SWAT MEDICAL COLLEGE
SWAT

DEPARTMENT OF MEDICAL EDUCATION

MULTISYSTEM-I

3RD YEAR MBBS

BLOCK: H

CLASS OF 2021-26

TOTAL DURATION: 4 WEEKS

FROM: 8 MAY TO 3 JUNE

STUDENT NAME

Contents

1 Academic Calendar

Tentative Annual Calendar MBBS – 2023-24
Swat Medical College, Swat

Activity/ Events	Week	Date	1st Year	2nd Year	3rd Year	4th Year	5th Year
Orientation Week	1	12th to 16th Feb	Foundation-I (6 weeks) 22nd March, Module Exam	Neurosciences-IA (6 weeks) 22nd March, Module Exam	Foundation II (5 weeks) 22nd March, Module Exam	Neurosciences – II (6 weeks) 25th and 26th March Block J Exam	*Previous 5th Year Preparatory leaves and annual exam*
Regular Classes	2	19th to 23rd Feb					
Regular Classes	3	26th Feb to 1st March					Foundation-III (2 weeks) 22nd March Module Exam
Regular Classes	4	4th to 8th March					
Regular Classes	5	11th to 15th March					
Regular Classes	6	18th to 22nd March			Infection & Inflammation (6 weeks) 6th May to 7th May Block G exam	GIT and Hepatobiliary – II (9 weeks) 10th and 11th June Block K Exam	Blood & Immunology-III (2 weeks) 5th April Module Exam
Regular Classes	7	25th to 29th March					
Regular Classes	8	1st to 5th April	Blood & Immunology (5 weeks) 6th & 7th May Block A exam	Neurosciences-IB (5 weeks) 13th & 14th May Block D			MSK-III (2 weeks) 06th & 07th May Block N exam
Spring Break/Eid ul Fitr	9	8th to 12th April					
Sports Week	10	15th to 19th April					
Regular Classes	11	22nd to 26th April					Cardiorespiratory-III (5 weeks) 3rd & 4th June Block O Exam
Regular Classes	12	29th to 3rd May			Multisystem (5 weeks) Module Exam 31st May		
Regular Classes	13	6th to 10th May	MSK-I (8 weeks) 1st & 2nd July Block-B Exam	GIT, Hepatobiliary & Metabolism- (8 weeks) 1st & 2nd July			
Regular Classes	14	13th to 17th May			Blood & immunology (3 weeks) 1st & 2nd July module exam		Renal- III Module (2 weeks) 14th June Module Exam
Regular Classes	15	20th to 24th May				Renal – II Module (4 weeks) 1st and 2nd July Module Exam	
Regular Classes	16	27th May to 31st May					Endocrine & Reproduction- III (3 weeks) 29th & 30th July Block P Exam
Regular Classes	17	3rd to 7th June					
Regular Classes	18	10th to 14th June					
Eid-ul-Adha Holidays	19	17th to 21th June					Neurosciences – III (3 weeks) 16th August Module Exam
Regular Classes	20	24th to 28th June					
Summer Vacations	21-23	3rd to 21st July					GIT & Hepatobiliary (2 weeks) 6th Sep Module Exam
Regular Classes	24	22nd to 26th July	CVS-I (5 weeks) 23rd August Module Exam	Renal (3 weeks) 12th to 13th August Block E	MSK-II (5 weeks) 2nd Sep 3rd Sep Block H exam	Endocrine and Reproduction – II (8 weeks) 16th and 17th September Block-L exam	
Regular Classes	25	29th July to 2nd Aug					Multisystem-II (4 weeks) 7th -8th Oct Block Q exam
Regular Classes	26	5th to 9th Aug		Endocrine-I (4 weeks) 6th Sep			
Regular Classes	27	12th to 16th Aug			CVS-II (3 weeks) 20th September Module exam		
Regular Classes	28	19th 23rd Aug					
Regular Classes	29	26th to 30th Aug	Respiratory-I (4 weeks) 23rd -24th SEP Block-C Exam	Reproduction-I (4 weeks) 30th Sep 1st Oct	RES-II (4 weeks) 21st and 22nd October Block L exam	EYE and ENT (6 weeks) 14th to 18th Oct Block M1 & M2 Exam	
Regular Classes	30	2nd to 6th Sep					
Regular Classes	31	9th to 13th Sep					
Regular Classes	32	16th to 20th Sep					
Regular Classes/ Preparatory Leaves	33	23rd to 27th Sep	PREPARATORY LEAVES	PREPARATORY LEAVES	PREPARATORY LEAVES	PREPARATORY LEAVES	PREPARATORY LEAVES
Regular Classes/ Preparatory Leaves	34	30th Sep to 4th Oct					
Regular Classes/ Preparatory Leaves	35	7th to 11th Oct					
Regular Classes/ Preparatory Leaves	36	14th to 18th Oct					
Regular Classes/ Preparatory Leaves	37	21st to 25th Oct					
Regular Classes/ Preparatory Leaves	38	28th Oct to 1st Nov					
Regular Classes/ Preparatory Leaves	39	4th to 8th Nov					
Regular Classes/ Preparatory Leaves	40	11th to 15th Nov	Annual Exam as per KMU schedule.	Annual Exam as per KMU	Annual Exam as per KMU schedule.	------	
Regular Classes/ Preparatory Leaves	41	18th to 22nd Nov					
Regular Classes/ Preparatory Leaves	42	25th to 29th Nov					
Regular Classes/ Preparatory Leaves	42	2nd to 6th Dec					
Regular Classes/ Preparatory Leaves	43	9th to 13th Dec					
Regular Classes/ Preparatory Leaves	44	16th to 20th Dec					
Regular Classes/ Preparatory Leaves	45	23rd to 27th Dec	Winter vacation	Winter vacation	Winter vacation	Annual Exam as per KMU schedule.	
Regular Classes/ Preparatory Leaves	46-49	November 2024					
Regular Classes/ Preparatory Leaves	50-53	December 2024					
Regular Classes/ Preparatory Leaves	54-57	January 2025					
Start of new academic session 2025-26			February 2025	February 2025	February 2025	February 2025	March 2025

Note: The given dates are tentative and may be subject to change as needed/demanded. The KMU will share the annual exam schedule at the end of the current session.

Dear Student

The Department of Medical Education (DME) has successfully conducted faculty training for the curation of study guides. In accordance with the guidelines set by Khyber Medical University, Peshawar, this study guide has been meticulously developed by the respective block coordinator. For any queries or concerns, kindly refer to the "Query and Troubleshooting" section for contact information.

