



Annexure-4 A

**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

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**CHOICE BASED CREDIT SYSTEM (CBCS)**

**(Academic Year 2018 - 19)**

**Curriculum for**

**B.Sc. Allied Health Sciences**

**B.Sc. Cardiac Care Technology**

OUTLINE OF COURSE CURRICULUM												
B.Sc. Cardiac Care Technology												
Semester I												
Code No.	Core Subjects	Credits/Week				Hrs/Semester				Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Total hrs.	Internal Assessment	Semester Exam	Total
<b>Theory</b>												
BCCT 101 L	Human Anatomy Part I	3	-	-	3	45	-	-	45	20	80	100
BCCT 102 L	Human Physiology Part I	3	-	-	3	45	-	-	45	20	80	100
BCCT 103 L	General Biochemistry Nutrition	3	1	-	4	45	15	-	60	20	80	100
BCCT 104 L	Introduction to National Health Care System (Multidisciplinary/ Interdisciplinary)	3	-	-	3	45	-	-	45	20	80	100
<b>Practical</b>												
BCCT 101 P	Human Anatomy Part I	-	-	4	-	-	-	60	60	-	-	-
BCCT 102 P	Human Physiology Part I	-	-	4	-	-	-	60	60	-	-	-
BCCT 103 P	General Biochemistry	-	-	4	-	-	-	60	60	-	-	-
BCCT105 P	Community Orientation & Clinical Visit (Including related practicals to the Parent course)	-	-	8	-	-	-	120	120	-	-	-
<b>Ability Enhancement Elective Course</b>												
AEC 001 L	English & Communication skills	3	-	-	3	45	-	-	45	100	-	100
AEC 002 L	Environmental Sciences											
<b>Total</b>		<b>15</b>	<b>1</b>	<b>20</b>	<b>16</b>	<b>225</b>	<b>15</b>	<b>300</b>	<b>540</b>	<b>180</b>	<b>320</b>	<b>500</b>

OUTLINE OF COURSE CURRICULUM												
B.Sc. Cardiac Care Technology												
Semester II												
Code No.	Core Subjects	Credits/Week				Hrs/Semester				Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Total hrs.	Internal Assessment	Semester Exam	Total
<b>Theory</b>												
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	20	80	100
BCCT 109 L	Basic Pathology & Hematology	3	1	-	4	45	15	-	60	20	80	100
BCCT 110 L	Introduction to Quality and Patient safety (Multidisciplinary/Interdisciplinary)	3	-	-	3	45	-	-	45	20	80	100
<b>Practical</b>												
BCCT 106 P	Human Anatomy Part II	-	-	4	-	-	-	60	60	-	-	-
BCCT 107 P	Human Physiology Part II	-	-	2	-	-	-	30	30	-	-	-
BCCT 108 P	General Microbiology	-	-	4	-	-	-	60	60	-	-	-
BCCT 109 P	Basic Pathology & Hematology	-	-	4	-	-	-	60	60	-	-	-
BCCT 111 P	Community Orientation & Clinical Visit (Including related practicals to the parent course)	-	-	8	-	-	-	120	120	-	-	-
<b>Skill Enhancement Elective Course</b>												
SEC 001 L	Medical Bioethics & IPR	3	-	-	3	45	-	-	45	100	-	100
SEC 002 L	Human Rights & Professional Values											
<b>Total</b>		<b>16</b>	<b>1</b>	<b>22</b>	<b>17</b>	<b>240</b>	<b>15</b>	<b>330</b>	<b>585</b>	<b>180</b>	<b>320</b>	<b>500</b>

OUTLINE OF COURSE CURRICULUM														
B.Sc. Cardiac Care Technology														
Semester III														
Code No.	Core Subjects	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing /Rotation	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing /Rotation	Total hrs.	Internal Assessment	Semester Exam	Total
<b>Theory</b>														
BCC T112 L	Applied Anatomy, Physiology, Pharmacology in Cardiac care	3	1	-	-	4	60	-	-	-	60	20	80	100
BCCT 113 L	Basic Electrocardiography	3	-	-	-	3	45	-	-	-	45	20	80	100
BCCT114 L	Basic Echocardiography	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT115 CP	CCT Directed Clinical Education-I	-	-	-	27	9	-	-	-	405	405	50	-	50
<b>Practical</b>														
BCCT113 P	Basic Electrocardiography	-	-	2	-	1	-	-	30	-	30	10	40	50
BCCT114 P	Basic Echocardiography	-	-	4	-	2	-	-	60	-	60	10	40	50
<b>Generic Elective Course</b>														
GEC 001 L	Pursuit of Inner Self Excellence (POIS)	3	-	-	-	3	45	-	-	-	45	100	-	100
GEC 002 L	Organisational Behaviour	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>11</b>	<b>1</b>	<b>6</b>	<b>27</b>	<b>24</b>	<b>180</b>	<b>0</b>	<b>90</b>	<b>405</b>	<b>675</b>	<b>230</b>	<b>320</b>	<b>550</b>

