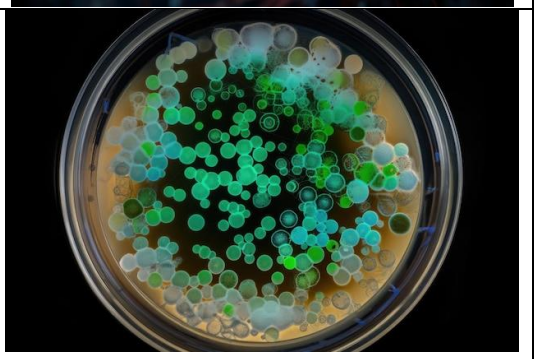
IBN-E-SINA UNIVERSITY MIRPURKHAS

STUDENT'S STUDY GUIDE
FOUNDATION-II MODULE
FINAL PROFESSIONAL MBBS

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1. DISCLAIMER

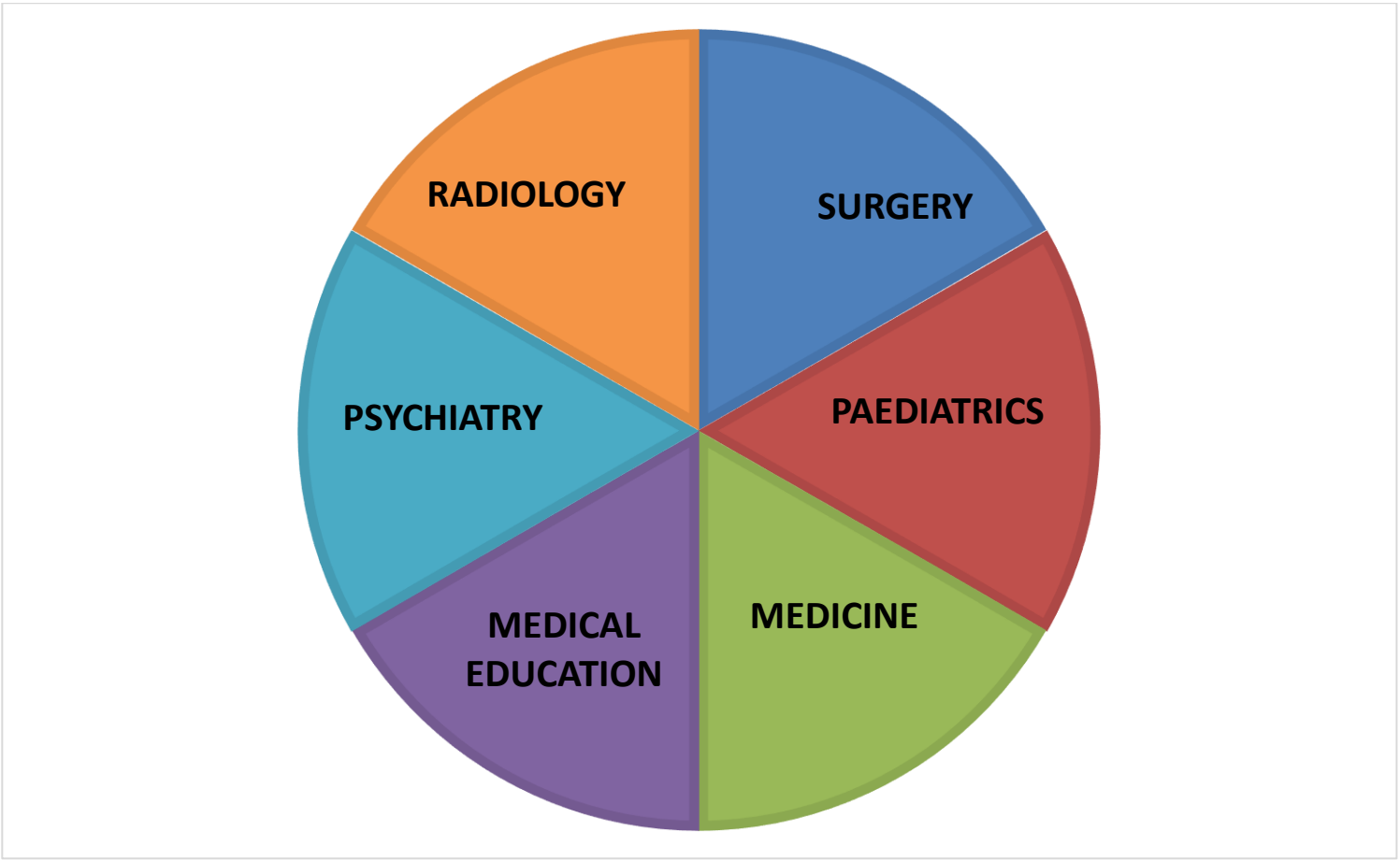
- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
- However, students are advised to use it as a guide for respective modules.
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
- Students are encouraged to provide feedback via coordinator

2. CURRICULUM FRAMEWORK

An educational strategy known as integrated curriculum places a strong emphasis on interdisciplinary learning, in which students gain knowledge by integrating it from several topic areas. By integrating many subjects and disciplines into a cohesive curriculum, this method seeks to give students a more relevant and interesting learning experience. Integrated curriculum means that subjects are presented as a meaningful whole for better understanding of basic sciences in relation to clinical experience and application.

Integrated curriculum comprises of system-based modules such as Foundation-II, Blood-III, Cardiorespiratory -III, Endocrine and Reproduction-IV, Renal-III, Git and Liver-IV, Multisystem, Musculoskeletal-II and Neuroscience -III modules which links basic science knowledge to clinical problems.

INTEGRATING DISCIPLINES OF FOUNDATION-II MODULE



3. MODULE OVERVIEW

FOUNDATION-II MODULE DETAILS

Course	MBBS
Year	Final professional
Duration	3 weeks
Learning Outcomes	The competent Medical Practitioner
Competencies covered	To develop medical professionals who are well - versed, adept, and have the right mindset.
Module Assessment	End module formative assessment
Teaching Methods	Interactive Lectures, Demonstrations, Case Based Learning, Small Group Discussions, Self-Study Sessions, E-Learning, Clinical rotations
Assessment Methods	MCQs, SEQs, OSPE, VIVA

FOUNDATION-II MODULE COMMITTEE

Sr. No	Names	Department	Designation
MODULE COORDINATOR			
1.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU
COMMITTEE MEMBERS			
1.	Prof: Dr. Syed Razi Muhammad	Surgery	Chancellor ISU
2.	Prof: Dr. Shams Ul Arfeen Khan	Biochemistry	Vice Chancellor ISU
3.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU

4. WHAT IS STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, tohelp students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The study guide:

— Communicates information on organization and management of the module.

— This will help the student to contact the right person in case of any difficulty.

— Defines the objectives which are expected to be achieved at the end of the module.

— Identifies the learning strategies such as lectures, small group teachings.

Module objectives.

— Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.

— Highlights information on the contribution of continuous on the student's overall performance.

— Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of objectives.

- Focuses on information pertaining to examination policy, rules and regulations.

5. LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Study

- **INTERACTIVE LECTURES:**

  Large group discussions are not the same as traditional lecture formats. When a teacher or instructor uses images, radiographs, patient interaction recordings, etc. to discuss a topic or typical clinical scenario, the lecture becomes interactive. When they are given tiny activities to do that allow them to apply the knowledge they have learned throughout the session and are asked questions, students actively participate in the learning process.

- **SMALL GROUP DISCUSSIONS (SGDS):**

  With the use of SGD, students can take an active role in their education, clarify ideas, develop psychomotor skills, and develop a positive attitude. Discussion themes, patient interviews, and clinical cases are used to design sessions in an organized manner. Pupils are inspired to express their ideas, apply the fundamental knowledge they have learned from lectures and independent study, and are encouraged to share their notions. In small groups, role play is a useful technique for acquainting pupils with real-world scenarios. Probing questions, rephrasing, and summarizing are used by the teacher to assist make the concepts obvious.

- **CASE-BASED LEARNING (CBL):**

  Learning is centered around a sequence of questions based on a clinical scenario in this small group discussion format. Students create new information by discussing and responding to the questions using pertinent prior knowledge from the clinical and fundamental health sciences modules. The relevant department will give the CBL.

- **CLINICAL EXPERIENCES:**

  Students examine patients in hospital wards, clinics, and outreach facilities in small groups, noting their signs and symptoms. This aids students in connecting their understanding of the module's basic and clinical sciences and getting ready for future practice.

- **CLINICAL ROTATIONS:**

  Students cycle through a variety of wards in small groups, including those in family medicine clinics, outreach centers, pediatrics, surgery, obstetrics and gynecology, ENT, and community medicine. In both inpatient and outpatient settings, students watch patients, get medical histories, and carry out clinical examinations under supervision. They also have the chance to watch medical professionals function as a team. Students can link their basic medical and clinical skills to a variety of clinical domains through these rotations.

- **SKILL SESSIONS:**

  Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

- **SELF STUDY:**

  Self-directed learning is a process in which students take charge, either on their own or with assistance from others. Students chart their learning objectives and determine their areas of need for learning. They select and employ their own learning methodologies, and they independently assess the learning objectives.

6. INTRODUCTION

This module marks the beginning of transition to more focus on clinical learning. This module will introduce students to key concepts essential for understanding diseases process, their prevention and treatment. Students will be able to apply these key concepts in future, system-based modules to understand the diseases processes and their management. This module covers the basics and fundamental aspects of the concerned disciplines I,e surgery, medical education, paediatrics and medical education.

6.1 IBN E SINA UNIVERSITY (ISU) VISION:

To become a world-leading organization in rural health and social care research, training, recruitment and best evidence-based practice.

6.2 IBN E SINA UNIVERSITY (ISU) MISSION:

Our Mission is to inspire hope, and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research. To provide a focal point for the development and collation of high-quality research pertinent to rural health and wellbeing. To improve the training, recruitment and retention of a professional workforce within rural communities. To be recognized as an exemplar in rural health and wellbeing on the international stage. To establish a network of individuals and groups that support research, innovation and development in rural health and social care.

7. LEARNING OBJECTIVES

7.1 Knowledge / Cognitive Domain

It involves knowledge and the development of intellectual skills. By the end of this module, the students should be able to:

1. Discuss the process of Evidence-based medicine/practice.
2. Explain the concepts and processes of patient safety and types of medical errors.
3. Explain the objectives and process of clinical audit and governance.
4. Discuss the principles of communications skills, counseling, and breaking bad news.
5. Discuss the psychological aspects of patient care in hospital and ambulatory care settings.
6. Explain the concepts of surgical skills, perioperative, intraoperative, and postoperative care.
7. Discuss the concepts of palliative and end-of-life care.
8. Explain the concepts of developmental assessment in paediatrics.
9. Taking history and physical examination

7.2 Skills / Psychomotor Domain:

Includes physical movement, co-ordination and the use of motor skill areas. For this Module, these include:

1. Take a detailed history from a surgical patient, relatives and others.
2. Perform a complete physical examination of a surgical patient.
3. Present a summary of the assigned case to a faculty member during a ward round
4. Take history from parents from neonatal age to pediatric age.
5. Perform physical examination in a neonate and pediatric age group patient including growth parameters.

7.3 Attitude / Affective Domain:

It Involves our feelings, emotions and attitudes. By the end of this module, the students should be able to:

1. Respect oneself and one's peers, both when providing and receiving comments.
2. To show patients compassion and understanding.
3. Develop your ability to communicate while keeping a sense of duty to your patients.
4. Showcase appropriate laboratory procedures.
5. Relate to patient and careers vulnerability
6. Demonstrate ethical self-management

7. Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.
8. Display compassion with patient and colleagues
9. Demonstrate in clinical care an understanding of the impact of psychological, social, and economic factors on human health and disease
10. To recognize and understand emergency patient presentations.
11. To be aware of what treatment possibilities are available, including nonoperative.
12. To understand the principles of preoperative optimization.
13. To understand postoperative complications.
14. To understand the types and risks of anesthetic procedures.
15. To be able to explain in general terms to a patient the implications of a common surgical diseases.

7.4 Outcomes of Foundation-II Module

1. Knowledgeable
2. Skillful
3. Community Heath Promoter
4. Problem-solver
5. Professional
6. Researcher
7. Leader and Role Model

8. THEMES FOR FOUNDATION-II MODULE

S.NO	Themes	Duration
1	**The In-Patient**	2 week
2	**Perioperative Care**	1 week

9. SPECIFIC LEARNING OBJECTIVES THEME WISE

THEME-1: THE IN-PATIENT					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives:**
Medical Education	Clinical decision making (Evidence- based Medicine)	1	1	Cognitive	Define Evidence Based Medicine.
			2	Cognitive	Explain the steps of evidence-based medicine/practice
			3	Cognitive	Discuss the levels of evidence.
	Patient safety	1	4	Cognitive	Explain the concepts of patient safety.
			5	Cognitive	Discuss the types, etiology, and preventionof medical errors.
	Clinical governance and clinical audit	1	6	Cognitive	Explain the components of clinical governance.
			7	Cognitive	Explain the steps of clinical audit.
	Patient and family counselling/breaking bad news	1	8	Cognitive	Explain the steps of SPIKES model of breaking bad news and counselling.
Psychiatry	Family health education	1	9	Cognitive	Explain the care of a patient at home especially for chronic illnesses
			10	Cognitive	To enhance the compliance of both pharmacological and nonpharmacological management in acute and chronic illnesses
			11	Cognitive	Explain strategies to reduce follow up tertiary care visits
	Initial psychiatric assessment	1	12	Cognitive	Discuss the initial psychiatric assessment ofa patient admitted.
Surgery	Basic surgical skills	1	13	Cognitive	Explain the principles of patient care and safety in operation theatre / surgical safetychecklists

		1	14	Cognitive	Explain the principles of skin and abdominal incisions
		1	15	Cognitive	Explain the principles of wound closure anddrain usage and diathermy
	Laparoscopic and robotic surgery	1	16	Cognitive	Explain the principles, advantages, disadvantages, indications, and complications of Laparoscopic and Robotic surgery.
	Surgical informed consent	1	17	Cognitive	Explain the types and components of informed consent in surgical practice.
	Nutrition and fluidtherapy	1	18	Cognitive	Assess the fluid and electrolytes requirements in pre- and post-operativepatients.
		1	19	Cognitive	Explain the different methods of providing nutritional support and their complications.
	Postoperative care	1	20	Cognitive	Explain the standards of postoperative care.
		1	21	Cognitive	Discuss the general and system specific postoperative complications.
Radiology	Diagnostic imaging	1	22	Cognitive	Describe the basic principles of radiation protection
			23	Cognitive	Explain the types and principles of different imaging techniques and their indications.
Medicine	End-of-Life and palliative care	1	24	Cognitive	Discuss the steps and prerequisites of endof life and palliative care.
	Geriatric Care		25	Cognitive	Explain the concepts of geriatric care and problems associated with it.
Pediatrics	Pediatric history taking and physical examination	1	26	Psychomotor	Take history from parents from neonatal ageto pediatric age.

			27	Psychomotor	Perform physical examination in a neonate and pediatric age group patient including growth parameters.
	Developmental assessment	1	28	Cognitive	Perform development assessmentof a child
			29	Cognitive	Explain the components of developmental assessment in children of different age groups

THEME-2: PERIOPERATIVE CARE					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives:**
Surgery	Enhanced Recovery after Surgery (ERAS)	1	30	Cognitive	Describe the ERAS protocol
			31	Cognitive	Discuss the components of ERAS protocol
			32	Cognitive	Explain the benefits of ERAS
	Pain Management	2	33	Cognitive	Evaluate a patient with postoperative pain
			34	Cognitive	Manage a patient with pain during perioperative phase
			35	Cognitive	Discuss the pathophysiological consequences of postoperative pain
Medicine	Preoperative evaluation and fitness for anesthesia and surgery	1	36	Cognitive	Evaluate a patient for fitness for surgery and anesthesia.

9.1 CLINICAL SCIENCES SUBJECTS

FOUNDATION – II MODULE				
S. No	**Clinical Sciences Subjects**	**Learning Objectives**	**Hours**	**Learning Strategy**
1.	**ANAESTHESIA** Perioperative Anasthetic management of Patient	Reviewing the history and conducting an assessment of the patient prior to surgery	1	Lectures
		Understanding the patient's medical and surgical condition	1	Lectures
		Understanding the medications used to prepare the patient for surgery	1	Lectures
		Independent study of topics related to airway management, pharmacology, medical and surgical conditions related to the case to be discussed with faculty the day of Surgery	2	Skill Session
2.	**CRITICAL CARE** Surgical Problems in ICU	Management of Post-operative Cardiac Surgical Patient	1	Lectures
		Intra-abdominal sepsis	1	Lectures
		Management of critically ill abdominal trauma patient	1	Lectures
		Resuscitation from shock following trauma	1	Lectures
		Hypo and Hyperthermia in ICU	1	Lecture
3.	ORTHOPAEDICS & TRAUMA Orthopaedic Management	Treatment in skeletally immature (Pediatric fractures)	1	Lectures
		Treatment in osteoporotic fracture	1	Lectures
		Treatment in pathological fractures	1	Lectures
		Management of compartment syndrome	1	Lectures

9.2 CLINICAL ROTATION SCHEDULE

MORNING CLINICAL ROTATIONS

Duration	9 weeks		11 weeks		8 weeks	8 weeks
	6 weeks	3wks	8 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	78	39	104	39	104	104

* 2.6 clinical teaching hours per day

EVENING CLINICAL ROTATIONS

Duration	6 weeks		14 weeks		8 weeks	8 weeks
	3 weeks	3wks	11 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	45	45	165	45	120	120

* 3 clinical teaching hours per day

The above mentioned clinical rotation schedule is to be followed by every student throughout the year. Groups of students are decided by the Hospital Administration.

10. TEACHING HOURS ALLOCATION

There will be 35 hours allotted in total. The hours shall be divided into 2 different themes. The necessity for students to set aside more time for self-directed learning and clinical learning is emphasized, although at the expense of repetition. We anticipate that the students will be well-versed in this significant module. This module covers a number of common and significant subjects.

S. No	Subject	Hours
1	Paediatrics	2
2	Medicine	2
3	Radiology	1
4	Surgery	12
5	Medical Education	4
6	Psychiatry	2
7	Anesthesia	5
8	Critical Care	5
9	Orthopaedics & trauma	4
	Total hours	**35**

11. EXAMINATION AND METHODS OF ASSESSMENT

11.1 EXAMINATION RULES AND REGULATIONS

- Student must report to examination hall/venue, in time for smooth conduction of the exams.
- No student will be allowed to enter the examination hall after 10 minutes of scheduled examination time.
- No students will be allowed to sit in exam without College ID Card, and Lab Coat
- Students must sit according to their roll numbers mentioned on the seats.
- Student must bring their own stationary items (Pen, Pencil, Eraser, and Sharpener) – Sharing is prohibited
- Any disturbance or Indiscipline in the exam hall/venue is not acceptable.
- Students must not possess any written material or communicate with their fellow students
- Cell phones are strictly not allowed in examination hall. If any student is found with cell phone in any mode (silent, switched off or on) he/she will be **not be allowed to continue their exam.**
- **No student is allowed to leave the examination hall before half the time is over, paper is handed over to the examiner and properly marking the attendance.**

11.2 ASSESSMENT

11.2.1 Internal: Total 10% (20 marks)

- Students will be assessed comprehensively through multiple methods to determine achievement of module objectives through two methods: Module examination and Graded assessment by Individual department
    - **Module Examination**: It will be scheduled on completion of each module. The method of examination comprises theory exam (which includes SEQs and MCQs) and OSPE / OSCE exam (which includes static and interactive stations).
    - **Graded Assessment by individual department**: It includes weekly MCQs tests on Survive online LMS program, viva, practical, weekly theme based assignments, post-test discussion sessions, peer assessments, presentations, small group activities such as CBL, ward activities, examinations and log books, all of which have specific marks allocation.
- Marks of both modular examination and graded assessment will constitute 10% weightage.
- 10% marks of internal evaluation will be added to the ISU annual professional exam.
- The marks distribution is based on Formative Assessment done individually by all the concerned departments. It may include:

- NOTE: **at least 75% attendance is mandatory** to appear in the annual university examination.
- Exam branch is responsible to maintain the attendance record for Main Campus in coordination with all the concerned departments.

11.2.2 University Annual Exam: Total 90%

- Annual Exam has 90% marks in total
- It includes theory and OSPE / OSCE.
- Each written paper consists of 100 MCQs and 10 SEQs and internal assessment marks will be added tothe final marks.

11.3 METHODS OF ASSESSMENT

11.3.1 Multiple Choice Questions

- Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
- Total 100 MCQs are included which are formulated through the table of specification from learning objectives of Module interactive lectures.
- Time duration for MCQs will be 1 and half hour.
- MCQs are used to assess objectives covered in each module.
- Students after reading the statement / scenarios select one appropriate response from the given options.
- Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
- Students attempt the MCQs exam on Computer screen on Moodle / LMS program in IT Lab.

11.3.2 Short Essay Questions (SEQs):

- Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- Commonly used in examinations to assess the depth of knowledge and understanding.
- Includes 10 questions each carrying 10 marks.
- Time Duration for Essay type paper is 2 hours.
- Questions are selected from the specific learning objectives of the specific ongoing module.

11.3.3 OSPE / OSCE

- Each student will be assessed on the same content and have same time to complete the task.
- Time allocated for each station is five minutes as per Examination rules of Ibn e Sina University, Mirpurkhas

- All students are rotated through the same stations.
- OSPE / OSCE Comprises of 15 - 20 stations.
- Each station may assess a variety of diagrammatic identifications and clinical tasks. These tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are Interactive, observed, unobserved (static) and rest stations.
    - Interactive Stations:
        - In this station, examiner ask questions related to the task within the allocated time.
    - Observed Stations:
        - In observed stations, internal or external examiner don't interact with candidate and just observe the performance of the skills or procedures.
    - Unobserved (static) Stations:
        - It will be static stations in which there may be models, specimens, multiple identification points, X-ray, Labs reports, flowcharts, pictures, or clinical scenarios (to assess cognitive domain) with related questions for students will be used to answer on the provided answer copy.
    - Rest station
        - It is a station where there is no task given and in this time student can organize his/her thoughts

11.3.4 ASSIGNMENTS

- An online assignment on the Ibn-e-Sina University moodle uploaded according to the topic of the week.
- All assignments should be checked by the teacher who has taken the lecture on the topic during the same week.
- The assignment should cover enough material to include the requirement of the curriculum and syllabus, so the student should be able to answer the annual examination questions by revising these notes (assignments) only.
- The assignments are checked and graded also with comment to guide, motivate and encourage the students to work whole heartedly. Frequent guidance and motivation will go a long way in improving the students' performance.
- Assignments of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.5 WEEKLY TESTS

- The weekly tests are conducted for all classes. The tests are conducted online and are on topics displayed on the portal (Moodle). It consists of 35 MCQs. 5 MCQs will be from the previous weeks (slightly altered to change the answer or the right option). Everyone taking lectures, submit two MCQs to the Chairperson of the department who will check and pass them to the class moderator. MCQs can also be sent directly to the class moderator, who submits the MCQs to IT department for final placement on the moodle.

- The MCQs are not merely simple recall, but test higher level of cognition. As far as possible, they test an important concept related to one of the topics of the week.
- It is different from the summative assessment (Annual or Semester Examinations) in that the goal of summative assessment is to evaluate student's learning at the end of an instructional unit by comparing it against some standard or benchmark, to decide if the student can be promoted or not, whereas the goal of these weekly tests is to check the understanding of the students on the important concepts related to the topics that have been displayed on the portal for the week, the teachers have taught them and the students have made assignments on them.
- Results of weekly tests of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.6 POST-TEST DISCUSSION (PTD)

- Every student has to prepare a special assignment where he/she selects all the questions he/she got wrong. Then he/she makes 3 boxes. In box A he/she writes the questions he/she got wrong in his/her own words, highlighting and underlining the keywords. In box B the student explains why he/she has chosen this answer. In box C the student mentions what he/she has learnt after reading the explanation and how the concept has got clear now.
- The moderator will check, assess and grade PTD
- Next day, the class moderator of the class conducts a class where he/she discusses the mistakes committed and the post-test assignments submitted in detail with the class
- PTD assignments of the whole Professional year MBBS are counted as in Internal Assessment.

12. GRADING POLICY

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	**A+**
75-79	4.0	**A**
70-74	3.7	**A-**
67-69	3.3	**B+**
63-66	3.0	**B**
60-62	2.7	**B-**
56-59	2.3	**C+**
50-55	2.0	**C**
<50 Non gradable	0	**N**

- A student obtaining GPA less than 2.0 (50%) is declared fail pr Non gradable

13. ASSESMENT BLUEPRINT

FOUNDATION-II MODULE

Assessment is based on Table of Specification (TOS)

	ASSESMENT	TOOLS	MARKS
MODULE EXAM	THEORY	MCQ's	100
		SEQ's	100
	OSPE	OSPE Static	50
		OSPE Interactive	50
		Total	300

14. RECOMMENDED BOOKS

SUBJECT	*RESOURCES*
PAEDIATRICS	1. Nelson textbook of pediatrics 2. Textbook of Pediatrics, Pakistan Pediatrics Association 3. Basis of Pediatrics, Pervez Akbar khan, Ninth edition 4. Current pediatrics 5. OP Ghai Essential of Pediatrics Textbook
SURGERY	1. Bailey & Love's Short Practice of Surgery 27th edition (a new edition is expected shortly. Keep a look out for the new one 2. Demonstration of Physical Signs in Clinical Surgery, by Hamilton Bailey. 19th edition or newer. Text Book 3. Browse's Introduction to Symptoms and Signs of Surgical Disease. Text Book 4. Ackerman's Surgical Pathology. Latest Edition
GENERAL MEDICINE	1. Hutchison's Clinical Methods, 23rd Edition 2. MacLeod's clinical examination 13th edition 3. Davidson's Principles and Practice of Medicine 4. Kumar and Clark's Clinical Medicine 5. HCAI guidelines CDC

IBN-E-SINA UNIVERSITY MIRPURKHAS
FACULTY OF BASIC MEDICAL SCIENCES

Course Feedback Form

Course Title: _____

Semester/Module_____ Dates:_____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Yes ☐ No ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

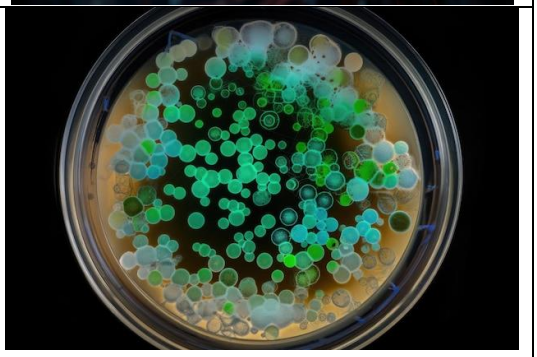
Optional - Your name and contact address:

Thank you!!

IBN-E-SINA UNIVERSITY MIRPURKHAS

STUDENT'S STUDY GUIDE
NEUROSCIENCE - III MODULE
FINAL PROFESSIONAL MBBS

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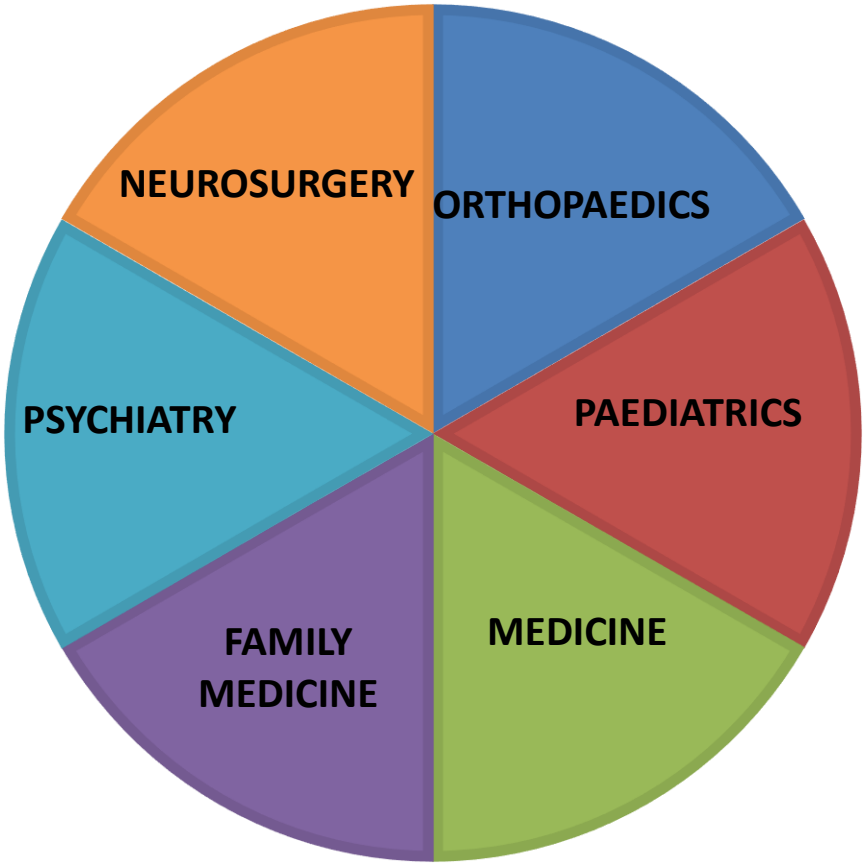
INTEGRATING DISCIPLINES OF NEUROSCIENCE-III MODULE



3. MODULE OVERVIEW

NEUROSCIENCE-III MODULE DETAILS

Course	MBBS
Year	Final professional
Duration	6 weeks
Learning Outcomes	The competent Medical Practitioner
Competencies covered	To develop medical professionals who are well - versed, adept, and have the right mindset.
Module Assessment	End module formative assessment
Teaching Methods	Interactive Lectures, Demonstrations, Case Based Learning, Small Group Discussions, Self-Study Sessions, E-Learning, Clinical rotations
Assessment Methods	MCQs, SEQs, OSPE, VIVA

NEUROSCIENCE-III MODULE COMMITTEE

Sr. No	Names	Department	Designation
MODULE COORDINATOR			
1.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU
COMMITTEE MEMBERS			
1.	Prof: Dr. Syed Razi Muhammad	Surgery	Chancellor ISU
2.	Prof: Dr. Shams Ul Arfeen Khan	Biochemistry	Vice Chancellor ISU
3.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU

4. WHAT IS STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, tohelp students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The study guide:

— Communicates information on organization and management of the module.

— This will help the student to contact the right person in case of any difficulty.

— Defines the objectives which are expected to be achieved at the end of the module.

— Identifies the learning strategies such as lectures, small group teachings.

Module objectives.

— Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.

— Highlights information on the contribution of continuous on the student's overall performance.

— Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of objectives.

- Focuses on information pertaining to examination policy, rules and regulations.

5. LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Study

- **INTERACTIVE LECTURES:**

  Large group discussions are not the same as traditional lecture formats. When a teacher or instructor uses images, radiographs, patient interaction recordings, etc. to discuss a topic or typical clinical scenario, the lecture becomes interactive. When they are given tiny activities to do that allow them to apply the knowledge they have learned throughout the session and are asked questions, students actively participate in the learning process.

- **SMALL GROUP DISCUSSIONS (SGDS):**

  With the use of SGD, students can take an active role in their education, clarify ideas, develop psychomotor skills, and develop a positive attitude. Discussion themes, patient interviews, and clinical cases are used to design sessions in an organized manner. Pupils are inspired to express their ideas, apply the fundamental knowledge they have learned from lectures and independent study, and are encouraged to share their notions. In small groups, role play is a useful technique for acquainting pupils with real-world scenarios. Probing questions, rephrasing, and summarizing are used by the teacher to assist make the concepts obvious.

- **CASE-BASED LEARNING (CBL):**

  Learning is centered around a sequence of questions based on a clinical scenario in this small group discussion format. Students create new information by discussing and responding to the questions using pertinent prior knowledge from the clinical and fundamental health sciences modules. The relevant department will give the CBL.

- **CLINICAL EXPERIENCES:**

  Students examine patients in hospital wards, clinics, and outreach facilities in small groups, noting their signs and symptoms. This aids students in connecting their understanding of the module's basic and clinical sciences and getting ready for future practice.

- **CLINICAL ROTATIONS:**

  Students cycle through a variety of wards in small groups, including those in family medicine clinics, outreach centers, pediatrics, surgery, obstetrics and gynecology, ENT, and community medicine. In both inpatient and outpatient settings, students watch patients, get medical histories, and carry out clinical examinations under supervision. They also have the chance to watch medical professionals function as a team. Students can link their basic medical and clinical skills to a variety of clinical domains through these rotations.

- **SKILL SESSIONS:**

  Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

- **SELF STUDY:**

  Self-directed learning is a process in which students take charge, either on their own or with assistance from others. Students chart their learning objectives and determine their areas of need for learning. They select and employ their own learning methodologies, and they independently assess the learning objectives.

6. INTRODUCTION

The nervous system is the body's most complex system. The nervous system is directly or indirectly engaged in the pathophysiology of a great deal of disorders, or it may be implicated in systemic illnesses. Some of the more frequent diseases of the nervous system include infections like meningitis and encephalitis, movement disorders, demyelinating diseases, epilepsy, and cerebrovascular accidents, in addition to congenital and traumatic disorders. High morbidity and death are avoided by prompt diagnosis and treatment. The fundamental cycle's Neurosciences 1 module has already given students a solid foundation in the pathophysiology, neuropharmacology, anatomy, and physiology of CNS disorders. The student will study the clinical presentation, diagnosis, and treatment of various illnesses in this second clinical spiral.

6.1 RATIONAL

This module will provide students with a multidisciplinary approach to understanding the etiology of neurological and mental disorders. Neurological problems are the leading cause for disability globally. An estimated 1-billion people around the world have a neurological disorder or disease, which is almost 15-percent of the world's population. According to WHO more than 6 million people die because of stroke each year; over 80% of these deaths take place in low and middle-income countries. Psychiatric disorders are also major human toll of ill health. According to 2012 WHO data, Neuro-Psychiatric disorders are among 12 leading causes of disability and death in Pakistan. In this module students will learn about the etiology of common disorders encountered by neurologists and psychiatrists and develop comprehensive understanding of the biological, pathological, psychological and social factors behind these disorders.

6.2 IBN E SINA UNIVERSITY (ISU) VISION:

To become a world-leading organization in rural health and social care research, training, recruitment and best evidence-based practice.

6.3 IBN E SINA UNIVERSITY (ISU) MISSION:

Our Mission is to inspire hope, and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research. To provide a focal point for the development and collation of high-quality research pertinent to rural health and wellbeing. To improve the training, recruitment and retention of a professional workforce within rural communities. To be recognized as an exemplar in rural health and wellbeing on the international stage. To establish a network of individuals and groups that support research, innovation and development in rural health and social care.