Please be advised that the timetables provided in the study guides are tentative, and the final versions will always be accessible on the official website, notice boards, and social media platforms.

It is crucial to acknowledge that this guide is subject to continuous improvement, aligning with updates to module learning objectives and blueprints by KMU Peshawar. It is noteworthy that the learning objectives and blueprints outlined in this guide represent an enhanced and revised version of those originally provided by KMU.

For more information on modules and examination blueprints, please visit https://kmu.edu.pk/examination/guidelines.

Your login link of official website: https://mis.swatmedicalcollege.edu.pk/login/student_login

List Of Abbreviation

KEY:	Abbreviation	KEY:	Abbreviation
Anat-L	Anatomy Lecture	**MCQ:**	Multiple Choice Questions
Anat-SGD	Small Group Discussion in Anatomy	**EMQ:**	Extended Matching Question
Bio-L	Biochemistry Lecture	**IL:**	Interactive Lectures
Bio-P	Biochemistry Practical	**CBL:**	Case Based Learning
CMed	Community Medicine	**SBL:**	Scenario Based Learning
DSL	Directed Self Learning	**OSPE:**	Objective structured Practical Evaluation
FDT	Film/Demonstration/Tutorial	**OSCE:**	Objective structured Clinical Evaluation
FMed	Forensic Medicine	**HEC:**	Higher Education Commission
Histo-P	Histology Practical	**MIT:**	Mode of transfer of informations
IPS	**Islamiyat/Pak Studies**	**QEC:**	Quality Enhancement Cell

2 Module Committee:

s.no	Name	Department	Role
•	Prof. Dr. Aziz Ahmad	Dean / principal	
•	Dr. M Junaid Khan	DME	Director
Module Team			
	Prof. Dr. Imran-ud-Din	Pathology	Chairperson
•	Dr. Auranzeb Khan	Pathology	Block Coordinator
•	Dr. Muneed Khan	Community Medicine	Member
•	Dr. Rehman Shah	Pharmacology	Member
•	Dr. Shabir Ahmed	Pathology	Member
•	Dr. Siyab Ahmed	Pathology	Member
•	Prof. Dr. Mukammil Shah	Pathology	Member

3 Recommended List Of Icons

Introduction To Case

For Objectives

Critical Questions

Assessment

Resource Material

4 Mission/ Vision of the College

4.1 Mission Statement of the Institution:

To impart quality medical education through evidence based teaching incorporating professionalism, patient safety, research, critical thinking, ethics and leadership.

4.2 Vision Statement of the Institution:

To be a center of excellence in medical education, patient care and research globally.

5 Overview of the Module/ Preface

Welcome to the Multisystem-1 module, a captivating exploration of varied medical phenomena. This module delves into a spectrum of clinical presentations, from the common and discomforting symptoms of vomiting and blurred vision to the profound implications of palpitation, fainting, and the severe consequences leading to death. Additionally, we unravel the intricate connection between heredity and cancers, illuminating the role of genetics in the development of malignancies. As we embark on this journey, the module offers a nuanced understanding of these clinical scenarios, fostering a holistic perspective for medical students in their third year of MBBS.

Students will gain hands-on experience through clinical rotations in diverse settings such as Skill lab, interactive lectures and SGD, providing a well-rounded education. The study guide serves as a crucial reference for assessment and evaluation. It outlines the components that will be assessed, such as knowledge and basic sciences practical implications, and the corresponding assessment tools, which include MCQs, SEQ and OSPE.

6 Introduction/ Organization of Module

6.1 Introduction:

Embark on a comprehensive exploration of diverse medical scenarios with the Multisystem-1 module, designed to provide third-year MBBS students with a nuanced understanding of symptoms ranging from vomiting and blurred vision to more complex issues like palpitation, fainting, and the genetic underpinnings of cancers. This module invites students to delve into the intricacies of varied clinical presentations, fostering a holistic perspective on multisystem health challenges.

6.2 Rational:

The rationale for the Multisystem-1 module is to provide third-year MBBS students with a foundational understanding of diverse medical conditions and symptoms. This module aims to cultivate a comprehensive perspective on health challenges that span multiple organ systems, enhancing students' ability to recognize and analyze symptoms like vomiting, blurred vision, palpitation, fainting, and the genetic aspects of cancers. By addressing these varied clinical presentations, the module plays a crucial role in preparing students to navigate the complexities of real-world medical scenarios.

The importance of this module in the MBBS curriculum lies in its focus on multisystem health issues, mirroring the diversity of clinical conditions encountered in medical practice. It equips students with the knowledge and skills needed to comprehend the interconnected nature of different organ systems and their contributions to overall health. By fostering a holistic understanding of symptoms and their potential implications, this module enhances the clinical acumen of MBBS students, preparing them for the multifaceted challenges of medical practice.

Organization of the Study guide:

The Multisystem-1 module is organized around three key themes, each delving into distinct aspects of medical conditions:

Vomiting and Blurred Vision (1 week): This theme focuses on understanding and diagnosing medical conditions associated with symptoms of vomiting and blurred vision. Students will explore the various underlying causes, diagnostic approaches, and management strategies related to these symptoms.

Palpitation, Fainting, and Death (1 week): This segment delves into clinical presentations involving palpitations, fainting, and life-threatening conditions. Students will gain insights into the cardiovascular and neurological aspects contributing to these symptoms, enabling them to recognize, evaluate, and respond to such scenarios.

Heredity and Cancers (2 weeks): This extended theme emphasizes the genetic aspects of health, particularly in relation to cancers. Students will explore the hereditary factors contributing to cancer development, diagnostic methods, and contemporary approaches to cancer management. The two-week duration allows for a comprehensive exploration of the complex interplay between genetics and cancer pathogenesis.

Teaching Strategies:

The content of this module will be delivered by a combination of different teaching strategies. These include interactive lectures, small group discussion (SGD), large group discussion (LGF), self-directed learning (SDL), history taking, patient examination, laboratory tests, practicals and clinicopathological conferences.

The following teaching/ learning methods are used to promote better understanding:

A. Large Group Formats:

Interactive Lectures: In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying phenomena through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.

Directed Self Learning: Directed self-learning is an active learning approach where the learners are provided with predefined learning objectives and some facilitation through the learning process in the form of guidance and supervision. It helps establish a strong foundation for autonomous and deep learning.

Self-Directed Learning: Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, and seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

B. Small Group Formats:

Small Group Discussions: This format helps students to clarify concepts acquire skills or attitudes. Sessions are structured with the help of specific exercises such as patient case, interviews or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials and self-study. The facilitator role is to ask probing questions, summarize, or rephrase to help clarify concepts.

