



**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<sup>++</sup>” Accredited by NAAC

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**CHOICE BASED CREDIT SYSTEM (CBCS)**

**(Academic Year 2023 - 24)**

**Curriculum for**

**B.Sc. Allied Health Sciences**

**B.Sc. Physician Assistant In Emergency & Trauma Care**

**Semester I to VIII**

OUTLINE OF COURSE CURRICULUM														
B.Sc. Physician Assistant in Emergency & Trauma Care														
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 Assessment (IA)	Semester End Exam (SEE)	Total
<b>Theory</b>														
BPA 101 L	Human Anatomy Part I	2	-	-	-	2	30	-	-	-	30	10	40	50
BPA 102 L	Human Physiology Part I	2	-	-	-	2	30	-	-	-	30	10	40	50
BPA 103 L	General Biochemistry & Nutrition	3	-	-	-	3	45	-	-	-	45	10	40	50
BPA 104 L	Introduction to National Health Care System	2	-	-	-	2	30	-	-	-	30	10	40	50
BPA 101 P	Human Anatomy Part I	-	-	1	-	-	-	-	15	-	15	-	-	-
BPA 102 P	Human Physiology Part I	-	-	1	-	-	-	-	15	-	15	-	-	-
BPA 103 P	General Biochemistry Nutrition	-	-	1	-	-	-	-	15	-	15	-	-	-
BPA 105 P	Community Engagement & Clinical Visit (Including related practicals to the Parent course)	-	-	-	24	8	-	-	-	360	360	-	50	50
<b>Ability Enhancement Course</b>														
AEC 001 L	English & Communication skills	4	-	-	-	4	60	-	-	-	60	10	40	50
<b>Multidisciplinary Course</b>														
MD 001 L	Environmental Sciences	4	-	-	-	4	60	-	-	-	60	10	40	50
<b>Total</b>		17	0	3	24	25	255	0	45	360	660	60	290	350

OUTLINE OF COURSE CURRICULUM														
B.Sc. Physician Assistant in Emergency & Trauma Care														
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 Assessment (IA)	Semester End Exam (SEE)	Total
<b>Theory</b>														
BPA 106 L	Human Anatomy Part II	2	-	-	-	2	30	-	-	-	30	10	40	50
BPA 107 L	Human Physiology Part II	2	-	-	-	2	30	-	-	-	30	10	40	50
BPA 108 L	General Microbiology	3	-	-	-	3	45	-	-	-	45	10	40	50
BPA 109 L	Basic Pathology & Hematology	4	-	-	-	4	60	-	-	-	60	10	40	50
BPA 110 L	Introduction to Quality and Patient safety (Multidisciplinary/Interdisciplinary)	3	-	-	-	3	45	-	-	-	45	10	40	50
<b>Practical</b>														
BPA 106 P	Human Anatomy Part II	-	-	1	-	-	-	-	15	-	15	-	-	-
BPA 107 P	Human Physiology Part II	-	-	1	-	-	-	-	15	-	15	-	-	-
BPA 108 P	General Microbiology	-	-	1	-	-	-	-	15	-	15	-	-	-
BPA 109 P	Basic Pathology & Hematology	-	-	1	-	-	-	-	15	-	15	-	-	-
BPA 111 P	Community Engagement & Clinical Visit (Including related practicals to the Parent course)	-	-	-	24	8	-	-	-	360	360	-	50	50
<b>Skill Enhancement Elective Course</b>														
SEC 001 L	Medical Bioethics & IPR	3	-	-	-	3	45	-	-	-	45	10	40	50
SEC 002 L	Human Rights & Professional Values													
<b>Total</b>		17	0	4	24	25	255	0	60	360	675	60	290	350