7. LEARNING OBJECTIVES

7.1 Knowledge / Cognitive Domain

It involves knowledge and the development of intellectual skills. By the end of this module, the students should be able to:

1. Enlist the investigation for diagnosing neurological disorders
2. Discuss the assessment and management of raised ICP, cerebral edema and brain herniation
3. Differentiate between anxiety and depression, manic disorders and discuss their management
4. Compare primary and secondary headache
5. Formulate a table to identify /classify drugs used for general, regional and local anesthesia
6. Describe pathophysiology, clinical classification and management of seizure disorders
7. Know the approach for assessment and management of adult as well as paeds stroke, dementia and Parkinson disease
8. Classify CNs infection and discuss the management
9. Explain pathology of degenerative disorders of brain
10. Recognize CP child and evaluation of mental retardation
11. Classify brain tumors and evaluate management plan for it

7.2 Skills / Psychomotor Domain:

Includes physical movement, co-ordination and the use of motor skill areas. For this Module, these include:

1. Demonstrate the ability to perform the disease specific relevant examination
2. Respond to common medical emergencies
3. Master the skill of first aid
4. Manage ischemic or hemorrhagic cerebrovascular events by knowing their effect on brain parenchyma and the various clinical effects thus produced.
5. Radiological diagnosis and introduction to neuro rehabilitation and rehabilitation of patient
6. Identify the involvement of isolated or multiple brain regions and structures in degenerative disorders and know resulting clinical syndromes.
7. Develop an approach to metabolic & toxic disorders affecting Nervous System in children
8. Manage anxiety and depression when it begins to interfere with social or occupational functioning.

7.3 Attitude / Affective Domain:

It Involves our feelings, emotions and attitudes. By the end of this module, the students should be able to:

1. Respect oneself and one's peers, both when providing and receiving comments.
2. To show patients compassion and understanding.
3. Develop your ability to communicate while keeping a sense of duty to your patients.
4. Showcase appropriate laboratory procedures.
5. Relate to patient and careers vulnerability
6. Demonstrate ethical self-management
7. Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.

7.4 Outcomes of Neuroscience-III Module

1. Knowledgeable
2. Skillful
3. Community Heath Promoter
4. Problem-solver
5. Professional
6. Researcher
7. Leader and Role Model

8. THEMES FOR NEUROSCIENCE-III MODULE

S.NO	Themes	Duration
1	**Disturbed mood & behavior**	1 week
2	**Right sided weakness and inability to speak**	1 week
3	**Loss of consciousness & fits**	1 week
4	**Tremors**	1 week
5	**Headache**	1 week
6	**Paraplegia**	1 week

9. SPECIFIC LEARNING OBJECTIVES THEME WISE

THEME-1: DISTURBED MOOD AND BEHAVIOR						
Subject	**Topic**	**Hours**	**Learning domain**	**Learning methodology**	**Learning objectives**	**Assessment tools**
Medicine	Dementia	1	Cognitive	Interactive Lecture	Discuss the etiology, clinical features, and management of different types of Dementias	MCQ, SEQ
			Cognitive	Interactive Lecture	Classify the reversible and irreversible causes of Dementia	MCQ, SEQ
			Cognitive	Interactive Lecture	Explain the pathophysiology and clinical features of a patient with Huntington's disease	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the diagnostic work up and management for patients suspected of dementia	MCQ, SEQ
			Psychomotor Skills	SGD	Perform mini-mental state examination	OSCE
Psychiatry	PTSD	1	Cognitive	Interactive Lecture	Explain the etiology and management of a patient with PTSD	MCQ, SEQ
	OCD		Cognitive	Interactive Lecture	Explain the etiology and management of a patient with OCD	MCQ, SEQ
	Somatic symptoms disorder	1	Cognitive	Interactive Lecture	Explain the etiology and management of a patient with Somatic symptoms disorder and Chronic pain syndromes	MCQ, SEQ
	Autism spectrum Disorder		Cognitive	Interactive Lecture	Explain the etiology and management of a child with autism spectrum disorder.	MCQ, SEQ
	Substance abuse		Cognitive	Interactive Lecture	Explain the risk factors, types of substance abuse, clinical features, withdrawal symptoms, complications and management of a patient with substance abuse	MCQ, SEQ
	Anxiety		Affective	Roleplay	Counsel and educate a family of a	OSCE

	and depressio n		domain		patient with Dementia	
Family Medicine / General Medicine		1	Cognitive	Interactive Lecture	Explain the approach to a patient with anxiety and depression in a primary health care setting.	MCQ, SEQ
			Cognitive	Interactive Lecture	Explain the risk assessment for mental health	MCQ, SEQ
			Cognitive	Interactive Lecture	Identify common red-flags.	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the guidelines for management of a patient with Anxiety and depression in a primary health care setting.	MCQ, SEQ
			Psychom otor Skills	SGD	Perform Screening for Anxiety, Depression and Schizophrenia.	OSCE
			Psychom otor Skills	SGD	Perform a consultation with a patient with anxiety or depression under supervision.	OSCE
			Affective domain	Roleplay	Observe the consultation of a family physician with a patient with anxiety or depression	OSCE

THEME 2: RIGHT-SIDED WEAKNESS AND INABILITY TO SPEAK						
Subject	**Topic**	**Hours**	**Learning domain**	**Learning methodology**	**Learning objectives**	**Assessment tools**
Medicine	Stroke syndromes	1	Cognitive	Interactive Lecture	Discuss the diagnostic and management approach for a patient with Right-sided weakness and inability to speak due to an ischemic stroke.	MCQ, SEQ
		1	Cognitive	Interactive Lecture	Discuss the diagnostic workup and management for a patient suspected of Haemorrhagic stroke	MCQ, SEQ
	Subarachnoid haemorrhage SAH)		Cognitive	Interactive Lecture	Discuss the diagnostic workup and management for patients suspected of SAH	MCQ, SEQ
			Psychomotor Skills	SGD	Demonstrate the complete assessment of the patient on the NIH stroke scale under supervision	OSCE
			Psychomotor Skills	SGD	Demonstrate the assessment of a comatose patient on the Glasgow coma scale under supervision	OSCE
			Psychomotor Skills	SGD	Interpret the CT and MRI findings in stroke patients	OSCE
			Affective domain	Roleplay	Counsel a stroke victim about future prevention and management of complications	OSCE

THEME-3: LOSS OF CONSCIOUSNESS AND FITS						
Subject	**Topic**	**Hours**	**Learning domain**	**Learning methodology**	**Learning objectives**	**Assessment tools**
Medicine	Coma Epilepsy	1	Cognitive	Interactive Lecture	Discuss the management algorithm of a patient with coma	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the diagnostic work up and management for a patient with fits	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the diagnostic work up and management for a patient with Tonic Clonic epilepsy	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the diagnostic work up and management for a patient with Status Epilepticus	MCQ, SEQ
			Psycho motor Skills	SGD	Perform a consultation with a patient with epilepsy under supervision	OSCE
			Psycho motor Skills	SGD	Write prescriptions for patients with Tonic- Clonic and Petit-mal epilepsy	OSCE
			Affective	Roleplay	Counsel a patient with Epilepsy	OSCE
Pediatrics	Epilepsy	1	Cognitive	Interactive Lecture	Discuss the diagnostic work up and management for children with seizures and Epilepsy	MCQ, SEQ
			Psychomotor Skills	SGD	Perform a consultation with a child having epilepsy under supervision emphasizing history and examination.	OSCE
			Psychomotor Skills	SGD	Write a prescription for a child with Tonic-Clonic and Petit-mal Epilepsy	OSCE
			Affective Domain	Roleplay	Counsel and educate the Parents/guardian of a child with epilepsy.	OSCE

THEME-4: TREMORS AND MOVEMENT DISORDERS						
Subject	**Topic**	**Hours**	**Learning domain**	**Learning methodology**	**Learning objectives**	**Assessment tools**
Medicine	Movement Disorders	1	Cognitive	Interactive Lecture	Classify movement disorders	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the diagnostic workup and management for patients suspected Cerebellar disorders	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the diagnostic and management approach to a patient with Ataxia	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the diagnostic and management approach to a patient with Chorea	MCQ, SEQ
	Parkinson`s disease	1	Cognitive	Interactive Lecture	Discuss the diagnostic criteria, pharmacological, psycho-social, and rehabilitative approaches to the management of a patient with Parkinson's disease	MCQ, SEQ
			Psychomotor	SGD	Examine a patient with Parkinson`s disease by taking history and performing a physical examination.	OSCE
Psychiatry	Dystonia	1	Cognitive	Interactive Lecture	Discuss the diagnostic approach and management for patients suspected of Drug- Induced Dystonia	MCQ, SEQ

THEME 5: HEADACHE						
Subject	**Topic**	**Hours**	**Learning domain**	**Learning methodology**	**Learning objectives**	**Assessment tools**
Medicine	Headache	1	Cognitive	Interactive Lecture	Explain the diagnostic approach to patients with acute and chronic headaches	MCQ, SEQ
	Migraine		Cognitive	Interactive Lecture	Explain the types, risk factors, diagnostic approach, management, and prevention of Migraine	MCQ, SEQ
			Psycho motor Skills	SGD	Demonstrate Complete history and examination of patient with migraine	OSCE
			Affective domain	Roleplay	Discuss the lifestyle changes preventing migrainous headaches	OSCE
	Meningitis	1	Cognitive	Interactive Lecture	Classify meningitides	MCQ, SEQ
			Cognitive	Interactive Lecture	Differentiate between the clinical features, investigations, CSF findings, radiological findings, and complications in patients with viral, bacterial, and tuberculous meningitis	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the pharmacological and surgical management approaches in patients with different types of meningitides	MCQ, SEQ
			Psychomotor Skill	SGD	Take history and perform relevant physical examination and elicit signs of meningitis in a suspected patient	OSCE
			Psychomotor Skill	SGD	Interpret a CSF report in a patient with viral, acute pyogenic and tuberculous meningitis	OSCE
			Psychomotor Skill	SGD	Observe the Lumbar puncture	OSCE
			Affective domain	Roleplay	Counsel a patient and his/her family with Tuberculous meningitis regarding complications, treatments` side effects and follow ups	OSCE

Family Medicine / General Medicine	Encephalitis	1 1	Cognitive	Interactive Lecture	Discuss the etiology, pathogenesis, clinical features, investigations, complications, and treatment of Encephalitis	MCQ, SEQ
	Headache		Cognitive	Interactive Lecture	Explain the approach to a patient with Headache in a primary health care setting	MCQ, SEQ
			Cognitive	Interactive Lecture	Identify common red flags in a patient with headache	MCQ, SEQ
			Cognitive	Interactive Lecture	Discuss the investigations for a patient with Headache in a primary health care setting.	MCQ, SEQ
			Cognitive	Interactive Lecture	Identify patients that need urgent and proper referral for specialist care	MCQ, SEQ
Pediatrics		1	Cognitive	Interactive Lecture	Discuss the diagnostic work up and management for children with Headache	MCQ, SEQ
	Meningitis	1	Cognitive	Interactive Lecture	Discuss the diagnostic work up and managements for children suspected of Meningitis	MCQ, SEQ
			Cognitive	Interactive Lecture	Explain the short term and long-term sequelae of meningitis	MCQ, SEQ
			Psycho motor Skills	SDG	Describe assessing the initial triad symptoms of meningitis in children	OSCE
	Big head	1	Cognitive	Interactive Lecture	Explain the diagnostic and therapeutic approach to a child with big head	MCQ, SEQ
Neurosurge ry	Intracranial	1	Cognitive	Interactive Lecture	Classify intracranial space occupying lesions (benign, malignant and infections)	MCQ, SEQ
	space		Cognitive	Interactive Lecture	Discuss the clinical features, radiological	MCQ, SEQ
	occupying lesions	1	Cognitive	Interactive Lecture	findings and treatment of intracranial space occupying lesions	MCQ, SEQ
			Affective domain		Discuss the diagnostic workup and management for patients with Head Injury	OSCE

THEME-6: LOWER LIMB WEAKNESS						
Subject	**Topic**	**Hours**	**Learning domain**	**Learning methodology**	**Learning objectives**	**Assessment tools**
Medicine	Multiple Sclerosis	1	Cognitive	Interactive Lecture	Discuss the diagnostic approach and management of a patient with suspected Multiple Sclerosis	MCQ, SEQ
			Psychomotor Skills	SGD	Examine the lower limbs of a patient with paraplegia	OSCE
			Affective Domain	Roleplay	Discuss and counsel the pts regarding the changes in the lifestyle of patients with Multiple sclerosis	OSCE
	Acquired Neuropathies	1	Cognitive	Interactive Lecture	Classify acquired neuropathies and discuss their clinical features, investigations, and management	MCQ, SEQ
	Approach to Lower limbs weakness	1	Cognitive	Interactive Lecture	Discuss the diagnostic algorithm of a patient with lower limbs weakness	MCQ, SEQ
Pediatrics **Pediatric surgery**	Hereditary neuropathies	1	Cognitive	Interactive Lecture	Classify hereditary neuropathies and discuss their clinical features, investigations, and management	MCQ, SEQ
	Congenital malformations -	1	Cognitive	Interactive Lecture	Explain the clinical features, investigations, and management of a pa child with Spina Bifida/Myelomeningocele	MCQ, SEQ
	Spina Bifida/ myelomeningocele		Affective Domain	Roleplay	Discuss and counsel the pts regarding the changes in the lifestyle of patients with congenital malformations	OSCE
Neurosurgery	Syringomyelia	1	Cognitive	Interactive Lecture	Describe Syringomyelia and Explain the onset of Syringomyelia	MCQ, SEQ

			Cognitive	Interactive Lecture	Discuss the diagnostic work up and management for pts suspected of	
Orthopedic	Diseases of the vertebrae and intervertebral discs	1	Cognitive	Interactive Lecture	Classify diseases of the vertebrae and intervertebral discs, their clinical features, investigations, complications, and management	MCQ, SEQ
	Kyphoscoliosis	1	Cognitive	Interactive Lecture	Discuss the etiology, clinical features, complications, and management of Kyphoscoliosis.	MCQ, SEQ
Radiology	CT Scan Brain	1	Cognitive	Interactive Lecture	Identify the Brain lesions in the CT Scan brain (cerebral edema, ventricular hypertrophy, epidural or subdural hematoma)	OSCE

9.1 CLINICAL SCIENCES SUBJECTS

NEUROSCIENCE-III MODULE				
S. No	**Clinical Sciences Subjects**	**Learning Objectives**	**Hours**	**Learning Strategy**
1.	**CRITICAL CARE**	Subarachnoid Hemorrhage	1	Lecture
	Neurology	Critical illness myopathy & neuropathy	1	Lecture
		CNS infections including cerebral malaria	1	Lecture
		Neuroimaging in critically ill patients	1	Lecture

9.2 CLINICAL ROTATION SCHEDULE

MORNING CLINICAL ROTATIONS

Duration	9 weeks		11 weeks		8 weeks	8 weeks
	6 weeks	3wks	8 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	78	39	104	39	104	104

* 2.6 clinical teaching hours per day

EVENING CLINICAL ROTATIONS

Duration	6 weeks		14 weeks		8 weeks	8 weeks
	3 weeks	3wks	11 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	45	45	165	45	120	120

* 3 clinical teaching hours per day

The above mentioned clinical rotation schedule is to be followed by every student throughout the year. Groups of students are decided by the Hospital Administration.

10. TEACHING HOURS ALLOCATION

There will be 34 hours allotted in total. The hours shall be divided into 6 different themes. The necessity for students to set aside more time for self-directed learning and clinical learning is emphasized, although at the expense of repetition. We anticipate that the students will be well-versed in this significant module. This module covers a number of common and significant subjects.

S. No	Subject	Hours
1	Paediatrics	6
2	Medicine	12
3	Psychiatry	3
4	Family Medicine	3
5	Orthopaedics	2
6	Neurosurgery	3
8	Radiology	1
9	Critical Care	4
	Total hours	**34**

11. EXAMINATION AND METHODS OF ASSESSMENT

11.1 EXAMINATION RULES AND REGULATIONS

- Student must report to examination hall/venue, in time for smooth conduction of the exams.
- No student will be allowed to enter the examination hall after 10 minutes of scheduled examination time.
- No students will be allowed to sit in exam without College ID Card, and Lab Coat
- Students must sit according to their roll numbers mentioned on the seats.
- Student must bring their own stationary items (Pen, Pencil, Eraser, and Sharpener) – Sharing is prohibited
- Any disturbance or Indiscipline in the exam hall/venue is not acceptable.
- Students must not possess any written material or communicate with their fellow students
- Cell phones are strictly not allowed in examination hall. If any student is found with cell phone in any mode (silent, switched off or on) he/she will be **not be allowed to continue their exam.**
- **No student is allowed to leave the examination hall before half the time is over, paper is handed over to the examiner and properly marking the attendance.**

11.2 ASSESSMENT

11.2.1 Internal: Total 10% (20 marks)

- Students will be assessed comprehensively through multiple methods to determine achievement of module objectives through two methods: Module examination and Graded assessment by Individual department
    - **Module Examination**: It will be scheduled on completion of each module. The method of examination comprises theory exam (which includes SEQs and MCQs) and OSPE / OSCE exam (which includes static and interactive stations).
    - **Graded Assessment by individual department**: It includes weekly MCQs tests on Survive online LMS program, viva, practical, weekly theme based assignments, post-test discussion sessions, peer assessments, presentations, small group activities such as CBL, ward activities, examinations and log books, all of which have specific marks allocation.
- Marks of both modular examination and graded assessment will constitute 10% weightage.
- 10% marks of internal evaluation will be added to the ISU annual professional exam.
- The marks distribution is based on Formative Assessment done individually by all the

concerned departments. It may include:

- NOTE: **at least 75% attendance is mandatory** to appear in the annual university examination.
- Exam branch is responsible to maintain the attendance record for Main Campus in coordination with all the concerned departments.

11.2.2 University Annual Exam: Total 90%

- Annual Exam has 90% marks in total
- It includes theory and OSPE / OSCE.
- Each written paper consists of 100 MCQs and 10 SEQs and internal assessment marks will be added tothe final marks.

11.3 METHODS OF ASSESSMENT

11.3.1 Multiple Choice Questions

- Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
- Total 100 MCQs are included which are formulated through the table of specification from learning objectives of Module interactive lectures.
- Time duration for MCQs will be 1 and half hour.
- MCQs are used to assess objectives covered in each module.
- Students after reading the statement / scenarios select one appropriate response from the given options.
- Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
- Students attempt the MCQs exam on Computer screen on Moodle / LMS program in IT Lab.

11.3.2 Short Essay Questions (SEQs):

- Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- Commonly used in examinations to assess the depth of knowledge and understanding.
- Includes 10 questions each carrying 10 marks.
- Time Duration for Essay type paper is 2 hours.
- Questions are selected from the specific learning objectives of the specific ongoing module.

11.3.3 OSPE / OSCE

- Each student will be assessed on the same content and have same time to complete the task.

- Time allocated for each station is five minutes as per Examination rules of Ibn e Sina University, Mirpurkhas
- All students are rotated through the same stations.
- OSPE / OSCE Comprises of 15 - 20 stations.
- Each station may assess a variety of diagrammatic identifications and clinical tasks. These tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are Interactive, observed, unobserved (static) and rest stations.
  - Interactive Stations:
    - In this station, examiner ask questions related to the task within the allocated time.
  - Observed Stations:
    - In observed stations, internal or external examiner don't interact with candidate and just observe the performance of the skills or procedures.
  - Unobserved (static) Stations:
    - It will be static stations in which there may be models, specimens, multiple identification points, X-ray, Labs reports, flowcharts, pictures, or clinical scenarios (to assess cognitive domain) with related questions for students will be used to answer on the provided answer copy.
  - Rest station
    - It is a station where there is no task given and in this time student can organize his/her thoughts

11.3.4 ASSIGNMENTS

- An online assignment on the Ibn-e-Sina University moodle uploaded according to the topic of the week.
- All assignments should be checked by the teacher who has taken the lecture on the topic during the same week.
- The assignment should cover enough material to include the requirement of the curriculum and syllabus, so the student should be able to answer the annual examination questions by revising these notes (assignments) only.
- The assignments are checked and graded also with comment to guide, motivate and encourage the students to work whole heartedly. Frequent guidance and motivation will go a long way in improving the students' performance.
- Assignments of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.5 WEEKLY TESTS

- The weekly tests are conducted for all classes. The tests are conducted online and are on topics displayed on the portal (Moodle). It consists of 35 MCQs. 5 MCQs will be from the previous weeks (slightly altered to change the answer or the right option). Everyone taking lectures, submit two MCQs to the Chairperson of the department who will check and pass

them to the class moderator. MCQs can also be sent directly to the class moderator, who submits the MCQs to IT department for final placement on the moodle.

- The MCQs are not merely simple recall, but test higher level of cognition. As far as possible, they test an important concept related to one of the topics of the week.
- It is different from the summative assessment (Annual or Semester Examinations) in that the goal of summative assessment is to evaluate student's learning at the end of an instructional unit by comparing it against some standard or benchmark, to decide if the student can be promoted or not, whereas the goal of these weekly tests is to check the understanding of the students on the important concepts related to the topics that have been displayed on the portal for the week, the teachers have taught them and the students have made assignments on them.
- Results of weekly tests of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.6 POST-TEST DISCUSSION (PTD)

- Every student has to prepare a special assignment where he/she selects all the questions he/she got wrong. Then he/she makes 3 boxes. In box A he/she writes the questions he/she got wrong in his/her own words, highlighting and underlining the keywords. In box B the student explains why he/she has chosen this answer. In box C the student mentions what he/she has learnt after reading the explanation and how the concept has got clear now.
- The moderator will check, assess and grade PTD
- Next day, the class moderator of the class conducts a class where he/she discusses the mistakes committed and the post-test assignments submitted in detail with the class
- PTD assignments of the whole Professional year MBBS are counted as in Internal Assessment.

12. GRADING POLICY

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	**A+**
75-79	4.0	**A**
70-74	3.7	**A-**
67-69	3.3	**B+**
63-66	3.0	**B**
60-62	2.7	**B-**
56-59	2.3	**C+**
50-55	2.0	**C**
<50 Non gradable	0	**N**

- A student obtaining GPA less than 2.0 (50%) is declared fail pr Non gradable

13. ASSESMENT BLUEPRINT

NEUROSCIENCE-III MODULE

Assessment is based on Table of Specification (TOS)

	ASSESMENT	TOOLS	MARKS
MODULE EXAM	THEORY	MCQ's	100
		SEQ's	100
	OSPE	OSPE Static	50
		OSPE Interactive	50
		Total	300

14. RECOMMENDED BOOKS

SUBJECT	*RESOURCES*
PAEDIATRICS	1. Nelson textbook of pediatrics 2. Textbook of Pediatrics, Pakistan Pediatrics Association 3. Basis of Pediatrics, Pervez Akbar khan, Ninth edition 4. Current pediatrics 5. OP Ghai Essential of Pediatrics Textbook
SURGERY	1. Bailey & Love's Short Practice of Surgery 27th edition (a new edition is expected shortly. Keep a look out for the new one 2. Demonstration of Physical Signs in Clinical Surgery, by Hamilton Bailey. 19th edition or newer. Text Book 3. Browse's Introduction to Symptoms and Signs of Surgical Disease. Text Book 4. Ackerman's Surgical Pathology. Latest Edition
GENERAL MEDICINE	1. Hutchison's Clinical Methods, 23rd Edition 2. MacLeod's clinical examination 13th edition 3. Davidson's Principles and Practice of Medicine 4. Kumar and Clark's Clinical Medicine 5. HCAI guidelines CDC

IBN-E-SINA UNIVERSITY MIRPURKHAS
FACULTY OF BASIC MEDICAL SCIENCES

Course Feedback Form

Course Title: _____

Semester/Module_____ Dates:_____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Yes ☐ No ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

Thank you!!

IBN-E-SINA UNIVERSITY MIRPURKHAS

STUDENT'S STUDY GUIDE
CARDIORESPIRATORY-III MODULE
FINAL PROFESSIONAL MBBS



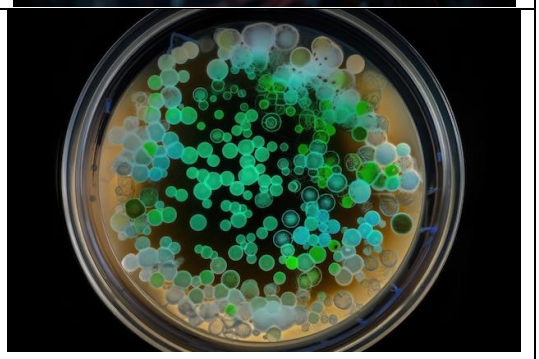




TABLE OF CONTENTS

1. DISCLAIMER

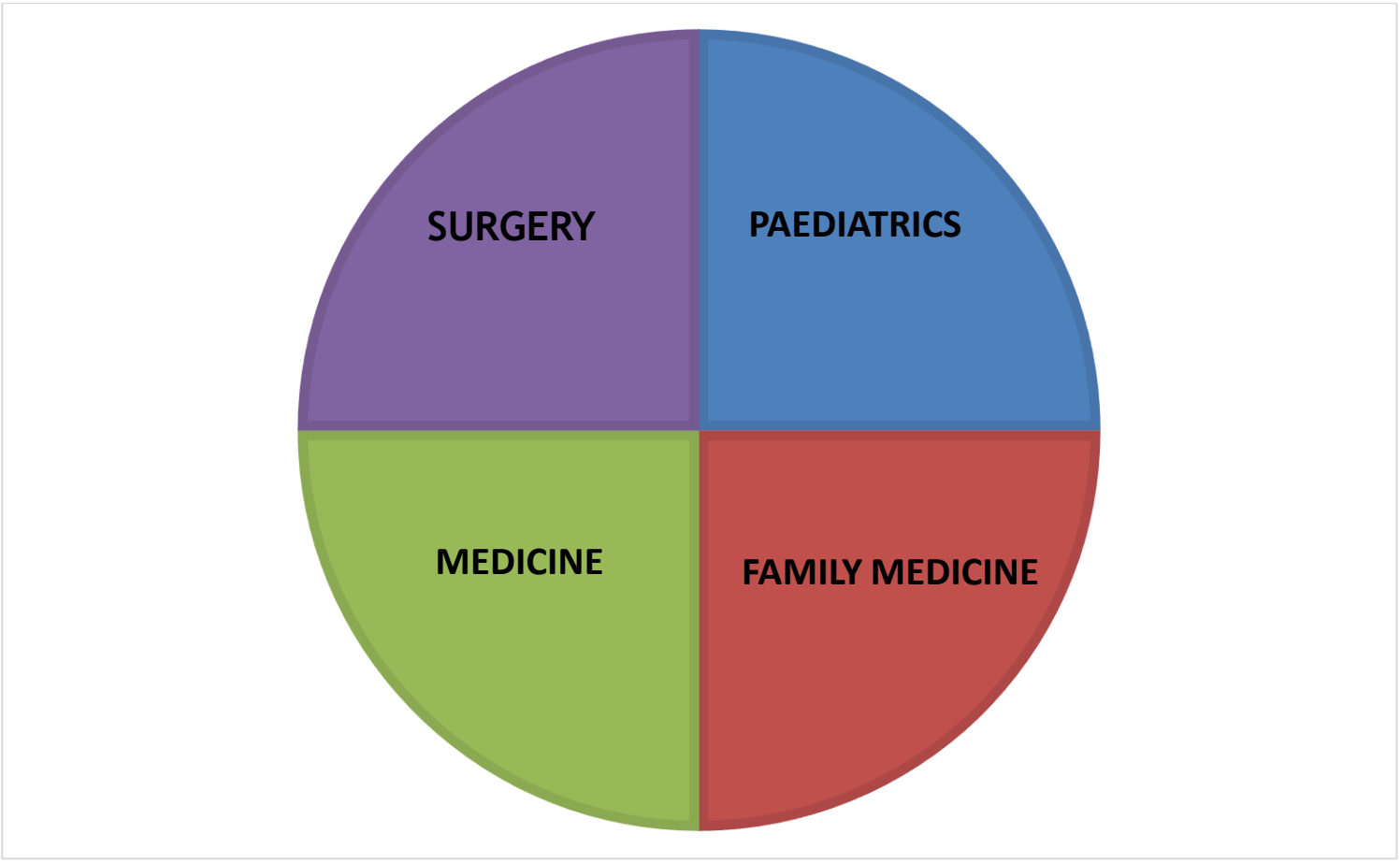
- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
- However, students are advised to use it as a guide for respective modules.
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
- Students are encouraged to provide feedback via coordinator

2. CURRICULUM FRAMEWORK

An educational strategy known as integrated curriculum places a strong emphasis on interdisciplinary learning, in which students gain knowledge by integrating it from several topic areas. By integrating many subjects and disciplines into a cohesive curriculum, this method seeks to give students a more relevant and interesting learning experience. Integrated curriculum means that subjects are presented as a meaningful whole for better understanding of basic sciences in relation to clinical experience and application.

Integrated curriculum comprises of system-based modules such as Foundation-II, Blood-III, Cardiorespiratory -III, Endocrine and Reproduction-IV, Renal-III, Git and Liver-IV, Multisystem, Musculoskeletal-II and Neuroscience -III modules which links basic science knowledge to clinical problems.

INTEGRATING DISCIPLINES OF CARDIORESPIRATORY-III MODULE



3. MODULE OVERVIEW

CARDIORESPIRATORY - III MODULE DETAILS

Course	MBBS
Year	Final professional
Duration	4 weeks
Learning Outcomes	The competent Medical Practitioner
Competencies covered	To develop medical professionals who are well - versed, adept, and have the right mindset.
Module Assessment	End module formative assessment
Teaching Methods	Interactive Lectures, Demonstrations, Case Based Learning , Small Group Discussions, Self-Study Sessions, E-Learning, Clinical rotations
Assessment Methods	MCQs, SEQs, OSPE, VIVA

CARDIORESPIRATORY - III MODULE COMMITTEE

Sr. No	Names	Department	Designation
MODULE COORDINATOR			
1.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU
COMMITTEE MEMBERS			
1.	Prof: Dr. Syed Razi Muhammad	Surgery	Chancellor ISU
2.	Prof: Dr. Shams Ul Arfeen Khan	Biochemistry	Vice Chancellor ISU
3.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU

4. WHAT IS STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, tohelp students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The study guide:

— Communicates information on organization and management of the module.

— This will help the student to contact the right person in case of any difficulty.

— Defines the objectives which are expected to be achieved at the end of the module.

— Identifies the learning strategies such as lectures, small group teachings.

Module objectives.

— Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.

— Highlights information on the contribution of continuous on the student's overall performance.

— Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of objectives.

- Focuses on information pertaining to examination policy, rules and regulations.

5. LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Study

- **INTERACTIVE LECTURES:**

  Large group discussions are not the same as traditional lecture formats. When a teacher or instructor uses images, radiographs, patient interaction recordings, etc. to discuss a topic or typical clinical scenario, the lecture becomes interactive. When they are given tiny activities to do that allow them to apply the knowledge they have learned throughout the session and are asked questions, students actively participate in the learning process.

- **SMALL GROUP DISCUSSIONS (SGDS):**

  With the use of SGD, students can take an active role in their education, clarify ideas, develop psychomotor skills, and develop a positive attitude. Discussion themes, patient interviews, and clinical cases are used to design sessions in an organized manner. Pupils are inspired to express their ideas, apply the fundamental knowledge they have learned from lectures and independent study, and are encouraged to share their notions. In small groups, role play is a useful technique for acquainting pupils with real-world scenarios. Probing questions, rephrasing, and summarizing are used by the teacher to assist make the concepts obvious.

- **CASE-BASED LEARNING (CBL):**

  Learning is centered around a sequence of questions based on a clinical scenario in this small group discussion format. Students create new information by discussing and responding to the questions using pertinent prior knowledge from the clinical and fundamental health sciences modules. The relevant department will give the CBL.

- **CLINICAL EXPERIENCES:**

  Students examine patients in hospital wards, clinics, and outreach facilities in small groups, noting their signs and symptoms. This aids students in connecting their understanding of the module's basic and clinical sciences and getting ready for future practice.

- **CLINICAL ROTATIONS:**

  Students cycle through a variety of wards in small groups, including those in family medicine clinics, outreach centers, pediatrics, surgery, obstetrics and gynecology, ENT, and community medicine. In both inpatient and outpatient settings, students watch patients, get medical histories, and carry out clinical examinations under supervision. They also have the chance to watch medical professionals function as a team. Students can link their basic medical and clinical skills to a variety of clinical domains through these rotations.

- **SKILL SESSIONS:**

  Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

- **SELF STUDY:**

  Self-directed learning is a process in which students take charge, either on their own or with assistance from others. Students chart their learning objectives and determine their areas of need for learning. They select and employ their own learning methodologies, and they independently assess the learning objectives.

6. INTRODUCTION

Welcome to the Cardiorespiratory Module. Students will develop a deep understanding of cardio-respiratory pathophysiology, knowledge of the mechanisms that maintain homeostasis in these systems, and the ability to relate cardiovascular and respiratory diseases to underlying pathophysiological pathways. Students will identify key cardio-respiratory diseases and create a 'health campaign', including texts targeting the broader community, healthcare consumers (i.e. patients and carers), and healthcare professionals - with a view to summarizing and broadcasting a holistic analysis of the impact of cardio-respiratory disease on individuals, as well as local and global communities. Students will also critically consider experimental design and interpretation of scientific and medical evidence in cardio-respiratory contexts

6.1 RATIONAL

A cardiorespiratory module is designed to provide students with a comprehensive understanding of the cardiovascular and respiratory systems. This module plays a crucial role in shaping future physicians who are adept at diagnosing, treating, and managing conditions related to the heart and lungs. This module ensures that medical students gain a robust foundation in understanding, diagnosing, and managing conditions related to the cardiovascular and respiratory systems. This knowledge is essential for their future roles as competent and compassionate physicians

6.2 IBN E SINA UNIVERSITY (ISU) VISION:

To become a world-leading organization in rural health and social care research, training, recruitment and best evidence-based practice.

6.3 IBN E SINA UNIVERSITY (ISU) MISSION:

Our Mission is to inspire hope, and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research. To provide a focal point for the development and collation of high-quality research pertinent to rural health and wellbeing. To improve the training, recruitment and retention of a professional workforce within rural communities. To be recognized as an exemplar in rural health and wellbeing on the international stage. To establish a network of individuals and groups that support research, innovation and development in rural health and social care.