Practical Demonstration: Basic science practicals related to anatomy, biochemistry and physiology are scheduled for student learning.

6.3 Assessment strategies

Assessments within the MBBS program at STMC consist of both formative and summative evaluations. These assessments are integral to monitoring student progress and academic performance.

Formative Assessment:

Formative assessments, accounting for 10% of the total marks assigned to each block, serve as ongoing evaluations designed to provide feedback and facilitate learning. The allocation of this 10% can be determined in accordance with the blueprint of KMU and further distributed as per the academic council's recommendations at STMC. Formative assessments are conducted after the completion of each module, ensuring that students receive timely feedback to enhance their understanding and performance.

Summative Assessment:

Summative assessments, which comprise the majority of the assessment weighting (90% of all marks), are conducted and overseen by KMU, as part of the annual examination process. The summative annual examination is organized and conducted by KMU, which carries out the evaluation and grading. This summative assessment evaluates students' comprehensive understanding of the curriculum and accounts for a significant portion of their final scores.

Assessment Tools:

Various assessment tools are employed to gauge students' knowledge and competencies. These tools include:

Written Examinations: These encompass Multiple Choice Questions (MCQ) and Short Essay Questions (SEQ) that evaluate students' theoretical knowledge.

Performance Assessments: Objective Structured Practical Examinations (OSPE) and Objective Structured Clinical Examinations (OSCE) are used to assess practical skills and clinical competence.

In-Training Assessments: Clinical logbooks provide a comprehensive record of students' practical experiences and serve as a valuable tool for tracking their progress.

Assignments: Presentations, projects, and self-reflection assignments are included in the assessment process to enhance students' critical thinking and research skills

Students will be assessed via MCQs, SEQs, SAQs, OSPE/OSCE and assignments/Presentations.

6.4 Feedback mechanism and summary

At the end of each module a “Module Evaluation Form” will be provided to the students whether in hard copies or online and the students will give their opinion regarding the “Course Contents”, “Learning Resources”, “Teaching Methods”, “Engagement& Motivation” and “Assessment Methods

The students feedback will be taken at the end of each module to further improve the medical education quality and their learning capabilities so as to continually upgrade the standards of medical education.

In short, The study guides will help the students a lot by facilitating them in studying various subjects being integrated in various modules along with bringing improvement in learning by the students, assessment through various means and with feedback.

7 Hours Allocation

S. No	Subject	Hours
1	Pharmacology	29
2	Pathology	24
3	Forensic medicine	25
4	Community medicine	12
5	Medicine	1
6	PRIME/Research	2
7	Family medicine	1
	Total	**94**

8 Learning Objectives

8.1 General Learning Outcomes

By the end of this module the students would be able to;

1) Explain the functional organization of Autonomic Nervous system(ANS)
2) Describe the basic and clinical pharmacology of drugs acting on theANS
3) Describe anticancer drugs
4) Describe the basic and clinical pharmacology of Eicosanoids.
5) Describe the basic and clinical pharmacology of drugs used for common skin problems.
6) Describe the clinical uses of some popular herbal medications.
7) Describe single Gene Disorders, cytogenetic disorders and different mutations
8) Describe the molecular Genetics Diagnosis
9) Define neoplasia and nomenclature of tumors
10)Describe characteristics of benign and malignant tumors
11)Describe epidemiology of cancer
12)Describe carcinogens, their types and clinical aspects of neoplasia
13)Describe diagnosis of cancer, grading and staging of tumors
14)Describe pathways for tumor spread and tumor immunity
15)Describe the protocols and procedures of autopsy.
16)Describe Thanatology and its medicolegal implications.
17)Describe general principles of Toxicology and their role in medicolegal sciences.
18)Describe the fundamentals of Research Ethics

Specific Learning Outcomes

Subject	Topic	Hours	S. No	Learning Objectives
Theme-1 (Vomiting and Blurred vision)				
Physiology	Functional organization of ANS- and overview	1	1	Describe the functional organization of ANS and its related neurotransmitters and receptors
Pharmacology	Introduction to the pharmacology of Autonomic Nervous System (ANS)		2	Enlist major autonomic neurotransmitters.
			3	Enlist various types of cholinergic, adrenergic and dopaminergic receptors discovered so far.

			4	Describe the organ system distribution of autonomic receptors.
			5	Describe presynaptic receptors (autoreceptors and heteroreceptors).
			6	Describe inotropy, chronotropy and dromotropy.
	Cholinomimetic drugs (Parasympatho-mimetic drugs)		7	Classify cholinomimetic drugs.
			8	Enlist the naturally-occurring cholinomimetic alkaloids.
			9	Enlist major organophosphate compounds.
			10	Enlist the organophosphates used as "Nerve gases".
			11	Describe the pharmacokinetics of cholinomimetics with emphasis on metabolism and duration of action.
			12	Describe the mechanism of action of directly-acting and indirectly-acting cholinomimetics.
			13	Describe the organ system effects of directly-acting and indirectly-acting cholinomimetics with special reference to their effects on receptors.
			14	Describe the clinical uses of cholinomimetics.
			15	Describe the cholinomimetics used in glaucoma and Alzheimer's disease.
			16	Describe the use of Edrophonium to differentiate between cholinergic crisis and Myasthenic crises.
			17	Describe the adverse effects of cholinomimetics.
			18	Describe the clinical manifestations
			19	Describe the clinical manifestations of mushroom poisoning.
			20	Explain the pharmacological rationale of prophylactic use of Pyridostigmine in situations where chemical warfare with nerve gases is anticipated.
			21	Enlist the contraindications of cholinomimetics.

