### **1.** Course Description

Medical Year-1 (M-1) and Medical Year-2 (M-2) is the Pre-clinical phase of the M.B.,B.S program, students will have to learn 10 system modules (Horizontal Modules) and 5-Vertical modules in these years.

The horizontal modules build upon an understanding of the structure and function of the organ-systems and enables students to integrate basic science and clinical concepts related to these systems with emphasis on the clinical features, pathology, pathophysiology, diagnosis and principles of therapeutics. Appropriate examples of medical imaging and diagnostic techniques will also be introduced.

Medical Year-1	Duration	Medical Year-2	Duration
Horizontal Modules	Week	Horizontal Modules	Week
Musculoskeletal and Skin (MSS)	8	Hematology (HEM)	5
Genetic (GEN)	4	Immunology (IMM)	4
Cardiovascular (CVS)	9	Endocrinology (EDC)	9
Respiratory (RES)	6	Renal and Reproductive (RNR)	9
Gastrointestinal, Liver and	9	Neurology and Mental Health	9
Nutrition (GLN)		(NNM)	
Total	36		36

The following vertical modules will be incorporated throughout the Medical years:

## Vertical Modules:

- Clinical Skill
- Medical Ethics and Professionalism
- Community and Family Health
- Research Culture and skills
- **o** Social and Behavioral Science

Each of the modules provides vertical integration of various disciplines to inculcate key virtues of a good medical practitioner: better appreciation of humanistic values, ethics, professionalism, human behavior as well as to expertise and appreciate the importance of community and family health, health policy and the healthcare delivery system of the country.

The students will also be introduced to the psychosocial factors, social and behavior science as well as fundamental components of research.

## 2. Learning Outcomes

At the end of the course (Medical year-1 and 2), students are able to:

- demonstrate acquire knowledge of the normal structure and function of each organ system, molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis
- demonstrate the acquired knowledge of the various disease mechanisms that altered structure and function of the body (pathology and pathophysiology).
- demonstrate the acquired knowledge, principles and concepts of pharmacology and therapeutics, and inculcate a rational and scientific basis of therapeutics with pathophysiologic process of diseases
- demonstrate understanding of scientific principles of common diagnostic studies, and able to interpret and discuss on findings of diagnostic investigations
- demonstrate ability to integrate basic science and clinical concepts related to these systems with emphasis on the clinical features, pathology, pathophysiology, diagnosis and principles of therapeutics
- demonstrate knowledge of the theories and principles that govern ethical decision making, and of the major ethical dilemmas in medicine
- demonstrate an understanding of, and respect for, the roles of other health care professionals, and of the need to collaborate with others in caring for individual patients and in promoting the health as well as prevention of diseases
- demonstrate the ability of forming effective relationships in team-based tasks, that enable one to provide peer learning, good communication, sharing responsibilities to establish leadership skill
- demonstrate knowledge of the important non-biological determinants of poor health and of the economic, psychological, social, religious, historical, and cultural factors that contribute to the development and/or continuation of diseases.
- demonstrate knowledge of the epidemiology of common diseases within a defined population, and the systematic approaches useful in reducing the incidence and prevalence of those diseases.

- demonstrate knowledge of the social determinants of health, health equity, and efforts to eliminate health care disparities in Myanmar, especially as it relates to minority group individuals and under-served populations.
- describe normal human psychological development across the lifespan, and recognize deviations requiring further evaluation and intervention.
- apply knowledge of coping skills, defense mechanisms, and personality traits and disorders to issues of health, illness, and the physician-patient interaction.
- demonstrate understanding of the scientific research methods and basic ethical principles in conducting a research.
- apply the basic descriptive methods for statistical analysis of scientific research

#### 3. Responsibilities of the students

As evidence of attaining the above learning outcomes, all students are responsible for fulfilling the essential requirements of courses, including attendance expectations, in-class performances, continuous assessments. *Students have to check thoroughly on learners' guides of respective modules in which requirements of students' preparation and participation are well described.* In every lecture session student would get general principles and knowledge, after lecture session, you will be given references and links for self-learning (Directed Self Learning) which will be required for small group discussions, project presentations and team-based learning sessions.