7. LEARNING OBJECTIVES

7.1 Knowledge / Cognitive Domain

It involves knowledge and the development of intellectual skills. By the end of this module, the students should be able to:

1. Discuss the management of a patient with chest pain
2. Explain the management of patients with different types of ischemic heart diseases
3. Explain the management of patients with different types of arrhythmias
4. Discuss the management of traumatic chest injuries as a primary care physician
5. Explain the management of a patient with heart failure
6. Explain the management of patients with different types of Obstructive lung diseases
7. Discuss the management of pleural and pericardial diseases
8. Explain the diagnostic criteria and management of Bacterial endocarditis and Rheumatic fever and their complications
9. Explain the clinical features and management of cyanotic and acynotic congenital and Valvular heart diseases
10. Discuss the management of cardiomyopathies and myocarditis
11. Explain the diagnostic workup and management of patients with different types of Pneumonias
12. Explain the management approach of a patient with Hypertension
13. Discuss the diagnostic approach and management of DVT and its prevention.

7.2 Skills / Psychomotor Domain:

Includes physical movement, co-ordination and the use of motor skill areas. For this Module, these include:

1. Demonstrate the ability to perform the disease specific relevant examination
2. Respond to common medical emergencies
3. Master the skill of first aid
4. Perform BLS
5. Apply the best evidenced practices for local health problems
6. Performing comprehensive cardiovascular and respiratory examinations, including inspection, palpation, percussion, and auscultation.
7. Development of skills in interpreting heart and lung sounds
8. Understanding and interpretation of diagnostic tests such as electrocardiography (ECG), echocardiography, pulmonary function tests, and imaging modalities (X-rays, CT scans, MRI) relevant to cardiology and pulmonology.
9. Recognition and management of acute cardiopulmonary emergencies, including myocardial infarction, cardiac arrhythmias, pulmonary embolism, and acute respiratory distress syndrome (ARDS).

10. Understanding the collaborative nature of managing cardiopulmonary diseases, involving collaboration with other specialties such as radiology, pathology, and cardiothoracic surgery

7.3 Attitude / Affective Domain:

It Involves our feelings, emotions and attitudes. By the end of this module, the students should be able to:

1. Respect oneself and one's peers, both when providing and receiving comments.
2. To show patients compassion and understanding.
3. Develop your ability to communicate while keeping a sense of duty to your patients.
4. Showcase appropriate laboratory procedures.
5. Relate to patient and careers vulnerability
6. Demonstrate ethical self-management
7. Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.

7.4 Outcomes of Cardiorespiratory Module

1. Knowledgeable
2. Skillful
3. Community Heath Promoter
4. Problem-solver
5. Professional
6. Researcher
7. Leader and Role Model

8. THEMES FOR CARDIORESPIRATORY-III MODULE

S.NO	Themes	Duration
1	**Chest pain and palpitation**	1 week
2	**Shortness of breath**	1 week
3	**Fever and cough**	1 week
4	**Painful legs and hypertension**	1 week

9. SPECIFIC LEARNING OBJECTIVES THEME WISE

THEME 1: CHEST PAIN AND PALPITATIONS						
Subject	**Topic**	**Hours**	**Mode of teaching**	**Learning domain**	**Learning objectives**	**Assessment tools**
Medicine	Approach to a patient with chest pain	1	LGD	Cognitive	Discuss the diagnostic workup and management approach for a patient with chest pain	MCQ, SEQ
		1	SGD/SDL	Psychomotor	Take history and perform physical examination of patient with chest pain	OSCE, SEQ
	Ischemic heart diseases	1	LGD	Cognitive	Classify IHD	MCQ, SEQ
				Cognitive	Explain the management approach to a patient with stable angina pectoris	
		1	LGD	Cognitive	Explain the management approach to a patient with unstable angina pectoris	MCQ, SEQ
			LGD	Cognitive	Explain the management approach to a patient with acute MI.	MCQ, SEQ
			LGD	Cognitive	Discuss the risk stratification strategies in post-MI patients	MCQ, SEQ
	Disorders of Rhythm	1	LGD	Cognitive	Classify arrhythmias and heart block and discuss their ECG abnormalities	MCQ, SEQ
			LGD	Cognitive	Explain the diagnostic and management approach to a patient with irregularly irregular pulse	MCQ, SEQ
		1	LGD	Cognitive	Discuss the management approach to a patient with SVT	MCQ, SEQ

			LGD	Cognitive	Discuss the management approach to a patient with Ventricular tachycardia	MCQ, SEQ
			LGD	Cognitive	Explain the management of a patient with different types of heart blocks	MCQ, SEQ
		1	Role play	Affective domain	Counsel a patient with recent onset acute MI	OSCE
Cardiology	Cardiac intervention techniques	1	LGD	Cognitive	Explain the different types, methods, and indications of cardiac interventions in cardiology practices	MCQ, SEQ
Pediatrics	Supra-ventricular tachycardia	1	LGD	Cognitive	Discuss the clinical presentation and the diagnostic workup needed for Supra-ventricular tachycardia in Pediatric patients	MCQ, SEQ
			Role play	Affective domain	Counsel a parent of a neonate, infant and child with Supra-ventricular tachycardia	OSCE
Surgery	Chest trauma Hemothorax	1	LGD	Cognitive	Discuss the diagnostic workup for Chest trauma	MCQ, SEQ
			LGD	Cognitive	Discuss the management options for a patient with Chest trauma	MCQ, SEQ
		2	SGD/SDL	Psychomotor	Perform ABC in a case presenting with chest trauma	OSCE
		2	SGD/SDL	Psychomotor	Observe chest intubation of a patient presenting with chest trauma	OSCE
Radiology	Chest X-ray (Heart)	1	Lecture	Cognitive	Identify the cardiac diseases in the chest radiograph (cardiomegaly, ventricular hypertrophy)	OSCE

THEME 2: SHORTNESS OF BREATH						
Medicine (CVS)	Congestive cardiac failure	1	LGD	Cognitive	Explain the types, etiology, clinical features, investigations, prognosis, and management of a patient with CCF.	MCQ, SEQ
		1	LGD	Cognitive	Classify cardio-myopathies	MCQ, SEQ
			LGD	Cognitive	Explain the etiology, clinical features, and management of a patient with myocarditis	MCQ, SEQ
	Pericarditis and pericardial effusion	1	LGD	Cognitive	Explain the etiology, clinical features, and management of a patient pericarditis and pericardial effusion	MCQ, SEQ
Medicine (Respiratory)	Bronchial asthma (Wheezy chest)	1	LGD	Cognitive	Explain the diagnostic and management approach for a patient with chronic wheezy chest	MCQ, SEQ
			LGD	Cognitive	Differentiate between bronchial asthma and cardiac asthma	MCQ, SEQ
	COPD	1	LGD	Cognitive	Explain the diagnostic and management approach for a patient with COPD	MCQ, SEQ
			SGD/SDL	Cognitive	Interpret Pulmonary Function test results	OSCE
			SGD/SDL	Cognitive	Interpret a report of Arterial blood gases	OSCE
	Interstitial lung disease (ILD)	1	LGD	Cognitive	Discuss the types, etiology, clinical and radiological presentation, investigations, and management of a patient with ILD	MCQ, SEQ

	Pleural effusion	1	LGD	Cognitive	Explain the diagnostic and management strategies in a patient with pleural effusion	MCQ, SEQ
			SGD/SDL	Psychomotor	Assist in pleural fluid aspiration	OSCE
	Pneumothorax	1	LGD	Cognitive	Explain the diagnostic and management strategies in a patient with Pneumothorax	MCQ, SEQ
	Pulmonary embolism	1	LGD	Cognitive	Discuss the risk factors diagnostic criteria, complications, and treatment of a patient with suspected	MCQ, SEQ
					pulmonary embolism	MCQ, SEQ
Pulmonology	Respiratory Failure	1	LGD	Cognitive	Explain the types, etiology, and pathogenesis of Respiratory Failure	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnostic workup and management for Respiratory Failure	MCQ, SEQ
			LGD	Cognitive	Discuss the types, indications, and approaches to Oxygentherapy	MCQ, SEQ
Pediatrics	Acyanoticheart disease	1	LGD	Cognitive	Discuss the clinical presentation and the diagnostic workup needed for Acyanotic heart disease in Pediatric patients	MCQ, SEQ
			LGD	Cognitive	Discuss the management of an infant and child with Acyanotic heart disease	MCQ, SEQ
	Ventricular Septal Defect (VSD)	1	LGD	Cognitive	Discuss the diagnostic workup and management for Ventricular Septal Defect.	MCQ, SEQ

	Atrial Septal Defect (ASD)		LGD	Cognitive	Discuss the diagnostic workup and management for Atrial Septal Defect	MCQ, SEQ
	Aortic stenosis	1	LGD	Cognitive	Discuss the diagnostic and management workup for Aortic stenosis	MCQ, SEQ
	Coarctation of aorta	1	LGD	Cognitive	Explain the etiology clinical presentation of Coarctation of aorta	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnostic workup and management for Coarctation of aorta	MCQ, SEQ
	Cyanotic heart disease	1	LGD	Cognitive	Discuss the clinical presentation and the diagnostic workup needed for Cyanotic heart disease in	MCQ, SEQ

					Pediatric patients	
			LGD	Cognitive	Discuss the management of an infant and child with Cyanotic heart disease	MCQ, SEQ
			SGD	Psychomotor	Perform physical examination of a neonate and infant with Cyanotic heart disease	OSCE
			Role play	Affective domain	Counsel a parent of a neonate, infant and child with Cyanotic heart disease	OSCE
	Tetralogy of Fallot (TOF)	1	LGD	Cognitive	Explain the etiology and clinical presentation of Tetralogy of Fallot	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnostic workup and management for Tetralogy of Fallot	MCQ, SEQ

	Transposition of Great Arteries (TGA)	1	LGD	Cognitive	Explain the etiology and clinical presentation of Transposition of Great Arteries	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnostic workup and management for Transposition of Great Arteries	MCQ, SEQ
	Ebstein anomaly	1	LGD	Cognitive	Explain the etiology and clinical presentation of Ebstein anomaly	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnostic workup and management for Ebstein anomaly	MCQ, SEQ
	Total Anomalous Pulmonary Venous Drainage or Connections (TAPVC)	1	LGD	Cognitive	Explain the etiology and clinical presentation of TAPVC	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnostic workup and management for TAPVC	
	Truncus arteriosus	1	LGD	Cognitive	Explain the etiology and clinical presentation of Truncus arteriosus	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnostic workup and management for Truncus arteriosus	MCQ, SEQ
	Tricuspid atresia	1	LGD	Cognitive	Explain the etiology andclinical presentation of Tricuspid atresia	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnostic workup and management for Tricuspid atresia	MCQ, SEQ

	Congestive Cardiac Failure (CCF)	1	LGD	Cognitive	Discuss the clinical presentation and the diagnostic workup and management needed for Congestive Cardiac Failure in Pediatric patients	MCQ, SEQ
			SGD/SDL	Psychomotor skills	Take history and perform physical examination of a neonate, infant and child with Congestive Cardiac Failure	OSCE
			Role play	Affective domain	Counsel the parents of aneonate, infant and child with Congestive Cardiac Failure	OSCE
	Cardio-myopathy	1	LGD	Cognitive	Discuss the management algorithm of an infant and child with Cardiomyopathy	MCQ, SEQ
	Cystic fibrosis	1	LGD	Cognitive	Explain the etiology andclinical presentation of Cystic fibrosis	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnostic workup and management for Cystic fibrosis	MCQ, SEQ
Family medicine	IHD/CCF	1	LGD	Cognitive	Explain the management strategies of a patient with IHD and heart failure in general practice including the psychosocial impact of disease on patient and their families	MCQ, SEQ
		1	LGD	Cognitive	Describe the strategies for prevention of IHD and CCF	MCQ, SEQ

			LGD	Cognitive	Identify the red-flags in a patient with IHD/CCF and appropriately refer to specialty care when required	MCQ, SEQ
Surgery	Thoracostomy and chest intubation	1	LGD	Cognitive	Explain the indications for Thoracostomy and chest intubation.	MCQ, SEQ
		2	SGD/SDL	Psychomotor	Observe the procedure of Thoracostomy and chest intubation	OSCE
		1	Role play	Affective	Counsel a patient for the procedure of Thoracostomy and chest intubation	OSCE

THEME 3: FEVER AND COUGH						
Medicine	Bacterial endocarditis	1	LGD	Cognitive	Explain the risk factors, etiology, clinical features, diagnostic criteria, management, and prevention of Bacterial endocarditis	MCQ, SEQ
	Pneumonias	1	LGD	Cognitive	Discuss the etiology and classification of pneumonias	MCQ, SEQ
			LGD	Cognitive	Explain the etiology, risk factors clinical features, diagnosis, and management of patients with different types of pneumonias.	MCQ, SEQ
		1	SGD/SDL	Psychomotor	Examine a patient with features of pneumonia	OSCE
	Pulmonary Tuberculosis	1	LGD	Cognitive	Explain the diagnostic workup, management, and complications of a suspected case of pulmonary TB	MCQ, SEQ
	Bronchiectasis	1	LGD	Cognitive	Develop a management algorithm for a patient with bronchiectasis	MCQ, SEQ
	Lung abscess	1	LGD	Cognitive	Explain the etiology, clinical and radiological features, complications,and management of a patient with lung abscess	MCQ, SEQ
	Lung tumors	1	LGD	Cognitive	Classify lung tumors	MCQ, SEQ
			LGD	Cognitive	Explain the diagnostic workup and management and complications of a patient with suspected Bronchogenic carcinoma	

		1	LGD	Cognitive	Explain the diagnostic workup and management and complications of a patient with suspected pleural mesothelioma	MCQ, SEQ
	Cardiovascular involvement in systemic diseases	1	LGD	Cognitive	Discuss the cardiovascular manifestations of systemic diseases, their clinical features, investigations, prognosis, and relevant management	MCQ, SEQ
	Pulmonary involvement in systemic diseases	1	LGD	Cognitive	Discuss the pulmonary manifestations of systemic diseases, their clinical features, investigations, prognosis, and relevant management	MCQ, SEQ
Pediatrics	Rheumatic fever	1	LGD	Cognitive	Discuss the clinical presentation and the diagnostic workup needed for Rheumatic fever in Pediatric patients	MCQ, SEQ
			LGD	Cognitive	Discuss the management of an infant and child with Rheumatic fever	MCQ, SEQ
		1	SGD	Psychomotor	Perform physical examination of a neonate, infant with Rheumatic fever	OSCE
			Role	Affective	Counsel a parent of a	OSCE

			play	domain	neonate, infant and child with Rheumatic fever	
	Acute Respiratory Infections (ARI)	1	LGD	Cognitive	Explain the clinical presentation and diagnostic workup needed for Acute Respiratory Infections	MCQ, SEQ
			LGD	Cognitive	Discuss the management of an infant and child with Acute Respiratory Infections	MCQ, SEQ
			SGD	Psychomotor	Perform physical examination of a neonate, infant with Acute Respiratory Infections	OSCE
			Role play	Affective domain	Counsel a parent of a neonate, infant and child with Acute Respiratory Infections	OSCE
	Croup	1	LGD	Cognitive	Explain the clinical presentation and diagnostic workup needed for Croup	MCQ, SEQ
			LGD	Cognitive	Discuss the management of an infant and child with Croup	MCQ, SEQ
	Pneumonia	1	LGD	Cognitive	Explain the clinical presentation and diagnostic workup needed for Pneumonia	MCQ, SEQ
			LGD	Cognitive	Discuss the management of an infant and child with Pneumonia	MCQ, SEQ
Family medicine	Acute respiratory presentat	1	LGD	Cognitive	Explain the approach toa patient with cough or shortness of breath in a primary health care setting	MCQ, SEQ

	ion in primary care manage ment and Red flags		LGD	Cognitive	Discuss the differential diagnosis of a patient with cough or shortness of breath	MCQ, SEQ
			LGD	Cognitive	Discuss the investigations for a patient with cough or shortness of breath in a primary health care setting	MCQ, SEQ
			LGD	Cognitive	Identify common red-flags	MCQ, SEQ
			LGD	Cognitive	Identify patients that need urgent and proper referral for specialist care	MCQ, SEQ
Pediatrics	Rheumat ic fever	1	LGD	Cognitive	Discuss the clinical presentation and the diagnostic workup needed for Rheumatic fever in Pediatric patients.	MCQ, SEQ
			LGD	Cognitive	Discuss the management of an infant and child with Rheumatic fever.	MCQ, SEQ
			SGD	Psychomot or	Perform physical examination of a neonate, infant with Rheumatic fever.	OSCE
			Role play	Affective domain	Counsel a parent of a neonate, infant and child with Rheumatic fever.	OSCE
	Infective endocar ditis	1	LGD	Cognitive	Discuss the clinical presentation and the diagnostic workup needed for Infective endocarditis in Pediatric patients	MCQ, SEQ

			LGD	Cognitive	Discuss the management of an infant and child with Infective endocarditis	MCQ, SEQ
			SGD	Psychomotor	Perform physical examination of a neonate, infant with Infective endocarditis.	OSCE
			Role play	Affective domain	Counsel a parent of a neonate, infant and child with Infective endocarditis.	OSCE
	Myocarditis	1	LGD	Cognitive	Discuss the clinical presentation and the diagnostic workup needed for Myocarditis.	MCQ, SEQ
			LGD	Cognitive	Discuss the management of an infant and child with Myocarditis.	MCQ, SEQ
			SGD	Psychomotor	Perform physical examination of a neonate, infant with Myocarditis.	OSCE
			Role play	Affective domain	Counsel a parent of a neonate, infant and child with Myocarditis.	OSCE
Radiology	Chest X-ray (Lungs)	1	Lecture	Cognitive	Identify the lungs diseases in the chest X-ray (TB, Pneumonia, Pneumothorax, bronchitis, COPD)	OSCE

THEME 4: PAINFUL LEG AND BLOOD PRESSURE						
Medicine	Deep vein thrombosis (DVT)	1	LGD	Cognitive	Discuss the diagnostic algorithm for an elderly patient with a sudden swollen and painful limb.	MCQ, SEQ
			LGD	Cognitive	Discuss the diagnosis and management strategies for a patient with DVT.	MCQ, SEQ
	Coarctation of Aorta	1	LGD	Cognitive	Explain the types, clinical features, investigations, complications, and management of Coarctation of the Aorta.	MCQ, SEQ
	Systemic Hypertension	1	LGD	Cognitive	Discuss the management approach to a patient who is newly diagnosed hypertensive	MCQ, SEQ
		1	SGD	Psychomotor	Take history from a hypertensive patient	OSCE
				Psychomotor	Perform a physical examination of a hypertensive patient	OSCE
		1	Role play	Affective domain	Counsel a newly diagnosed hypertensive patient	OSCE
Family medicine	Hypertension in general	1	LGD	Cognitive	Explain the management strategies of a hypertensive	MCQ, SEQ

	practice				patient in general practice including the psychosocial impact of disease on patient and their families	
		1	LGD	Cognitive	Describe the strategies for prevention of hypertension and its complications.	MCQ, SEQ
			LGD	Cognitive	Identify the red flags in a hypertensive patient and appropriately refer to specialty care when required	MCQ, SEQ

CLINICAL ROTATION

S. No	Learning Objectives	Learning Modalities
1.	Introduction to Clinical examination: The General Physical (GPE)	Patients
2.	History taking and Examination of the Cardiovascular System	Patients
3.	History taking and Examination of the Respiratory System	Patients
4.	History taking and Examination of the Gastro-intestinal System	Patients
5.	History taking and Examination of the Nervous System	Patients
6.	History taking and Examination of the Nervous System	Patients
7.	History taking and Examination of the Musculoskeletal System	Patients

9.1 CLINICAL SCIENCES SUBJECTS

CARDIORESPIRATORY – III Module				
S. No	**Clinical Sciences Subjects**	**Learning Objectives**	**Hours**	**Learning Strategy**
1.	**ANAESTHESIA** Airway Management	Understand and explain the anatomy of the human airway	1	Lecture
		Identify risk factors for potential difficult mask ventilation	1	Lecture
		Understand ASA algorithm for difficult airway management and be able to explain the primary decision point and options for management	1	Lecture

9.2 CLINICAL ROTATION SCHEDULE

MORNING CLINICAL ROTATIONS

Duration	9 weeks		11 weeks		8 weeks	8 weeks
	6 weeks	3wks	8 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	78	39	104	39	104	104

* 2.6 clinical teaching hours per day

EVENING CLINICAL ROTATIONS

Duration	6 weeks		14 weeks		8 weeks	8 weeks
	3 weeks	3wks	11 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	45	45	165	45	120	120

* 3 clinical teaching hours per day

The above mentioned clinical rotation schedule is to be followed by every student throughout the year. Groups of students are decided by the Hospital Administration.

10. TEACHING HOURS ALLOCATION

There will be 76 hours allotted in total. The hours shall be divided into 4 different themes. The necessity for students to set aside more time for self-directed learning and clinical learning is emphasized, although at the expense of repetition. We anticipate that the students will be well-versed in this significant module. This module covers a number of common and significant subjects.

S. No	Subject	Hours
1	Medicine	33
2	Paediatrics	23
3	Family medicine	5
4	Surgery	10
5	Radiology	2
6	Anesthesia	3
	Total hours	**76**

11. EXAMINATION AND METHODS OF ASSESSMENT

11.1 EXAMINATION RULES AND REGULATIONS

- Student must report to examination hall/venue, in time for smooth conduction of the exams.
- No student will be allowed to enter the examination hall after 10 minutes of scheduled examination time.
- No students will be allowed to sit in exam without College ID Card, and Lab Coat
- Students must sit according to their roll numbers mentioned on the seats.
- Student must bring their own stationary items (Pen, Pencil, Eraser, and Sharpener) – Sharing is prohibited
- Any disturbance or Indiscipline in the exam hall/venue is not acceptable.
- Students must not possess any written material or communicate with their fellow students
- Cell phones are strictly not allowed in examination hall. If any student is found with cell phone in any mode (silent, switched off or on) he/she will be **not be allowed to continue their exam.**
- **No student is allowed to leave the examination hall before half the time is over, paper is handed over to the examiner and properly marking the attendance.**

11.2 ASSESSMENT

11.2.1 Internal: Total 10% (20 marks)

- Students will be assessed comprehensively through multiple methods to determine achievement of module objectives through two methods: Module examination and Graded assessment by Individual department
    - **Module Examination**: It will be scheduled on completion of each module. The method of examination comprises theory exam (which includes SEQs and MCQs) and OSPE / OSCE exam (which includes static and interactive stations).
    - **Graded Assessment by individual department**: It includes weekly MCQs tests on Survive online LMS program, viva, practical, weekly theme based assignments, post-test discussion sessions, peer assessments, presentations, small group activities such as CBL, ward activities, examinations and log books, all of which have specific marks allocation.
- Marks of both modular examination and graded assessment will constitute 10% weightage.
- 10% marks of internal evaluation will be added to the ISU annual professional exam.
- The marks distribution is based on Formative Assessment done individually by all the concerned departments. It may include:

- NOTE: **at least 75% attendance is mandatory** to appear in the annual university examination.
- Exam branch is responsible to maintain the attendance record for Main Campus in coordination with all the concerned departments.

11.2.2 University Annual Exam: Total 90%

- Annual Exam has 90% marks in total
- It includes theory and OSPE / OSCE.
- Each written paper consists of 100 MCQs and 10 SEQs and internal assessment marks will be added tothe final marks.

11.3 METHODS OF ASSESSMENT

11.3.1 Multiple Choice Questions

- Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
- Total 100 MCQs are included which are formulated through the table of specification from learning objectives of Module interactive lectures.
- Time duration for MCQs will be 1 and half hour.
- MCQs are used to assess objectives covered in each module.
- Students after reading the statement / scenarios select one appropriate response from the given options.
- Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
- Students attempt the MCQs exam on Computer screen on Moodle / LMS program in IT Lab.

11.3.2 Short Essay Questions (SEQs):

- Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- Commonly used in examinations to assess the depth of knowledge and understanding.
- Includes 10 questions each carrying 10 marks.
- Time Duration for Essay type paper is 2 hours.
- Questions are selected from the specific learning objectives of the specific ongoing module.

11.3.3 OSPE / OSCE

- Each student will be assessed on the same content and have same time to complete the task.
- Time allocated for each station is five minutes as per Examination rules of Ibn e Sina

University, Mirpurkhas

- All students are rotated through the same stations.
- OSPE / OSCE Comprises of 15 - 20 stations.
- Each station may assess a variety of diagrammatic identifications and clinical tasks. These tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are Interactive, observed, unobserved (static) and rest stations.
  - Interactive Stations:
    - In this station, examiner ask questions related to the task within the allocated time.
  - Observed Stations:
    - In observed stations, internal or external examiner don't interact with candidate and just observe the performance of the skills or procedures.
  - Unobserved (static) Stations:
    - It will be static stations in which there may be models, specimens, multiple identification points, X-ray, Labs reports, flowcharts, pictures, or clinical scenarios (to assess cognitive domain) with related questions for students will be used to answer on the provided answer copy.
  - Rest station
    - It is a station where there is no task given and in this time student can organize his/her thoughts

11.3.4 ASSIGNMENTS

- An online assignment on the Ibn-e-Sina University moodle uploaded according to the topic of the week.
- All assignments should be checked by the teacher who has taken the lecture on the topic during the same week.
- The assignment should cover enough material to include the requirement of the curriculum and syllabus, so the student should be able to answer the annual examination questions by revising these notes (assignments) only.
- The assignments are checked and graded also with comment to guide, motivate and encourage the students to work whole heartedly. Frequent guidance and motivation will go a long way in improving the students' performance.
- Assignments of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.5 WEEKLY TESTS

- The weekly tests are conducted for all classes. The tests are conducted online and are on topics displayed on the portal (Moodle). It consists of 35 MCQs. 5 MCQs will be from the previous weeks (slightly altered to change the answer or the right option). Everyone taking lectures, submit two MCQs to the Chairperson of the department who will check and pass

them to the class moderator. MCQs can also be sent directly to the class moderator, who submits the MCQs to IT department for final placement on the moodle.

- The MCQs are not merely simple recall, but test higher level of cognition. As far as possible, they test an important concept related to one of the topics of the week.
- It is different from the summative assessment (Annual or Semester Examinations) in that the goal of summative assessment is to evaluate student's learning at the end of an instructional unit by comparing it against some standard or benchmark, to decide if the student can be promoted or not, whereas the goal of these weekly tests is to check the understanding of the students on the important concepts related to the topics that have been displayed on the portal for the week, the teachers have taught them and the students have made assignments on them.
- Results of weekly tests of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.6 POST-TEST DISCUSSION (PTD)

- Every student has to prepare a special assignment where he/she selects all the questions he/she got wrong. Then he/she makes 3 boxes. In box A he/she writes the questions he/she got wrong in his/her own words, highlighting and underlining the keywords. In box B the student explains why he/she has chosen this answer. In box C the student mentions what he/she has learnt after reading the explanation and how the concept has got clear now.
- The moderator will check, assess and grade PTD
- Next day, the class moderator of the class conducts a class where he/she discusses the mistakes committed and the post-test assignments submitted in detail with the class
- PTD assignments of the whole Professional year MBBS are counted as in Internal Assessment.

12. GRADING POLICY

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	**A+**
75-79	4.0	**A**
70-74	3.7	**A-**
67-69	3.3	**B+**
63-66	3.0	**B**
60-62	2.7	**B-**
56-59	2.3	**C+**
50-55	2.0	**C**
<50 Non gradable	0	**N**

- A student obtaining GPA less than 2.0 (50%) is declared fail pr Non gradable

13. ASSESMENT BLUEPRINT

CARDIORESPIRATORY-III
MODULE

Assessment is based on Table of Specification (TOS)

	ASSESMENT	TOOLS	MARKS
MODULE EXAM	THEORY	MCQ's	100
		SEQ's	100
	OSPE	OSPE Static	50
		OSPE Interactive	50
		Total	300

14. RECOMMENDED BOOKS

SUBJECT	*RESOURCES*
PAEDIATRICS	1. Nelson textbook of pediatrics 2. Textbook of Pediatrics, Pakistan Pediatrics Association 3. Basis of Pediatrics, Pervez Akbar khan, Ninth edition 4. Current pediatrics 5. OP Ghai Essential of Pediatrics Textbook
SURGERY	1. Bailey & Love's Short Practice of Surgery 27th edition (a new edition is expected shortly. Keep a look out for the new one 2. Demonstration of Physical Signs in Clinical Surgery, by Hamilton Bailey. 19th edition or newer. Text Book 3. Browse's Introduction to Symptoms and Signs of Surgical Disease. Text Book 4. Ackerman's Surgical Pathology. Latest Edition
GENERAL MEDICINE	1. Hutchison's Clinical Methods, 23rd Edition 2. MacLeod's clinical examination 13th edition 3. Davidson's Principles and Practice of Medicine 4. Kumar and Clark's Clinical Medicine 5. HCAI guidelines CDC

IBN-E-SINA UNIVERSITY MIRPURKHAS
FACULTY OF BASIC MEDICAL SCIENCES

Course Feedback Form

Course Title: _____

Semester/Module_____ Dates:_____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Yes ☐ No ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

Thank you!!

IBN-E-SINA UNIVERSITY MIRPURKHAS

STUDENT'S STUDY GUIDE
GIT AND LIVER-IV MODULE
FINAL PROFESSIONAL MBBS



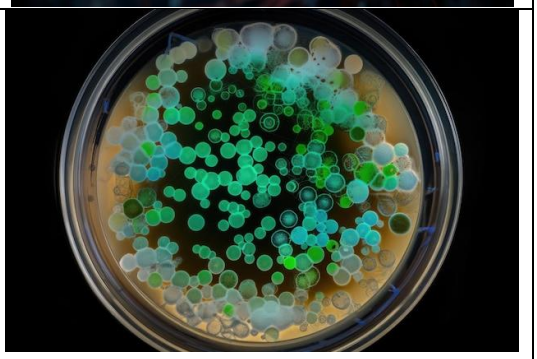




TABLE OF CONTENTS

1. DISCLAIMER

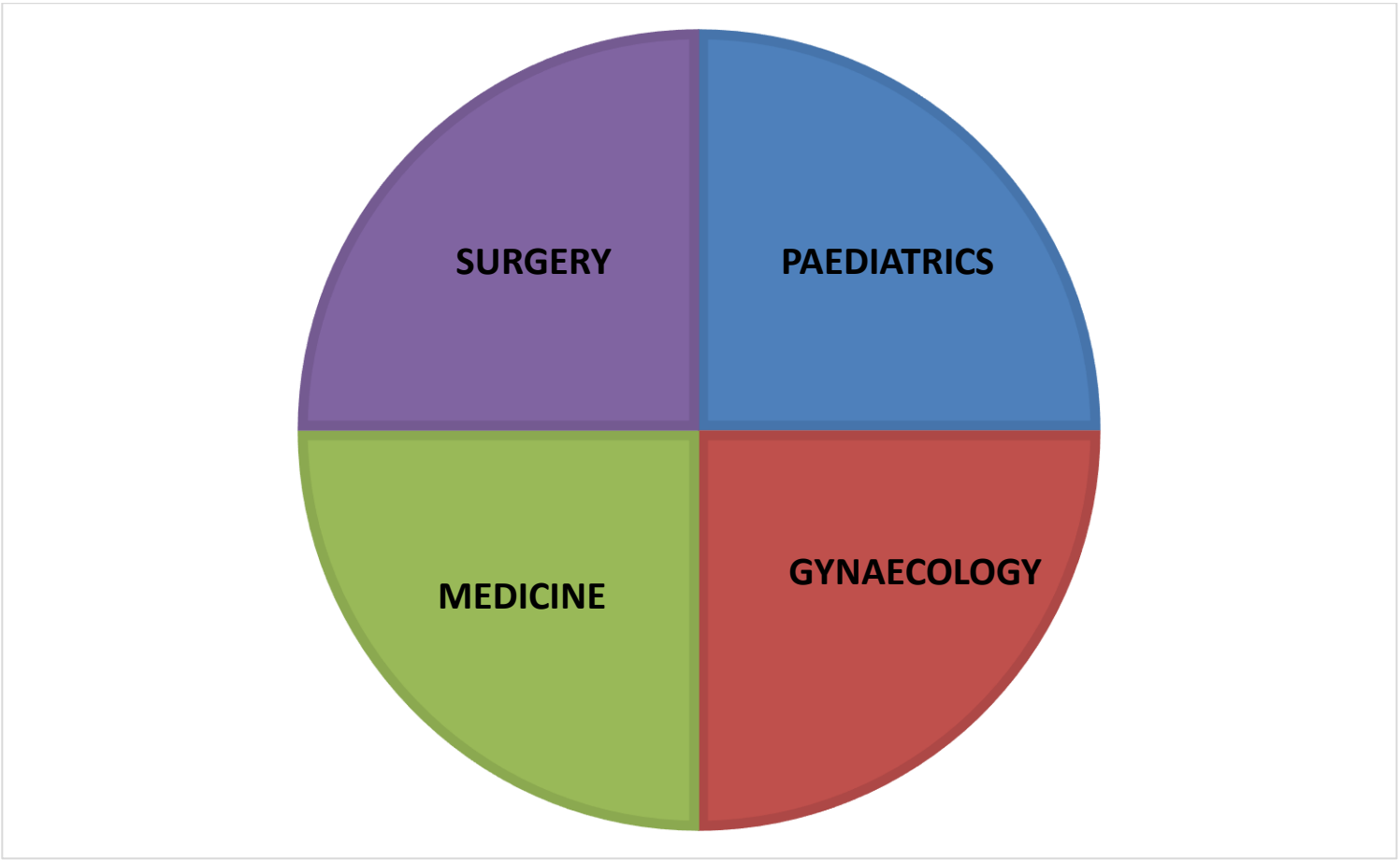
- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
- However, students are advised to use it as a guide for respective modules.
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
- Students are encouraged to provide feedback via coordinator

2. CURRICULUM FRAMEWORK

An educational strategy known as integrated curriculum places a strong emphasis on interdisciplinary learning, in which students gain knowledge by integrating it from several topic areas. By integrating many subjects and disciplines into a cohesive curriculum, this method seeks to give students a more relevant and interesting learning experience. Integrated curriculum means that subjects are presented as a meaningful whole for better understanding of basic sciences in relation to clinical experience and application.

Integrated curriculum comprises of system-based modules such as Foundation-II, Blood-III, Cardiorespiratory -III, Endocrine and Reproduction-IV, Renal-III, Git and Liver-IV, Multisystem, Musculoskeletal-II and Neuroscience -III modules which links basic science knowledge to clinical problems.

INTEGRATING DISCIPLINES OF GIT AND LIVER-IV MODULE



3. MODULE OVERVIEW

GIT AND LIVER-IV MODULE DETAILS

Course	MBBS
Year	Final professional
Duration	3 weeks
Learning Outcomes	The competent Medical Practitioner
Competencies covered	To develop medical professionals who are well - versed, adept, and have the right mindset.
Module Assessment	End module formative assessment
Teaching Methods	Interactive Lectures, Demonstrations, Case Based Learning, Small Group Discussions, Self-Study Sessions, E-Learning, Clinical rotations
Assessment Methods	MCQs, SEQs, OSPE, VIVA

GIT AND LIVER-IV MODULE COMMITTEE

Sr. No	Names	Department	Designation
MODULE COORDINATOR			
1.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU
COMMITTEE MEMBERS			
1.	Prof: Dr. Syed Razi Muhammad	Surgery	Chancellor ISU
2.	Prof: Dr. Shams Ul Arfeen Khan	Biochemistry	Vice Chancellor ISU
3.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU

4. WHAT IS STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, tohelp students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The study guide:

— Communicates information on organization and management of the module.