	Anticholinergic drugs (Parasympatholytics)		22	Classify anticholinergic drugs (Parasympatholytics/Cholinoceptor - blocking drugs).
			23	Describe belladonna alkaloids with reference to their natural sources.
			24	Describe the pharmacokinetics of antimuscarinic drugs with emphasis on metabolism and duration of action.
			25	Describe the mechanism of action of antimuscarinic drugs.
				Describe the organ system effects of antimuscarinic drugs with special
			27	Describe the clinical uses of antimuscarinic drugs.
			28	Describe the drug treatment of organophosphate poisoning.
			29	Enlist cholinesterase regenerating compounds.
				Describe “aging” of the phosphorylated enzyme complex and its clinical
			31	Describe the drug treatment of mushroom poisoning.
			32	Describe the adverse effects of antimuscarinic drugs.
			33	Describe atropine fever.
			34	Name the antidote for atropine poisoning.
			35	Describe the contraindications of
	Ganglion-blocking drugs		36	Enlist major ganglion-blocking drugs.
			37	Describe the mechanism of action of ganglion-blocking drugs.
			38	Describe the organ system effects of ganglion-blocking drugs.
			39	Enlist the clinical uses of ganglion-blocking drugs.
			40	Enlist the adverse effects of ganglion-blocking drugs.
Forensic Medicine	Poison & related laws		41	Define a poison
			42	Describe laws related to poisoning or drug use.
	Legal duties of a Registered Medical Practitioner in a case		43	Explain legal, ethical, and moral duties of Registered Medical Practitioner in a case of poisoning.
	Fate of Poison		44	Enumerate different routes of administration of poisons.

			45	Describe Biotransformation.
			46	Enlist the route of excretion of Poisons
	Diagnosis of poisoning		47	Describe the protocols of diagnosing poisoning in living and Dead
	Antidotes		48	Define and classify antidotes
			49	Describe the mechanism of action of different antidotes
	Steps of management in a case of poisoning		50	Describe general steps of management in a case of poisoning
	Organophosphate group		51	Describe the mechanism of action of commonly used organophosphate poisons.
			52	Describe the characteristics finding for organophosphate group in postmortem examination.
			53	describe different signs and symptoms for organophosphate group.
			54	Describe the medico-legal importance for organophosphate group.
			55	Explain fatal dose, fatal period, and treatment for organophosphate poisons.
Community medicine	Smoking	1	55	Describe the global distribution and increase of smoking
			56	Discuss the causes of smoking
			57	Discuss the effects of smoking on Health
			58	Describe preventive and control Measures
	International Health	1	59	Describe International health regulations and their importance
			60	Describe preventive measures for travelers visiting disease endemic areas
	Role of international health agencies in	1	61	Enumerate international health agencies working in health sector
			62	Discuss structure and function of WHO & UNICEF
			63	Explain the roles of WHO & UNICEF in Pakistan
PRIME/ Research	Research Ethics	1	64	Define ethics in research
			65	Discuss importance of research Ethics
			66	Discuss principles of ethics
			67	Describe the theories of ethics
			68	Discuss research misconduct

	Referencing	1	69	Differentiate between references, citation & bibliography
			70	List different styles of referencing
			71	Select appropriate referencing style
Theme-2: (Palpitation, fainting and death)				
Pharmacology	Sympathomimetic drugs		72	Classify sympathomimetic drugs according to the spectrum of adrenoceptors they affect and on the basis of their mode of action (directly-acting and indirectly-acting).
			73	Define Catecholamines with examples.
			74	Describe the pharmacokinetics of sympathomimetic drugs with emphasis on their metabolism.
			75	Describe the mechanism of action of sympathomimetics.
			76	Describe the organ system effects of sympathomimetics with special reference to their effects on receptors.
			77	Compare the effects of Adrenaline, Noradrenaline, Phenylephrine and Isoprenaline on heart rate and blood pressure.
			78	Describe the clinical uses of sympathomimetics.
			79	Describe the drug treatment of Anaphylactic shock.
			80	Describe the dose-dependent effects of Dopamine and its clinical importance.
			81	Describe the sympathomimetic drugs used in the management of glaucoma.
			82	Describe the role of mannitol and acetazolamide in the treatment of Glaucoma
			83	Describe the adverse effects of sympathomimetics.
			84	Describe hypertensive cheese Reaction
			85	Enlist the foods with high Tyramine content.
			86	Describe the drug interactions of sympathomimetics with Monoamine oxidase inhibiting drugs.

			87	Describe the treatment of accidental overdose of adrenaline.
	Sympatholytic drugs (Adrenoceptor antagonists)		88	Classify sympatholytic drugs (adrenoceptor antagonists) on the basis of spectrum of adrenoceptors they affect.
			89	Name the prototype α-blocker.
			90	Name the α-blocker having more specificity for prostate muscle.
			91	Describe the mechanism of action of α-blockers.
			92	Describe the organ system effects of α-blockers with special reference to their effects on receptors.
			93	Describe the phenomenon of epinephrine reversal.
			94	Describe the clinical uses of α-blockers.
			95	Describe the adverse effects of α-blockers.
			96	Name the prototype β-blocker.
			97	Enlist the β-blockers with intrinsic sympathomimetic activity (partial agonist activity).
			98	Enlist the β-blockers with membrane stabilizing activity (Na channel-blocking activity).
			99	Enlist the β-blockers which have proved to be inverse agonists.
			100	Enlist the β-blockers which are relatively safe in chronic stable heart failure.
			101	Enlist the β-blockers which are relatively safe in asthmatic patients.
			102	Describe the pharmacokinetics of propranolol.
			103	Describe the mechanism of action of β-blockers.
			104	Describe the organ system effects of β-blockers with special reference to their effects on receptors.
			105	Describe the clinical uses of β-blockers.

			106	Describe β-blockers used in the management of glaucoma.
			107	Describe stage fright and name the β-blocker used for its management.
			108	Describe the adverse effects of β-blockers.
			109	Name the antidote for β-blockers' toxicity.
			110	Enlist the contraindications of β-blockers.
			111	Describe the limitations of beta-blockers in patients with Diabetes Mellitus, Hyperlipidemias, Bronchial Asthma and peripheral arterial disease.
			112	Enlist mixed adrenoceptor antagonists (Labetalol and Carvedilol).
			113	Describe the clinical uses of mixed adrenoceptor antagonists.
Forensic medicine	Thanatology/Death		114	Describe death.
			115	Describe phases of death.
			116	Define brain death.
			117	Describe the criteria of brain
			118	Describe the role of EEG/ECG in
			119	Explain apparent death.
			120	Describe human tissue act.
			121	Describe medicolegal importance of death.
	Postmortem changes		122	Define Post Mortem changes.
			123	Classify Post-mortem changes.
			124	Describe immediate, early and late
			125	Describe Post-mortem lividity.
			126	Describe the steps to report changes due to post-mortem Lividity
	Rigor mortis		127	Define Rigor Mortis.
			128	Describe the mechanism of formation of Rigor mortis
			129	Describe the special features of
			130	Describe time consumed to develop
			131	Describe chemical basis of Rigor
			132	Describe factors affecting Rigor