OUTLINE OF COURSE CURRICULUM														
B.Sc. Physician Assistant in Emergency & Trauma Care														
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
<b>Theory</b>														
BPA 112 L	General Pharmacology	3	-	-	-	3	45	-	-	-	45	10	40	50
BPA 113 L	Clinical Microbiology	3	-	-	-	3	45	-	-	-	45	10	40	50
BPA 114 L	Obstetrics and Gynaecology	4	-	-	-	4	60	-	-	-	60	20	80	100
BPA 115 L	Clinical Medicine - I	4	-	-	-	4	60	-	-	-	60	20	80	100
BPA 116 CP	PA Directed Clinical Education - 1	-	-	-	15	5	-	-	-	225	225	-	50	50
<b>Practicals</b>														
BPA 113 P	Clinical Microbiology	-	-	2	-	1	-	-	30	-	60	10	40	50
BPA 114 P	Obstetrics and Gynecology	-	-	4	-	2	-	-	60	-	60	10	40	50
BPA 115 P	Clinical Medicine - I	-	-	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	10	40	50
GEC 002 L	Organisational Behaviour													
<b>Total</b>		<b>17</b>	<b>0</b>	<b>10</b>	<b>15</b>	<b>27</b>	<b>255</b>	<b>0</b>	<b>150</b>	<b>225</b>	<b>660</b>	<b>100</b>	<b>450</b>	<b>550</b>

OUTLINE OF COURSE CURRICULUM														
B.Sc. Physician Assistant in Emergency & Trauma Care														
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
<b>Theory</b>														
BPA 117 L	General Surgery and Trauma	4	-	-	-	4	60	-	-	-	60	20	80	100
BPA 118 L	Anaesthesiology	3	-	-	-	3	45	-	-	-	45	20	80	100
BPA 119 L	Paediatrics and Geriatrics	2	-	-	-	2	30	-	-	-	30	20	80	100
BPA 120 L	Clinical Medicine - II	4	-	-	-	4	60	-	-	-	60	20	80	100
BPA 121 CP	PA Directed Clinical Education - 2	-	-	-	15	5	-	-	-	-	225	-	50	50
<b>Practicals</b>														
BPA 117 P	General Surgery and Trauma	-	-	4	-	2	-	-	60	-	60	10	40	50
BPA 118 P	Anaesthesiology	-	-	2	-	1	-	-	30	-	45	10	40	50
BPA 119 P	Paediatrics and Geriatrics	-	-	2	-	1	-	-	30	-	30	10	40	50
BPA 120 P	Clinical Medicine - II	-	-	4	-	2	-	-	60	-	60	10	40	50
<b>Ability Enhancement Elective Course</b>														
AEC 003 L	Computer and Applications	3	-	-	-	3	45	-	-	-	45	10	40	50
AEC 004 L	Biostatistics and Research Methodology													
<b>Total</b>		<b>16</b>	<b>0</b>	<b>12</b>	<b>15</b>	<b>27</b>	<b>240</b>	<b>0</b>	<b>180</b>	<b>0</b>	<b>660</b>	<b>130</b>	<b>570</b>	<b>700</b>

OUTLINE OF COURSE CURRICULUM														
B.Sc. Physician Assistant in Emergency & Trauma Care														
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
BPA 122 L	Cardiology	3	-	-	-	3	45	-	-	-	45	20	80	100
BPA 123 L	Nephrology	2	-	-	-	2	30	-	-	-	30	20	80	100
BPA 124 L	Pulmonology	3	-	-	-	3	45	-	-	-	45	20	80	100
BPA 125 CP	PA Directed clinical education 3	-	-	-	27	9	-	-	-	-	450	-	50	50
Practical														
BPA 122 P	Cardiology	-	-	2	-	1	-	-	30	-	30	10	40	50
BPA 123 P	Nephrology	-	-	2	-	1	-	-	30	-	30	10	40	50
BPA 124 P	Pulmonology	-	-	2	-	1	-	-	30	-	30	10	40	50
Core Elective Course														
CEC 005 L	Basics of Clinical Skill Learning	3	-	-	-	3	45	-	-	-	45	10	40	50
CEC 006 L	Hospital Operation Management													
<b>Total</b>		<b>11</b>	<b>0</b>	<b>6</b>	<b>27</b>	<b>23</b>	<b>165</b>	<b>0</b>	<b>90</b>	<b>0</b>	<b>705</b>	<b>100</b>	<b>450</b>	<b>550</b>