— This will help the student to contact the right person in case of any difficulty.

— Defines the objectives which are expected to be achieved at the end of the module.

— Identifies the learning strategies such as lectures, small group teachings.

Module objectives.

— Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.

— Highlights information on the contribution of continuous on the student's overall performance.

— Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of objectives.

- Focuses on information pertaining to examination policy, rules and regulations.

5. LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Study

- **INTERACTIVE LECTURES:**

  Large group discussions are not the same as traditional lecture formats. When a teacher or instructor uses images, radiographs, patient interaction recordings, etc. to discuss a topic or typical clinical scenario, the lecture becomes interactive. When they are given tiny activities to do that allow them to apply the knowledge they have learned throughout the session and are asked questions, students actively participate in the learning process.

- **SMALL GROUP DISCUSSIONS (SGDS):**

  With the use of SGD, students can take an active role in their education, clarify ideas, develop psychomotor skills, and develop a positive attitude. Discussion themes, patient interviews, and clinical cases are used to design sessions in an organized manner. Pupils are inspired to express their ideas, apply the fundamental knowledge they have learned from lectures and independent study, and are encouraged to share their notions. In small groups, role play is a useful technique for acquainting pupils with real-world scenarios. Probing questions, rephrasing, and summarizing are used by the teacher to assist make the concepts obvious.

- **CASE-BASED LEARNING (CBL):**

  Learning is centered around a sequence of questions based on a clinical scenario in this small group discussion format. Students create new information by discussing and responding to the questions using pertinent prior knowledge from the clinical and fundamental health sciences modules. The relevant department will give the CBL.

- **CLINICAL EXPERIENCES:**

  Students examine patients in hospital wards, clinics, and outreach facilities in small groups, noting their signs and symptoms. This aids students in connecting their understanding of the module's basic and clinical sciences and getting ready for future practice.

- **CLINICAL ROTATIONS:**

  Students cycle through a variety of wards in small groups, including those in family medicine clinics, outreach centers, pediatrics, surgery, obstetrics and gynecology, ENT, and community medicine. In both inpatient and outpatient settings, students watch patients, get medical histories, and carry out clinical examinations under supervision. They also have the chance to watch medical professionals function as a team. Students can link their basic medical and clinical skills to a variety of clinical domains through these rotations.

- **SKILL SESSIONS:**

  Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

- **SELF STUDY:**

  Self-directed learning is a process in which students take charge, either on their own or with assistance from others. Students chart their learning objectives and determine their areas of need for learning. They select and employ their own learning methodologies, and they independently assess the learning objectives.

6. INTRODUCTION

The Gastrointestinal Tract and Liver III module in the final year MBBS program represents a critical juncture in medical education, focusing on the comprehensive study of the digestive system and hepatic physiology. This module builds upon the foundational knowledge acquired in earlier years, aiming to provide a nuanced understanding of the intricacies of gastrointestinal health and disease aspects. This module encompasses a multifaceted exploration of the Surgery, Medicine, paediatrics and clinical aspects of the gastrointestinal tract, encompassing the esophagus, stomach, small intestine, large intestine, and associated organs, along with a dedicated focus on the liver and its associated disorders and their management. This integrated understanding is essential for the holistic evaluation and management of gastrointestinal and hepatic disorders

6.1 RATIONAL

The GIT and Liver III module serves as a comprehensive exploration of the gastrointestinal tract and liver, preparing medical graduates for the challenges of diagnosing and managing a spectrum of conditions within these vital systems. By fostering integration, clinical correlation, and procedural competence, this module equips students with the knowledge and skills necessary for their impending roles as competent and compassionate healthcare professionals

6.2 IBN E SINA UNIVERSITY (ISU) VISION:

To become a world-leading organization in rural health and social care research, training, recruitment and best evidence-based practice.

6.3 IBN E SINA UNIVERSITY (ISU) MISSION:

Our Mission is to inspire hope, and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research. To provide a focal point for the development and collation of high-quality research pertinent to rural health and wellbeing. To improve the training, recruitment and retention of a professional workforce within rural communities. To be recognized as an exemplar in rural health and wellbeing on the international stage. To establish a network of individuals and groups that support research, innovation and development in rural health and social care.

7. LEARNING OBJECTIVES

7.1 Knowledge / Cognitive Domain

It involves knowledge and the development of intellectual skills. By the end of this module, the students should be able to:

1. Explain diagnostic workup and management of with dysphagia.
2. Discuss diagnosis & management of obstructive jaundice.
3. Counsel standardized patient with newly diagnosed Ca head of Pancreas.
4. Discuss diagnosis/ management of pain RIF due to suspected Appendicitis.
5. Discuss diagnosis/ management of acute/chronic onset pain abdomen.
6. Elicit signs of Acute appendicitis in a child.
7. Counsel the parents of a child with acute appendicitis
8. Discuss aetiology, diagnosis/management of suspected Intestinal Obstruction.
9. Discuss aetiology, diagnosis/management of suspected intestinal perforation/peritonitis.
10. Discuss aetiology, anatomy, management, complications of Inguinal Hernia.
11. Perform trans-illumination test for Inguinal Hernia.
12. Discuss diagnosis/management of constipation and lower GI bleeding.
13. Discuss management of Ulcerative Colitis, short/long-term complications, and role of surveillance colonoscopies in the prevention of colorectal malignancies.
14. Discuss management of Crohn`s Disease, short and long-term complications, and extra intestinal manifestations.
15. Discuss staging/management of suspected colorectal cancer,
16. Treatment of Hirschsprung's Disease.
17. Explain the approach to the management of a patient with pain epigastrium.
18. Discuss the management of a patient with acute and chronic hepatitis, liver cirrhosis, and encephalopathy.
19. Explain the management of a patient with acute and chronic diarrheas.
20. Take history and perform a physical examination of a patient with GI diseases.
21. Counsel patients and their families with common GI diseases

7.2 Skills / Psychomotor Domain:

Includes physical movement, co-ordination and the use of motor skill areas. For this Module, these include:

1. Obtaining informed consent for procedures and bedsides techniques from patients.
2. Performing a thorough examination to assess the abdomen, including inspection, palpation, percussion, and auscultation.
3. Conducting a DRE to assess the rectum and evaluate for signs of pathology

4. Assisting in the performance of endoscopy to visualize and assess the upper gastrointestinal tract.
5. Participating in colonoscopy for the examination of the colon and rectum.
6. Analyzing and interpreting results of abdominal imaging studies, such as CT scans, MRI, and ultrasound, to diagnose and monitor gastrointestinal and hepatic conditions.
7. Offering guidance on dietary modifications and nutritional support.
8. Inserting nasogastric tubes for decompression or feeding purposes.
9. Effectively communicating with patients about their gastrointestinal or liver condition, treatment plans, and lifestyle modifications.
10. Developing skills in suturing and wound closure

7.3 Attitude / Affective Domain:

It Involves our feelings, emotions and attitudes. By the end of this module, the students should be able to:

1. Respect oneself and one's peers, both when providing and receiving comments.
2. To show patients compassion and understanding.
3. Develop your ability to communicate while keeping a sense of duty to your patients.
4. Showcase appropriate laboratory procedures.
5. Relate to patient and careers vulnerability
6. Demonstrate ethical self-management
7. Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.

7.4 Outcomes of Git and Liver-IV Module

1. Knowledgeable
2. Skillful
3. Community Heath Promoter
4. Problem-solver
5. Professional
6. Researcher
7. Leader and Role Model

8. THEMES FOR GIT AND LIVER-IV MODULE

S.NO	Themes
1	**Difficulty in swallowing and epigastric pain**
2	**Yellow discoloration of the sclera**
3	**Abdominal pain and Diarrhea**
4	**Constipation and bleeding per rectum**

9. SPECIFIC LEARNING OBJECTIVES THEME WISE

THEME-1: DIFFICULTY IN SWALLOWING AND EPIGASTRIC PAIN					
Subject	**Topic**	**Hours**	**Methodology of learning**	**Domain of learning**	**Learning objectives**
Surgery	Dysphagia	1	Interactive Lecture	Cognitive	Explain the diagnostic workup and management of a patient with dysphagia.
Medicine	Upper GI bleeding	1	Interactive Lecture	Cognitive	Explain the diagnostic workup and management and complications of a patient with Upper GI bleeding
			SGD	Psychomotor	Take history and perform a physical examination of a patient with an upper GI bleed.
			SGD	Psychomotor	Observe upper GI endoscopy.
			SGD	Psychomotor	Observe NG tube insertion.
Pediatrics	Vomiting	1	Interactive Lecture	Cognitive	Explain the diagnostic and therapeutic approach to a neonate and infant with persistent vomiting.
Gynaecology	Hyperemesis gravidarum	2	SGD	Cognitive	Discuss the management of a patient with vomiting of pregnancy.
		2	Role play	Affective	Counsel a patient with hyperemesis gravidarum.

THEME-2: YELLOW DISCOLORATION OF THE SCLERA					
Subject	**Topic**	**Hours**	**Methodology of learning**	**Domain of learning**	**Learning objectives**
Medicine	Investigations of liver diseases	1	Interactive Lecture	Cognitive	Elaborate on the investigations used for the diagnosis of hepatobiliary disorders and their interpretations.
			SGD	Psychomotor	Take history and perform physical examination of a patient with liver cirrhosis.
			SGD	Psychomotor	Observe Ascitic fluid paracentesis.
			SGD	Psychomotor	Interpret Ascitic fluid report.
			Role play	Affective	Counsel a patient with Liver cirrhosis due to Hepatitis B/C.
	Acute fulminant hepatitis and acute liver failure	1	Interactive Lecture	Cognitive	Discuss the diagnostic approach and management of a patient with suspected acute fulminant hepatitis/acute liver failure.
	Hepatic encephalopathy		Interactive Lecture	Cognitive	Explain the grading system, etiology, diagnostic approach, management, and prevention of hepatic encephalopathy.
			SGD	Psychomotor	Elicit Asterixis/ hepatic flap.
Surgery	Obstructive	1	Interactive Lecture	Cognitive	Discuss the diagnostic approach and management of a
	Jaundice				patient with suspected obstructive jaundice.
		2	Role play	Affective	counsel a standardized patient with newly diagnosed Carcinoma head of the Pancreas.
Pediatrics	Hyperbilirubinemias	1	Interactive Lecture	Cognitive	Discuss the diagnostic approach and management of a neonate and infant with jaundice.
			SGD	Psychomotor	Take history and perform physical examination of a child with jaundice.
			Role play	Affective	Counsel a child and his parents with Gilbert syndrome.

THEME-3: ABDOMINAL PAIN AND DIARRHEA					
Subject	**Topic**	**Hours**	**Methodology of learning**	**Domain of learning**	**Learning objectives**
Surgery	Acute appendicitis	1	Interactive Lecture	Cognitive	Discuss the diagnostic approach and management of a patient with pain in the right iliac fossa due to suspected appendicitis.
	Pain abdomen	1	Interactive Lecture	Cognitive	Discuss the diagnostic approach and management of a patient with pain in the abdomen of acute onset and chronic onset.
		2	SGD	Psychomotor	Illicit signs of acute appendicitis in a child.
		1	Role play	Affective	Counsel the parents of a child with acute appendicitis
	Intestinal obstruction	1	Interactive Lecture	Cognitive	Discuss the etiology, diagnostic approach,and management of a patient with suspected intestinal obstruction.
	Intestinal perforation	1	Interactive Lecture	Cognitive	Discuss the etiology, diagnostic approach,and management of a patient with suspected intestinal perforation/peritonitis.
	Hernias	1	Interactive Lecture	Cognitive	Discuss the etiology, anatomical concepts, management, and complications of a patient with inguinal hernias .
			SGD	Psychomotor	Perform trans illumination test for inguinal hernias.
Pediatrics	Malabsorption and celiac disease	1	Interactive Lecture	Cognitive	Explain the diagnostic workup and management of a patient with Malabsorption due to celiac disease.
			Role play	Affective	Counsel a child and his/her parents regarding dietary advice regarding celiac disease
	Acute diarrhea	1	Interactive Lecture	Cognitive	Explain the diagnostic workup and management of a patient acute watery diarrhea
			SGD	Psychomotor	Assess the state of hydration in a child with acute diarrhea
	Chronic diarrhea	1	Interactive Lecture	Cognitive	Explain the diagnostic workup and management of a patient with chronic diarrhea.
Family medicine/ Medicine	Approach to a patien with Abdominal Pain in a primary health care	1	Interactive Lecture	Cognitive	Explain the approach, differential diagnosis, investigations, initial management, and indications for referral of a patient with Abdominal Pain in a primary health care setting.

THEME-4: CONSTIPATION AND BLEEDING PER RECTUM					
Subject	**Topic**	**Hours**	**Methodology Of learning**	**Domain of learning**	**Learning objectives**
Medicine	Approach to a patient bleeding Per rectum	1	Interactive Lecture	Cognitive	Discuss the diagnostic workup and management approach for a patient with bleeding per rectum.
Surgery	Constipation	1	Interactive Lecture	Cognitive	Discuss the diagnostic workup and management approach for a patient with constipation
	Ulcerative colitis	1	Interactive Lecture	Cognitive	Discuss the approach to the management of a patient with ulcerative colitis, its short and long-term complications, and the role of surveillance colonoscopies in the prevention of colorectal malignancies.
	Crohn's Disease	1	Interactive Lecture	Cognitive	Discuss the approach to the management of a patient with Crohn`s disease, its short and long-term complications, and extra intestinal manifestations.
	Colorectal cancer	1	Interactive Lecture	Cognitive	Discuss the approach to the management of a patient with suspected colorectal cancer and its staging
Pediatrics surgery	Hirschsprung's disease	1	Interactive Lecture	Cognitive	Explain the etiology, clinical features, investigations, treatment of a child with Hirschsprung's disease.

9.1 CLINICAL SCIENCES SUBJECTS

GIT AND LIVER – IV MODULE				
S. No	**Clinical Sciences Subjects**	**Learning Objectives**	**Hours**	**Learning Strategy**
1.	**ANAESTHESIA** Fluid and Transfusion Therapy	Understand the different types of available blood products	1	Lectures
		Understand the difference between cross matching and screening blood	1	Lectures
		Understand the hemoglobin level at which patients should be transfused	1	Lectures
		Understand the etiology and treatment of transfusion reactions.	1	Lectures
2.	**CRITICAL CARE** Gastroenterology	Gastrointestinal motility in the critically ill	1	Lectures
		Stress ulcer syndrome	1	Lectures
		Fulminant colitis & toxic megacolon	1	Lectures
		Severe and complicated biliary tract disease	1	Lectures

9.2 CLINICAL ROTATION SCHEDULE

MORNING CLINICAL ROTATIONS

Duration	9 weeks		11 weeks		8 weeks	8 weeks
	6 weeks	3wks	8 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	78	39	104	39	104	104

* 2.6 clinical teaching hours per day

EVENING CLINICAL ROTATIONS

Duration	6 weeks		14 weeks		8 weeks	8 weeks
	3 weeks	3wks	11 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	45	45	165	45	120	120

* 3 clinical teaching hours per day

The above mentioned clinical rotation schedule is to be followed by every student throughout the year. Groups of students are decided by the Hospital Administration.

10. TEACHING HOURS ALLOCATION

There will be 39 hours allotted in total. The hours shall be divided into 4 different themes. The necessity for students to set aside more time for self-directed learning and clinical learning is emphasized, although at the expense of repetition. We anticipate that the students will be well-versed in this significant module. This module covers a number of common and significant subjects.

S. No	Subject	Hours
1	Surgery	16
2	Medicine	5
3	Pediatrics	6
4	Gynaecology	4
5	Anesthesia	4
6	Critical Care	4
	Total hours	**39**

11. EXAMINATION AND METHODS OF ASSESSMENT

11.1 EXAMINATION RULES AND REGULATIONS

- Student must report to examination hall/venue, in time for smooth conduction of the exams.
- No student will be allowed to enter the examination hall after 10 minutes of scheduled examination time.
- No students will be allowed to sit in exam without College ID Card, and Lab Coat
- Students must sit according to their roll numbers mentioned on the seats.
- Student must bring their own stationary items (Pen, Pencil, Eraser, and Sharpener) – Sharing is prohibited
- Any disturbance or Indiscipline in the exam hall/venue is not acceptable.
- Students must not possess any written material or communicate with their fellow students
- Cell phones are strictly not allowed in examination hall. If any student is found with cell phone in any mode (silent, switched off or on) he/she will be **not be allowed to continue their exam.**
- **No student is allowed to leave the examination hall before half the time is over, paper is handed over to the examiner and properly marking the attendance.**

11.2 ASSESSMENT

11.2.1 Internal: Total 10% (20 marks)

- Students will be assessed comprehensively through multiple methods to determine achievement of module objectives through two methods: Module examination and Graded assessment by Individual department
    - **Module Examination**: It will be scheduled on completion of each module. The method of examination comprises theory exam (which includes SEQs and MCQs) and OSPE / OSCE exam (which includes static and interactive stations).
    - **Graded Assessment by individual department**: It includes weekly MCQs tests on Survive online LMS program, viva, practical, weekly theme based assignments, post-test discussion sessions, peer assessments, presentations, small group activities such as CBL, ward activities, examinations and log books, all of which have specific marks allocation.
- Marks of both modular examination and graded assessment will constitute 10% weightage.
- 10% marks of internal evaluation will be added to the ISU annual professional exam.
- The marks distribution is based on Formative Assessment done individually by all the concerned departments. It may include:

- NOTE: **at least 75% attendance is mandatory** to appear in the annual university examination.
- Exam branch is responsible to maintain the attendance record for Main Campus in coordination with all the concerned departments.

11.2.2 University Annual Exam: Total 90%

- Annual Exam has 90% marks in total
- It includes theory and OSPE / OSCE.
- Each written paper consists of 100 MCQs and 10 SEQs and internal assessment marks will be added tothe final marks.

11.3 METHODS OF ASSESSMENT

11.3.1 Multiple Choice Questions

- Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
- Total 100 MCQs are included which are formulated through the table of specification from learning objectives of Module interactive lectures.
- Time duration for MCQs will be 1 and half hour.
- MCQs are used to assess objectives covered in each module.
- Students after reading the statement / scenarios select one appropriate response from the given options.
- Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
- Students attempt the MCQs exam on Computer screen on Moodle / LMS program in IT Lab.

11.3.2 Short Essay Questions (SEQs):

- Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- Commonly used in examinations to assess the depth of knowledge and understanding.
- Includes 10 questions each carrying 10 marks.
- Time Duration for Essay type paper is 2 hours.
- Questions are selected from the specific learning objectives of the specific ongoing module.

11.3.3 OSPE / OSCE

- Each student will be assessed on the same content and have same time to complete the task.
- Time allocated for each station is five minutes as per Examination rules of Ibn e Sina

University, Mirpurkhas

- All students are rotated through the same stations.
- OSPE / OSCE Comprises of 15 - 20 stations.
- Each station may assess a variety of diagrammatic identifications and clinical tasks. These tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are Interactive, observed, unobserved (static) and rest stations.
  - Interactive Stations:
    - In this station, examiner ask questions related to the task within the allocated time.
  - Observed Stations:
    - In observed stations, internal or external examiner don't interact with candidate and just observe the performance of the skills or procedures.
  - Unobserved (static) Stations:
    - It will be static stations in which there may be models, specimens, multiple identification points, X-ray, Labs reports, flowcharts, pictures, or clinical scenarios (to assess cognitive domain) with related questions for students will be used to answer on the provided answer copy.
  - Rest station
    - It is a station where there is no task given and in this time student can organize his/her thoughts

11.3.4 ASSIGNMENTS

- An online assignment on the Ibn-e-Sina University moodle uploaded according to the topic of the week.
- All assignments should be checked by the teacher who has taken the lecture on the topic during the same week.
- The assignment should cover enough material to include the requirement of the curriculum and syllabus, so the student should be able to answer the annual examination questions by revising these notes (assignments) only.
- The assignments are checked and graded also with comment to guide, motivate and encourage the students to work whole heartedly. Frequent guidance and motivation will go a long way in improving the students' performance.
- Assignments of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.5 WEEKLY TESTS

- The weekly tests are conducted for all classes. The tests are conducted online and are on topics displayed on the portal (Moodle). It consists of 35 MCQs. 5 MCQs will be from the previous weeks (slightly altered to change the answer or the right option). Everyone taking lectures, submit two MCQs to the Chairperson of the department who will check and pass them to the class moderator. MCQs can also be sent directly to the class moderator, who submits the MCQs to IT department for final placement on the moodle.

- The MCQs are not merely simple recall, but test higher level of cognition. As far as possible, they test an important concept related to one of the topics of the week.
- It is different from the summative assessment (Annual or Semester Examinations) in that the goal of summative assessment is to evaluate student's learning at the end of an instructional unit by comparing it against some standard or benchmark, to decide if the student can be promoted or not, whereas the goal of these weekly tests is to check the understanding of the students on the important concepts related to the topics that have been displayed on the portal for the week, the teachers have taught them and the students have made assignments on them.
- Results of weekly tests of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.6 POST-TEST DISCUSSION (PTD)

- Every student has to prepare a special assignment where he/she selects all the questions he/she got wrong. Then he/she makes 3 boxes. In box A he/she writes the questions he/she got wrong in his/her own words, highlighting and underlining the keywords. In box B the student explains why he/she has chosen this answer. In box C the student mentions what he/she has learnt after reading the explanation and how the concept has got clear now.
- The moderator will check, assess and grade PTD
- Next day, the class moderator of the class conducts a class where he/she discusses the mistakes committed and the post-test assignments submitted in detail with the class
- PTD assignments of the whole Professional year MBBS are counted as in Internal Assessment.

12. GRADING POLICY

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	**A+**
75-79	4.0	**A**
70-74	3.7	**A-**
67-69	3.3	**B+**
63-66	3.0	**B**
60-62	2.7	**B-**
56-59	2.3	**C+**
50-55	2.0	**C**
<50 Non gradable	0	**N**

- A student obtaining GPA less than 2.0 (50%) is declared fail pr Non gradable

13. ASSESMENT BLUEPRINT

GIT AND LIVER-IV MODULE

Assessment is based on Table of Specification (TOS)

	ASSESMENT	TOOLS	MARKS
MODULE EXAM	THEORY	MCQ's	100
		SEQ's	100
	OSPE	OSPE Static	50
		OSPE Interactive	50
		Total	300

14. RECOMMENDED BOOKS

SUBJECT	*RESOURCES*
PAEDIATRICS	1. Nelson textbook of pediatrics 2. Textbook of Pediatrics, Pakistan Pediatrics Association 3. Basis of Pediatrics, Pervez Akbar khan, Ninth edition 4. Current pediatrics 5. OP Ghai Essential of Pediatrics Textbook
SURGERY	1. Bailey & Love's Short Practice of Surgery 27th edition (a new edition is expected shortly. Keep a look out for the new one 2. Demonstration of Physical Signs in Clinical Surgery, by Hamilton Bailey. 19th edition or newer. Text Book 3. Browse's Introduction to Symptoms and Signs of Surgical Disease. Text Book 4. Ackerman's Surgical Pathology. Latest Edition
GENERAL MEDICINE	1. Hutchison's Clinical Methods, 23rd Edition 2. MacLeod's clinical examination 13th edition 3. Davidson's Principles and Practice of Medicine 4. Kumar and Clark's Clinical Medicine 5. HCAI guidelines CDC

IBN-E-SINA UNIVERSITY MIRPURKHAS
FACULTY OF BASIC MEDICAL SCIENCES

Course Feedback Form

Course Title: _____

Semester/Module_____ Dates:_____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Yes ☐ No ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

Thank you!!

IBN-E-SINA UNIVERSITY MIRPURKHAS

STUDENT'S STUDY GUIDE
RENAL-III MODULE
FINAL PROFESSIONAL MBBS



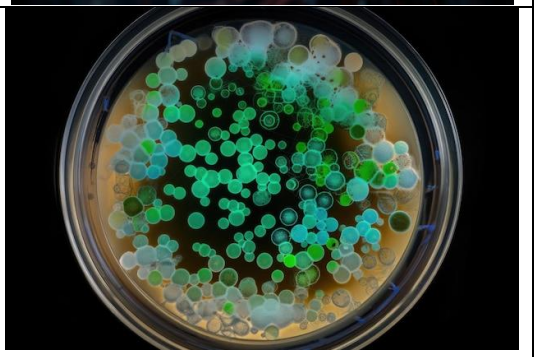




TABLE OF CONTENTS

1. DISCLAIMER

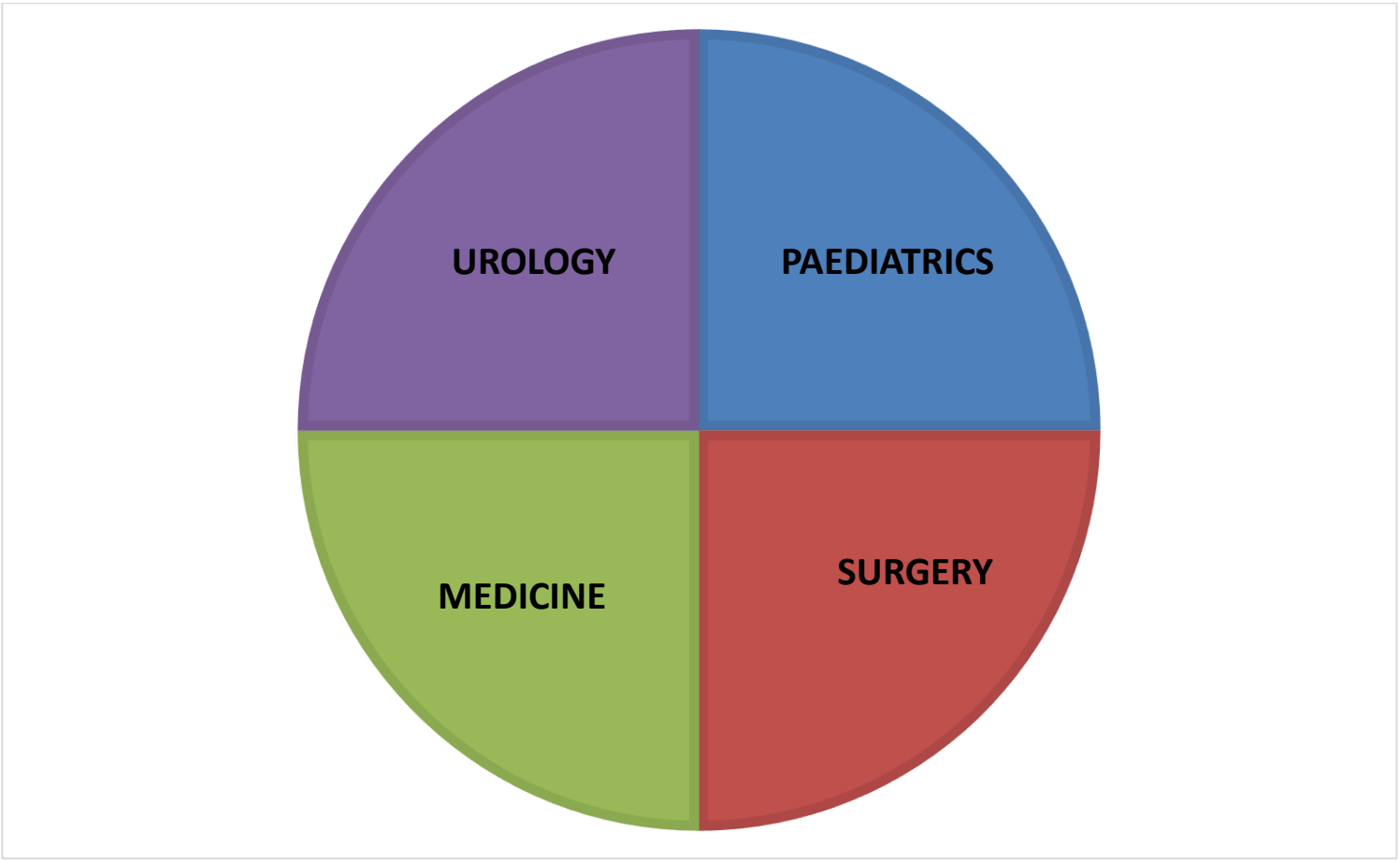
- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
- However, students are advised to use it as a guide for respective modules.
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
- Students are encouraged to provide feedback via coordinator

2. CURRICULUM FRAMEWORK

An educational strategy known as integrated curriculum places a strong emphasis on interdisciplinary learning, in which students gain knowledge by integrating it from several topic areas. By integrating many subjects and disciplines into a cohesive curriculum, this method seeks to give students a more relevant and interesting learning experience. Integrated curriculum means that subjects are presented as a meaningful whole for better understanding of basic sciences in relation to clinical experience and application.

Integrated curriculum comprises of system-based modules such as Foundation-II, Blood-III, Cardiorespiratory -III, Endocrine and Reproduction-IV, Renal-III, Git and Liver-IV, Multisystem, Musculoskeletal-II and Neuroscience -III modules which links basic science knowledge to clinical problems.

INTEGRATING DISCIPLINES OF RENAL-III MODULE



3. MODULE OVERVIEW

RENAL-III MODULE DETAILS

Course	MBBS
Year	Final professional
Duration	6 weeks
Learning Outcomes	The competent Medical Practitioner
Competencies covered	To develop medical professionals who are well - versed, adept, and have the right mindset.
Module Assessment	End module formative assessment
Teaching Methods	Interactive Lectures, Demonstrations, Case Based Learning, Small Group Discussions, Self-Study Sessions, E-Learning, Clinical rotations
Assessment Methods	MCQs, SEQs, OSPE, VIVA

RENAL-III MODULE COMMITTEE

Sr. No	Names	Department	Designation
MODULE COORDINATOR			
1.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU
COMMITTEE MEMBERS			
1.	Prof: Dr. Syed Razi Muhammad	Surgery	Chancellor ISU
2.	Prof: Dr. Shams Ul Arfeen Khan	Biochemistry	Vice Chancellor ISU
3.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU

4. WHAT IS STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, tohelp students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The study guide:

— Communicates information on organization and management of the module.

— This will help the student to contact the right person in case of any difficulty.

— Defines the objectives which are expected to be achieved at the end of the module.

— Identifies the learning strategies such as lectures, small group teachings.

Module objectives.

— Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.

— Highlights information on the contribution of continuous on the student's overall performance.

— Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of objectives.

- Focuses on information pertaining to examination policy, rules and regulations.

5. LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Study

- **INTERACTIVE LECTURES:**

  Large group discussions are not the same as traditional lecture formats. When a teacher or instructor uses images, radiographs, patient interaction recordings, etc. to discuss a topic or typical clinical scenario, the lecture becomes interactive. When they are given tiny activities to do that allow them to apply the knowledge they have learned throughout the session and are asked questions, students actively participate in the learning process.

- **SMALL GROUP DISCUSSIONS (SGDS):**

  With the use of SGD, students can take an active role in their education, clarify ideas, develop psychomotor skills, and develop a positive attitude. Discussion themes, patient interviews, and clinical cases are used to design sessions in an organized manner. Pupils are inspired to express their ideas, apply the fundamental knowledge they have learned from lectures and independent study, and are encouraged to share their notions. In small groups, role play is a useful technique for acquainting pupils with real-world scenarios. Probing questions, rephrasing, and summarizing are used by the teacher to assist make the concepts obvious.

- **CASE-BASED LEARNING (CBL):**

  Learning is centered around a sequence of questions based on a clinical scenario in this small group discussion format. Students create new information by discussing and responding to the questions using pertinent prior knowledge from the clinical and fundamental health sciences modules. The relevant department will give the CBL.

- **CLINICAL EXPERIENCES:**

  Students examine patients in hospital wards, clinics, and outreach facilities in small groups, noting their signs and symptoms. This aids students in connecting their understanding of the module's basic and clinical sciences and getting ready for future practice.

- **CLINICAL ROTATIONS:**

  Students cycle through a variety of wards in small groups, including those in family medicine clinics, outreach centers, pediatrics, surgery, obstetrics and gynecology, ENT, and community medicine. In both inpatient and outpatient settings, students watch patients, get medical histories, and carry out clinical examinations under supervision. They also have the chance to watch medical professionals function as a team. Students can link their basic medical and clinical skills to a variety of clinical domains through these rotations.

- **SKILL SESSIONS:**

  Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

- **SELF STUDY:**

  Self-directed learning is a process in which students take charge, either on their own or with assistance from others. Students chart their learning objectives and determine their areas of need for learning. They select and employ their own learning methodologies, and they independently assess the learning objectives.

6. INTRODUCTION

The Renal III Module stands as a culmination of the in-depth exploration of renal physiology, pathology, and clinical applications in the final year MBBS. Building upon the foundational knowledge acquired in earlier years, this module serves as a focused and comprehensive study of the intricate renal system, playing a pivotal role in the maintenance of homeostasis and overall health. The module's curriculum is designed to bridge the gap between theoretical knowledge and clinical application. Students engage in case-based learning, clinical scenarios, and hands-on experiences that simulate real-world challenges encountered in nephrology. Through this immersive approach, medical graduates develop the skills necessary for the diagnosis, management, and treatment of renal disorders. This Module aligns with the overarching goal of producing well-rounded and competent medical professionals. It fosters critical thinking, diagnostic reasoning, and effective communication skills essential for collaborating within interdisciplinary healthcare teams. The emphasis on evidence-based practice equips students with the tools to stay abreast of evolving medical knowledge and technologies in the field of nephrology

6.1 RATIONAL

The Renal III Module recognizes the clinical relevance of nephrology and renal medicine, ensuring that graduating medical students possess a thorough understanding of renal disorders, diagnostic methods, and treatment modalities. Renal disorders often present complex diagnostic and therapeutic challenges. The module is designed to enhance clinical decision-making skills by immersing students in case-based learning, exposing them to a diverse range of renal cases encountered in clinical practice. This prepares them to approach renal problems with a comprehensive and systematic mindset. By understanding the impact of renal disorders on patients' lives, students learn to consider not only the physiological aspects but also the psychosocial and ethical dimensions of renal medicine

6.2 IBN E SINA UNIVERSITY (ISU) VISION:

To become a world-leading organization in rural health and social care research, training, recruitment and best evidence-based practice.

6.3 IBN E SINA UNIVERSITY (ISU) MISSION:

Our Mission is to inspire hope, and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research. To provide a focal point for the development and collation of high-quality research pertinent to rural health and wellbeing. To improve the training, recruitment and retention of a professional workforce within

rural communities. To be recognized as an exemplar in rural health and wellbeing on the international stage. To establish a network of individuals and groups that support research, innovation and development in rural health and social care.