			133	Describe the conditions that simulate Rigor Mortis.
			134	Describe procedure of its confirmation.
			135	Describe medico legal importance of Rigor Mortis.
	Cooling of dead body (Algor Mortis)		136	Define Algor Mortis?
				Describe different methods of
			138	Describe the PM body cooling curve?
			139	Describe the formula/calculation used for time since death.
	Late P.M. changes & putrefaction		140	Define putrefaction?
			141	Describe the process of Putrefaction
			142	Describe stages of putrefaction.
			143	Describe order of progression in putrefaction.
			144	Describe factors affecting Putrefaction.
			145	Describe Casper dictum.
			146	Describe medicolegal importance of putrefaction.
	Maceration		147	Define maceration.
			148	Describe features of maceration.
			149	Discuss differentiation point for maceration
			150	Discuss medicolegal importance of maceration.
	Adipocere formation (Saponification)		151	Define Adipocere formation.
			152	Describe features of Adipocere formation.
			153	Discuss medicolegal importance of Adipocere formation.
	Mummification		154	Define Mummification.
			155	Describe features of Mummification.
			156	Discuss medicolegal importance of Mummification.
	Introduction to autopsy		157	Define Autopsy.

			158	Describe the modified continental system and compare it with other medicolegal systems in the world.
			159	Classify types of Autopsy.
			160	Describe the role of Autopsy in Criminal offences.
			161	Describe section 174 and 176 of the Criminal Procedure Code (CrPC), 1973
	Modern autopsy suite		162	Describe the components of modern autopsy suite
			163	Describe the precautions taken while working in modern autopsy suites
			164	Explain the hazards encountered in modern autopsy suites
	Autopsy Protocol		165	Describe pre-examination in Autopsy.
			166	Describe the protocol of examination of clothes, and external examination in autopsy.
			167	Classify and describe different autopsy incisions.
			168	Describe internal examination in an autopsy.
			169	Describe the procedure to collect different autopsy samples.
			170	Describe the chain of custody.
			171	Describe the steps of writing an autopsy report
			172	Describe autopsy procedure for death due to heat and cold.
	Exhumation		173	Define exhumation.
			174	Describe authorisation of autopsy surgeon for exhumation.
			175	Describe protocol of exhumation.
			176	Describe time limit for exhumation.
			177	Describe the precautions for exhumations.

			178	Describe the procedure to collect samples.
			179	Describe the limitations of exhumations.
			180	Describe the scope of exhumation.
	Skeletonized body		181	Describe the steps of examination of a skeletonized body to assess its race, age, sex and stature
			182	Describe the protocol for autopsy of a skeletonized body
			183	Describe cause of death in such cases.
			184	Describe nature of injury and type of weapon used in such cases.
			185	Describe time since death in such cases.
	Negative autopsy		186	Define negative autopsy.
			187	Describe causes of the negative autopsy.
			188	Describe concealed trauma.
	Autopsy artifacts and hazards		189	Describe autopsy artefacts.
			190	Describe the importance of forensic artefacts.
			191	Describe effect of artefacts on the opinion of post-mortem report.
	Infanticide		192	Describe infanticide and its related law.
			193	Describe the Age of viability and its medico legal significance.
			194	Describe the concept of live birth and separate existence.
			195	Describe the Hydrostatic test and its importance.
			196	Explain Cause of death, i.e. acts of commission and acts of omission
				Describe sudden infant death syndrome (SIDS)
	Autopsy of an infected body		197	Describe the protocols for autopsy of the infected dead body.

			198	Describe the precautionsrequired for autopsy of an infected person.
			199	Enlist the diseases transferred from during autopsy infected dead body
	Autopsy of fragmentary remains		200	Describe autopsy of a fragmentary remains and mutilated body.
			201	Discuss the protocols adopted for autopsy of fragmentary remains
			202	Describe the samples neededfor autopsy of fragmentary remains.
	Embalming		203	Define Embalming.
			204	Enlist the chemical used for Embalming.
			205	Describe the procedure for Embalming.
			206	Describe the used of Embalming.
Community Medicine	Child labor and Child Abuse	1	207	Define child labor
			208	Describe different types of child labor and its effects
			209	Describe statistics of child labor
			210	Describe governments` actions against child labor
			211	Define IPEC 2011 (international program on elimination of child Labor
			212	Define child abuse
			213	Describe different forms of child abuse
			214	Describe statistics of child abuse
			215	Describe the preventive strategies regarding child abuse
Medicine	General management of poisons	1	216	Describe approach to manage a poisoned patient in accident and emergency department
Theme-3: (Heredity and Cancers)				
Pathology	Genetics		217	Define the term mutation, hereditary, congenital, genotype, phenotype, codon, Mendelian Disorder
	Mutations		218	Describe various types of mutations
			219	Describe trinucleotide-repeat Mutations

			220	Enlist few examples of trinucleotide-Repeat Disorders
			221	Describe mutations in mitochondrial genes
	Transmission pattern of single Gene disorders		222	Enumerate transmission patterns of single gene disorders
			223	Describe biochemical and molecular basis of Autosomal Dominant Disorders
			224	Enlist few examples of Autosomal Dominant Disorders
			225	Describe biochemical and molecular basis of Autosomal Recessive disorder
			226	Enlist few Examples of Autosomal Recessive Disorders
			227	Describe mechanism of transmission of X-Linked disorders
			228	Enumerate examples of X-Linked Disorders
	Biochemical and molecular basis of single gene disorders		229	Discuss enzyme defects and their consequences
			230	Describe defects in receptors and transport system
			231	Describe alterations in structure, functions or quantity of non-enzyme proteins
			232	Describe genetically determined adverse reactions to drugs
	Complex multigeneic disorders		233	Describe multigeneic disorders with Examples
	Cytogenetic Disorders involving Autosomes		234	Discuss Trisomy 21 and its molecular basis
			235	Describe diagnostic clinical features of Trisomy 21

	Molecular genetic diagnosis		236	Describe the basic principles of various molecular techniques including PCR, FISH and Southern/Western blotting
			237	Enumerate indications of these techniques.
	Introduction to Neoplasia		238	Define the terms: neoplasia, neoplasm, oncology, tumor, benign tumor, malignant tumor, anaplasia, metaplasia, differentiation and dysplasia.
	Nomenclature of Tumors		239	Describe the basic principle of nomenclature of tumors with respect to tissue of origin, benign and malignant nature
	Characteristics of Benign and Malignant Tumors		240	Describe characteristics of benign and malignant tumors
			241	Differentiate between benign and malignant tumors
			242	Describe characteristics of benign and malignant neoplasms in terms of differentiation, anaplasia, rate of growth, local invasion and Metastasis
	Epidemiology of Cancer		243	Describe the epidemiology of cancer with respect to overall incidence of cancer and various
				host factors (age and hereditary) that predisposes to cancer
			244	Discuss the epidemiology of cancer with respect to geographical and environmental factors that predispose to cancer
	Molecular Basis of Cancer		245	Describe the molecular/genetic basis of carcinogenesis
			246	Describe genetic lesions in cancer
			247	Define oncogene, proto-oncogene and Oncoproteins.
	Carcinogenesis		248	Enumerate carcinogens
			249	Describe the process of carcinogenesis