OUTLINE OF COURSE CURRICULUM														
B.Sc. Cardiac Care Technology														
Semester IV														
Code No.	Core Subjects	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing /Rotation	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing /Rotation	Total hrs.	Internal Assessment	Semester Exam	Total
<b>Theory</b>														
BCCT 116 L	Development of Cardiovascular system : Fetal & Neonatal	2	1	-	-	3	45	-	-	-	45	20	80	100
BCCT 117 L	Cardiovascular diseases pertinent to Cardiac care technology	2	1	-	-	3	45	-	-	-	45	20	80	100
BCCT 118 L	Medical Instrumentation relevant to Cardiac care	1	1	-	-	2	30	-	-	-	30	20	80	100
BCCT 119 CP	CCT Directed Clinical Education-II	-	-	-	27	9	-	-	-	405	405	50	-	50
<b>Practical</b>														
BCCT 118 P	Medical Instrumentation relevant to Cardiac care	-	-	8	-	4	-	-	60	-	60	20	80	100
<b>Ability Enhancement Elective Course</b>														
AEC 003 L	Computer and Applications	3	-	-	-	3	45	-	-	-	45	100	-	100
AEC 004 L	Biostatistics and Research Methodology	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>8</b>	<b>3</b>	<b>8</b>	<b>27</b>	<b>24</b>	<b>165</b>	<b>0</b>	<b>60</b>	<b>405</b>	<b>630</b>	<b>230</b>	<b>320</b>	<b>550</b>

OUTLINE OF COURSE CURRICULUM														
B.Sc. Cardiac Care Technology														
Semester V														
Code No.	Core Subjects	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation	Total hrs.	Internal Assessment	Semester Exam	Total
<b>Theory</b>														
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	1	-	-	3	45	-	-	-	45	20	80	100
BCCT 123 CP	CCT Directed Clinical Education-III	-	-	-	24	8	-	-	-	360	50	-	50	
<b>Practical</b>														
BCCT 120 P	Advanced Electrocardiography	-	-	4	-	2	-	-	60	-	60	10	40	50
BCCT 121 P	Advanced Echocardiography	-	-	4	-	2	-	-	60	-	60	10	40	50
<b>Core Elective Course</b>														
CEC 005 L	Basics of Clinical Skill Learning	3	-	-	-	3	45	-	-	-	45	100	-	100
CEC 006 L	Hospital Operation Management													
<b>Total</b>		9	1	8	24	22	150	0	120	360	630	230	320	550

OUTLINE OF COURSE CURRICULUM														
B.Sc. Cardiac Care Technology														
Semester VI														
Code No.	Core Subjects	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation	Total hrs.	Internal Assessment	Semester Exam	Total
<b>Theory</b>														
BCCT 124 L	Cardiac Catheterization	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 125 L	Pediatric Interventions	2	-	-	-	2	30	-	-	-	30	20	80	100
BCCT 126 L	CCT Directed Clinical Education-IV	-	-	-	30	10	-	-	-	450	450	50	-	50
<b>Practical</b>														
BCCT 124 P	Cardiac Catheterization	-	-	4	-	2	-	-	60	-	60	10	40	50
BCCT 125 P	Pediatric Interventions	-	-	4	-	2	-	-	60	-	60	10	40	50
<b>Total</b>		4	0	8	30	18	60	0	120	450	630	110	240	350

OUTLINE OF COURSE CURRICULUM										
B.Sc. Cardiac Care Technology (Internship)										
Semester VII & Semester VIII										
Code No.	Core Subjects	Credits/Week				Hrs/Semester				
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/Rotation	Total hrs.
	Sem VII (Internship)	-	-	-	720	-	-	-	720	720
	Sem VIII (Internship)				720				720	720
<b>Total</b>		0	0	0	1440	0	0	0	1440	1440