7. LEARNING OBJECTIVES

7.1 Knowledge / Cognitive Domain

It involves knowledge and the development of intellectual skills. By the end of this module, the students should be able to:

1. Discuss the diagnostic approach and management of an adult and a child with suspected glomerular disease.
2. Discuss the diagnostic approach and management of an adult and a child with acute and chronic renal disease.
3. Discuss the management of a patient with nephrocalcinosis.
4. Discuss the etiology, clinical features, and management of common electrolyte abnormalities.
5. Explain the diagnosis and management of a patient with hematuria and UTIs.
6. Explain the common diseases of the urogenital system.
7. Take history and perform a physical examination of urogenital system.
8. Counsel a patient with acute and chronic renal failure.

7.2 Skills / Psychomotor Domain:

Includes physical movement, co-ordination and the use of motor skill areas. For this Module, these include:

1. Gathering a detailed patient history, including symptoms related to renal function
2. Conducting a thorough examination, with a focus on the abdomen, back, and genitourinary system
3. Determining the size and position of the kidneys.
4. Listening for renal artery bruits or other abnormal sounds.
5. Properly placing a catheter for urine drainage
6. Effectively communicating with patients about their renal condition, treatment plans, and lifestyle modifications
7. Understanding and interpreting imaging studies such as renal ultrasound, CT scans, and MRIs
8. Analyzing and interpreting results of renal function tests, electrolyte panels, and urinalysis
9. Conducting a thorough examination, with a focus on the abdomen, back, and genitourinary system
10. Observing and understanding various renal surgeries or interventions, such as nephrectomy or kidney transplant.
11. Developing critical thinking skills for diagnosing renal disorders and formulating appropriate management plan.

7.3 Attitude / Affective Domain:

It Involves our feelings, emotions and attitudes. By the end of this module, the students should be able to:

1. Respect oneself and one's peers, both when providing and receiving comments.
2. To show patients compassion and understanding.
3. Develop your ability to communicate while keeping a sense of duty to your patients.
4. Showcase appropriate laboratory procedures.
5. Relate to patient and careers vulnerability
6. Demonstrate ethical self-management
7. Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.

7.4 Outcomes of Renal-III Module

1. Knowledgeable
2. Skillful
3. Community Heath Promoter
4. Problem-solver
5. Professional
6. Researcher
7. Leader and Role Model

8. THEMES FOR RENAL-III MODULE

S.NO	Themes	Duration
1	**Facial swelling**	1 week
2	**Scanty Urine**	1 week
3	**Loin pain and dysuria**	1 week
4	**Pain and swelling of external genitalia**	1 week

9. SPECIFIC LEARNING OBJECTIVES THEME WISE

THEME 1: FACIAL SWELLING					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objective**
Medicine/ Nephrology	Investigations of renal diseases	1	1	Cognitive	Discuss the biochemical, radiological, hematological, and other specialized investigations and their interpretations in renal diseases.
	Approach to a facial swelling		2	Cognitive	Discuss the diagnostic workup and management approach for a patient with facial swelling of renal origin
			3	Psychomotor	Take history and perform physical examination of patient with facial swelling
	Minimal change disease	**1**	4	Cognitive	Explain the diagnostic workup and management and complications of a patient with Minimal change disease.
	Post streptococcal Glomerulonephritis		5	Cognitive	Explain the diagnostic workup and management and complications of a patient with Post Streptococcal Glomerulonephritis.
	IgA Nephropathy		6	Cognitive	Explain the diagnostic workup and management and complications of a patient with IgA Nephropathy.
	Chronic glomerulonephritis	1	7	Cognitive	Explain the diagnostic workup and management and complications of a patient with Chronic glomerulonephritis
Pediatrics	Nephrotic Syndrome	1	8	Cognitive	Discuss the clinical presentation, the diagnostic workup and management for suspected GN and Nephrotic Syndrome in Pediatric patients.
			9	Psychomotor	Take a history from a patient with Nephrotic Syndrome.
			10	Psychomotor	Perform physical examination of a patient with suspected GN and Nephrotic Syndrome.
			11	Affective	Effectively counsel a child and his/her parents with nephrotic syndrome.

THEME-2: SCANTY URINE					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Medicine/Nephrology	Electrolyte disorders	1	12	Cognitive	Explain the etiology, clinical features, diagnosis, and treatment of Hyper and Hyponatremia.
			13	Cognitive	Explain the etiology, clinical features, diagnosis, and treatment of hyper and hypokalemia.
		1	14	Cognitive	Explain the etiology, clinical features, diagnosis, and treatment of hyper and hypophosphatemia.
			15	Cognitive	Explain the etiology, clinical features, diagnosis, and treatment of hyper and hypomagnesemia.
	Blood Ph abnormalities		16	Cognitive	Explain the etiology, clinical features, diagnosis and treatment of Metabolic acidosis and alkalosis and its associated compensations.
			17	Cognitive	Explain the etiology, clinical features, diagnosis and treatment of respiratory acidosis and alkalosis and its associated compensation.
	Scanty Urine	1	18	Cognitive	Discuss the diagnostic workup and management approachfor a patient with oliguria and anuria.
	Uremia		19	Cognitive	Discuss the pathophysiological mechanisms, clinical manifestations, investigations, and management of a patient with Uremia.
	Chronic KidneyInjury	1	20	Cognitive	Explain the diagnostic workup and management andcomplications of a patient with Chronic Kidney Injury
Pediatrics	Acute Kidney Injury(AKI)	1	21	Cognitive	Discuss the clinical presentation, the diagnostic workup and management for Acute Kidney Injury in Pediatricpatients.
	Chronic RenalFailure (CKD)	1	22	Cognitive	Discuss the clinical presentation, the diagnostic workup and management for Chronic Renal Failure in Pediatric patients.
Radiology	X-ray KUB and Ultrasound	2	23	Cognitive	Identify the Renal diseases in Ultrasound and plain and contrast radiographs (Nephrolithiasis, ureteric stone, hydronephrosis, renal cortical thickness)

THEME-3: LOIN PAIN AND DYSURIA					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Medicine/ Nephrology	Approach to blood in urine (haematuria)	0.5	23	Psychomotor	Take a history from a patient presenting with blood in the urine.
			24	Psychomotor	Perform a physical examination of a patient with blood in the urine.
			25	Cognitive	Discuss the diagnostic workup and management approach for a patient blood in urine.
	Loin pain and dysuria	0.5	26	Cognitive	Discuss the diagnostic workup and management approach for a patient with loin pain and dysuria.
	Acute pyelon ephritis	1	27		Discuss the diagnostic workup and management approachfor a patient with acute pyelonephritis.
	Acute and chronic prostatitis	1	28	Cognitive	Discuss the diagnostic workup and management approachfor a patient with acute and chronic prostatitis
Surgery	Nephrolithiasis	1	29	Cognitive	Explain the etiology, risk factors, types, approach, investigations, treatment, and prevention of Nephrolithiasis
		1	30	Psychomotor	Take a history from a patient presenting with acute Flank and loin pain.
		1	31	Psychomotor	Perform a physical examination of a patient with acuteFlank, and loin pain.
			32	Affective	Counsel a patient presenting with nephrolithiasis.
	Dysuria	1	33	Cognitive	Discuss the diagnostic workup for Dysuria.
			34	Cognitive	Discuss the management options for a patient with Dysuria
	Hematuria	1	35	Cognitive	Discuss the diagnostic workup for Hematuria.
			36	Cognitive	Discuss the management options for a patient with Hematuria.

THEME-4: PAIN AND SWELLING OF EXTERNAL GENITALIA					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Surgery	Testicular torsion	1	37	Cognitive	Discuss the diagnostic workup for Testicular torsion
			38	Cognitive	Discuss the management options for a patient with Testicular torsion.
	Hydrocele	1	39	Cognitive	Discuss the diagnostic workup for Hydrocele.
			40	Cognitive	Discuss the management options for a patient with Hydrocele.
	Testicular tumors	1	41	Cognitive	Explain the diagnostic workup and management and complications of a patient with suspected Testicular tumors.
	Epididymo-orchitis	1	42	Cognitive	Discuss the diagnostic workup for Epididymo-orchitis.
			43	Cognitive	Discuss the management options for a patient with Epididymo-orchitis.
Pediatric surgery	Hypospadias	1	44	Cognitive	Discuss the types, complications, and management of a child with Hypospadias.
Urology	Male infertility	1	45	Cognitive	Discuss the diagnostic approach and management options for a male patient with infertility.
Medicine/ Nephrology	Sexually transmitted infections	1	46	Cognitive	Classify STDs and enlist their treatment options.
			47	Cognitive	Discuss the management approach of a patient with a new onset lesion on the genitalia.

9.1 CLINICAL SCIENCES SUBJECTS

Renal 3				
S. No	**Clinical Sciences Subjects**	**Learning Objectives**	**Hours**	**Learning Strategy**
1.	Urology Urological trauma, urinary retention and malignancy	Etiology, investigations and management of Renal Trauma	1	Lecture
		Etiology, investigations and management of Urerteric Trauma	1	Lecture
		Etiology, investigations and management of Bladder and urethral Trauma	1	Lecture
		Common urological skills (catheterization, suprapubic cystostomy)	1	Lecture
		Acute retention of Urine	1	Lecture
		Chronic retention of urine	1	Lecture
		Urinary incontinence	1	Lecture
		Benign prostatic Hyperplasia	1	Lecture
		Prostatic Carcinoma (etiology, investigation, managemenet)	1	Lecture
		Basic understanding of common urological surgical procedures (nephrectomy, nephrolithiasis, TURP, prostatectomy, PCNL)	1	Lecture
2.	Family Medicine Men's Health	Lower urinary Tract Symptoms	1	Lecture
		Haematuria	1	Lecture
		Erectile Dysfunction	1	Lecture
		Pre- Marital Screening	1	Lecture

9.2 CLINICAL ROTATION SCHEDULE

MORNING CLINICAL ROTATIONS

Duration	9 weeks		11 weeks		8 weeks	8 weeks
	6 weeks	3wks	8 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	78	39	104	39	104	104

* 2.6 clinical teaching hours per day

EVENING CLINICAL ROTATIONS

Duration	6 weeks		14 weeks		8 weeks	8 weeks
	3 weeks	3wks	11 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	45	45	165	45	120	120

* 3 clinical teaching hours per day

The above mentioned clinical rotation schedule is to be followed by every student throughout the year. Groups of students are decided by the Hospital Administration.

10. TEACHING HOURS ALLOCATION

There will be 42 hours allotted in total. The hours shall be divided into 4 different themes. The necessity for students to set aside more time for self-directed learning and clinical learning is emphasized, although at the expense of repetition. We anticipate that the students will be well-versed in this significant module. This module covers a number of common and significant subjects.

S. No	Subject	Hours
1	Medicine	11
2	Surgery	10
3	Pediatrics	4
4	Radiology	2
5	Urology	11
6	Family Medicine	4
	Total hours	**42**

11. EXAMINATION AND METHODS OF ASSESSMENT

11.1 EXAMINATION RULES AND REGULATIONS

- Student must report to examination hall/venue, in time for smooth conduction of the exams.
- No student will be allowed to enter the examination hall after 10 minutes of scheduled examination time.
- No students will be allowed to sit in exam without College ID Card, and Lab Coat
- Students must sit according to their roll numbers mentioned on the seats.
- Student must bring their own stationary items (Pen, Pencil, Eraser, and Sharpener) – Sharing is prohibited
- Any disturbance or Indiscipline in the exam hall/venue is not acceptable.
- Students must not possess any written material or communicate with their fellow students
- Cell phones are strictly not allowed in examination hall. If any student is found with cell phone in any mode (silent, switched off or on) he/she will be **not be allowed to continue their exam.**
- **No student is allowed to leave the examination hall before half the time is over, paper is handed over to the examiner and properly marking the attendance.**

11.2 ASSESSMENT

11.2.1 Internal: Total 10% (20 marks)

- Students will be assessed comprehensively through multiple methods to determine achievement of module objectives through two methods: Module examination and Graded assessment by Individual department
    - **Module Examination**: It will be scheduled on completion of each module. The method of examination comprises theory exam (which includes SEQs and MCQs) and OSPE / OSCE exam (which includes static and interactive stations).
    - **Graded Assessment by individual department**: It includes weekly MCQs tests on Survive online LMS program, viva, practical, weekly theme based assignments, post-test discussion sessions, peer assessments, presentations, small group activities such as CBL, ward activities, examinations and log books, all of which have specific marks allocation.
- Marks of both modular examination and graded assessment will constitute 10% weightage.
- 10% marks of internal evaluation will be added to the ISU annual professional exam.
- The marks distribution is based on Formative Assessment done individually by all the concerned departments. It may include:

- NOTE: **at least 75% attendance is mandatory** to appear in the annual university examination.
- Exam branch is responsible to maintain the attendance record for Main Campus in coordination with all the concerned departments.

11.2.2 University Annual Exam: Total 90%

- Annual Exam has 90% marks in total
- It includes theory and OSPE / OSCE.
- Each written paper consists of 100 MCQs and 10 SEQs and internal assessment marks will be added tothe final marks.

11.3 METHODS OF ASSESSMENT

11.3.1 Multiple Choice Questions

- Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
- Total 100 MCQs are included which are formulated through the table of specification from learning objectives of Module interactive lectures.
- Time duration for MCQs will be 1 and half hour.
- MCQs are used to assess objectives covered in each module.
- Students after reading the statement / scenarios select one appropriate response from the given options.
- Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
- Students attempt the MCQs exam on Computer screen on Moodle / LMS program in IT Lab.

11.3.2 Short Essay Questions (SEQs):

- Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- Commonly used in examinations to assess the depth of knowledge and understanding.
- Includes 10 questions each carrying 10 marks.
- Time Duration for Essay type paper is 2 hours.
- Questions are selected from the specific learning objectives of the specific ongoing module.

11.3.3 OSPE / OSCE

- Each student will be assessed on the same content and have same time to complete the task.
- Time allocated for each station is five minutes as per Examination rules of Ibn e Sina University, Mirpurkhas

- All students are rotated through the same stations.
- OSPE / OSCE Comprises of 15 - 20 stations.
- Each station may assess a variety of diagrammatic identifications and clinical tasks. These tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are Interactive, observed, unobserved (static) and rest stations.
    - Interactive Stations:
        - In this station, examiner ask questions related to the task within the allocated time.
    - Observed Stations:
        - In observed stations, internal or external examiner don't interact with candidate and just observe the performance of the skills or procedures.
    - Unobserved (static) Stations:
        - It will be static stations in which there may be models, specimens, multiple identification points, X-ray, Labs reports, flowcharts, pictures, or clinical scenarios (to assess cognitive domain) with related questions for students will be used to answer on the provided answer copy.
    - Rest station
        - It is a station where there is no task given and in this time student can organize his/her thoughts

11.3.4 ASSIGNMENTS

- An online assignment on the Ibn-e-Sina University moodle uploaded according to the topic of the week.
- All assignments should be checked by the teacher who has taken the lecture on the topic during the same week.
- The assignment should cover enough material to include the requirement of the curriculum and syllabus, so the student should be able to answer the annual examination questions by revising these notes (assignments) only.
- The assignments are checked and graded also with comment to guide, motivate and encourage the students to work whole heartedly. Frequent guidance and motivation will go a long way in improving the students' performance.
- Assignments of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.5 WEEKLY TESTS

- The weekly tests are conducted for all classes. The tests are conducted online and are on topics displayed on the portal (Moodle). It consists of 35 MCQs. 5 MCQs will be from the previous weeks (slightly altered to change the answer or the right option). Everyone taking lectures, submit two MCQs to the Chairperson of the department who will check and pass them to the class moderator. MCQs can also be sent directly to the class moderator, who submits the MCQs to IT department for final placement on the moodle.

- The MCQs are not merely simple recall, but test higher level of cognition. As far as possible, they test an important concept related to one of the topics of the week.
- It is different from the summative assessment (Annual or Semester Examinations) in that the goal of summative assessment is to evaluate student's learning at the end of an instructional unit by comparing it against some standard or benchmark, to decide if the student can be promoted or not, whereas the goal of these weekly tests is to check the understanding of the students on the important concepts related to the topics that have been displayed on the portal for the week, the teachers have taught them and the students have made assignments on them.
- Results of weekly tests of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.6 POST-TEST DISCUSSION (PTD)

- Every student has to prepare a special assignment where he/she selects all the questions he/she got wrong. Then he/she makes 3 boxes. In box A he/she writes the questions he/she got wrong in his/her own words, highlighting and underlining the keywords. In box B the student explains why he/she has chosen this answer. In box C the student mentions what he/she has learnt after reading the explanation and how the concept has got clear now.
- The moderator will check, assess and grade PTD
- Next day, the class moderator of the class conducts a class where he/she discusses the mistakes committed and the post-test assignments submitted in detail with the class
- PTD assignments of the whole Professional year MBBS are counted as in Internal Assessment.

12. GRADING POLICY

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	**A+**
75-79	4.0	**A**
70-74	3.7	**A-**
67-69	3.3	**B+**
63-66	3.0	**B**
60-62	2.7	**B-**
56-59	2.3	**C+**
50-55	2.0	**C**
<50 Non gradable	0	**N**

- A student obtaining GPA less than 2.0 (50%) is declared fail pr Non gradable

13. ASSESMENT BLUEPRINT

RENAL-III MODULE

Assessment is based on Table of Specification (TOS)

	ASSESMENT	TOOLS	MARKS
MODULE EXAM	THEORY	MCQ's	100
		SEQ's	100
	OSPE	OSPE Static	50
		OSPE Interactive	50
		Total	300

14. RECOMMENDED BOOKS

SUBJECT	*RESOURCES*
PAEDIATRICS	1. Nelson textbook of pediatrics 2. Textbook of Pediatrics, Pakistan Pediatrics Association 3. Basis of Pediatrics, Pervez Akbar khan, Ninth edition 4. Current pediatrics 5. OP Ghai Essential of Pediatrics Textbook
SURGERY	1. Bailey & Love's Short Practice of Surgery 27th edition (a new edition is expected shortly. Keep a look out for the new one 2. Demonstration of Physical Signs in Clinical Surgery, by Hamilton Bailey. 19th edition or newer. Text Book 3. Browse's Introduction to Symptoms and Signs of Surgical Disease. Text Book 4. Ackerman's Surgical Pathology. Latest Edition
GENERAL MEDICINE	1. Hutchison's Clinical Methods, 23rd Edition 2. MacLeod's clinical examination 13th edition 3. Davidson's Principles and Practice of Medicine 4. Kumar and Clark's Clinical Medicine 5. HCAI guidelines CDC

IBN-E-SINA UNIVERSITY MIRPURKHAS
FACULTY OF BASIC MEDICAL SCIENCES

Course Feedback Form

Course Title: _____

Semester/Module_____ Dates:_____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Yes ☐ No ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

Thank you!!

IBN-E-SINA UNIVERSITY MIRPURKHAS

STUDENT'S STUDY GUIDE
MUSCULOSKELETAL SYSTEM-II MODULE
FINAL PROFESSIONAL MBBS



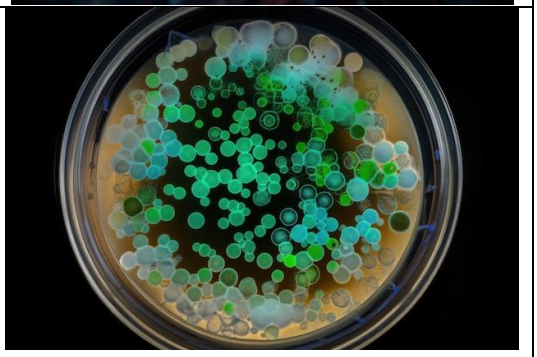




TABLE OF CONTENTS

1. DISCLAIMER

- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
- However, students are advised to use it as a guide for respective modules.
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
- Students are encouraged to provide feedback via coordinator

2. CURRICULUM FRAMEWORK

An educational strategy known as integrated curriculum places a strong emphasis on interdisciplinary learning, in which students gain knowledge by integrating it from several topic areas. By integrating many subjects and disciplines into a cohesive curriculum, this method seeks to give students a more relevant and interesting learning experience. Integrated curriculum means that subjects are presented as a meaningful whole for better understanding of basic sciences in relation to clinical experience and application.

Integrated curriculum comprises of system-based modules such as Foundation-II, Blood-III, Cardiorespiratory -III, Endocrine and Reproduction-IV, Renal-III, Git and Liver-IV, Multisystem, Musculoskeletal-II and Neuroscience -III modules which links basic science knowledge to clinical problems.

INTEGRATING DISCIPLINES OF MUSCULOSKELETAL SYSTEM-II MODULE

3. MODULE OVERVIEW

MUSCULOSKELETAL SYSTEM-II MODULE DETAILS

Course	MBBS
Year	Final professional
Duration	4 weeks
Learning Outcomes	The competent Medical Practitioner
Competencies covered	To develop medical professionals who are well - versed, adept, and have the right mindset.
Module Assessment	End module formative assessment
Teaching Methods	Interactive Lectures, Demonstrations, Case Based Learning, Small Group Discussions, Self-Study Sessions, E-Learning, Clinical rotations
Assessment Methods	MCQs, SEQs, OSPE, VIVA

MUSCULOSKELETAL SYSTEM -II MODULE COMMITTEE

Sr. No	Names	Department	Designation
MODULE COORDINATOR			
1.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU
COMMITTEE MEMBERS			
1.	Prof: Dr. Syed Razi Muhammad	Surgery	Chancellor ISU
2.	Prof: Dr. Shams Ul Arfeen Khan	Biochemistry	Vice Chancellor ISU
3.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU

4. WHAT IS STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, tohelp students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The study guide:

— Communicates information on organization and management of the module.

— This will help the student to contact the right person in case of any difficulty.

— Defines the objectives which are expected to be achieved at the end of the module.

— Identifies the learning strategies such as lectures, small group teachings.

Module objectives.

— Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.

— Highlights information on the contribution of continuous on the student's overall performance.

— Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of objectives.

- Focuses on information pertaining to examination policy, rules and regulations.

5. LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Study

- **INTERACTIVE LECTURES:**

  Large group discussions are not the same as traditional lecture formats. When a teacher or instructor uses images, radiographs, patient interaction recordings, etc. to discuss a topic or typical clinical scenario, the lecture becomes interactive. When they are given tiny activities to do that allow them to apply the knowledge they have learned throughout the session and are asked questions, students actively participate in the learning process.

- **SMALL GROUP DISCUSSIONS (SGDS):**

  With the use of SGD, students can take an active role in their education, clarify ideas, develop psychomotor skills, and develop a positive attitude. Discussion themes, patient interviews, and clinical cases are used to design sessions in an organized manner. Pupils are inspired to express their ideas, apply the fundamental knowledge they have learned from lectures and independent study, and are encouraged to share their notions. In small groups, role play is a useful technique for acquainting pupils with real-world scenarios. Probing questions, rephrasing, and summarizing are used by the teacher to assist make the concepts obvious.

- **CASE-BASED LEARNING (CBL):**

  Learning is centered around a sequence of questions based on a clinical scenario in this small group discussion format. Students create new information by discussing and responding to the questions using pertinent prior knowledge from the clinical and fundamental health sciences modules. The relevant department will give the CBL.

- **CLINICAL EXPERIENCES:**

  Students examine patients in hospital wards, clinics, and outreach facilities in small groups, noting their signs and symptoms. This aids students in connecting their understanding of the module's basic and clinical sciences and getting ready for future practice.

- **CLINICAL ROTATIONS:**

  Students cycle through a variety of wards in small groups, including those in family medicine clinics, outreach centers, pediatrics, surgery, obstetrics and gynecology, ENT, and community medicine. In both inpatient and outpatient settings, students watch patients, get medical histories, and carry out clinical examinations under supervision. They also have the chance to watch medical professionals function as a team. Students can link their basic medical and clinical skills to a variety of clinical domains through these rotations.

- **SKILL SESSIONS:**

  Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

- **SELF STUDY:**

  Self-directed learning is a process in which students take charge, either on their own or with assistance from others. Students chart their learning objectives and determine their areas of need for learning. They select and employ their own learning methodologies, and they independently assess the learning objectives.

6. INTRODUCTION

Conditions related to musculoskeletal system have a significant value in clinical practice. Back pain, trauma and violence are presently quite common in Pakistan. Conditions like fractures, joint diseases, bone diseases and deformities are additionally essential to have a command on. Analogously 70% of the people suffers from skin diseases in some part of their life and most of the skin infections are endemic in developing countries like Pakistan. Therefore it's additionally important to give students essential knowledge about common skin lesions and explain their clinical presentation to understand the importance of health issues related to skin and the burden of disease.

6.1 RATIONAL

Hence to better understand these states, as well as the neoplastic and infective conditions of the musculoskeletal system including skin, appropriate disciplines will be covered in this specific module. The relevance of the various imaging modalities will also be discussed in this module. There will be an additional continual emphasis on a practical approach with regards to the most common conditions affecting the musculoskeletal system. The important aspects of the clinical diagnosis, radiological interpretation, treatment and prevention will be likewise emphasized.

6.2 IBN E SINA UNIVERSITY (ISU) VISION:

To become a world-leading organization in rural health and social care research, training, recruitment and best evidence-based practice.

6.3 IBN E SINA UNIVERSITY (ISU) MISSION:

Our Mission is to inspire hope, and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research. To provide a focal point for the development and collation of high-quality research pertinent to rural health and wellbeing. To improve the training, recruitment and retention of a professional workforce within rural communities. To be recognized as an exemplar in rural health and wellbeing on the international stage. To establish a network of individuals and groups that support research, innovation and development in rural health and social care.

7. LEARNING OBJECTIVES

7.1 Knowledge / Cognitive Domain

It involves knowledge and the development of intellectual skills. By the end of this module, the students should be able to:

1. Discuss the diagnostic and therapeutic approach to children and adult patients with arthritis
2. Explain the surgical management of different arthritic disorders.
3. Elaborate on the management of osteoporosis, Rickets, and Osteomalacia.
4. Explain the types of spine diseases and their management.
5. Explain the types, etiology, clinical features, and management of primary muscle diseases including poliomyelitis
6. Discuss different dermatological conditions in terms of etiology, classification, investigations, and management.
7. Take history and examine a patient with an arthritic condition
8. Counsel a patient with chronic arthritic condition, psoriasis, and muscular dystrophies.

7.2 Skills / Psychomotor Domain:

Includes physical movement, co-ordination and the use of motor skill areas. For this Module, these include:

1. Demonstrate the ability to perform the disease specific relevant examination
2. Respond to common medical emergencies
3. Master the skill of first aid
4. Perform BLS
5. Apply the best evidenced practices for local health problems
6. Take history and perform a physical examination of a patient with symmetrical arthritis
7. Take history and perform a physical examination of a child with Arthritis and Rickets.
8. Take history and perform a physical examination of a child with muscular dystrophy
9. Take psychiatric history from a patient suffering from somatoform disorder.
10. Take history form a patient with generalized Rash.
11. Determine and calculate burn area
12. Do proper examination of a patient with cutaneous and musculoskeletal related disorders

7.3 Attitude / Affective Domain:

It Involves our feelings, emotions and attitudes. By the end of this module, the students should be able to:

1. Respect oneself and one's peers, both when providing and receiving comments.
2. To show patients compassion and understanding.
3. Develop your ability to communicate while keeping a sense of duty to your patients.
4. Showcase appropriate laboratory procedures.
5. Relate to patient and careers vulnerability
6. Demonstrate ethical self-management
7. Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.

7.4 Outcomes of Musculoskeletal System-II Module

1. Knowledgeable
2. Skillful
3. Community Heath Promoter
4. Problem-solver
5. Professional
6. Researcher
7. Leader and Role Model

8. THEMES FOR MUSCULOSKELETAL SYSTEM-II MODULE

S.NO	Themes	Duration
1	**Joint pains**	1 week
2	**Aching bones**	1 week
3	**Muscle weakness**	1 week
4	**Skin Rashes and burns**	1 week

9. SPECIFIC LEARNING OBJECTIVES THEME WISE

THEME 1: JOINT PAINS					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives:**
Medicine	Introduction to arthritides: • Classification Serological tests	2	1	Cognitive	Classify autoimmune diseases of joints based on the pattern of joint involvement A) Peripheral • Symmetrical • Oligoarticular • Monoarticular • Axial
		2	2		Explain the types, and indications of autoimmune markers in different Rheumatological disorders
			3		Describe different modalities of investigations and their indications used in different arthritic disorders
	Management of adult arthritides	1	4		Explain the extra-articular manifestations of inflammatory arthritides
			5		Explain the differential diagnosis, diagnostic and therapeutic approaches to an adult patient with mono-
					Arthritis
			6		Explain the differential diagnosis, diagnostic and therapeutic approaches to an adult patient with symmetrical polyarthritis
			7		Explain the differential diagnosis, diagnostic and therapeutic approaches to an adult patient with oligoarticular arthritis

	Management of common arthritic disorders	1	8		Discuss the management of patient and complications with Rheumatoid arthritis
		1	9		Discuss the management, complications, and prognosis of a patient with SLE
		1	10		Explain the management and complications of a patient with Ankylosing spondylitis
			11		Discuss the clinical features and diagnosis of Reiter`s syndrome, Reactive arthritis and Psoriatic arthritis
		1	12		Discuss the management of patient and complications with Osteoarthritis
			13		Discuss the management of patient and complications with acute Gout and Gouty Arthritis
			14	Psychomotor	Take history and perform a physical examination of a patient with symmetrical arthritis
			15	Affective	Counsel a patient with new onset Rheumatoid arthritis.
Pediatrics	Orthopedic evaluation of a child Management of pediatric arthritides	1	16	Cognitive	Perform orthopedic evaluation of a neonate and child
		1	17	Cognitive	Explain the differential diagnosis, diagnostic workup, and therapeutic approaches to a pediatric patient with mono-arthritis
			18	Cognitive	Explain the differential diagnosis, diagnostic workup and therapeutic approaches to a pediatric patient with symmetrical polyarthritis
			19	Cognitive	Explain the differential diagnosis, diagnostic workup, and therapeutic approaches to a pediatric patient with oligoarticular arthritis
	Management of common arthritic disorders in children	1	20	Cognitive	Discuss the management of patient and complications with Juvenile idiopathic arthritis
			21	Psychomotor	Take history and perform a physical examination of a child with Arthritis

			22	Affective	Counsel a child and his parents with new onset Juvenile Chronic arthritis
Orthopedics	Surgical management of disabling Rheumatoid arthritis	1	23	Cognitive	Explain the surgical interventions and their indications in the management of disabling Rheumatoid arthritis • Rheumatic hand disorders Rheumatic foot disorders
	Tuberculous/ Septic arthritis	1	24	Cognitive	Discuss the etiology, risk factors, Clinical presentation, Diagnostic approach, and management of tuberculous and septic hip and knee arthritis.
Radiology	Limbs radiographs	2		Cognitive	Identify the deformities of limbs and jointsin X-rays taken on AP and Lateral View (fractures, tumours, osteoporosis, osteophytes, joint effusion)
THEME-2: ACHING BONES					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Medicine	Osteoporosis	1	25	Cognitive	Explain the etiology, risk factors, complications, management, and prevention of Osteoporosis
Pediatrics	Rickets and Osteomalacia	1	26	Cognitive	Discuss the diagnostic approach to a child with Rickets
			27	Cognitive	Discuss the etiology, clinical, radiological, and laboratory features of Rickets and Osteomalacia and their treatments
			28	Psychomotor	Take history and perform a physical examination of a patient with Rickets
Orthopedics	Deformities and congenital disorders	1	29	Cognitive	Classify common deformities and congenital disorders of bones
			30	Cognitive	Discuss the pathophysiology, clinical features and complications of Achiondroplasia
		1	31	Cognitive	Discuss the pathophysiology, clinical features and complications of Osteogenesis imperfecta

			32	Cognitive	Discuss the pathophysiology, clinical features and complications of Paget`s disease
	Structural spine abnormalities	1	33	Cognitive	Classify and explain structural spine abnormalities in terms of clinical features, complications, and management
	Osteomyelitis	1	34	Cognitive	Explain the etiology, clinical presentation, investigations, and medical and surgical management of Osteomyelitis
	Caries Spine		35	Cognitive	Explain the etiology, clinical presentation, investigations, and medical and surgical management of Caries spine
THEME 3: MUSCLE WEAKNESS					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Medicine	Proximal myopathy	1	36	Cognitive	Elaborate on the etiology and diagnostic workup of a patient with proximal muscle weakness
	Polymyositis and dermatomyositis	1	37	Cognitive	Discuss the pathogenesis, clinical features, investigations, differential diagnosis and management of Polymyositis and Dermatomyositis
Pediatrics	Muscular dystrophies	1	38	Cognitive	Classify muscular dystrophies
			39	Cognitive	Explain the pathogenesis, clinical features, differential diagnosis, management and prognosis of Duchenne muscular dystrophy
			40	Cognitive	Explain the pathogenesis, clinical features, differential diagnosis, management and prognosis of myotonic dystrophy
			41	Cognitive	Compare the clinical features and prognosis of Becker,

					limb-girdle, and facioscapulohumeral dystrophies
			42	Psychomotor	Take history and perform a physical examination of a child with muscular dystrophy
			43	Affective	Counsel the parents of a child suffering from Muscular dystrophy
Orthopedics	Poliomyelitis	1	44	Cognitive	Explain the Orthopedic complications of poliomyelitis their Diagnostic workup and Management
Psychiatry	Somatoform disorders	1	45	Cognitive	Classify somatoform disorders
			46	Cognitive	Explain the criteria for the diagnosis of pain somatoform disorders
			47	Cognitive	Explain the clinical presentation, psychiatric assessment, pharmacological and psychological management of a patient with fibromyalgia and other somatoform disorders
			48	Psychomotor	Take psychiatric history from a patient suffering from somatoform disorder
			49	Affective	Counsel a patient with somatoform disorder
THEME 4: SKIN RASHES AND BURNS					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Dermatology	Cutaneous manifestations of systemic diseases	1	50	Cognitive	Explain the common cutaneous manifestations of metabolic, endocrine, autoimmune, and neoplastic diseases
	Drugs rash	1	51	Cognitive	Classify the different types of drug rashes
			52	Cognitive	Explain the clinical manifestations, differential diagnosis, and management of erythema multiforme/Steven Johnson/Toxic Epidermal Necrolysis.