			250	Describe the hallmarks of cancer cells and process involved
			251	Describe the role of p53
	Types of Carcinogens		252	Discuss properties of chemical Carcinogens
			253	Describe direct and indirect chemical carcinogens and their mechanism of action
			254	Describe the mechanism of radiation carcinogenesis
			255	Enumerate viral and bacterial Carcinogens
			256	Describe mechanism of carcinogenesis by viral and microbial oncogenes
	Clinical Aspects of neoplasia		257	Define cachexia
			258	Describe the clinical features of neoplasia including effects of tumor on host cancer cachexia
			259	Describe the clinical significance of paraneoplastic syndromes
			260	Describe clinical syndromes with respect to its causal mechanism and major forms of underlying Cancer
	Diagnosis of Cancer		261	Describe morphologic, biochemical and molecular methods employed for diagnosis of cancer
	Pathways for tumor spread		262	Describe the pathways for spread of tumors like local invasion and metastasis
	Grading and Staging of tumors		263	Describe grading and staging of Tumors
	Tumor immunity		264	Discuss host defenses against Tumors
			265	Describe tumor antigens and anti-tumor effect mechanisms
			266	Describe tumor surveillance and Immune evasion by the tumors

Pharmacology	Anticancer drugs		267	Describe terms like cell cycle-specific drugs and cell cycle-nonspecific drugs.
			268	Describe the role of P-glycoprotein in relation to the development of resistance to cytotoxic drugs.
			269	Classify anticancer drugs.
			270	Describe general adverse effects of anticancer drugs.
			271	Describe the mechanism of action of alkylating agents.
			272	Describe the clinical uses and adverse effects of Busulfan and Cyclophosphamide.
			273	Describe the mechanism of action, clinical uses and adverse effects of Cisplatin.
			274	Describe in general the mechanism of action of antimetabolites.
			275	Describe the mechanism of action, clinical uses, adverse effects and contraindications of Methotrexate, Azathioprine, 6-Mercaptopurine and 5-Fluorouracil.
			276	Describe the drug interaction of Azathioprine and 6-Mercaptopurine with Allopurinol.
			277	Describe the natural source of plant alkaloids Vinblastine and Vincristine.
			278	Describe the mechanism of action, clinical uses and adverse effects of Vinblastine and Vincristine.
			279	Describe the mechanism of action, clinical uses and adverse effects of Doxorubicin, Daunorubicin, Dactinomycin and Bleomycin.
			280	Enlist the anticancer mechanism of action and uses of hormonal agents like Tamoxifen, Flutamide, Goserelin and Aminoglutethimide.

			281	Enlist the drugs of choice for ALL, AML, CLL, CML, Hodgkin's disease, Non-Hodgkin's lymphoma, Ca breast, Ca lung, Ca prostate and Ca stomach.
			282	Describe cancer treatment modalities (primary induction, adjuvant, neo-adjuvant and maintenance chemotherapy)
			283	Describe the antidotes of Methotrexate, Cyclophosphamide and Doxorubicin toxicity.
	Eicosanoids-Prostaglandins		284	Classify eicosanoids.
			285	Describe the mechanism of action of Prostaglandins.
			286	Describe the organ system effects of Prostaglandins.
			287	Describe the clinical uses of Prostaglandins.
			288	Describe the prostaglandins used in the management of glaucoma.
			289	Describe the pharmacologic effects of Thromboxane's2.
	Dermatologic preparations		290	Describe dermatologic formulations like creams, ointments, gels, lotions, pastes, powders, tinctures and wet dressings.
			291	Describe the choice of dermatologic formulation with reference to the nature of the lesion.
	Drug treatment of scabies		292	Enlist the drugs used for the treatment of Scabies
			292	Describe the method of application of Permethrin, Crotamiton and Benzyl benzoate for treating scabies.
	Drug treatment of Acne vulgaris		293	Enlist the drugs used for treating Acne (including antibiotics and hormonal agents).
			294	Describe the mechanism of action and adverse effects of Benzoyl peroxide, Tretinoin and Isotretinoin.
			295	Describe the teratogenicity of Isotretinoin.
	Drug treatment of Psoriasis		296	Enlist the drugs used for treating Psoriasis.

			297	Describe the teratogenicity of Acitretin.
	Herbal medications		298	Describe the terms like herbal medications, botanicals and nutritional supplements with special reference to drug regulatory factors.
			299	Describe the pharmacologic effects and intended uses of Garlic (Allium sativum).
			300	Describe the drug interactions of Garlic with Warfarin and Aspirin.
			301	Describe the possible medicinal use of Kalonji (Nigella sativa).
			302	Describe the pharmacologic effects and intended uses of Ginseng.
			303	Describe the drug interactions of Ginseng with antipsychotic and hypoglycemic medications.
			304	Describe the intended clinical uses of Coenzyme Q10.
			305	Describe the drug interactions of Coenzyme Q10 with Warfarin.
Community Medicine	Cancers	1	306	Enlist the common cancers prevalent in Pakistan
			307	Describe the burden and epidemiology of common cancers prevalent globally and in Pakistan
			308	Describe the prevention and control of cancers
			309	Describe various governmental programs and strategies for the prevention of cancers
Family medicine	Cancer screening		310	Identify red-flags in patient which need referral for cancer screening
			311	Explain the psychosocial impact of disease on patient and their families
			312	Describe the indications, rationale and common diseases which require routine cancer screening

Practical work				
Pathology	Lipoma		313	Identify the morphological changes occurring in lipoma
	Squamous cell carcinoma		314	Identify morphological changes of squamous cell carcinoma
	Fibro adenoma		315	Enlist points of identification of gross and microscopic features of fibro adenoma of breast
	Karyotyping		316	Demonstrate preparation of Karyogram
			317	Identify gender on the basis of Karyogram
			318	Identify common numerical chromosomal abnormalities on Karyogram
Pharmacology	Introduction to experimental Pharmacology (experiments on isolated piece of rabbit's Ileum)		319	Differentiate between Qualitative and Quantitative experiments.
			320	Recognize various parts of Tissue Organ Bath and describe their functions.
			321	Describe the ingredients and their quantities required for preparing the Tyrode’s Solution.
			322	Describe the technique of slaughtering of rabbit and removal of a piece of ileum.
			323	Describe the fixation of piece of ileum in the inner organ bath.
			324	Enumerate the causes of tissue death.
	Ceiling effect for Parasympathomimeti c drug (Acetylcholine)		325	Demonstrate ceiling effect for Acetylcholine on the isolated piece of rabbit’s ileum by adding proper
				doses of the drug into the inner organ bath.
			326	Interpret the recording of acetylcholine-induced ileal activity on the revolving drum.

