers	2	1	3
	BM-311 Biomechanics & Measurements-II	3	1	4
SPRING 2023	**HS-202 Business Communication**	3	0	3
	BM-313 Biomaterials	3	1	4
	EE-493 Digital Signal Processing	3	1	4
	Under Section 20(iv) Offec Order Acad/42(156)/16909			

FOURTH YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2023	BM-499 Electives-1			
	BM-499 Electives-2			
	BM-401 Numerical Methods for Biomedical Engineering	3	0	3
	BM-406 Biomedical Imaging	2	1	3
	BM-451 Biological Processing	2	1	3
	BM-413 Bio-Medical Engineering Project	0	3	3
	BM-411 Bio-Medical Engineering Project	0	3	3
	MG-481 Entrepreneurship	3	0	3
SPRING 2024	BM-402 Modelling and Simulation for Biomedical Engineers	2	1	3
	BM-499 Electives-3			
	HS-219 Professional Ethics	2	0	2
	BM-499 Electives-4			

Under Section 20(iv) Offec Order Acad/42(156)/16909

Elective Courses

Course Code	Course Title	Cred Hrs Th	Pr	T
BM-421	Genetic Engineering	3	0	3
BM-422	Biotechnology	2	1	3
BM-423	Introduction to Robotics	2	1	3
BM-424	Fluid Dynamics	3	0	3
BM-425	Telemedicine	2	1	3
BM-404	Biomechanics	2	1	3
BM-426	Ergonomics	3	0	3
BM-427	Product Design in Biomedical Engg	2	1	3
BM-429	Tissue Engineering	2	1	3
BM-430	Rehabilitation Engineering	3	0	3
BM-431	Biophotonics	3	0	3
BM-432	Neuroscience & Neural Networks	2	1	3

Batch 2021

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2021	MT-100 Introduction to Mathematics	4	0	4
	BM-120 Introduction to Biology	3	1	4
	BM-101 Introduction to Biomedical Engg	1	1	1
	CY-110 Applied Chemistry for Engineers	2	1	3
	PH-127 Applied Physics for Engineers	2	1	3
	HS-111 Functional English	2	0	2
	CS-113 Introduction to Computing	2	0	2
SPRING 2022	MT-114 Calculus	3	0	3
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	BM-114 Anatomy	3	1	4
	HS-115 Physiology-I	2	1	3
	HS-105 Pakistan Studies OR	2	0	2
	HS-127 Pakistan Studies (for Foreigners)			
	BM-130 Computer Aided Engineering Graphics	1	1	2
	HS-220 Chinese Language-I	NC		
	HS-201 Chinese Language-II	NC		
	***HS-231 Turkish Language-I**	**NC**		

Vide Resolution No.AC-164.4(i)

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2022	EE-217 Circuit Theory	3	0	3
	BM-209 Basic Electronics	3	1	4
	CS-109 Computer Programming	2	1	3
	MT-272 Linear Algebra & Geometry	3	0	3
	BM-230 Biochemistry	2	1	3
	BM-116 Physiology-II	2	1	3
	HS-231 Chinese Language-II	**NC**		
SPRING 2023	**HS-232 Turkish Language-II**	**NC**		
	BM-452 Engineering Mechanics for Biomedical Engineers	3	0	3
	MT-223 Ordinary Differential Equations & Fourier Series	3	0	3
	BM-203 Cellular and Molecular Biology	2	0	2
	TC-201 Digital Logic Design	2	1	3
	ES-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior			
	BM-208 Biomedical Electronics	3	1	4
	HS-205 Community Service	NC		

* Vide Resolution No.AC-164.4(i)
** Under Section 20(iv) Offec Order Acad/42(156)/16915
*** Under Section 20(iv) Offec Order Acad/42(156)/16909

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2023	BM-307 Bioinformatics	2	1	3
	BM-312 Biostatistics	2	1	3
	EF-305 Economics and Management	3	0	3
	BM-306 Biomechanics & Measurements-I	3	1	4
	CS-430 Microprocessor Programming and Interfacing	3	1	4
	BM-310 Control Systems for Biomedical Engineers	2	1	3
	BM-311 Biomechanics & Measurements-II	3	1	4
SPRING 2024	***EA-202 Business Communication**	3	0	3
	BM-313 Biomaterials	3	1	4
	EE-493 Digital Signal Processing	3	1	4
	Under Section 20(iv) Offec Order Acad/42(156)/16909			