	Viral Infections of	1	53	Cognitive	Explain the clinical manifestations,
	the skin • Chicken pox and Herpes Zoster				differential diagnosis and management of Chicken Pox and Herpes Zoster
	• Warts (Human Papilloma Virus) • Molluscum Contagiosum • Cutaneous manifestation of AIDS	1	54	Cognitive	Classify Warts
			55	Cognitive	Explain the mode of transmission, differential diagnosis and management of warts
	Acute Bacterial infections of the skin • Impetigo • Folliculitis • Furunculosis Carbuncles	1	56	Cognitive	Explain the mode of transmission, clinical presentation, differential diagnosis, and management of Molluscum Contagiosum in children and adults
			57	Cognitive	Describe the etiology, clinical features, and management of acute bacterial skin lesions described
	Chronic bacterial infections of the skin • Cutaneous Tuberculosis • Leprosy Syphilis		58		Discuss the etiology, clinical features, and management of chronic bacterial skin lesions described

	Fungal infections • Pityriasis versicolor • Dermatophytosis Candidiasis	1	59		Explain the etiology, clinical features, and management of fungal infections described
	Sebaceous glands diseases Acne		60		Explain the different types of Acne
			61		Explain the pathogenetic mechanisms, clinical features, complications, differential diagnosis, and management of Acne
	Autoimmune blistering disorders • Pemphigus Vulgaris • Bullous pemphigoid	1	62		Describe the etiology, clinical features, and management of diseases described
	Eczemas	1	63		Classify Eczema
			64		Explain the clinical presentation, differential diagnosis and management of different types of Eczemas
	Inflammatory dermatosis • Psoriasis • Lichen Planus • Sebbhoriac Dermatitis • Erythema Nodosum Urticaria		65		Describe the etiology, clinical features, and management of diseases mentioned
	Erythroderma		66		Discuss the etiology, clinical presentation, differential diagnosis, and management of Erythroderma.

			67	Psychomotor	Take history form a patient with generalized Rash.
			68	Affective	Counsel a patient suffering from Psoriasis.
Surgery/Plastic Surgery	Burns o Classification o Assessment o Management Complications	03	69	Cognitive	Classify burns.
			70	Cognitive	Assess a patient of burns in terms of burn area calculation, fluid assessment, and referral to specialized burn units.
			71	Cognitive	Discuss the initial and long-term management of burns
			72	Cognitive	Explain the early and late complications of burns
			73	Psychomotor	Calculate burn area.
			74	Affective	Counsel a patient and his/her family members with burns.

9.1 CLINICAL SCIENCES SUBJECTS

MUSCULOSKELETAL-II MODULE				
S. No	**Clinical Sciences Subjects**	**Learning Objectives**	**Hours**	**Learning Strategy**
4	**Critical care** **Musculoskeletal Diseases**	Orthopaedic Injury management in ICU Vasculitis in ICU Anaphylaxis Pressure Sores	1 1 1 1	Lectures Lectures Lectures Lectures
5	Orthopaedics & Trauma Patient evaluation	History and examination of musculoskeletal disease ATLS Principles	2 2	Skill session Skill session

9.2 CLINICAL ROTATION SCHEDULE

MORNING CLINICAL ROTATIONS

Duration	9 weeks		11 weeks		8 weeks	8 weeks
	6 weeks	3wks	8 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	78	39	104	39	104	104

* 2.6 clinical teaching hours per day

EVENING CLINICAL ROTATIONS

Duration	6 weeks		14 weeks		8 weeks	8 weeks
	3 weeks	3wks	11 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	45	45	165	45	120	120

* 3 clinical teaching hours per day

The above mentioned clinical rotation schedule is to be followed by every student throughout the year. Groups of students are decided by the Hospital Administration.

10. TEACHING HOURS ALLOCATION

There will be 46 hours allotted in total. The hours shall be divided into 4 different themes. The necessity for students to set aside more time for self-directed learning and clinical learning is emphasized, although at the expense of repetition. We anticipate that the students will be well-versed in this significant module. This module covers a number of common and significant subjects.

S. No	Subject	Hours
1	Paediatrics	5
2	Medicine	12
3	Plastic Surgery	3
4	Dermatology	8
5	Psychiatry	1
6	Radiology	2
7	Anesthesia	4
8	Orthopaedics & Trauma	11
	Total hours	**46**

11. EXAMINATION AND METHODS OF ASSESSMENT

11.1 EXAMINATION RULES AND REGULATIONS

- Student must report to examination hall/venue, in time for smooth conduction of the exams.
- No student will be allowed to enter the examination hall after 10 minutes of scheduled examination time.
- No students will be allowed to sit in exam without College ID Card, and Lab Coat
- Students must sit according to their roll numbers mentioned on the seats.
- Student must bring their own stationary items (Pen, Pencil, Eraser, and Sharpener) – Sharing is prohibited
- Any disturbance or Indiscipline in the exam hall/venue is not acceptable.
- Students must not possess any written material or communicate with their fellow students
- Cell phones are strictly not allowed in examination hall. If any student is found with cell phone in any mode (silent, switched off or on) he/she will be **not be allowed to continue their exam.**
- **No student is allowed to leave the examination hall before half the time is over, paper is handed over to the examiner and properly marking the attendance.**

11.2 ASSESSMENT

11.2.1 Internal: Total 10% (20 marks)

- Students will be assessed comprehensively through multiple methods to determine achievement of module objectives through two methods: Module examination and Graded assessment by Individual department
    - **Module Examination**: It will be scheduled on completion of each module. The method of examination comprises theory exam (which includes SEQs and MCQs) and OSPE / OSCE exam (which includes static and interactive stations).
    - **Graded Assessment by individual department**: It includes weekly MCQs tests on Survive online LMS program, viva, practical, weekly theme based assignments, post-test discussion sessions, peer assessments, presentations, small group activities such as CBL, ward activities, examinations and log books, all of which have specific marks allocation.
- Marks of both modular examination and graded assessment will constitute 10% weightage.
- 10% marks of internal evaluation will be added to the ISU annual professional exam.
- The marks distribution is based on Formative Assessment done individually by all the concerned departments. It may include:

- NOTE: **at least 75% attendance is mandatory** to appear in the annual university examination.
- Exam branch is responsible to maintain the attendance record for Main Campus in coordination with all the concerned departments.

11.2.2 University Annual Exam: Total 90%

- Annual Exam has 90% marks in total
- It includes theory and OSPE / OSCE.
- Each written paper consists of 100 MCQs and 10 SEQs and internal assessment marks will be added tothe final marks.

11.3 METHODS OF ASSESSMENT

11.3.1 Multiple Choice Questions

- Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
- Total 100 MCQs are included which are formulated through the table of specification from learning objectives of Module interactive lectures.
- Time duration for MCQs will be 1 and half hour.
- MCQs are used to assess objectives covered in each module.
- Students after reading the statement / scenarios select one appropriate response from the given options.
- Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
- Students attempt the MCQs exam on Computer screen on Moodle / LMS program in IT Lab.

11.3.2 Short Essay Questions (SEQs):

- Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- Commonly used in examinations to assess the depth of knowledge and understanding.
- Includes 10 questions each carrying 10 marks.
- Time Duration for Essay type paper is 2 hours.
- Questions are selected from the specific learning objectives of the specific ongoing module.

11.3.3 OSPE / OSCE

- Each student will be assessed on the same content and have same time to complete the task.
- Time allocated for each station is five minutes as per Examination rules of Ibn e Sina University, Mirpurkhas

- All students are rotated through the same stations.
- OSPE / OSCE Comprises of 15 - 20 stations.
- Each station may assess a variety of diagrammatic identifications and clinical tasks. These tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are Interactive, observed, unobserved (static) and rest stations.
  - Interactive Stations:
    - In this station, examiner ask questions related to the task within the allocated time.
  - Observed Stations:
    - In observed stations, internal or external examiner don't interact with candidate and just observe the performance of the skills or procedures.
  - Unobserved (static) Stations:
    - It will be static stations in which there may be models, specimens, multiple identification points, X-ray, Labs reports, flowcharts, pictures, or clinical scenarios (to assess cognitive domain) with related questions for students will be used to answer on the provided answer copy.
  - Rest station
    - It is a station where there is no task given and in this time student can organize his/her thoughts

11.3.4 ASSIGNMENTS

- An online assignment on the Ibn-e-Sina University moodle uploaded according to the topic of the week.
- All assignments should be checked by the teacher who has taken the lecture on the topic during the same week.
- The assignment should cover enough material to include the requirement of the curriculum and syllabus, so the student should be able to answer the annual examination questions by revising these notes (assignments) only.
- The assignments are checked and graded also with comment to guide, motivate and encourage the students to work whole heartedly. Frequent guidance and motivation will go a long way in improving the students' performance.
- Assignments of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.5 WEEKLY TESTS

- The weekly tests are conducted for all classes. The tests are conducted online and are on topics displayed on the portal (Moodle). It consists of 35 MCQs. 5 MCQs will be from the previous weeks (slightly altered to change the answer or the right option). Everyone taking lectures, submit two MCQs to the Chairperson of the department who will check and pass them to the class moderator. MCQs can also be sent directly to the class moderator, who submits the MCQs to IT department for final placement on the moodle.

- The MCQs are not merely simple recall, but test higher level of cognition. As far as possible, they test an important concept related to one of the topics of the week.
- It is different from the summative assessment (Annual or Semester Examinations) in that the goal of summative assessment is to evaluate student's learning at the end of an instructional unit by comparing it against some standard or benchmark, to decide if the student can be promoted or not, whereas the goal of these weekly tests is to check the understanding of the students on the important concepts related to the topics that have been displayed on the portal for the week, the teachers have taught them and the students have made assignments on them.
- Results of weekly tests of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.6 POST-TEST DISCUSSION (PTD)

- Every student has to prepare a special assignment where he/she selects all the questions he/she got wrong. Then he/she makes 3 boxes. In box A he/she writes the questions he/she got wrong in his/her own words, highlighting and underlining the keywords. In box B the student explains why he/she has chosen this answer. In box C the student mentions what he/she has learnt after reading the explanation and how the concept has got clear now.
- The moderator will check, assess and grade PTD
- Next day, the class moderator of the class conducts a class where he/she discusses the mistakes committed and the post-test assignments submitted in detail with the class
- PTD assignments of the whole Professional year MBBS are counted as in Internal Assessment.

12. GRADING POLICY

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	**A+**
75-79	4.0	**A**
70-74	3.7	**A-**
67-69	3.3	**B+**
63-66	3.0	**B**
60-62	2.7	**B-**
56-59	2.3	**C+**
50-55	2.0	**C**
<50 Non gradable	0	**N**

- A student obtaining GPA less than 2.0 (50%) is declared fail pr Non gradable

13. ASSESMENT BLUEPRINT

MUSCULOSKELETAL SYSTEM-II
MODULE

Assessment is based on Table of Specification (TOS)

	ASSESMENT	TOOLS	MARKS
MODULE EXAM	THEORY	MCQ's	100
		SEQ's	100
	OSPE	OSPE Static	50
		OSPE Interactive	50
		Total	300

14. RECOMMENDED BOOKS

SUBJECT	*RESOURCES*
PAEDIATRICS	1. Nelson textbook of pediatrics 2. Textbook of Pediatrics, Pakistan Pediatrics Association 3. Basis of Pediatrics, Pervez Akbar khan, Ninth edition 4. Current pediatrics 5. OP Ghai Essential of Pediatrics Textbook
SURGERY	1. Bailey & Love's Short Practice of Surgery 27th edition (a new edition is expected shortly. Keep a look out for the new one 2. Demonstration of Physical Signs in Clinical Surgery, by Hamilton Bailey. 19th edition or newer. Text Book 3. Browse's Introduction to Symptoms and Signs of Surgical Disease. Text Book 4. Ackerman's Surgical Pathology. Latest Edition
GENERAL MEDICINE	1. Hutchison's Clinical Methods, 23rd Edition 2. MacLeod's clinical examination 13th edition 3. Davidson's Principles and Practice of Medicine 4. Kumar and Clark's Clinical Medicine 5. HCAI guidelines CDC

IBN-E-SINA UNIVERSITY MIRPURKHAS
FACULTY OF BASIC MEDICAL SCIENCES

Course Feedback Form

Course Title: _____

Semester/Module_____ Dates:_____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Yes ☐ No ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

Thank you!!

IBN-E-SINA UNIVERSITY MIRPURKHAS

STUDENT'S STUDY GUIDE
BLOOD-III MODULE
FINAL PROFESSIONAL MBBS



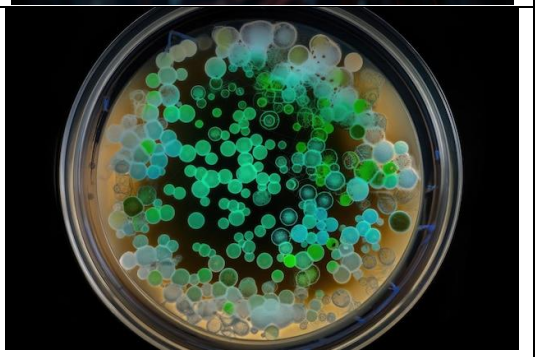




TABLE OF CONTENTS

1. DISCLAIMER

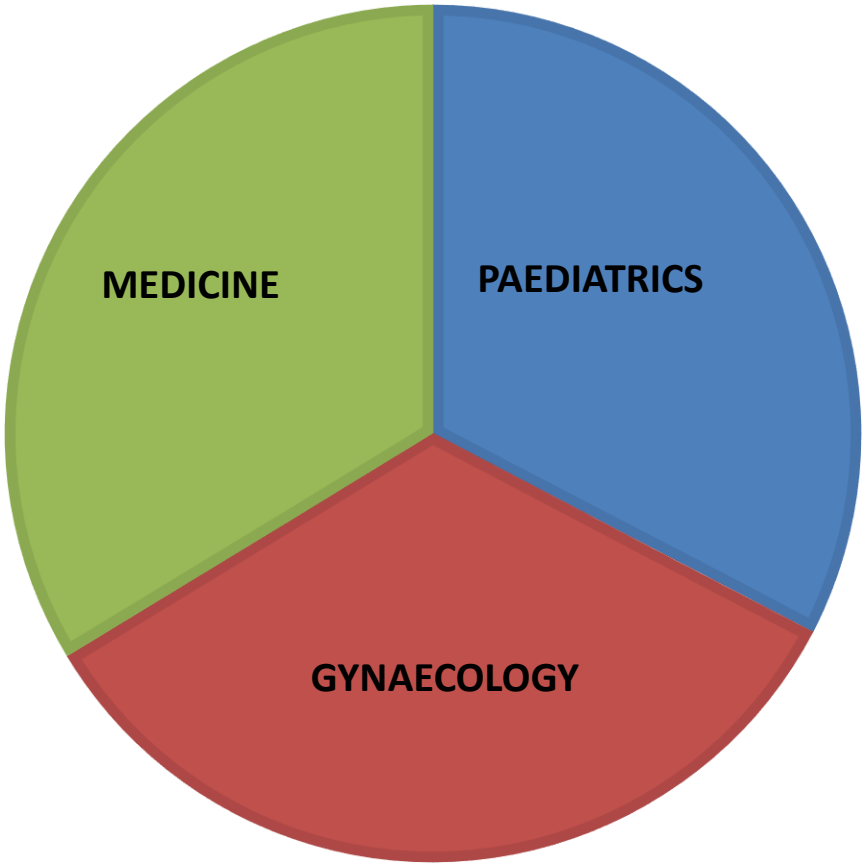
- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
- However, students are advised to use it as a guide for respective modules.
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
- Students are encouraged to provide feedback via coordinator

2. CURRICULUM FRAMEWORK

An educational strategy known as integrated curriculum places a strong emphasis on interdisciplinary learning, in which students gain knowledge by integrating it from several topic areas. By integrating many subjects and disciplines into a cohesive curriculum, this method seeks to give students a more relevant and interesting learning experience. Integrated curriculum means that subjects are presented as a meaningful whole for better understanding of basic sciences in relation to clinical experience and application.

Integrated curriculum comprises of system-based modules such as Foundation-II, Blood-III, Cardiorespiratory -III, Endocrine and Reproduction-IV, Renal-III, Git and Liver-IV, Multisystem, Musculoskeletal-II and Neuroscience -III modules which links basic science knowledge to clinical problems.

INTEGRATING DISCIPLINES OF BLOOD-III MODULE



3. MODULE OVERVIEW

BLOOD-III MODULE DETAILS

Course	MBBS
Year	Final professional
Duration	3 weeks
Learning Outcomes	The competent Medical Practitioner
Competencies covered	To develop medical professionals who are well - versed, adept, and have the right mindset.
Module Assessment	End module formative assessment
Teaching Methods	Interactive Lectures, Demonstrations, Case Based Learning, Small Group Discussions, Self-Study Sessions, E-Learning, Clinical rotations
Assessment Methods	MCQs, SEQs, OSPE, VIVA

BLOOD-III MODULE COMMITTEE

Sr. No	Names	Department	Designation
MODULE COORDINATOR			
1.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU
COMMITTEE MEMBERS			
1.	Prof: Dr. Syed Razi Muhammad	Surgery	Chancellor ISU
2.	Prof: Dr. Shams Ul Arfeen Khan	Biochemistry	Vice Chancellor ISU
3.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU

4. WHAT IS STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, tohelp students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The study guide:

— Communicates information on organization and management of the module.

— This will help the student to contact the right person in case of any difficulty.

— Defines the objectives which are expected to be achieved at the end of the module.

— Identifies the learning strategies such as lectures, small group teachings.

Module objectives.

— Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.

— Highlights information on the contribution of continuous on the student's overall performance.

— Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of objectives.

- Focuses on information pertaining to examination policy, rules and regulations.

5. LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Study

- **INTERACTIVE LECTURES:**

  Large group discussions are not the same as traditional lecture formats. When a teacher or instructor uses images, radiographs, patient interaction recordings, etc. to discuss a topic or typical clinical scenario, the lecture becomes interactive. When they are given tiny activities to do that allow them to apply the knowledge they have learned throughout the session and are asked questions, students actively participate in the learning process.

- **SMALL GROUP DISCUSSIONS (SGDS):**

  With the use of SGD, students can take an active role in their education, clarify ideas, develop psychomotor skills, and develop a positive attitude. Discussion themes, patient interviews, and clinical cases are used to design sessions in an organized manner. Pupils are inspired to express their ideas, apply the fundamental knowledge they have learned from lectures and independent study, and are encouraged to share their notions. In small groups, role play is a useful technique for acquainting pupils with real-world scenarios. Probing questions, rephrasing, and summarizing are used by the teacher to assist make the concepts obvious.

- **CASE-BASED LEARNING (CBL):**

  Learning is centered around a sequence of questions based on a clinical scenario in this small group discussion format. Students create new information by discussing and responding to the questions using pertinent prior knowledge from the clinical and fundamental health sciences modules. The relevant department will give the CBL.

- **CLINICAL EXPERIENCES:**

  Students examine patients in hospital wards, clinics, and outreach facilities in small groups, noting their signs and symptoms. This aids students in connecting their understanding of the module's basic and clinical sciences and getting ready for future practice.

- **CLINICAL ROTATIONS:**

  Students cycle through a variety of wards in small groups, including those in family medicine clinics, outreach centers, pediatrics, surgery, obstetrics and gynecology, ENT, and community medicine. In both inpatient and outpatient settings, students watch patients, get medical histories, and carry out clinical examinations under supervision. They also have the chance to watch medical professionals function as a team. Students can link their basic medical and clinical skills to a variety of clinical domains through these rotations.

- **SKILL SESSIONS:**

  Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

- **SELF STUDY:**

  Self-directed learning is a process in which students take charge, either on their own or with assistance from others. Students chart their learning objectives and determine their areas of need for learning. They select and employ their own learning methodologies, and they independently assess the learning objectives.

6. INTRODUCTION

For MBBS Final year students, the Blood-III module concentrates on knowledge and skills required for diagnosis, and outlining the management plan of common hereditary, immunological, and neoplastic disorders of blood and its components. The module covers as well the principles and techniques of laboratory investigations essential for the diagnosis, and monitoring of the treatment of hematological disorders. In view of prevalence in Pakistan, adequate coverage is given to different types of anemia, thalassemia, and other related disorders. Moreover, the objectives include blood transfusion and blood donation practices to promote safe transfusion, and appropriate use of blood components

6.1 RATIONALE

The Blood-III module learning objectives take into consideration previously acquired pertinent knowledge in Blood-II module of MBBS third year. The module integrates with related disciplines such as Medicine, Paediatrics and Gynaecology. It is expected that different learning experiences would help students build new knowledge, and enhance students' understanding and motivation to seek further knowledge. This includes taking histories, examining patients, and learning about sampling techniques, pertinent laboratory tests, their interpretations, treatment plans, and prognostic values of various hematological, immunological, and immuno-haematological disorders of adults and children.

6.2 IBN E SINA UNIVERSITY (ISU) VISION:

To become a world-leading organization in rural health and social care research, training, recruitment and best evidence-based practice.

6.3 IBN E SINA UNIVERSITY (ISU) MISSION:

Our Mission is to inspire hope, and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research. To provide a focal point for the development and collation of high-quality research pertinent to rural health and wellbeing. To improve the training, recruitment and retention of a professional workforce within rural communities. To be recognized as an exemplar in rural health and wellbeing on the international stage. To establish a network of individuals and groups that support research, innovation and development in rural health and social care.

7. LEARNING OBJECTIVES

7.1 Knowledge / Cognitive Domain

It involves knowledge and the development of intellectual skills. By the end of this module, the students should be able to:

1. Explain the etiology, clinical features, diagnostic workup, and management of a patient with Anemia.
2. Explain the etiology, clinical features, diagnostic workup, and management of a patient with anemia of pregnancy.
3. Explain the etiology, clinical features, diagnostic workup, and management of a patient with Leukopenia.
4. Explain the etiology, clinical features, diagnostic workup, and management of a patient with Leukocytosis.
5. Explain the management and complications of a patient with hematological malignancies.
6. Discuss the diagnostic workup of a patient with splenomegaly.
7. Explain the etiology, clinical features, diagnostic workup, and management of a patient with bleeding and clotting disorders.
8. Explain the etiology, clinical features, diagnostic workup, and management of a patient with anemia of pregnancy

7.2 Skills / Psychomotor Domain:

Includes physical movement, co-ordination and the use of motor skill areas. For this Module, these include:

1. Take a history from a patient with anemias
2. Perform physical examination of a neonate, infant and child with anemia
3. Take a history of a child/infant withleukopenia / aplastic anemia
4. Take history and perform physical examination of a patient with leukocytosis
5. Perform general physical and systemic examination keeping in mind the hematological problem for a specific Pediatric age group
6. Perform hematological examination
7. Take history and perform physical examination of a patient with anemia inpregnancy
8. Take history and perform physical examination of a child with history of bleeding disorder

7.3 Attitude / Affective Domain:

It Involves our feelings, emotions and attitudes. By the end of this module, the students should be able to:

1. Respect oneself and one's peers, both when providing and receiving comments.
2. To show patients compassion and understanding.
3. Develop your ability to communicate while keeping a sense of duty to your patients.
4. Showcase appropriate laboratory procedures.
5. Relate to patient and careers vulnerability
6. Demonstrate ethical self-management
7. Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.
8. Display compassion with patient and colleagues
9. Demonstrate in clinical care an understanding of the impact of psychological, social, and economic factors on human health and disease
10. Counsel a patient with newly diagnosed hematological malignancy
11. Counsel a parent with a child with ALL.
12. Counsel a pregnant patient with anemia.
13. Counsel a parent of a neonate, infant and child with Thalassemia major

7.4 Outcomes of Blood-III Module

1. Knowledgeable
2. Skillful
3. Community Heath Promoter
4. Problem-solver
5. Professional
6. Researcher
7. Leader and Role Model

8. THEMES FOR BLOOD-III MODULE

S.NO	Themes	Duration
1	**Pallor**	1 week
2	**Fever**	1 week
3	**Bleeding**	1 week

9. SPECIFIC LEARNING OBJECTIVES THEME WISE

THEME 1: PALLOR					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Pediatrics	Anemia	1	1	Cognitive	Evaluate a neonate, infant and child withanemia (congenital/acquired).
			2	Cognitive	Explain the diagnostic workup needed for different age group in Pediatric patients with anemias ofinadequate production and hemolytic anaemia.
			3	Cognitive	Classify anemias based on history,physical examination and relevant investigations consideringdifferent age groups
		1	4	Cognitive	Manage an infant and child with iron deficiency anemia and megaloblasticanemia
			5	Cognitive	Manage a neonate and infant withhereditary anemias
		2	6	Cognitive	Manage a child with hemolytic anemias: • Thalassemia • Sickle cell anemia • Hereditary spherocytosis • G6PD deficiency
			7	Cognitive	Manage a child with anemia resulting frombone marrow failure (Aplastic anemia)
			8	Psychomotor skills	Perform physical examination of a neonate, infant and child with anemia
			9	Psychomotor skills	Perform general physical and systemicexamination keeping in mind the hematological problem for a specific Pediatric age group

			10	Affective domain	Counsel a parent of a neonate, infant andchild with Thalassemia major
Medicine	Anemias	1	11	Cognitive	Evaluate a patient with anemia
			12	Cognitive	Explain the diagnostic workup of a patientwith anemias
			13	Cognitive	Classify anemias based on history,physical examination and relevant investigations
		1	14	Cognitive	Manage a patient with iron deficiencyanemia
			15	Cognitive	Manage a patient with hereditary anemias
			16	Cognitive	Manage a patient with hemolytic anemias(hereditary and acquired)
			17	Cognitive	Manage a patient with anemia resultingfrom bone marrow failure
			18	Psychom otor skills	Take a history from a patient with anemias
			19	Psychom otor skills	Perform physical examination of a patientwith anemia
			20	Psychom otor skills	Perform hematological examination
			21	Affective domain	Counsel a patient with different type ofanemias
Gynaecology	Anemia in pregnancy	1	22	Cognitive	List the various causes of anemia inpregnancy.
			23	Cognitive	Describe Feto-maternal complications ofanemia in pregnancy.
		1	24	Cognitive	Interpret the blood picture of a pregnantpatient with anemia
			25	Cognitive	Outline diagnostic workup and management plan of a patient with anemiain pregnancy.
		1	26	Psychom otor	Take history and perform physical examination of a patient with anemia inpregnancy.

			27	Affective	Counsel a pregnant patient with anemia.
THEME-2: FEVER					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Pediatrics	Leukopenia	1	28	Cognitive	Evaluate a report of peripheral blood film
			29	Cognitive	Explain the diagnostic approach to a childwith Leukopenia
			30	Psychomotor	Take a history of a child/infant withleukopenia / aplastic anemia
	Leukemias	1	31	Cognitive	Explain the diagnostic approach to a childwith leukocytosis
			32	Cognitive	Classify Leukemias
			33	Cognitive	Explain the diagnostic approach to apatient with suspected leukemia
			34	Cognitive	Explain the management of a child withacute Leukemias
			35	Psychomotor	Take history and perform physical examination of a patient with leukocytosis
			36	Affective	Counsel a parent with a child with ALL.
	Splenomegaly	1	37	Cognitive	Classify the causes of splenomegaly inPaediatric age group
			38	Cognitive	Explain the diagnostic approach to a childwith splenomegaly
Medicine	Leukopenia	1	39	Cognitive	Evaluate a peripheral blood film
			40	Cognitive	Explain the diagnostic approach to apatient with Leukopenia
			41	Psychomotor	Take a history from a patient withleukopenia and aplastic anemia
	Leukemias	2	42	Cognitive	Explain the diagnostic approach to a patientwith leukocytosis
			43	Cognitive	Classify Leukemias
			44	Cognitive	Explain the management of a patient withacute Leukemias
			45	Cognitive	Explain the management of a patient withchronic Leukemias
			46	Psychomotor	Take history and perform physicalexamination of a patient with leukocytosis

	Splenomegaly	2	47	Cognitive	Classify the causes of splenomegaly
			48	Cognitive	Explain the diagnostic approach to apatient with splenomegaly
	Lymphadenopath y		49	Cognitive	Classify the causes of generalized lymphadenopathy
			50	Cognitive	Explain the diagnostic approach to apatient with generalized lymphadenopathy
			51	Cognitive	Classify lymphomas
			52	Cognitive	Explain the management of a patient withLymphoma (Hodgkin`s and non-Hodgkin`s)
			53	Cognitive	Explain tumor lysis syndrome and itsmanagement
			54	Cognitive	Explain the common adverse effects of chemotherapeutic agents used in hematological malignanciesand their management and prevention.
			55	Affective	Counsel a patient with newly diagnosed hematological malignancy
THEME-3: BLEEDING					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Pediatrics	Definitio n of terms	1	56	Cognitive	Define Petechae, purpura, ecchymosis
	Bleeding and clotting disorders		57	Cognitive	Explain the diagnostic approach to achild/infant with bleeding disorder
			58	Cognitive	Classify clotting disorders and explain theiretiologies
			59	Cognitive	Explain the coagulation screen
			60	Cognitive	Interpret the common hematological parameters in a child with bleeding disorder (Platelets count, BT, CT, PT, APTT, Fibrinogen levels, FDPs)
		2	61	Cognitive	Explain the management of Von Willebrand disease

			62	Cognitive	Explain the management of a child with Hemophilia A
			63	Cognitive	Explain the management of a child withIdiopathic Thrombocytopenic Purpura
			64	Cognitive	Explain the dosage and administration offactor VIII in a child/infant in different situations like accidents, fall of deciduous teeth, surgeryetc.
			65	Psychomotor	Take history and perform physicalexamination of a child with history of bleeding disorder
Medicine	Bleeding and clotting disorders	2	66	Cognitive	Explain the diagnostic approach to apatient with bleeding disorder
			67	Cognitive	Classify hypercoagulable states and theirmanagement and prevention of thrombosis

9.1 CLINICAL SCIENCES SUBJECTS

BLOOD III MODULE				
S. No	**Clinical Sciences Subjects**	**Learning Objectives**	**Hours**	**Learning Strategy**
1.	Anaesthesia Preoperative Laboratory Testing	Identify the indications for preoperative laboratory testing	1	Lecture
		Identify the indications for preoperative chest x-rays	1	Lecture
		Identify the indications for preoperative EKGs.	1	Lecture

9.2 CLINICAL ROTATION SCHEDULE

MORNING CLINICAL ROTATIONS

Duration	9 weeks		11 weeks		8 weeks	8 weeks
	6 weeks	3wks	8 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	78	39	104	39	104	104

* 2.6 clinical teaching hours per day

EVENING CLINICAL ROTATIONS

Duration	6 weeks		14 weeks		8 weeks	8 weeks
	3 weeks	3wks	11 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	45	45	165	45	120	120

* 3 clinical teaching hours per day

The above mentioned clinical rotation schedule is to be followed by every student throughout the year. Groups of students are decided by the Hospital Administration.

10. TEACHING HOURS ALLOCATION

There will be 25 hours allotted in total. The hours shall be divided into 3 different themes. The necessity for students to set aside more time for self-directed learning and clinical learning is emphasized, although at the expense of repetition. We anticipate that the students will be well-versed in this significant module. This module covers a number of common and significant subjects.

S. No	Subject	Hours
1	Paediatrics	10
2	Medicine	9
3	Gynaecology	3
4	Anesthesia	3
	Total hours	**25**

11. EXAMINATION AND METHODS OF ASSESSMENT

11.1 EXAMINATION RULES AND REGULATIONS

- Student must report to examination hall/venue, in time for smooth conduction of the exams.
- No student will be allowed to enter the examination hall after 10 minutes of scheduled examination time.
- No students will be allowed to sit in exam without College ID Card, and Lab Coat
- Students must sit according to their roll numbers mentioned on the seats.
- Student must bring their own stationary items (Pen, Pencil, Eraser, and Sharpener) – Sharing is prohibited
- Any disturbance or Indiscipline in the exam hall/venue is not acceptable.
- Students must not possess any written material or communicate with their fellow students
- Cell phones are strictly not allowed in examination hall. If any student is found with cell phone in any mode (silent, switched off or on) he/she will be **not be allowed to continue their exam.**
- **No student is allowed to leave the examination hall before half the time is over, paper is handed over to the examiner and properly marking the attendance.**

11.2 ASSESSMENT

11.2.1 Internal: Total 10% (20 marks)

- Students will be assessed comprehensively through multiple methods to determine achievement of module objectives through two methods: Module examination and Graded assessment by Individual department
    - **Module Examination**: It will be scheduled on completion of each module. The method of examination comprises theory exam (which includes SEQs and MCQs) and OSPE / OSCE exam (which includes static and interactive stations).
    - **Graded Assessment by individual department**: It includes weekly MCQs tests on Survive online LMS program, viva, practical, weekly theme based assignments, post-test discussion sessions, peer assessments, presentations, small group activities such as CBL, ward activities, examinations and log books, all of which have specific marks allocation.
- Marks of both modular examination and graded assessment will constitute 10% weightage.
- 10% marks of internal evaluation will be added to the ISU annual professional exam.
- The marks distribution is based on Formative Assessment done individually by all the concerned departments. It may include:

- NOTE: **at least 75% attendance is mandatory** to appear in the annual university examination.
- Exam branch is responsible to maintain the attendance record for Main Campus in coordination with all the concerned departments.

11.2.2 University Annual Exam: Total 90%

- Annual Exam has 90% marks in total
- It includes theory and OSPE / OSCE.
- Each written paper consists of 100 MCQs and 10 SEQs and internal assessment marks will be added tothe final marks.

11.3 METHODS OF ASSESSMENT

11.3.1 Multiple Choice Questions

- Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
- Total 100 MCQs are included which are formulated through the table of specification from learning objectives of Module interactive lectures.
- Time duration for MCQs will be 1 and half hour.
- MCQs are used to assess objectives covered in each module.
- Students after reading the statement / scenarios select one appropriate response from the given options.
- Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
- Students attempt the MCQs exam on Computer screen on Moodle / LMS program in IT Lab.

11.3.2 Short Essay Questions (SEQs):

- Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- Commonly used in examinations to assess the depth of knowledge and understanding.
- Includes 10 questions each carrying 10 marks.
- Time Duration for Essay type paper is 2 hours.
- Questions are selected from the specific learning objectives of the specific ongoing module.

11.3.3 OSPE / OSCE

- Each student will be assessed on the same content and have same time to complete the task.
- Time allocated for each station is five minutes as per Examination rules of Ibn e Sina University, Mirpurkhas

- All students are rotated through the same stations.
- OSPE / OSCE Comprises of 15 - 20 stations.
- Each station may assess a variety of diagrammatic identifications and clinical tasks. These tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are Interactive, observed, unobserved (static) and rest stations.
  - Interactive Stations:
    - In this station, examiner ask questions related to the task within the allocated time.
  - Observed Stations:
    - In observed stations, internal or external examiner don't interact with candidate and just observe the performance of the skills or procedures.
  - Unobserved (static) Stations:
    - It will be static stations in which there may be models, specimens, multiple identification points, X-ray, Labs reports, flowcharts, pictures, or clinical scenarios (to assess cognitive domain) with related questions for students will be used to answer on the provided answer copy.
  - Rest station
    - It is a station where there is no task given and in this time student can organize his/her thoughts

11.3.4 ASSIGNMENTS

- An online assignment on the Ibn-e-Sina University moodle uploaded according to the topic of the week.
- All assignments should be checked by the teacher who has taken the lecture on the topic during the same week.
- The assignment should cover enough material to include the requirement of the curriculum and syllabus, so the student should be able to answer the annual examination questions by revising these notes (assignments) only.
- The assignments are checked and graded also with comment to guide, motivate and encourage the students to work whole heartedly. Frequent guidance and motivation will go a long way in improving the students' performance.
- Assignments of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.5 WEEKLY TESTS

- The weekly tests are conducted for all classes. The tests are conducted online and are on topics displayed on the portal (Moodle). It consists of 35 MCQs. 5 MCQs will be from the previous weeks (slightly altered to change the answer or the right option). Everyone taking lectures, submit two MCQs to the Chairperson of the department who will check and pass them to the class moderator. MCQs can also be sent directly to the class moderator, who submits the MCQs to IT department for final placement on the moodle.