			327	Demonstrate washing of the inner organ bath for the subsequent doses of Acetylcholine.
			328	Construct tables and graphs for inference of the results.
	Antagonism between acetylcholine and atropine		329	Demonstrate surmountable antagonism between acetylcholine and atropine on piece of rabbit's ileum by adding proper doses of the drugs into the inner organ bath.
			330	Interpret the recording of acetylcholine- and Atropine-induced ileal activity on the revolving drum.
			331	Construct tables and graphs for inference of the results.
	Ceiling effect for Histamine		332	Demonstrate ceiling effect for Histamine on the isolated piece of rabbit's ileum by adding proper doses of the drug into the inner organ bath.
			331	Interpret the recording of Histamine - induced ileal activity on the revolving drum.
			332	Demonstrate washing of the inner organ bath for the subsequent doses of Histamine.
			333	Construct tables and graphs for inference of the results.
	Antagonism between Histamine and antihistamine		334	Demonstrate surmountable antagonism between Histamine and antihistamine on piece of rabbit's
				ileum by adding proper doses of the drugs into the inner organ bath.
			335	Interpret the recording of Histamine- and antihistamine-induced ileal activity on the revolving drum.
			336	Construct tables and graphs for inference of the results.
	To identify an unknown drug on rabbit's ileum with the help of two known antagonists		337	Demonstrate ceiling effect for the known agonist drug (Acetylcholine or Histamine) on the isolated piece of rabbit's ileum by adding proper doses of the drug into the inner organ bath.

			338	Demonstrate surmountable antagonism between the agonist drug and the unknown antagonists (Atropine and antihistamine) on piece of rabbit's ileum by adding proper doses of the drugs into the inner organ bath.
			339	Interpret the recording of drug-induced ileal activity on the revolving drum.
			340	Construct tables and graphs for inference of the results.
	Introduction to experimental Pharmacology (effects of drugs on rabbit's Eye)		341	Demonstrate measuring the pupil size.
			342	Demonstrate corneal reflex.
			343	Demonstrate light reflex.
	Effects of Parasympathomimeti c drug (e.g.,		344	Demonstrate the effect of Pilocarpine on the size of the pupil in the test eye in comparison with the control eye.
	Pilocarpine) on rabbit's eye			
			345	Demonstrate the effect of Pilocarpine on the colour of the conjunctiva in the test eye in comparison with the control eye.
			346	Demonstrate the effect of Pilocarpine on the corneal reflex in the test eye in comparison with the control eye.
			347	Demonstrate the effect of Pilocarpine on the light reflex in the test eye in comparison with the control eye.
	Effects of Sympathomimetic drug (e.g., Ephedrine) on rabbit's eye		348	Demonstrate the effect of Ephedrine on the size of the pupil in the test eye in comparison with the control eye.
			349	Demonstrate the effect of Ephedrine on the colour of the conjunctiva in the test eye in comparison with the control eye.

			350	Demonstrate the effect of Ephedrine on the corneal reflex in the test eye in comparison with the control eye.
			351	Demonstrate the effect of Ephedrine on the light reflex in the test eye in comparison with the control eye.
	Effects of Parasympatholytic drug (e.g., Tropicamide) on rabbit's eye		352	Demonstrate the effect of Tropicamide on the size of the pupil in the test eye in comparison with the control eye.
			353	Demonstrate the effect of Tropicamide on the colour of the conjunctiva in the test eye in comparison with the control eye.
			354	Demonstrate the effect of Tropicamide on the corneal reflex in the test eye in comparison with the control eye.
			355	Demonstrate the effect of Tropicamide on the light reflex in the test eye in comparison with the control eye.
	Effects of Local anaesthetic (e.g., Proparacaine) on rabbit's eye		356	Describe the mechanism of action of Proparacaine regarding its effects on the eye.
			357	Demonstrate the effect of Proparacaine on the size of the pupil in the test eye in comparison with the control eye.
			358	Demonstrate the effect of Proparacaine on the colour of the conjunctiva in the test eye in comparison with the control eye.
			359	Demonstrate the effect of Proparacaine on the corneal reflex in the test eye in comparison with the control eye.
			360	Demonstrate the effect of Proparacaine on the light reflex in the test eye in comparison with the control eye.
	To identify an unknown drug on rabbit's eye		361	Demonstrate the effect of the unknown drug on the size of the pupil in the test eye in comparison with the control eye.

			361	Demonstrate the effect of the unknown drug on the colour of the conjunctiva in the test eye in comparison with the control eye.
			362	Demonstrate the effect of the unknown drug on the corneal reflex in the test eye in comparison with the control eye.
			363	Demonstrate the effect of the unknown drug on the light reflex in the test eye in comparison with the control eye.
			364	Interpret the results.
			365	Identify the unknown drug.
Forensic medicine	Autopsy report		366	Construct a full autopsy report including all components after thorough examination.
	Toxicology Sample collection		367	Explain the procedures, organ needed, and preservation used in sample collection.
	Toxicology Report Analysis		368	interpret the toxicology report received and then incorporate it in final opinion.
	Thanatology		369	Identify and describe various models of post-mortem changes
	Stomach wash		370	Perform stomach wash on a manikin

9 Learning Opportunities and Resources

9.1 Instruction (if any)

Following study material will help a student to grasp full the content of the subjects taught.