FOURTH YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2024	BM-499 Electives-1			
	BM-499 Electives-2			
	BM-401 Numerical Methods for Biomedical Engineering	3	0	3
	BM-406 Biomedical Imaging	2	1	3
	BM-451 Biological Processing	2	1	3
	BM-413 Bio-Medical Engineering Project	0	3	3
	BM-411 Bio-Medical Engineering Project	0	3	3
	MG-481 Entrepreneurship	3	0	3
SPRING 2025	BM-402 Modelling and Simulation for Biomedical Engineers	2	1	3
	BM-499 Electives-3			
	HS-219 Professional Ethics	2	0	2
	BM-499 Electives-4			

Elective Courses

Course Code	Course Title	Cred Hrs Th	Pr	T
BM-421	Genetic Engineering	3	0	3
BM-422	Biotechnology	2	1	3
BM-423	Introduction to Robotics	2	1	3
BM-424	Fluid Dynamics	3	0	3
BM-425	Telemedicine	2	1	3
BM-404	Biomechanics	2	1	3
BM-426	Ergonomics	3	0	3
BM-427	Product Design in Biomedical Engg	2	1	3
BM-429	Tissue Engineering	2	1	3
BM-430	Rehabilitation Engineering	3	0	3
BM-431	Biophotonics	3	0	3
BM-432	Neuroscience & Neural Networks	2	1	3

Batch 2022

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2022	MT-100 Introduction to Mathematics	4	0	4
	BM-120 Introduction to Biology	3	1	4
	BM-101 Introduction to Biomedical Engg	1	1	1
	CY-110 Applied Chemistry for Engineers	2	1	3
	PH-127 Applied Physics for Engineers	2	1	3
	***EA-111 Functional English**	**2**	**0**	**2**
	CS-113 Introduction to Computing	2	0	2
SPRING 2023	MT-114 Calculus	3	0	3
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	BM-114 Anatomy	3	1	4
	HS-115 Physiology-I	2	1	3
	***ES-105 Pakistan Studies OR**	**2**	**0**	**2**
	***ES-127 Pakistan Studies (for Foreigners)**			
	BM-130 Computer Aided Engineering Graphics	1	1	2
	HS-220 Chinese Language-I	NC		
	HS-231 Turkish Language-I	NC		
	HS-224 German language-I	NC		
	HS-226 French language-I	NC		

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2023	EE-217 Circuit Theory	3	0	3
	BM-209 Basic Electronics	3	1	4
	CS-109 Computer Programming	2	1	3
	MT-272 Linear Algebra & Geometry	3	0	3
	BM-230 Biochemistry	2	1	3
	BM-116 Physiology-II	2	1	3
	***HS-221 Chinese Language-II**	**NC**		
SPRING 2024	***EA-232 Turkish Language-II**	**NC**		
	***EA-229 German Language-II**	**NC**		
	***EA-227 French Language-II**	**NC**		
	BM-452 Engineering Mechanics for Biomedical Engineers	3	0	3
	MT-223 Ordinary Differential Equations & Fourier Series	3	0	3
	BM-203 Cellular and Molecular Biology	2	0	2
	TC-201 Digital Logic Design	2	1	3
	ES-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior			
	BM-208 Biomedical Electronics	3	1	4
	***EA-209 Community Service**	**2**	**0**	**2**
	***ES-205 Islamic Studies OR**	**2**	**0**	**2**
	***ES-209 Ethical Behaviour**			
	BM-208 Biomedical Electronics	3	1	4
	***EA-209 Community Service**	**NC**		

* Under Section 20(iv) Offec Order Acad/42(156)/16915
** Under Section 20(iv) Offec Order Acad/42(156)/16909

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Cred Hrs Th	Pr	T
Biomedical Engineering				
FALL 2024	BM-307 B