- The MCQs are not merely simple recall, but test higher level of cognition. As far as possible, they test an important concept related to one of the topics of the week.
- It is different from the summative assessment (Annual or Semester Examinations) in that the goal of summative assessment is to evaluate student's learning at the end of an instructional unit by comparing it against some standard or benchmark, to decide if the student can be promoted or not, whereas the goal of these weekly tests is to check the understanding of the students on the important concepts related to the topics that have been displayed on the portal for the week, the teachers have taught them and the students have made assignments on them.
- Results of weekly tests of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.6 POST-TEST DISCUSSION (PTD)

- Every student has to prepare a special assignment where he/she selects all the questions he/she got wrong. Then he/she makes 3 boxes. In box A he/she writes the questions he/she got wrong in his/her own words, highlighting and underlining the keywords. In box B the student explains why he/she has chosen this answer. In box C the student mentions what he/she has learnt after reading the explanation and how the concept has got clear now.
- The moderator will check, assess and grade PTD
- Next day, the class moderator of the class conducts a class where he/she discusses the mistakes committed and the post-test assignments submitted in detail with the class
- PTD assignments of the whole Professional year MBBS are counted as in Internal Assessment.

12. GRADING POLICY

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	**A+**
75-79	4.0	**A**
70-74	3.7	**A-**
67-69	3.3	**B+**
63-66	3.0	**B**
60-62	2.7	**B-**
56-59	2.3	**C+**
50-55	2.0	**C**
<50 Non gradable	0	**N**

- A student obtaining GPA less than 2.0 (50%) is declared fail pr Non gradable

13. ASSESMENT BLUEPRINT

BLOOD-III MODULE

Assessment is based on Table of Specification (TOS)

	ASSESMENT	TOOLS	MARKS
MODULE EXAM	THEORY	MCQ's	100
		SEQ's	100
	OSPE	OSPE Static	50
		OSPE Interactive	50
		Total	300

14. RECOMMENDED BOOKS

SUBJECT	*RESOURCES*
PAEDIATRICS	1. Nelson textbook of pediatrics 2. Textbook of Pediatrics, Pakistan Pediatrics Association 3. Basis of Pediatrics, Pervez Akbar khan, Ninth edition 4. Current pediatrics 5. OP Ghai Essential of Pediatrics Textbook
GYNAECOLOGY	1. Obstetrics by Ten Teachers 20TH Edition 2. Gynaecology by Ten Teachers 23rd Edition
GENERAL MEDICINE	1. Hutchison's Clinical Methods, 23rd Edition 2. MacLeod's clinical examination 13th edition 3. Davidson's Principles and Practice of Medicine 4. Kumar and Clark's Clinical Medicine 5. HCAI guidelines CDC

IBN-E-SINA UNIVERSITY MIRPURKHAS
FACULTY OF BASIC MEDICAL SCIENCES

Course Feedback Form

Course Title: _____

Semester/Module_____ Dates:_____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Yes ☐ No ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

Thank you!!

IBN-E-SINA UNIVERSITY MIRPURKHAS

STUDENT'S STUDY GUIDE
ENDOCRINE AND REPRODUCTION - IV MODULE
FINAL PROFESSIONAL MBBS

TABLE OF CONTENTS

1. DISCLAIMER

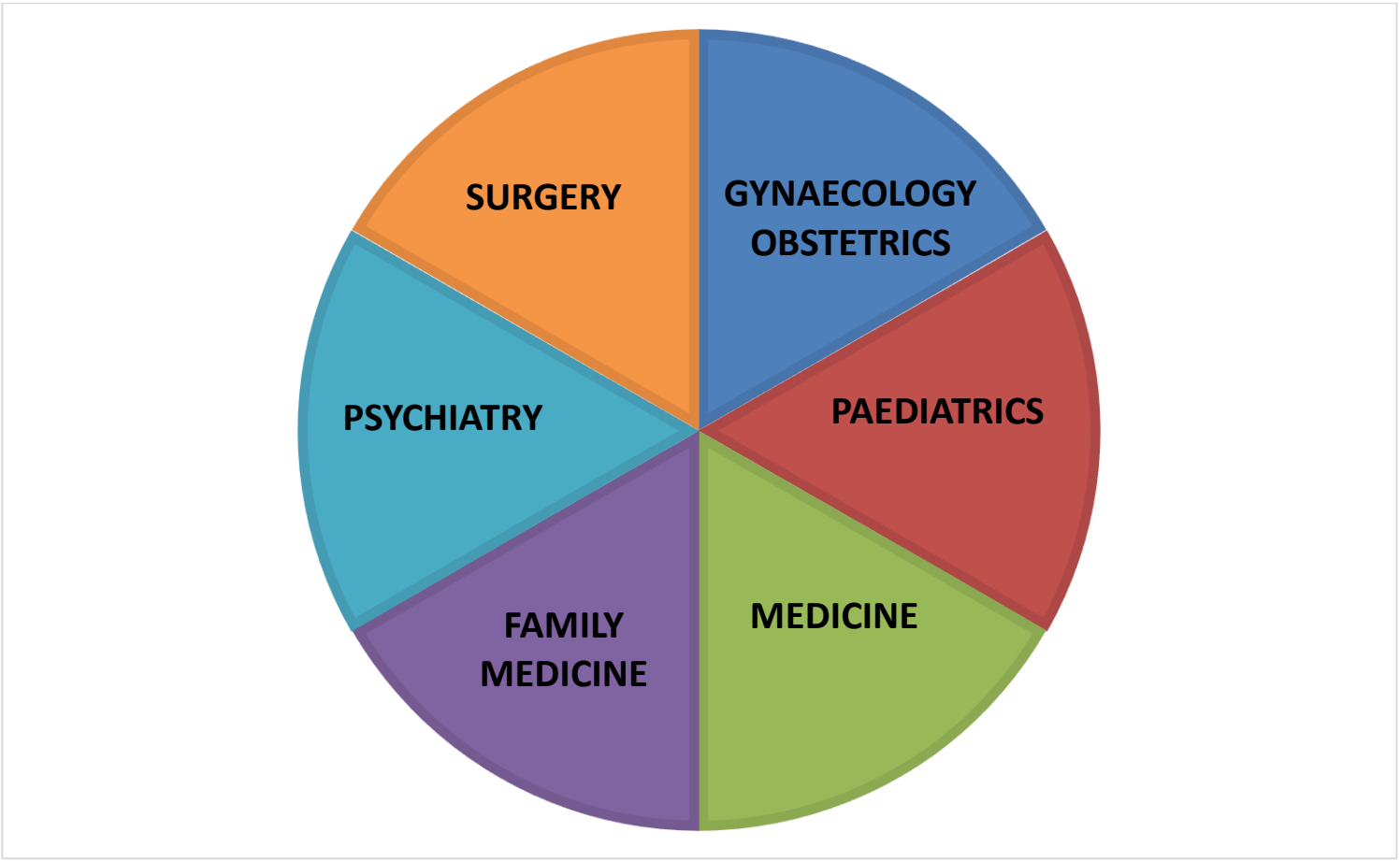
- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
- However, students are advised to use it as a guide for respective modules.
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
- Students are encouraged to provide feedback via coordinator

2. CURRICULUM FRAMEWORK

An educational strategy known as integrated curriculum places a strong emphasis on interdisciplinary learning, in which students gain knowledge by integrating it from several topic areas. By integrating many subjects and disciplines into a cohesive curriculum, this method seeks to give students a more relevant and interesting learning experience. Integrated curriculum means that subjects are presented as a meaningful whole for better understanding of basic sciences in relation to clinical experience and application.

Integrated curriculum comprises of system-based modules such as Foundation-II, Blood-III, Cardiorespiratory -III, Endocrine and Reproduction-IV, Renal-III, Git and Liver-IV, Multisystem, Musculoskeletal-II and Neuroscience -III modules which links basic science knowledge to clinical problems.

INTEGRATING DISCIPLINES OF ENDOCRINE AND REPRODUCTION-IV MODULE



3. MODULE OVERVIEW

ENDOCRINE AND REPRODUCTION - IV MODULE DETAILS

Course	MBBS
Year	Final professional
Duration	4 weeks
Learning Outcomes	The competent Medical Practitioner
Competencies covered	To develop medical professionals who are well - versed, adept, and have the right mindset.
Module Assessment	End module formative assessment
Teaching Methods	Interactive Lectures, Demonstrations, Case Based Learning, Small Group Discussions, Self-Study Sessions, E-Learning, Clinical rotations
Assessment Methods	MCQs, SEQs, OSPE, VIVA

ENDOCRINE AND REPRODUCTION - IV MODULE COMMITTEE

Sr. No	Names	Department	Designation
MODULE COORDINATOR			
1.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU
COMMITTEE MEMBERS			
1.	Prof: Dr. Syed Razi Muhammad	Surgery	Chancellor ISU
2.	Prof: Dr. Shams Ul Arfeen Khan	Biochemistry	Vice Chancellor ISU
3.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU

4. WHAT IS STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, tohelp students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The study guide:

— Communicates information on organization and management of the module.

— This will help the student to contact the right person in case of any difficulty.

— Defines the objectives which are expected to be achieved at the end of the module.

— Identifies the learning strategies such as lectures, small group teachings.

Module objectives.

— Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.

— Highlights information on the contribution of continuous on the student's overall performance.

— Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of objectives.

- Focuses on information pertaining to examination policy, rules and regulations.

5. LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Study

- **INTERACTIVE LECTURES:**

  Large group discussions are not the same as traditional lecture formats. When a teacher or instructor uses images, radiographs, patient interaction recordings, etc. to discuss a topic or typical clinical scenario, the lecture becomes interactive. When they are given tiny activities to do that allow them to apply the knowledge they have learned throughout the session and are asked questions, students actively participate in the learning process.

- **SMALL GROUP DISCUSSIONS (SGDS):**

  With the use of SGD, students can take an active role in their education, clarify ideas, develop psychomotor skills, and develop a positive attitude. Discussion themes, patient interviews, and clinical cases are used to design sessions in an organized manner. Pupils are inspired to express their ideas, apply the fundamental knowledge they have learned from lectures and independent study, and are encouraged to share their notions. In small groups, role play is a useful technique for acquainting pupils with real-world scenarios. Probing questions, rephrasing, and summarizing are used by the teacher to assist make the concepts obvious.

- **CASE-BASED LEARNING (CBL):**

  Learning is centered around a sequence of questions based on a clinical scenario in this small group discussion format. Students create new information by discussing and responding to the questions using pertinent prior knowledge from the clinical and fundamental health sciences modules. The relevant department will give the CBL.

- **CLINICAL EXPERIENCES:**

  Students examine patients in hospital wards, clinics, and outreach facilities in small groups, noting their signs and symptoms. This aids students in connecting their understanding of the module's basic and clinical sciences and getting ready for future practice.

- **CLINICAL ROTATIONS:**

  Students cycle through a variety of wards in small groups, including those in family medicine clinics, outreach centers, pediatrics, surgery, obstetrics and gynecology, ENT, and community medicine. In both inpatient and outpatient settings, students watch patients, get medical histories, and carry out clinical examinations under supervision. They also have the chance to watch medical professionals function as a team. Students can link their basic medical and clinical skills to a variety of clinical domains through these rotations.

- **SKILL SESSIONS:**

  Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

- **SELF STUDY:**

  Self-directed learning is a process in which students take charge, either on their own or with assistance from others. Students chart their learning objectives and determine their areas of need for learning. They select and employ their own learning methodologies, and they independently assess the learning objectives.

6. INTRODUCTION

Endocrine disorders, such as diabetes and thyroid dysfunction, and reproductive conditions, including infertility and pregnancy-related complications, are prevalent worldwide. The increasing global burden of these diseases underscores the importance of healthcare professionals possessing comprehensive knowledge to address the rising incidence and impact on public health. Disorders of the endocrine and reproductive systems manifest in a myriad of clinical presentations, ranging from subtle hormonal imbalances to life-threatening emergencies. Equipping medical professionals with the skills to recognize, diagnose, and manage these conditions is crucial for effective patient care, particularly in emergency and outpatient settings. A comprehensive understanding of these conditions is essential for healthcare practitioners to provide age-appropriate care, whether dealing with pediatric endocrinopathies, reproductive health in adults, or hormonal changes in the elderly.

6.1 RATIONAL

Management of endocrine and reproductive diseases often requires a multidisciplinary approach, involving endocrinologists, gynecologists, obstetricians, surgeons, and other specialists. Medical students need a foundational understanding of these conditions to collaborate effectively within healthcare teams and provide holistic care to patients. In essence, the rationale for studying endocrine and reproductive diseases and their management lies in the fundamental impact these conditions have on individual well-being, public health, and the broader healthcare landscape. By delving into these intricacies, medical professionals are better equipped to navigate the complexities of patient care and contribute to advancements in the field.

6.2 IBN E SINA UNIVERSITY (ISU) VISION:

To become a world-leading organization in rural health and social care research, training, recruitment and best evidence-based practice.

6.3 IBN E SINA UNIVERSITY (ISU) MISSION:

Our Mission is to inspire hope, and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research. To provide a focal point for the development and collation of high-quality research pertinent to rural health and wellbeing. To improve the training, recruitment and retention of a professional workforce within rural communities. To be recognized as an exemplar in rural health and wellbeing on the international stage. To establish a network of individuals and groups that support research, innovation and development in rural health and social care.

7. LEARNING OBJECTIVES

7.1 Knowledge / Cognitive Domain

It involves knowledge and the development of intellectual skills. By the end of this module, the students should be able to:

1. Discuss the clinical conditions resulting in Tall/short stature and its management.
2. Discuss the clinical conditions causing Excessive thirst and Urination and its management.
3. Discuss the diagnostic approach, management, and complications of a patient with suspected hyperthyroidism.
4. Explain the diagnostic approach, management, and complications of multinodular goiter.
5. Explain the diagnostic approach and management of a child with suspected Cretinism
6. Explain the diagnosis, management and complications of a diabetic patient presenting with hyperglycemias and hypoglycemias.
7. Discuss the clinical conditions resulting in Infertility and its management.
8. Discuss pathophysiology of Pregnancy, its Management, and complications.
9. Discuss the development of fetus, its growth, and complications.
10. Discuss the pathophysiology of Obstetrics emergencies, its Management, and complications.

7.2 Skills / Psychomotor Domain:

Includes physical movement, co-ordination and the use of motor skill areas. For this Module, these include:

1. Demonstrate the ability to perform the disease specific relevant examination
2. Respond to common medical emergencies
3. Palpate the thyroid gland to assess for size, consistency, and the presence of nodules.
4. Check for the presence of cervical lymphadenopathy.
5. Take history and Assess the patient's overall body composition and distribution of fat such as in Cushing's syndrome or hypothyroidism.
6. Take history and perform physical examination of a child with hypothyroidism/cretinism.
7. Identify the red flags in a diabetic patient and appropriately refer to specialty care when required.
8. Counsel a newly diagnosed patient with Diabetes Melitus.
9. Examine and stage a diabetic foot ulcer.
10. Perform urine examination via dipstick technique for pregnancy, glucose, urine, and bacteria.

11. Perform a Clinical breast examination by all techniques including “radial wagon wheel” and “spoke” method.

7.3 Attitude / Affective Domain:

It Involves our feelings, emotions and attitudes. By the end of this module, the students should be able to:

1. Respect oneself and one's peers, both when providing and receiving comments.
2. To show patients compassion and understanding.
3. Develop your ability to communicate while keeping a sense of duty to your patients.
4. Showcase appropriate laboratory procedures.
5. Relate to patient and careers vulnerability
6. Demonstrate ethical self-management
7. Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.
8. Counsel a morbidly obese patient regarding the complications and lifestyle management.

7.4 Outcomes of Endocrine and Reproduction-IV Module

1. Knowledgeable
2. Skillful
3. Community Heath Promoter
4. Problem-solver
5. Professional
6. Researcher
7. Leader and Role Model

8. THEMES FOR ENDOCRINE AND REPRODUCTION-IV MODULE

S.NO	Themes
1	**Tall/Short Stature**
2	**Neck Swelling and Muscle cramps**
3	**Excessive Thirst & Urination**
4	**Moon Face**
5	**Pregnancy and Breast Lump**

9. SPECIFIC LEARNING OBJECTIVES THEME WISE

THEME-1: TALL/SHORT STATURE					
Subject	**Topic**	**Topic Objectives**	**Teaching Hours**	**Mode of Teaching**	**Assessment Tools**
Medicine	Anterior gland	Discuss the diagnostic approach and management of a patient with tall stature.	1 hour	LGD	MCQ, SEQ
	Posterior pituitary gland	Discuss the approach consideration of a patient with polydipsia		LGD	MCQ, SEQ
		Explain the diagnostic approach and treatment of a patient with Diabetes insipidus.		CBD	MCQ, SEQ
Pediatrics	Short stature	Discuss the diagnostic approach and management of a child with short stature.	1 hour	SGD	MCQ, SEQ

THEME-2: NECK SWELLING AND MUSCLE CRAMPS					
Medicine	Thyroid gland disorders	Discuss the diagnostic approach, management, and complications of a patient with suspected hyperthyroidism.	1 hour	SGD	MCQ, SEQ
		Discuss the diagnostic approach, management, and complications of a patient with suspected hyperthyroidism.			
	Parathyroid gland	Discuss the diagnostic approach, management,and complications of a patient with tetany.			
		Take history and perform physical examination of a patient with goitre.		Skill Session	MCQ OSCE
		Counsel a patient with goitre.			
Surgery	Thyroid nodule	Explain the diagnostic approach, management, and complications of multinodular goitre.	1 hour	LGD	MCQ, SEQ
		Explain the diagnostic approach, and management of a patient with solitary thyroid nodule.			
		Perform thyroid examination		Skill session	MCQ, SEQ
Pediatrics	Thyroid disorders	Explain the neonatal screening for hypothyroidism	1 hour	Lecture	MCQ OSCE
		Explain the diagnostic approach and management of a child with suspected Cretinism			
		Discuss the complications of Cretinism			
		Take history and perform physical examination of a child with hypothyroidism/cretinism.			

THEME-3: EXCESSIVE THIRST AND URINATION					
Medicine	Diabetes Mellitus	Explain the diagnostic approach, screening and management of a patient with suspected Diabetes Mellitus.	1 hour	SGD	MCQ OSCE
		Elaborate the pharmacological and non- pharamcological management strategies in the management of type-1 and type- 2 DM.			
		Elaborate the acute and chronic complications of DM and their management			
		Discuss the diagnostic approach, management, and complications of hyperglycaemic syndromes in Diabetic patients.			
		Explain the diagnosis, management and complications of a diabetic patient presenting with hypoglycaemias.			
		Take history and perform physical examination of a patient with Type 2 DM.		Skill session	MCQ OSCE
		Counsel a newly diagnosed patient with DM.			
Family medicine	Daibetes mellitus-general practice management	Explain the management strategies of a diabetic patient in general practice including the psychosocial impact of disease on patient and their families.	1 hour	SGD	MCQ, SEQ
		Describe the strategies for prevention of diabetes mellitus and its complications.			
		Identify the red flags in a diabetic patient and appropriately refer to speciality care when required.			

Surgery	Diabetic foot ulcers	Discuss the classification, investigations, management, and complications of diabetic foot ulcers	1 hour	LGD	MCQ, SEQ
		Examine and stage a diabetic foot ulcer	2 hours	Skill session	MCQ OSCE
Nephrology	Diabetic nephropathy	Explain the pathogenesis, clinical features, complications, short and long-term management of Diabetic Nephropathy	1 hour	LGD	MCQ
Pediatrics	Type-1 DM	Explain the diagnostic approach, screening, and management of a Child with suspected Type-1 Diabetes Mellitus	1 hour	Lecture	MCQ OSCE
		Take history and perform physical examination of a patient with Type 2 DM			
		Counsel a newly diagnosed patient and parents with type 1 DM			

THEME-4: MOON FACE AND OBESITY					
Medicine	Cushing`s syndrome	Discuss the diagnosis, management, and complications of a patient with suspected Cushing`s syndrome.	1 hour	Lecture	MCQ OSCE
		Explain the Dexamethasone suppression test in terms of its indications and interpretation.			
		Explain the protocol of steroids withdrawal in a patient with steroids abuse.			
		Take history and perform physical examination of a patient with Cushing`s syndrome.			
	Addison`s disease	Discuss the diagnosis, management, and complications of a patient with suspected Addison`s disease (both primary and secondary).	1 hour	LGD	MCQ
		Explain the concept of steroids replacement in terms of its indications and precautions.			
	Obesity	Discuss the etiology, complications, medical and surgical approaches to the management of obesity.	1 hour	Lecture	MCQ OSCE
		Take history and perform physical examination			
		of a patient with morbid obesity.			

THEME-5: PREGNANCY AND BREAST LUMP					
Gynaecology and Obstetrics	Obstetrics history and examination	Take an obstetric history and perform abdominal, pelvic, and obstetric examination of a pregnant lady.	1 hour	Skills sessions	MCQ OSCE
		Measure and interpret blood pressure in a pregnant lady			
		Examine the breast of a full-term pregnant female	1 hour		
		Perform urine examination via dipstick technique for pregnancy, glucose, urine, and bacteria			
	Antenatal care	Define and explain the aims of antenatal care	2 hour	SGD	MCQ, SEQ
		Discuss the components of antenatal care			
		Explain different types of screening tests during antenatal care			
		Discuss the maternal and neonatal complications associated with increased BMI in pregnancy			
		Identify high risk women of developing pre- eclampsia, preterm birth, fetal growth restriction, and vitamin D deficiency			
		Perform and record proper antenatal check-ups			
		Counsel a pregnant lady about the complications of pregnancy			
	Assessment fetal wellbeing	Explain the methods of assessment of fetal wellbeing	2 hour	SGD	MCQ, SEQ
		Explain the types and diagnosis of fetal abnormalities		LGD	MCQ, SEQ
	Prenatal diagnosis	Explain the reasons, classification, and methods of prenatal diagnosis	1 hour	SGD	MCQ, SEQ
	Antenatal maternal and obstetric complications	Discuss musculoskeletal, gastroenterological, and hematological problems associated with pregnancy.	2 hour	CBD	MCQ, SEQ
		Discuss the risk factors and			

		management of venous thromboembolism in pregnancy.			
		Explain the causes, complications, and management of polyhydramnios and oligohydramnios.			
		Discuss the etiology, complications and management of fetal malpresentations.			
		Explain the approach and management of a			
		pregnant lady with antepartum bleeding.			
		Discuss the etiology, prevalence, management, and prevention of Rh isoimmunization.			
	Preterm labor PROM PPROM	Discuss the etiology, complications, and management of preterm labor.	2 hour	SGD	MCQ, SEQ
Family medicine / Obstetrics	Hypertensive disorders in pregnancy	Classify hypertension in pregnancy and disorders of hypertension in pregnancy.	1 hour	LGD	MCQ, SEQ
		Discuss the diagnostic approach, management, complications and prevention of Pre-eclampsia and Eclampsia	1 hour	LGD	MCQ, SEQ
Family medicine / Obstetrics	Diabetes mellitus and pregnancy	Explain the management of a pregnant lady with gestational DM and overt DM	1 hour	CBD	MCQ
Obstetrics	Perinatal infections	Classify prenatal infections.	1 hour	LGD	MCQ
		Explain the screening and preventive strategies of common perinatal infections.	1 hour	LGD	MCQ
	Labour	Explain the management of normal labour at different stages	2 hours	SGD	MCQ OSCE
		Explain the management of abnormal labour at different stages			
		Discuss the indications and complications of analgesia and anaesthesia in labour.			
		Discuss the management of labour at special circumstances like uterine scar, fetal malposition's, and multiple pregnancies,			

		Explain the types, indications, and complications of operative deliveries.			
		Discuss the indications and complications of Caesarian section			
		Observe normal labour and assisted deliveries.			
	Management of labor in special circumstances	Discuss the management of labor at special circumstances like uterine scar, fetal malpositions, fetal death, multiple pregnancies, and post-date pregnancies	2 hour	SGD	MCQ OSCE
		Explain the types, indications, and complications of operative deliveries.			
		Discuss the indications and complications of Caesarian section.			
		Observe normal labor and assisted deliveries.			
	Obstetric emergencies	Classify obstetric emergencies. Discuss the management of sepsis in pregnancy	1 hour	Lecture	MCQ OSCE
		Explain the management and complications of placental diseases in a pregnant woman.	1 hour	Lecture	MCQ OSCE
		Observe a normal delivery	2 hour	Skills session	MCQ OSCE
	Postpartum bleeding	Discuss the etiology, diagnostic and management approach to a patient with postpartum hemorrhage.	2 hour	SGD	MCQ
	Puerperium	Classify puerperal disorders and their management			
Psychiatry	Psychiatric disorders Pregnancy and puerperium	Classify different psychiatric disorders in pregnancy and puerperium.	1 hour	Lecture	MCQ OSCE
		Discuss the management of puerperal psychosis and depression			
		Counsel a patient and her family with postpartum psychosis/depression.			
Pediatrics	The neonate	Discuss the types and management of common problems of preterm and term babies	1 hour	Lecture	MCQ OSCE
		Discuss the principles of neonatal care			
		Observe the care of a neonate in nursery			

		Take history and perform physical examination of a neonate			
Surgery	Breast diseases	Discuss approach to a patient with breast lump emphasizing on diagnostic work-up of different breast pathologies (complexity of benign and malignant breast diseases) including imaging and procedures.	1 hour		
		Discuss the diagnostic approach and management of a patient with nipple discharge.	1 hour	Lecture	MCQ OSCE
		Perform a Clinical breast examination by all techniques including “radial wagon wheel” and “spoke” method	1 hour		
		Counsel a patient with breast cancer about the diagnosis, management, and screening of her family members.	1 hour		
Obstetrics	Ectopic Pregnancy	Define ectopic pregnancy. Enumerate the risk factors of ectopic pregnancy. Recognize the clinical presentation for ruptured ectopic pregnancy. Identify the role of ultrasound and serum beta HCG in detecting un ruptured ectopic pregnancy. Discuss the management options for ruptured as well as un ruptured pregnancy.	2 hours	SGD	MCQ, SEQ
	Abortion and its Management	Define Abortion Classify its different types on basis of signs and symptoms Distinguish between different types of abortion List the causes of recurrent abortion Evaluate relevant investigations and management plan. Discuss post abortal care.	2 hours	SGD	MCQ, SEQ
	Multiple Gestation	Define multiple pregnancy. Classify types of multiple pregnancy. Enumerate the risk factors of multiple pregnancy. Describe the diagnostic evaluation for multiple pregnancy. Discuss the clinical manifestation Enlist the complications of multiple .	2 hours	SGD	MCQ, SEQ

	Malpresentation	Define malpresentation. Classify the types of breech at term. Enumerate the risk factors of breech presentation at term. Discuss the significance of external cephalic version at term. Enlist the complications of breech vaginal delivery at term	2 hours	SGD	MCQ, SEQ
	Prenatal Screening	Define prenatal screening. Enlist serum markers for prenatal Diagnosis Describe role of ultrasound to screen chromosomal and structural anomalies. Describe CVS and Amniocentesis as prenatal diagnostic test	2 hours	SGD	MCQ, SEQ
	Postpartum care	Define Post Partum Care. Recognize the components of Post Partum Care Identify the common problems during Post Partum Care (Sepsis,Anaemia,Post Partum Haemorrhage). Counsel for breast feeding and contraception.	2 hours	SGD	MCQ, SEQ
	Ante Partum Hemorrhage	Define Ante Partum Hemorrhage. Classify Ante Partum Hemorrhage. List causes of Ante Partum Hemorrhage. Enumerate the risk factors of Abruptio Placenta Suggest the appropriate investigations to exclude any complication. Formulate the management plan of Abruptio Placenta.	2 hours	SGD	MCQ, SEQ
	Pregnancy Induced Hypertension Eclampsia	Define pregnancy induced hypertension. Classify PIH according to severity. Discuss the pathogenesis of PIH. Recognize the clinical manifestation pre eclampsia and eclampsia. Identify the complications due to PIH (Eclampsia and HELLP syndrome) Suggest the appropriate investigations to establish the diagnosis. Anticipate the complications of PIH and eclampsia.	2 hours	SGD	MCQ, SEQ

		Formulate management plan for fetomaternal surveillance during antenatal period, intrapartum period and postpartum period. Discuss protocol for management of eclampsia.			
	Thyroid Disorder in Pregnancy	Explain the physiological role of Thyroid hormone in fetal development during pregnancy. Classify the disorders according to the manifestations of clinical features. Describe the clinical significance of screening pregnant women for thyroid disorders in first trimester. Discuss the effects of hypothyroidism and hyperthyroidism during pregnancy	1 hour	Lecture	MCQ, SEQ
RADIOLOGY	Ultrasound for fetal wellbieng	Describe the indications for antenatal ultrasounds Discuss the components during fetal ultrasound chekups (fetal position, placental position, any fetal abnormalities, number of fetuses, fluid volumes)	2 hour	Lecture	MCQ, SEQ

CLINICAL ROTATION

S. No	Learning Objectives	Learning Modalities
1.	Obtain History Perform Clinical examination	Patient Demo
2.	Observe NVD	Clinical rotation
3.	Observe surgical procedures	Clinical rotation
4.	Measure and interpret blood pressure	Patient Demo
5.	Examine the breast of a full-term pregnant female	Patient Demo
6.	Perform and record proper antenatal check-ups	Clinical rotation
7.	Observe the care of a neonate in nursery	Patient Demo
8.	Take history and perform physical examination of a neonate	Patient Demo

9.1 CLINICAL SCIENCES SUBJECTS

ENDOCRINE AND REPRODUCTION – IV MODULE				
S. No	**Clinical Sciences Subjects**	**Learning Objectives**	**Hours**	**Learning Strategy**
1.	**CRITICAL CARE**	Post-partum hemorrhage	1	Lecture
	Pregnancy	Septic abortion	1	Lecture
		Eclampsia & HELLP syndrome	1	Lecture
		Management of obstetrical patients in a post-operative setting	1	Lecture
2.	**FAMILY MEDICINE**	Menstrual Disorders	1	Lecture
	Women's health	Menopause	1	Lecture
		Breasts Lumps	1	Lecture
		Contraception	1	Lecture
		LUTS	1	Lecture

9.2 CLINICAL ROTATION SCHEDULE

MORNING CLINICAL ROTATIONS

Duration	9 weeks		11 weeks		8 weeks	8 weeks
	6 weeks	3wks	8 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	78	39	104	39	104	104

* 2.6 clinical teaching hours per day

EVENING CLINICAL ROTATIONS

Duration	6 weeks		14 weeks		8 weeks	8 weeks
	3 weeks	3wks	11 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	45	45	165	45	120	120

* 3 clinical teaching hours per day

The above mentioned clinical rotation schedule is to be followed by every student throughout the year. Groups of students are decided by the Hospital Administration.

10. TEACHING HOURS ALLOCATION

There will be 74 hours allotted in total. The hours shall be divided into 5 different themes. The necessity for students to set aside more time for self-directed learning and clinical learning is emphasized, although at the expense of repetition. We anticipate that the students will be well-versed in this significant module. This module covers a number of common and significant subjects.

S. No	Subject	Hours
1	Gynae / Obstetrics	40
2	Pediatrics	4
3	Medicine	7
4	Psychiatry	1
5	Family Medicine	9
6	Surgery	7
7	Radiology	2
8	Critical Care	4
	Total hours	**74**

11. EXAMINATION AND METHODS OF ASSESSMENT

11.1 EXAMINATION RULES AND REGULATIONS

- Student must report to examination hall/venue, in time for smooth conduction of the exams.
- No student will be allowed to enter the examination hall after 10 minutes of scheduled examination time.
- No students will be allowed to sit in exam without College ID Card, and Lab Coat
- Students must sit according to their roll numbers mentioned on the seats.
- Student must bring their own stationary items (Pen, Pencil, Eraser, and Sharpener) – Sharing is prohibited
- Any disturbance or Indiscipline in the exam hall/venue is not acceptable.
- Students must not possess any written material or communicate with their fellow students
- Cell phones are strictly not allowed in examination hall. If any student is found with cell phone in any mode (silent, switched off or on) he/she will be **not be allowed to continue their exam.**
- **No student is allowed to leave the examination hall before half the time is over, paper is handed over to the examiner and properly marking the attendance.**

11.2 ASSESSMENT

11.2.1 Internal: Total 10% (20 marks)

- Students will be assessed comprehensively through multiple methods to determine achievement of module objectives through two methods: Module examination and Graded assessment by Individual department
    - **Module Examination**: It will be scheduled on completion of each module. The method of examination comprises theory exam (which includes SEQs and MCQs) and OSPE / OSCE exam (which includes static and interactive stations).
    - **Graded Assessment by individual department**: It includes weekly MCQs tests on Survive online LMS program, viva, practical, weekly theme based assignments, post-test discussion sessions, peer assessments, presentations, small group activities such as CBL, ward activities, examinations and log books, all of which have specific marks allocation.
- Marks of both modular examination and graded assessment will constitute 10% weightage.
- 10% marks of internal evaluation will be added to the ISU annual professional exam.

- The marks distribution is based on Formative Assessment done individually by all the concerned departments. It may include:
- NOTE: **at least 75% attendance is mandatory** to appear in the annual university examination.
- Exam branch is responsible to maintain the attendance record for Main Campus in coordination with all the concerned departments.

11.2.2 University Annual Exam: Total 90%

- Annual Exam has 90% marks in total
- It includes theory and OSPE / OSCE.
- Each written paper consists of 100 MCQs and 10 SEQs and internal assessment marks will be added tothe final marks.

11.3 METHODS OF ASSESSMENT

11.3.1 Multiple Choice Questions

- Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
- Total 100 MCQs are included which are formulated through the table of specification from learning objectives of Module interactive lectures.
- Time duration for MCQs will be 1 and half hour.
- MCQs are used to assess objectives covered in each module.
- Students after reading the statement / scenarios select one appropriate response from the given options.
- Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
- Students attempt the MCQs exam on Computer screen on Moodle / LMS program in IT Lab.