Recommended **books are to be studied first, followed by reference books if needed..**

9.2 Books:

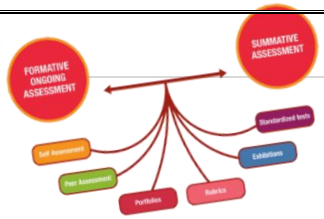
Subjects	Textbooks
Community Medicine	1.Community Medicine by Parikh 2. Community Medicine by M Illyas 3. Basic Statistics for the Health Sciences by Jan W Kuzma
Forensic Medicine	1. Nasib R. Awan. Principles and practice of Forensic Medicine 1st ed. 2002. 2. Parikh, C.K. Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology. 7th ed.2005. 3.Knight B. Simpson's Forensic Medicine. 11th ed.1993. 4. Knight and Pekka. Principles of forensic medicine. 3rd ed. 2004 5. Krishan VIJ. Text book of forensic medicine and toxicology (principles and practice). 4th ed. 2007 6. Dikshit P.C. Text book of forensic medicine and toxicology. 1st ed. 2010 7. Polson. Polson's Essential of Forensic Medicine. 4th edition. 2010. 8. Rao. Atlas of Forensic Medicine (latest edition). 9. Rao.Practical Forensic Medicine 3rd ed ,2007. 10. Knight: Jimpson's Forensic Medicine 10th 1991,11th ed.1993 11. Taylor's Principles and Practice of Medical Jurisprudence. 15th ed.1999
Pathology	1. Robbins & Cotran, Pathologic Basis of Disease, 9th edition. 2. Rapid Review Pathology, 4th edition by Edward F. Goljan MD
PHARMACOLOGY	1. Lippincott Illustrated Pharmacology 2. Basic and Clinical Pharmacology by Katzung

9.3 Website:

https://www.medscape.com https://www.PathologyOutlines.com

https://pubmed.ncbi.nlm.nih.gov https://scholar.google.com

https://medlineplus.gov https://medicine.nus.edu.sg/pathweb



11.Examination and Methods of Assessment:

9.4 Introduction:

1 The year-3 will be assessed in 3 blocks.
2 Block-1 (Foundation 2 and Infection and Inflammation modules) will be assessed in **paper-G.**
3 Block-2 (Multisystem, blood and MSK modules) will be assessed in **paper-H.**
4 Block-3 (CVS and Respiratory module) will be assessed in **paper-I.**
5 Each written paper consists of 120 MCQs.
6 Internal assessment will be added to final marks in KMU.
7 In OSPE, each station will be allotted 6 marks, and a total of 120 (+10% marks of internal assessment) marks are allocated for each OSPE/OSCE examination.
8 Practical assessment will be in the form of OSPE/OSCE which will also include
9 embedded viva stations. The details of each section are given in the tables given below.

Total marks distribution- 3rd Year MBBS

Table-1 ASSESSMENT PLAN OF 3RD YEAR

THEORY PAPER	MODULES	THEORY MARKS	INTERNAL Assessment theory(10%)	OSPE/ OSCE	Internal assessment OSPE (10%)	Total marks
Paper G	Foundation-II Inf. & inflammation	120	14	120	14	268
Paper H	Multisystem Blood MSK	120	13	120	14	267
Paper I	CVS-II Respiratory-II	120	13	120	12	265
Total Marks		**360**	**40**	**360**	**40**	**800**

Paper-H (Multisystem, Blood and MSK)

Subject	Multisystem-1 module	Blood and Immunology-2	Musculoskeletal (MSK)-2 module	Total MCQs
Pharmacology	12	03	05	20
Pathology	16	22	13	51
Forensic medicine	09	02	09	20
Community medicine	03	04	03	10
ENT			01	01
Eye			01	01
PRIME			01	01
Research			05	05

Medicine	01	02	02	05
Orthopedics			02	02
Pediatrics		01	03	04
Total	**41**	**35**	**44**	**120**

Table-4: OSPE

Subject	**OSPE/OSCE**	**Viva stations**	**Total***
Pharmacology	5	2	7
Pathology	3	2	5
Forensic medicine	2	2	4
Community medicine	0	2	2
Paeds (history and physical examination)	1	0	1
Medicine (history and physical examination)	1	0	1
Total	12	8	20

* A minimum of 20 stations will be used in final exams. Total marks will be 120 (6 marks for each station).

12.For inquiry and troubleshooting

Please contact
Dr. Auranzeb Khan

13. Module Evaluation Form

This is an example of feedback form and real-time feedback will be obtained through an electronic link and/or your LMS

MBBS Year: _____ Block: _____ Module: _____

Date: _____

1. (Unsatisfactory) 2 (Fair) 3 (Satisfactory) 4 (Good) 5 (Excellent)

Category: Course Contents

No.	Question	1	2	3	4	5
1	To what extent did the course contents align with the stated learning objectives of the module?					
2	How clear and comprehensive were the course materials provided in this module?					
3	Were the core topics adequately covered, ensuring a well-rounded understanding of the subject?					
4	How current and up-to-date were the course contents in reflecting recent advancements?					
5	Did the module incorporate real-world applications and case studies effectively?					
	Category: Learning Resources					
6	Were the learning resources (e.g., textbooks, online materials, laboratory facilities) readily available and easily accessible?					
7	How helpful were additional learning resources such as supplementary readings or multimedia content?					
8	Did the module offer adequate support for research and independent study?					
9	Were digital resources and online platforms effectively utilized to enhance the learning experience?					
10	Were there sufficient opportunities for hands-on practice and practical application of knowledge?					
	Category: Teaching Methods					
11	How well did instructors engage with students and create a supportive learning environment?					
12	Were diverse teaching methods (e.g., lectures, group discussions, simulations) effectively employed?					
13	How responsive were instructors to questions, concerns, and feedback from students?					
14	To what extent did instructors provide timely and constructive feedback on assignments and assessments?					
15	Were opportunities for collaborative learning and peer-to-peer interactions encouraged and facilitated?					
No.	**Category: Engagement and Motivation**					

16	To what extent did the module use real-world examples and practical applications to engage students?					
17	How well were active learning techniques (e.g., problem-solving, case studies) integrated into the curriculum?					
18	Did the module provide opportunities for students to pursue their individual interests within the subject matter?					
19	Were assessments designed to challenge and motivate students to excel in their studies?					
Category: Inclusivity and Diversity						
20	How well did the module accommodate different learning styles and preferences among students?					
21	Were efforts made to include diverse perspectives, cultures, and backgrounds in the curriculum?					
22	How effectively were accommodations provided for students with varying levels of prior knowledge?					
	Category: Overall					
No.	**Question**	**1 (Very Poor)**	**2 (Poor)**	**3 (Fair)**	**4 (Good)**	**5 (Excellent)**
23	How would you rate the overall quality of this module?					

14. Students Diary/Notes

S.NO	DATE	TASK	PENDING/COMPLETED	COMMENTS

PROGESS:_____ ACHIEVMENT: _____