OUTLINE OF COURSE CURRICULUM														
B.Sc. Physician Assistant in Emergency & Trauma Care														
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														
BPA 126 L	Neurology	3	-	-	-	3	45	-	-	-	45	20	80	100
BPA 127 L	Orthopedics	2	-	-	-	2	30	-	-	-	30	20	80	100
BPA 128 L	Gastroentology	3	-	-	-	3	45	-	-	-	45	20	80	100
BPA 129 L	Emergency medicine	4	-	-	-	4	60	-	-	-	60	20	80	100
BPA 130 CP	PA Directed clinical education 4	-	-	-	24	8	-	-	-	-	360	-	50	50
Practical														
BPA 126 P	Neurology	-	-	2	-	1	-	-	30	-	30	10	40	50
BPA 127 P	Orthopedics	-	-	2	-	1	-	-	30	-	30	10	40	50
BPA 128 P	Gastroentology	-	-	2	-	1	-	-	30	-	30	10	40	50
BPA 129 P	Emergency medicine	-	-	2	-	1	-	-	30	-	30	10	40	50
<b>Total</b>		<b>12</b>	<b>0</b>	<b>8</b>	<b>24</b>	<b>24</b>	<b>180</b>	<b>0</b>	<b>120</b>	<b>0</b>	<b>660</b>	<b>120</b>	<b>530</b>	<b>650</b>

**OUTLINE OF COURSE CURRICULUM**

**B.Sc. Physician Assistant in Emergency & Trauma Care**

**Semester VII & VIII**

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 Assessment (IA)	Semester End Exam (SEE)	Total
BPA 131	B.Sc. PA Internship (Semester VII)	-	-	1	16	17	-	-	42	1008	1050	20	80	100
BPA 132	B.Sc. PA Internship (Semester VIII)	-	-	1	16	17	-	-	42	1008	1050	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.

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

## B.Sc. Allied Courses

### Scheme of Examination Pattern

**B.Sc. First Year (Semester I & II) w.e.f. (Academic Year 2023-24 onwards)**

#### Internal Examination Pattern (Theory)

Question type	No. of questions	Questions to be answered	Question X marks	Total marks
Short answers	5	4	4 x 3 marks each	12 marks
CIA	1. Seminar / poster (4 marks) 2. Assignments/open book test (4 marks)			8 marks
<b>Total</b>				<b>20 marks</b>

**Note –20 marks to be converted to 10 marks weightage for submission to the university.**

#### University Examination Pattern (Theory)

Question Type	No. of Questions	Questions to be Answered	Question X marks	Total marks
<b>Section A</b>				
Structured LAQ	3	2	2X8	16 Marks
Short notes	8	6	6X4	24Marks
<b>Total</b>				<b>40 Marks</b>

**Note: The exam pattern for Course “Community Engagement & Clinical Visit (Including Related Practicals To The Parent Course)” is as per Annexure No-1.**

**Annexure No-1**

**EVALUATION FORM FOR COMMUNITY ENGAGEMENT & CLINICAL VISIT (INCLUDING RELATED PRACTICALS TO THE PARENT COURSE)**

**Name of the Student:**

**Program/Course:**

**Semester:**

**Name of the Internal Faculty/Observer:**

**Name of the External Faculty/Observer:**

<b>Sr. No.</b>	<b>Core Competencies</b>	<b>Marks Allotted</b>	<b>Marks Obtained</b>
1.	Community Engagement/Educational Tour/Field work/Hospital visits/NSS (Report)	15	
2.	Demonstrated understanding of responsibilities	10	
3.	Managed time effectively to meet deadlines		
4.	Communicated well with others (Staff members, Teacher, Patients, Community Members, etc)		
5.	Demonstrated knowledge required to meet objectives		
6.	Completed required tasks as assigned by Teacher/Co-ordinator		
7.	Model making / Quiz/ Poster/Conference/ Seminar/ Presentation/Innovative Ideas Competition	15	
8.	Attendance	10	
<b>Total Marks</b>		<b>50</b>	

