



MGM SCHOOL OF BIOMEDICAL SCIENCES
(A constituent unit of MGM INSTITUTE OF HEALTH SCIENCES)

(Deemed University u/s 3 of UGC Act 1956)

Grade “A” Accredited by NAAC

Sector 1, Kamothe Navi Mumbai-410209,

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CHOICE BASED CREDIT SYSTEM (CBCS)

(Academic Year 2024 - 25)

Curriculum for

B.Sc. Allied Health Sciences

B.Sc. Cardiac Care Technology

Semester I to VIII

OUTLINE OF COURSE CURRICULUM														
B.Sc. Cardiac Care Technology														
Semester I														
Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Theory														
BCCT 101 L	Human Anatomy Part I	2	-	-	-	2	30	-	-	-	30	10	40	50
BCCT 102 L	Human Physiology Part I	2	-	-	-	2	30	-	-	-	30	10	40	50
BCCT 103 L	General Biochemistry & Nutrition	3	-	-	-	3	45	-	-	-	45	10	40	50
BCCT 104 L	Introduction to National Health Care System	2	-	-	-	2	30	-	-	-	30	10	40	50
BCCT 101 P	Human Anatomy Part I	-	-	1	-	-	-	-	15	-	15	-	-	-
BCCT 102 P	Human Physiology Part I	-	-	1	-	-	-	-	15	-	15	-	-	-
BCCT 103 P	General Biochemistry Nutrition	-	-	1	-	-	-	-	15	-	15	-	-	-
BCCT 105 P	Community Engagement & Clinical Visit (Including related practicals to the Parent course)	-	-	-	24	8	-	-	-	360	360	-	50	50
Ability Enhancement Course														
AEC 001 L	English & Communication skills	4	-	-	-	4	60	-	-	-	60	10	40	50
AEC 002 L	Envioronmental Sciences	4	-	-	-	4	60	-	-	-	60	10	40	50
Total		17	0	3	24	25	255	0	45	360	660	60	290	350

OUTLINE OF COURSE CURRICULUM														
B.Sc. Cardiac Care Technology														
Semester II														
Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Theory														
BCCT 106 L	Human Anatomy Part II	2	-	-	-	2	30	-	-	-	30	10	40	50
BCCT 107 L	Human Physiology Part II	2	-	-	-	2	30	-	-	-	30	10	40	50
BCCT 108 L	General Microbiology	3	-	-	-	3	45	-	-	-	45	10	40	50
BCCT 109 L	Basic Pathology & Hematology	4	-	-	-	4	60	-	-	-	60	10	40	50
BCCT 110 L	Introduction to Quality and Patient safety (Multidisciplinary/Interdisciplinary)	3	-	-	-	3	45	-	-	-	45	10	40	50
Practical														
BCCT 106 P	Human Anatomy Part II	-	-	1	-	-	-	-	15	-	15	-	-	-
BCCT 107 P	Human Physiology Part II	-	-	1	-	-	-	-	15	-	15	-	-	-
BCCT 108 P	General Microbiology	-	-	1	-	-	-	-	15	-	15	-	-	-
BCCT 109 P	Basic Pathology & Hematology	-	-	1	-	-	-	-	15	-	15	-	-	-
BCCT 111 P	Community Engagement & Clinical Visit (Including related practicals to the Parent course)	-	-	-	24	8	-	-	-	360	360	-	50	50
Skill Enhancement Elective Course														
SEC 001 L	Medical Bioethics & IPR	3	-	-	-	3	45	-	-	-	45	10	40	50
SEC 002 L	Human Rights & Professional Values													
Total		17	0	4	24	25	255	0	60	360	675	60	290	350

OUTLINE OF COURSE CURRICULUM														
B.Sc. Cardiac Care Technology														
Semester III														
Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Theory														
BCCT 112 L	Applied Anatomy,Physiology, Pharmacology in Cardiac care	3	-	-	-	3	45	-	-	-	45	20	80	100
BCCT 113 L	Basic Electrocardiography	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 114 L	Basic Echocardiography	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 115 CP	CCT Directed Clinical Education-I	-	-	-	24	8	-	-	-	360	360	-	50	50
Practical														
BCCT 113 P	Basic Electrocardiography	-	-	2	-	1	-	-	30	-	30	10	40	50
BCCT 114 P	Basic Echocardiography	-	-	4	-	2	-	-	60	-	60	10	40	50
Generic Elective Course														
GEC 001 L	Pursuit of Inner Self Excellence (POIS)	3	-	-	-	3	45	-	-	-	45	10	40	50
GEC 002 L	Organisational Behaviour													
Total		10	0	6	24	21	150	0	90	360	600	90	410	500