11.3.2 Short Essay Questions (SEQs):

- Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- Commonly used in examinations to assess the depth of knowledge and understanding.
- Includes 10 questions each carrying 10 marks.
- Time Duration for Essay type paper is 2 hours.
- Questions are selected from the specific learning objectives of the specific ongoing module.

11.3.3 OSPE / OSCE

- Each student will be assessed on the same content and have same time to complete the task.

- Time allocated for each station is five minutes as per Examination rules of Ibn e Sina University, Mirpurkhas
- All students are rotated through the same stations.
- OSPE / OSCE Comprises of 15 - 20 stations.
- Each station may assess a variety of diagrammatic identifications and clinical tasks. These tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are Interactive, observed, unobserved (static) and rest stations.
  - Interactive Stations:
    - In this station, examiner ask questions related to the task within the allocated time.
  - Observed Stations:
    - In observed stations, internal or external examiner don't interact with candidate and just observe the performance of the skills or procedures.
  - Unobserved (static) Stations:
    - It will be static stations in which there may be models, specimens, multiple identification points, X-ray, Labs reports, flowcharts, pictures, or clinical scenarios (to assess cognitive domain) with related questions for students will be used to answer on the provided answer copy.
  - Rest station
    - It is a station where there is no task given and in this time student can organize his/her thoughts

11.3.4 ASSIGNMENTS

- An online assignment on the Ibn-e-Sina University moodle uploaded according to the topic of the week.
- All assignments should be checked by the teacher who has taken the lecture on the topic during the same week.
- The assignment should cover enough material to include the requirement of the curriculum and syllabus, so the student should be able to answer the annual examination questions by revising these notes (assignments) only.
- The assignments are checked and graded also with comment to guide, motivate and encourage the students to work whole heartedly. Frequent guidance and motivation will go a long way in improving the students' performance.
- Assignments of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.5 WEEKLY TESTS

- The weekly tests are conducted for all classes. The tests are conducted online and are on topics displayed on the portal (Moodle). It consists of 35 MCQs. 5 MCQs will be from the previous weeks (slightly altered to change the answer or the right option). Everyone taking lectures, submit two MCQs to the Chairperson of the department who will check and pass

them to the class moderator. MCQs can also be sent directly to the class moderator, who submits the MCQs to IT department for final placement on the moodle.

- The MCQs are not merely simple recall, but test higher level of cognition. As far as possible, they test an important concept related to one of the topics of the week.
- It is different from the summative assessment (Annual or Semester Examinations) in that the goal of summative assessment is to evaluate student's learning at the end of an instructional unit by comparing it against some standard or benchmark, to decide if the student can be promoted or not, whereas the goal of these weekly tests is to check the understanding of the students on the important concepts related to the topics that have been displayed on the portal for the week, the teachers have taught them and the students have made assignments on them.
- Results of weekly tests of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.6 POST-TEST DISCUSSION (PTD)

- Every student has to prepare a special assignment where he/she selects all the questions he/she got wrong. Then he/she makes 3 boxes. In box A he/she writes the questions he/she got wrong in his/her own words, highlighting and underlining the keywords. In box B the student explains why he/she has chosen this answer. In box C the student mentions what he/she has learnt after reading the explanation and how the concept has got clear now.
- The moderator will check, assess and grade PTD
- Next day, the class moderator of the class conducts a class where he/she discusses the mistakes committed and the post-test assignments submitted in detail with the class
- PTD assignments of the whole Professional year MBBS are counted as in Internal Assessment.

12. GRADING POLICY

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	**A+**
75-79	4.0	**A**
70-74	3.7	**A-**
67-69	3.3	**B+**
63-66	3.0	**B**
60-62	2.7	**B-**
56-59	2.3	**C+**
50-55	2.0	**C**
<50 Non gradable	0	**N**

- A student obtaining GPA less than 2.0 (50%) is declared fail pr Non gradable

13. ASSESMENT BLUEPRINT

ENDOCRINE AND REPRODUCTION - IV MODULE

Assessment is based on Table of Specification (TOS)

	ASSESMENT	TOOLS	MARKS
MODULE EXAM	THEORY	MCQ's	100
		SEQ's	100
	OSPE	OSPE Static	50
		OSPE Interactive	50
		Total	300

14. RECOMMENDED BOOKS

SUBJECT	*RESOURCES*
PAEDIATRICS	1. Nelson textbook of pediatrics 2. Textbook of Pediatrics, Pakistan Pediatrics Association 3. Basis of Pediatrics, Pervez Akbar khan, Ninth edition 4. Current pediatrics 5. OP Ghai Essential of Pediatrics Textbook
SURGERY	1. Bailey & Love's Short Practice of Surgery 27th edition (a new edition is expected shortly. Keep a look out for the new one 2. Demonstration of Physical Signs in Clinical Surgery, by Hamilton Bailey. 19th edition or newer. Text Book 3. Browse's Introduction to Symptoms and Signs of Surgical Disease. Text Book 4. Ackerman's Surgical Pathology. Latest Edition
GENERAL MEDICINE	1. Hutchison's Clinical Methods, 23rd Edition 2. MacLeod's clinical examination 13th edition 3. Davidson's Principles and Practice of Medicine 4. Kumar and Clark's Clinical Medicine 5. HCAI guidelines CDC
GYNAECOLOGY AND OBSTETRICS	1. Obstetrics by Ten Teachers 20th Edition 2. Gynaecology by Ten Teachers 23rd Edition

IBN-E-SINA UNIVERSITY MIRPURKHAS
FACULTY OF BASIC MEDICAL SCIENCES

Course Feedback Form

Course Title: _____

Semester/Module_____ Dates:_____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Yes ☐ No ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

Thank you!!

IBN-E-SINA UNIVERSITY MIRPURKHAS

STUDENT'S STUDY GUIDE
MULTISYSTEM MODULE
FINAL PROFESSIONAL MBBS



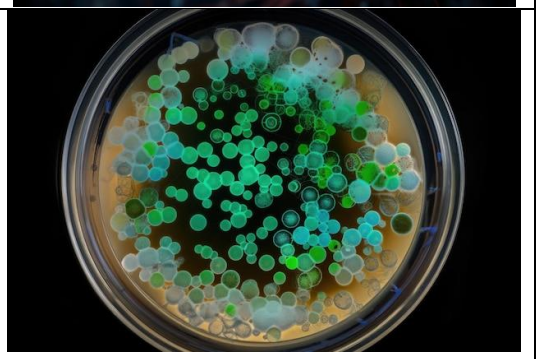




TABLE OF CONTENTS

1. DISCLAIMER

- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
- However, students are advised to use it as a guide for respective modules.
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
- Students are encouraged to provide feedback via coordinator

2. CURRICULUM FRAMEWORK

An educational strategy known as integrated curriculum places a strong emphasis on interdisciplinary learning, in which students gain knowledge by integrating it from several topic areas. By integrating many subjects and disciplines into a cohesive curriculum, this method seeks to give students a more relevant and interesting learning experience. Integrated curriculum means that subjects are presented as a meaningful whole for better understanding of basic sciences in relation to clinical experience and application.

Integrated curriculum comprises of system-based modules such as Foundation-II, Blood-III, Cardiorespiratory -III, Endocrine and Reproduction-IV, Renal-III, Git and Liver-IV, Multisystem, Musculoskeletal-II and Neuroscience -III modules which links basic science knowledge to clinical problems.

INTEGRATING DISCIPLINES OF MULTISYSTEM MODULE

3. MODULE OVERVIEW

MULTISYSTEM MODULE DETAILS

Course	MBBS
Year	Final professional
Duration	3 weeks
Learning Outcomes	The competent Medical Practitioner
Competencies covered	To develop medical professionals who are well - versed, adept, and have the right mindset.
Module Assessment	End module formative assessment
Teaching Methods	Interactive Lectures, Demonstrations, Case Based Learning, Small Group Discussions, Self-Study Sessions, E-Learning, Clinical rotations
Assessment Methods	MCQs, SEQs, OSPE, VIVA

MULTISYSTEM MODULE COMMITTEE

Sr. No	Names	Department	Designation
MODULE COORDINATOR			
1.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU
COMMITTEE MEMBERS			
1.	Prof: Dr. Syed Razi Muhammad	Surgery	Chancellor ISU
2.	Prof: Dr. Shams Ul Arfeen Khan	Biochemistry	Vice Chancellor ISU
3.	Prof: Dr. Aijaz Ahmed Memon	Surgery	Pro Vice Chancellor ISU

4. WHAT IS STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, tohelp students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The study guide:

— Communicates information on organization and management of the module.

— This will help the student to contact the right person in case of any difficulty.

— Defines the objectives which are expected to be achieved at the end of the module.

— Identifies the learning strategies such as lectures, small group teachings.

Module objectives.

— Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.

— Highlights information on the contribution of continuous on the student's overall performance.

— Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of objectives.

- Focuses on information pertaining to examination policy, rules and regulations.

5. LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Study

- **INTERACTIVE LECTURES:**

  Large group discussions are not the same as traditional lecture formats. When a teacher or instructor uses images, radiographs, patient interaction recordings, etc. to discuss a topic or typical clinical scenario, the lecture becomes interactive. When they are given tiny activities to do that allow them to apply the knowledge they have learned throughout the session and are asked questions, students actively participate in the learning process.

- **SMALL GROUP DISCUSSIONS (SGDS):**

  With the use of SGD, students can take an active role in their education, clarify ideas, develop psychomotor skills, and develop a positive attitude. Discussion themes, patient interviews, and clinical cases are used to design sessions in an organized manner. Pupils are inspired to express their ideas, apply the fundamental knowledge they have learned from lectures and independent study, and are encouraged to share their notions. In small groups, role play is a useful technique for acquainting pupils with real-world scenarios. Probing questions, rephrasing, and summarizing are used by the teacher to assist make the concepts obvious.

- **CASE-BASED LEARNING (CBL):**

  Learning is centered around a sequence of questions based on a clinical scenario in this small group discussion format. Students create new information by discussing and responding to the questions using pertinent prior knowledge from the clinical and fundamental health sciences modules. The relevant department will give the CBL.

- **CLINICAL EXPERIENCES:**

  Students examine patients in hospital wards, clinics, and outreach facilities in small groups, noting their signs and symptoms. This aids students in connecting their understanding of the module's basic and clinical sciences and getting ready for future practice.

- **CLINICAL ROTATIONS:**

  Students cycle through a variety of wards in small groups, including those in family medicine clinics, outreach centers, pediatrics, surgery, obstetrics and gynecology, ENT, and community medicine. In both inpatient and outpatient settings, students watch patients, get medical histories, and carry out clinical examinations under supervision. They also have the chance to watch medical professionals function as a team. Students can link their basic medical and clinical skills to a variety of clinical domains through these rotations.

- **SKILL SESSIONS:**

  Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

- **SELF STUDY:**

  Self-directed learning is a process in which students take charge, either on their own or with assistance from others. Students chart their learning objectives and determine their areas of need for learning. They select and employ their own learning methodologies, and they independently assess the learning objectives.

6. INTRODUCTION

The Multisystem Module is a pivotal component designed to provide medical students with a comprehensive and integrated understanding of the human body's various systems. This Module recognizes the intricate interconnectedness of the body's diverse physiological systems, including the cardiovascular, respiratory, gastrointestinal, musculoskeletal, nervous, reproductive and endocrine systems, among others. Through an interdisciplinary approach, students are exposed to the complexities of how these systems collaborate and respond to maintain homeostasis in health and confront challenges in illness. The module is designed to cultivate professionalism, ethical reasoning, and effective communication skills, preparing students to navigate the complexities of patient care in a compassionate and patient-centered manner. Through exposure to diverse clinical scenarios and patient populations, students develop a nuanced understanding of the variations in disease presentations and treatment approaches.

6.1 RATIONAL

The Multisystem Module in the final year of MBBS represents a crucial juncture in medical education, where students consolidate their knowledge, refine their clinical skills, and emerge as well-rounded physicians prepared to tackle the challenges of diverse medical scenarios in their future careers. The Multisystem Module aligns with the overarching goal of preparing students for licensure and entry into medical practice. It ensures that graduates possess the necessary competencies to meet the demands of a dynamic healthcare environment, providing high-quality and patient-centered care.

6.2 IBN E SINA UNIVERSITY (ISU) VISION:

To become a world-leading organization in rural health and social care research, training, recruitment and best evidence-based practice.

6.3 IBN E SINA UNIVERSITY (ISU) MISSION:

Our Mission is to inspire hope, and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research. To provide a focal point for the development and collation of high-quality research pertinent to rural health and wellbeing. To improve the training, recruitment and retention of a professional workforce within rural communities. To be recognized as an exemplar in rural health and wellbeing on the international stage. To establish a network of individuals and groups that support research, innovation and development in rural health and social care.

7. LEARNING OBJECTIVES

7.1 Knowledge / Cognitive Domain

It involves knowledge and the development of intellectual skills. By the end of this module, the students should be able to:

1. Explain the etiology, risk factors, complications, and management of obesity
2. Explain the classification, etiology, risk factors, and management of PCM
3. Explain the risk factors, clinical features, investigations, and treatment of common water-soluble and fat-soluble vitamins
4. Explain the concepts of nutritional support both in the hospital and community settings
5. Explain the risk factors, clinical features, complications, and management of Anorexia nervosa and Bulimianervosa
6. Discuss the management of common household poisoning including natural gas and snake bites
7. Explain the management of heat and cold-related disorders
8. Discuss the high-altitude sickness, decompression sickness, drowning, and electrocution.
9. Discuss chromosomal abnormalities, their clinical features, and the concepts of genetic counselling
10. Discuss the management of different autoimmune disorders in children and adults and their complications

7.2 Skills / Psychomotor Domain:

Includes physical movement, co-ordination and the use of motor skill areas. For this Module, these include:

1. The ability to quickly and accurately assess vital signs, including heart rate, respiratory rate, blood pressure, and temperature in emergency cases
2. Clearing the airway to ensure adequate oxygenation
3. Proficient insertion of intravenous lines for administering antidotes or other specific treatments
4. Perform insertion of Nasogastric tube
5. Performing BLS
6. Observe the insertion and care of Percutaneous Endoscopic Gastrostomy tube
7. Keep an intake and output record of an admitted patient on parenteral nutrition
8. Interpreting ECG tracings to identify and manage cardiac complications in severe cases of poisoning
9. Observe / perform gastric lavage.

7.3 Attitude / Affective Domain:

It Involves our feelings, emotions and attitudes. By the end of this module, the students should be able to:

1. Respect oneself and one's peers, both when providing and receiving comments.
2. To show patients compassion and understanding.
3. Develop your ability to communicate while keeping a sense of duty to your patients.
4. Demonstrate empathy and compassion to understand the patient's experience
5. Relate to patient and careers vulnerability
6. Advocating for the patient's best interests, ensuring they receive appropriate care and support
7. Demonstrate ethical self-management
8. Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.

7.4 Outcomes of Multisystem Module

1. Knowledgeable
2. Skillful
3. Community Heath Promoter
4. Problem-solver
5. Professional
6. Researcher
7. Leader and Role Model

8. THEMES FOR MULTISYSTEM MODULE

S.NO	Themes
1	**Weight gain / loss**
2	**Poisoning**
3	**Hypo and Hyperthemia**
4	**Childhood abnormalities**
5	**Cutaneous Rash and Joint pains**

9. SPECIFIC LEARNING OBJECTIVES THEME WISE

THEME-1: WEIGHT GAIN / LOSS					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Medicine	Obesity	2	1	Cognitive	Classify the types of obesity.
			2	Cognitive	Discuss the etiology of obesity.
			3	Cognitive	Explain the methods of measuring obesity.
			4	Cognitive	Discuss the musculoskeletal, endocrine, cardiovascular, and psychological complications ofobesity.
			5	Cognitive	Classify the drugs used in the management of obesity and their complications and adverse effects.
Surgery	Bariatric surgery	1	6	Cognitive	Discuss the forms of surgical management of obesity
	Vitamins deficiencies • Thiamine deficiency • Pyridoxine deficiency • B12 deficiency and pernicious anemia	2	7	Cognitive	Explain the etiology, clinical features, investigations, and treatment of Beri Beri.
			8	Cognitive	Explain the etiology, clinical features, investigations, and treatment of Pyridoxine deficiency.
			9	Cognitive	Explain the etiology, clinical features, investigations,and treatment of B12 deficiency / pernicious anemia.
	Vitamin A, D, E, K deficiency	2	10	Cognitive	Explain the etiology, clinical features, investigations, treatment, and prevention of Vitamin A deficiency
			11	Cognitive	Explain the etiology, clinical features, investigations, and treatment of vitamin D deficiency
			12	Cognitive	Explain the etiology, clinical features, investigations, and treatment of vitamin E deficiency
			13	Cognitive	Explain the etiology, clinical features, and management of vitamin K deficiency
Surgery	Nutritional	2	14	Cognitive	Define malnutrition and explain the methods of nutritional support.

	support/Enteral and parenteral nutrition		15	Cognitive	Explain the indications, contraindications, and complications of oral, enteral, and parenteralnutritional support
			16	Cognitive	Discuss the modes of clinical and laboratory monitoring of nutritional support
			17	Cognitive	Describe the routes of access of parenteral nutrition
		1	18	Psychomotor	Perform insertion of Nasogastric tube
		1	19	Psychomotor	Observe the insertion and care of PEG tube
		1	20	Psychomotor	Keep an intake and output record of an admitted patient on parenteral nutrition
			21	Affective	Counsel a patient before NG tube and PEG tube insertion
Pediatrics	Protein calorie malnutrition	1	22	Cognitive	Discuss the causes of malnutrition in developing countries - Describe the different forms of protein-energymalnutrition - Describe the symptoms of severe protein-energymalnutrition in children - Outline the treatment needed to treat a malnourished child - Define the criteria that classifies protein-energy malnutrition Explain the different causes, forms, classification, clinical features, and management of PMC
Psychiatry	Anorexia nervosa and Bulimia nervosa	1	23	Cognitive	Discuss the etiology, precipitating factors, clinical features, and management of Anorexia nervosa
			24	Cognitive	Discuss the etiology, precipitating factors, clinical features, and management of Bulimia nervosa.

THEME-2: POISONING					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Medicine	Approach to a patient with poisoning	1	25	Cognitive	Explain the management approach to a patient withpoisoning in emergency setup
	Management of a comatose patient with poisoning	1	26	Cognitive	Discuss the management approach to a patient whopresents in a comatose state in emergency
	Diagnosis of a patient with poisoning	1	27	Cognitive	Diagnose a patient with poisoning
	Common antidotes and general		28	Cognitive	Discuss the antidotes for common poisons and their management
	management of poisoning				
	Selected poisoning • Acetaminophen • Amphetamines and cocaine • Benzodiazepine • Insecticides and anticholinergics • Carbon monoxide • Ethanol and Methanol • Snake bites	1	29	Cognitive	Discuss the management of a patient with paracetamol poisoning
		3	30	Cognitive	Discuss the management of a patient with Amphetamine, cocaine and Ice poisoning
			31	Cognitive	Discuss the management of a patient with benzodiazepine poisoning
			32	Cognitive	Discuss the management of a patient with insecticide and anticholinergic poisoning
			33	Cognitive	Discuss the management of a patient with ethanol and methanol poisoning
			34	Cognitive	Discuss the management of a patient with Carbon monoxide (Natural gas) poisoning
			35	Cognitive	Discuss the management of a patient with snake venom poisoning
			36	Psychomotor	Perform gastric lavage
			37	Affective	Counsel a patient/family with poisoning

THEME-3: HYPOTHERMIA AND HYPERTHERMIA					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Medicine	Heat-related disorders	1	38	Cognitive	Classify heat-related disorders
	Hyperthermia		39	Cognitive	Explain the etiology, pathogenesis, clinical features and management of Hyperthermia and heat stroke
			40	Cognitive	Differentiate between hyperthermia and hyperpyrexia
	Hypothermia	1	41	Cognitive	Explain the risk factors, complications, and management of hypothermia.
	Drowning		42	Cognitive	Explain the management of a patient with drowning
	Electrical injuries		43	Cognitive	Discuss the management of a patient with electrocution
	High altitude sickness	1	44	Cognitive	Discuss the clinical features, management, and prevention of high-altitude sickness.
	Decompression sickness		45	Cognitive	Discuss the management of a patient with decompression sickness.

THEME-4: CHILDHOOD ABNORMALITIES					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Pediatrics	Porphyria	1	46	Cognitive	Classify porphyria.
			47	Cognitive	Explain the etiology, pathogenesis, clinical features and treatment of different types of porphyria
	Down syndrome	1	48	Cognitive	Explain the risk factor, chromosomal aberrations, clinical features and complications of DownSyndrome
	Collagen disorders	1	49	Cognitive	Classify collagen disorders and their clinical features
	Glycogen storage diseases		50	Cognitive	Classify glycogen storage disease and their clinical features
	Mucopolysacharidosis	1	51	Cognitive	Describe the clinical features and complications of mucopolysaccharidosis
	Galactosemia and Phenylketonuria		52	Cognitive	Describe the clinical features, investigations and complications of Galactosemia and Phenylketonuria
Medicine	Chromosomal disorders	1	53	Cognitive	Classify chromosomal disorders and give examples
	Single gene defects		54	Cognitive	Classify single gene disorders and give examples
	Sex linked disorders		55	Cognitive	Classify sex linked disorders and give examples
	Polygenic inheritance		56	Cognitive	Classify polygenic inheritance disorders and give examples
	Marfan syndrome	1	57	Cognitive	Explain the clinical features and complications of Marfan syndrome
Gynaecology	Genetic counsellingand perinatal diagnosis	1	58	Cognitive	Explain the modes and indications of perinatal diagnosis
		1	59	Cognitive	Discuss the concept of genetic counseling
		1	60	Affective	Observe premarital counseling of a family for thalassemia.

THEME-5: CUTANEOUS RASH AND JOINT PAINS					
Subject	**Topic**	**Hours**	**S. No**	**Domain of learning**	**Learning objectives**
Medicine	Evaluation of an adult with suspected autoimmune disorder	1	61	Cognitive	Discuss the diagnostic approach to a patient who presents with suspected autoimmune disorder
			62	Cognitive	Explain the different serological and immunologicalinvestigations used in the diagnosis of autoimmune disorders
			63	Cognitive	Classify and explain the mechanism of action of different pharmacotherapies in the management ofautoimmune disorders
	SLE	2	64	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of SLE
			65	Cognitive	Discuss the diagnostic criteria for the diagnosis of SLE
			66	Cognitive	Explain the differences between SLE and drug induced lupus
	Antiphospholipid syndrome	1	67	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of Antiphospholipid syndrome
	Scleroderma	1	68	Cognitive	Explain the clinical features, investigations, management, prognosis, and complications ofScleroderma/Systemic sclerosis
	Polymyositis and dermatomyositis	1	69	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of polymyositis and dermatomyositis
	Sjogren Syndrome		70	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of SjogrenSyndrome
	Giant cell arteritis and polymyalgia Rehumatica	1	71	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of Giantcell arteritis and polymyalgia Rehumatica
	Polyarteritis nodosa	1	72	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of Polyarteritis nodosa
	Wegener granulomatosis		73	Cognitive	Explain the clinical features, investigations, management, prognosis, and complications of Wegener granulomatosis

	Vascilitides	1	74	Cognitive	Classify vascilitides, their clinical features, diagnostic approach, and management
			75	Cognitive	Explain the clinical features, investigations, management, prognosis, and complications of Henoch-SchÕnlein purpura
			76	Cognitive	Explain the clinical features, investigations, management, prognosis, and complications of BehÇetsyndrome
Pediatrics	Kawasaki disease	2	77	Cognitive	Explain the clinical features, investigations, management, prognosis and complications ofKawasaki syndrome
			78	Cognitive	Explain the clinical features, investigations, management, prognosis and complications of SLE in children
Nephrology	Renal involvement in different autoimmune disorders	2	79	Cognitive	Classify different pathological entities involving thekidneys in SLE, Rheumatoid arthritis and other autoimmune disorders
			80	Cognitive	Explain the renal complications and their management in SLE and Rheumatoid arthritis.

9.1 CLINICAL SCIENCES SUBJECTS

MULTISYSTEM MODULE				
S. No	**Clinical Sciences Subjects**	**Learning Objectives**	**Hours**	**Learning Strategy**
1.	**ANAESTHESIA** Monitoring	Identify which EKG leads used to monitor for myocardial ischemia and heart rhythm.	2	Skill Session
		Understand the use of pulse oximetry.	1	Lecture
		Understand the pathophysiologic causes of intraoperative hypoxemia	2	Skill Session
		Understand the use of different blood pressure monitoring devices.	1	Lecture
2.	**CRITICAL CARE** Radiology in Critical ill Patients	FAST SCAN	1	Lecture
		Chest Ultrasound in critically ill patient	1	Lecture
		Fluid responsiveness via ultrasonography	1	Lecture
		Echocardiography in critically ill patient	1	Lecture
3.	**ORTHOPAEDICS & TRAUMA** Bone and Joints Disorders	Septic arthritis	1	Lecture
		Osteomyelitis	1	Lecture
		Clubfoot (talipes equinovarus)	1	Lecture
		Scoliosis	1	Lecture
		Osteogenesis imperfecta	1	Lecture
		Achondroplasia	1	Lecture
		Marfan’s Syndrome	1	Lecture
4.	**FAMILY MEDICINE** Mother Health	Pre conception Period	1	Lecture
		Ante natal period	1	Lecture
		Poste natal period	1	Lecture
		Lactation	1	Lecture

9.2 CLINICAL ROTATION SCHEDULE

MORNING CLINICAL ROTATIONS

Duration	9 weeks		11 weeks		8 weeks	8 weeks
	6 weeks	3wks	8 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	78	39	104	39	104	104

* 2.6 clinical teaching hours per day

EVENING CLINICAL ROTATIONS

Duration	6 weeks		14 weeks		8 weeks	8 weeks
	3 weeks	3wks	11 weeks	3 weeks		
Disciplines	Medicine	Medicine & Allied	Surgery	Surgery & Allied	Gynae/Obs	Paeds
Total hours*	45	45	165	45	120	120

* 3 clinical teaching hours per day

The above mentioned clinical rotation schedule is to be followed by every student throughout the year. Groups of students are decided by the Hospital Administration.

10. TEACHING HOURS ALLOCATION

There will be 67 hours allotted in total. The hours shall be divided into 5 different themes. The necessity for students to set aside more time for self-directed learning and clinical learning is emphasized, although at the expense of repetition. We anticipate that the students will be well-versed in this significant module. This module covers a number of common and significant subjects.

S. No	Subject	Hours
1	Medicine	23
2	Pediatrics	7
3	Surgery	10
4	Psychiatry	1
5	Gynaecology	3
6	Nephrology	2
7	Anesthesia	6
8	Critical Care	4
9	**Orthopaedics & trauma**	7
10	Family Medicine	4
	Total hours	**67**

11. EXAMINATION AND METHODS OF ASSESSMENT

11.1 EXAMINATION RULES AND REGULATIONS

- Student must report to examination hall/venue, in time for smooth conduction of the exams.
- No student will be allowed to enter the examination hall after 10 minutes of scheduled examination time.
- No students will be allowed to sit in exam without College ID Card, and Lab Coat
- Students must sit according to their roll numbers mentioned on the seats.
- Student must bring their own stationary items (Pen, Pencil, Eraser, and Sharpener) – Sharing is prohibited
- Any disturbance or Indiscipline in the exam hall/venue is not acceptable.
- Students must not possess any written material or communicate with their fellow students
- Cell phones are strictly not allowed in examination hall. If any student is found with cell phone in any mode (silent, switched off or on) he/she will be **not be allowed to continue their exam.**
- **No student is allowed to leave the examination hall before half the time is over, paper is handed over to the examiner and properly marking the attendance.**

11.2 ASSESSMENT

11.2.1 Internal: Total 10% (20 marks)

- Students will be assessed comprehensively through multiple methods to determine achievement of module objectives through two methods: Module examination and Graded assessment by Individual department
    - **Module Examination**: It will be scheduled on completion of each module. The method of examination comprises theory exam (which includes SEQs and MCQs) and OSPE / OSCE exam (which includes static and interactive stations).
    - **Graded Assessment by individual department**: It includes weekly MCQs tests on Survive online LMS program, viva, practical, weekly theme based assignments, post-test discussion sessions, peer assessments, presentations, small group activities such as CBL, ward activities, examinations and log books, all of which have specific marks allocation.
- Marks of both modular examination and graded assessment will constitute 10% weightage.
- 10% marks of internal evaluation will be added to the ISU annual professional exam.
- The marks distribution is based on Formative Assessment done individually by all the concerned departments. It may include:

- NOTE: **at least 75% attendance is mandatory** to appear in the annual university examination.
- Exam branch is responsible to maintain the attendance record for Main Campus in coordination with all the concerned departments.

11.2.2 University Annual Exam: Total 90%

- Annual Exam has 90% marks in total
- It includes theory and OSPE / OSCE.
- Each written paper consists of 100 MCQs and 10 SEQs and internal assessment marks will be added tothe final marks.

11.3 METHODS OF ASSESSMENT

11.3.1 Multiple Choice Questions

- Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
- Total 100 MCQs are included which are formulated through the table of specification from learning objectives of Module interactive lectures.
- Time duration for MCQs will be 1 and half hour.
- MCQs are used to assess objectives covered in each module.
- Students after reading the statement / scenarios select one appropriate response from the given options.
- Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
- Students attempt the MCQs exam on Computer screen on Moodle / LMS program in IT Lab.

11.3.2 Short Essay Questions (SEQs):

- Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- Commonly used in examinations to assess the depth of knowledge and understanding.
- Includes 10 questions each carrying 10 marks.
- Time Duration for Essay type paper is 2 hours.
- Questions are selected from the specific learning objectives of the specific ongoing module.

11.3.3 OSPE / OSCE

- Each student will be assessed on the same content and have same time to complete the task.
- Time allocated for each station is five minutes as per Examination rules of Ibn e Sina University, Mirpurkhas

- All students are rotated through the same stations.
- OSPE / OSCE Comprises of 15 - 20 stations.
- Each station may assess a variety of diagrammatic identifications and clinical tasks. These tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are Interactive, observed, unobserved (static) and rest stations.
    - Interactive Stations:
        - In this station, examiner ask questions related to the task within the allocated time.
    - Observed Stations:
        - In observed stations, internal or external examiner don't interact with candidate and just observe the performance of the skills or procedures.
    - Unobserved (static) Stations:
        - It will be static stations in which there may be models, specimens, multiple identification points, X-ray, Labs reports, flowcharts, pictures, or clinical scenarios (to assess cognitive domain) with related questions for students will be used to answer on the provided answer copy.
    - Rest station
        - It is a station where there is no task given and in this time student can organize his/her thoughts

11.3.4 ASSIGNMENTS

- An online assignment on the Ibn-e-Sina University moodle uploaded according to the topic of the week.
- All assignments should be checked by the teacher who has taken the lecture on the topic during the same week.
- The assignment should cover enough material to include the requirement of the curriculum and syllabus, so the student should be able to answer the annual examination questions by revising these notes (assignments) only.
- The assignments are checked and graded also with comment to guide, motivate and encourage the students to work whole heartedly. Frequent guidance and motivation will go a long way in improving the students' performance.
- Assignments of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.5 WEEKLY TESTS

- The weekly tests are conducted for all classes. The tests are conducted online and are on topics displayed on the portal (Moodle). It consists of 35 MCQs. 5 MCQs will be from the previous weeks (slightly altered to change the answer or the right option). Everyone taking lectures, submit two MCQs to the Chairperson of the department who will check and pass them to the class moderator. MCQs can also be sent directly to the class moderator, who submits the MCQs to IT department for final placement on the moodle.

- The MCQs are not merely simple recall, but test higher level of cognition. As far as possible, they test an important concept related to one of the topics of the week.
- It is different from the summative assessment (Annual or Semester Examinations) in that the goal of summative assessment is to evaluate student's learning at the end of an instructional unit by comparing it against some standard or benchmark, to decide if the student can be promoted or not, whereas the goal of these weekly tests is to check the understanding of the students on the important concepts related to the topics that have been displayed on the portal for the week, the teachers have taught them and the students have made assignments on them.
- Results of weekly tests of the whole Professional year MBBS are counted as in Internal Assessment.

11.3.6 POST-TEST DISCUSSION (PTD)

- Every student has to prepare a special assignment where he/she selects all the questions he/she got wrong. Then he/she makes 3 boxes. In box A he/she writes the questions he/she got wrong in his/her own words, highlighting and underlining the keywords. In box B the student explains why he/she has chosen this answer. In box C the student mentions what he/she has learnt after reading the explanation and how the concept has got clear now.
- The moderator will check, assess and grade PTD
- Next day, the class moderator of the class conducts a class where he/she discusses the mistakes committed and the post-test assignments submitted in detail with the class
- PTD assignments of the whole Professional year MBBS are counted as in Internal Assessment.

12. GRADING POLICY

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	**A+**
75-79	4.0	**A**
70-74	3.7	**A-**
67-69	3.3	**B+**
63-66	3.0	**B**
60-62	2.7	**B-**
56-59	2.3	**C+**
50-55	2.0	**C**
<50 Non gradable	0	**N**

- A student obtaining GPA less than 2.0 (50%) is declared fail pr Non gradable

13. ASSESMENT BLUEPRINT

MULTISYSTEM MODULE

Assessment is based on Table of Specification (TOS)

	ASSESMENT	TOOLS	MARKS
MODULE EXAM	THEORY	MCQ's	100
		SEQ's	100
	OSPE	OSPE Static	50
		OSPE Interactive	50
		Total	300

14. RECOMMENDED BOOKS

SUBJECT	*RESOURCES*
PAEDIATRICS	1. Nelson textbook of pediatrics 2. Textbook of Pediatrics, Pakistan Pediatrics Association 3. Basis of Pediatrics, Pervez Akbar khan, Ninth edition 4. Current pediatrics 5. OP Ghai Essential of Pediatrics Textbook
SURGERY	1. Bailey & Love's Short Practice of Surgery 27th edition (a new edition is expected shortly. 2. Demonstration of Physical Signs in Clinical Surgery, by Hamilton Bailey. 19th edition or newer. Text Book 3. Browse's Introduction to Symptoms and Signs of Surgical Disease. Text Book 4. Ackerman's Surgical Pathology. Latest Edition
GENERAL MEDICINE	1. Hutchison's Clinical Methods, 23rd Edition 2. MacLeod's clinical examination 13th edition 3. Davidson's Principles and Practice of Medicine 4. Kumar and Clark's Clinical Medicine 5. HCAI guidelines CDC
GYNAECOLOGY	1. Gynaecology by Ten Teachers, 23rd edition

IBN-E-SINA UNIVERSITY MIRPURKHAS
FACULTY OF BASIC MEDICAL SCIENCES

Course Feedback Form

Course Title: _____

Semester/Module_____ Dates:_____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Yes ☐ No ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

Thank you!!