**Internal Faculty/Observer Signature:**

**Date:**

**External Faculty/Observer Signature:**

**Internal Examination Pattern UG Second & Third Year (Semester III to VI)**  
**(Approved in BOM 55/2018 dated, 27/11/2018)**

**Internal examination pattern UG (Second & Third Year) (Theory) : 20marks**

<b>Question type</b>	<b>No. of questions</b>	<b>Questions to be answered</b>	<b>Question X marks</b>	<b>Total marks</b>
Long essays	2	1	1x10	10 marks
Short answers	3	2	2x5	10 marks
<b>Total</b>				<b>Total= 20 marks</b>

Marks should be submitted by respective departments at least 15 days prior to onset of university examination to the university.

**Internal examination pattern UG (Second & Third Year) (Practical) : 10marks**

Internal exam (At department level)	10 marks
Viva	5 marks
Log book	5 marks
Theory and practical	Total = 20 M

**Note –20 marks to be converted to 10 marks weightage for submission to the university.**



**University Examination Pattern UG Second & Third Year (Semester III to VI)**

**(Approved in BOM 55/2018 dated, 27/11/2018)**

**Theory Question Paper Pattern For Core Subjects in University Examinations (Second & Third year) Under CBCS - 80 Marks**

Question type	No. of questions	Questions to be answered	Question X marks	Total marks
<b>Section 1</b>				
MCQ	10	10	10x1	10 marks
<b>Section 2</b>				
Structured LAQ	3	2	2x15	30 marks
Short notes	6	5	5 x 8	40 marks
				<b>Total= 80 Marks</b>

**General Instructions (Theory):**

- A. Time duration of each Theory Paper will be of Three (3) Hrs or 1 1/2 hrs as the case may be.
- B. Total Marks of each Theory Paper will be 80 Marks / 40 Marks.
- C. There will be TWO Sections in Question Paper. Section ONE will be MCQ while Section TWO will be long & short essay questions. There will be internal option.
- D. Both the Sections are compulsory.
- E. Both the sections are to be written in the separate answer sheet

## Practical Question Paper Pattern For University Examinations

Under CBCS - 40 Marks

Exercise	Description	Marks
Q No 1	Practical exercise - 1	1 x10=10 M
Q No 2	Station exercise	3x5M=15 M
Q No 3	VIVA	10 M
QNo 4	Journal	5 M
		<b>Total = 40 M</b>

### General Instructions (Practical):

- A. All the students have to remain present at the examination centre 15 minutes before the scheduled time for examination.
  - B. Students have to carry with them certified journal, I-card or examination receipt, and other necessary requirements for examination.
  - C. Candidate should not leave the practical hall without the permission of examiner.
  - D. Use of calculator is allowed but the use of mobile phones is strictly prohibited.
  - E. The candidate has to leave the laboratory only after the submission of all the answer sheets of the exercises performed.
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**Internal Examination Pattern (Elective Subject)**

**UG (Second & Third Year) (Theory) : 20 marks**

<b>Question type</b>	<b>No. of questions</b>	<b>Questions to be answered</b>	<b>Question X marks</b>	<b>Total marks</b>
Long essays	2	1	1x10	10 marks
Short answers	3	2	2x5	10 marks
<b>Total</b>				<b>Total= 20 marks</b>

**Note –20 marks to be converted to 10 marks weightage for submission to the university.**

**Theory Question Paper Pattern For Elective courses under University exam for  
B.Sc. Second and Third year (semester III to V) (AY 2020-21 onwards)  
(Resolution No. 4.7 of Academic Council (AC-40/2021- Point no ii)**

<b>Question type</b>	<b>No. of questions</b>	<b>Questions to be answered</b>	<b>Question X marks</b>	<b>Total marks</b>
Structured LAQ	3	2	2x10	20 marks
Short notes	5	4	4 x5	20 marks
<b>Total</b>				<b>40 Marks</b>