OUTLINE OF COURSE CURRICULUM														
B.Sc. Cardiac Care Technology														
Semester IV														
Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Theory														
BCCT 116 L	Development of Cardiovascular System : Fetal & Neonotal	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 117 L	Cardiovascular Diseases Pertinent to Cardiac Care Technology	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 118 L	Medical Instrumentation Relevant to Cardiac Care	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 119 CP	CCT Directed Clinical Education-II	-	-	-	27	9	-	-	-	405	405	-	50	50
Practical														
BCCT 118 P	Medical Instrumentation Relevant to Cardiac care	-	-	4	-	2	-	-	60	-	60	20	80	100
Ability Enhancement Elective Course														
AEC 003 L	Computer and Applications	3	-	-	-	3	45	-	-	-	45	10	40	50
AEC 004 L	Good Clinical Laboratory Practice and Research Skills													
Total		9	0	4	27	20	135	0	60	405	600	90	410	500

OUTLINE OF COURSE CURRICULUM**B.Sc. Cardiac Care Technology****Semester V**

Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Theory														
BCCT 120 L	Advanced Electrocardiography	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 121 L	Advanced Echocardiography	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 122 L	Invasive Cardiology	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 123 CP	CCT Directed Clinical Education-III	-	-	-	27	9	-	-	-	405	405	-	50	50
Practical														
BCCT 120 P	Advanced Electrocardiography	-	-	2	-	1	-	-	30	-	30	10	40	50
BCCT 121 P	Advanced Echocardiography	-	-	2	-	1	-	-	30	-	30	10	40	50
Discipline Specific Elective														
DSE 001 L	Basics of Clinical Skill Learning	3	-	-	-	3	45	-	-	-	45	10	40	50
DSE 002 L	Hospital Operation Management													
Total		9	0	4	27	20	135	0	60	405	600	90	410	500

OUTLINE OF COURSE CURRICULUM**B.Sc. Cardiac Care Technology****Semester VI**

Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Theory														
BCCT 124 L	Cardiac Catheterization	3	-	-	-	3	45	-	-	-	45	20	80	100
BCCT 125 L	Pediatric Interventions	3	-	-	-	3	45	-	-	-	45	20	80	100
BCCT 126 CP	CCT Directed Clinical Education-IV	-	-	-	30	10	-	-	-	450	450	-	50	50
Practical														
BCCT 124 P	Cardiac Catheterization	-	-	4	-	2	-	-	60	-	60	10	40	50
BCCT 125 P	Pediatric Interventions	-	-	4	-	2	-	-	60	-	60	10	40	50
Total		6	0	8	30	20	90	0	120	450	660	60	290	350

OUTLINE OF COURSE CURRICULUM**B.Sc. Cardiac Care Technology****Semester VII & VIII**

Code No.	Core Course	Credits		Marks							
		Clinical Posing/ Rotation (CP)	Total Credits (C)	Internal Assement (IA)	Semester End Exam (SEE)	Total					
BCCT 127	B.Sc. CCT Internship (Semester VII)	20	20	20	80	100					
BCCT 128	B.Sc. CCT Internship (Semester VIII)	20	20	20	80	100					

Internship is for 12 months (July-December; January-June) after deducting for national holidays/Sick Holidays/ sundays + Examination), (6 days/ week ;8 Hours/day). Minimum of 21 weeks/semester. Students are encouraged to involve in community outreach activities as part of their clinical postings without absenting himself/herself for the other regular classes. During Internship a candidate must have 100% attendance before the award of the degree. NOC from the Dean/Director, MGMSBS to be made mandatory while applying for Convocation Degree.

Internal Assessment Exam Pattern (IA) for Semester VII & VIII (Internship Program)		Scheme of University Semester End Examination (SEE) for Semester VII & VIII (Internship Program)				Attendance (10 marks) of the student. It was decided that weightage be given to attendance as per following scheme	
Internal exam pattern: Total 20 marks with following breakup		Practical exam pattern: Total 80 marks with following breakup				Attendance Percentage	Marks
Description	Marks	Exercise	Description	Marks		< 75	Zero
Internal exam (at department)	10 marks	Q No 1	Case Study	2 x15=30 M		75	5
Viva	5 marks	Q No 2	Station exercise	3 x 5=15 M		76-80	6
Log Book	5 marks	Q No 3	VIVA	15 M		81-85	7
Total = 20 Marks		QNo 4	Log Book	10 M		86-90	8
		QNo 5	Attendance	10 M		91-95	9
		Total = 80 Marks				96-100	10



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