#### 4. Learning opportunities

The students' centered teaching with active participation of students motivate and reinforce learning; students will possess knowledge and skills beyond a thorough understanding of applied anatomy and pathophysiology.

**4.1 Small group teaching sessions**: Students will have to participate in small groups sessions, in which students have to do problem solving activities and case-based learning by discussing among group, you may have to do presentations on output of your group work, sometimes you would have to do drawing of concept maps by integration of basic medical science knowledge in comparisons of different clinical presentations. Some of the SGD sessions will be followed by tests: i.e. assessing your learning using Single Best Answer Questions or Extended Matching Question (SBA/EMQ), which will contribute to continuous assessment (i.e. Class work).

#### 4.2 Team based learning (TBL)

Team-based learning (TBL) is a collaborative learning strategy that enables you to follow a structured process, to enhance the quality of your learning. Prior to the TBL day, you will be given Pre-readings for preparation of the TBL session, you are expected to read thoroughly to be well prepared. On the day of TBL, the first thing you'll have to do in class is, you have to answer the set of questions called Individual readiness assurance test (iRAT): an individual quiz usually consisting of 5-20 multiple choice/ single best answer questions. After submitting the iRAT, you will then in a small group (your team) and discuss on the given scenario-based questions and take the same test collaboratively with your team members, which we called Team readiness assurance test (tRAT): After iRAT and tRAT sessions, teachers and facilitators will clarify for the correct answers, you will have the opportunity to raise points of clarification.

Both iRAT and tRAT scores will be counted towards your final grade which will be part of your continuous assessment.

The Application exercises are the final step of the TBL where: you work in teams to solve application problems that allow you to apply and expand on the knowledge you have just learned and tested. In TBL, you are expected to participate and develop professional attitudes towards your colleagues (your collaborations, your knowledge will be evaluated by your friends too: Peer evaluation is an optional component of TBL process). You will develop critical thinking abilities, clinical reasoning capabilities, presentation skills, teamworking skills and you will acquire an enormous amount of knowledge and understanding. The better you prepare for the sessions, the better the learning experience will be. Please watch the TBL activity in following links:

https://www.youtube.com/watch?v=57rpN4sYnZU

https://www.youtube.com/watch?v=aZd4GBdiwY4

**4.3 Practicals:** In practical/ laboratory and dissection sessions, you can perform basic laboratory tests, analysis of laboratory data and microscopic handling, identification of microscopic features. It is important that you have to follow the rules and regulations of the respective practical sessions (*Please see in "instructions to students for respective practical sessions*). After the practical sessions there will be tests, the score from practical tests will be count in total score of continuous assessments.

### 5. Assessment system

In the Medical year 1 and 2, overall continuous assessment scores (in-class assessment + end-module tests) contributed 50% of total score in final exam, so please make sure your score of continuous assessment is more than pass mark.

For every module, each student has to take and pass all assessments; in-class assessments and end-module test, which will be held on last week of the module.

- **5.1.In-class assessments:** comprise of assessment in SGD sessions, practical tests, TBL and other tests during teaching of module. Overall in-class performances scores weighted 30%
- 5.2.End-module test: after teaching of each module, all students must (compulsory) sit for written test of Single Best Answer (SBA) and Extended Matching Questions (EMQ), the test score will be weighted 20%.

**5.3. End of year assessment:** at the end of the academic year, after teaching of 5-modules of the Medical year-1 (or year-2) the students have to sit for final written exam (comprise of 2 Papers of SBA+EMQ)

## 5.4 Weighted scores for Summative assessment

Continuous assessment and end of year assessment will be used for *progression to the next level* 

- Continuous assessment will contribute 50% of the total marks.
- End of year assessment will contribute 50% of the total marks

No.	Type of assessment	Weighted	remarks
		%	
1	Continuous assessment		Students should
	1.A. In-class assessments	30	have more than
	1.B. End-module tests	20	50% of total
2	End of year assessment (Final exam)	50	weighted score in
3	Total score of final summative assessment	100	both compartments

# 5.5. Criteria for pass or fail

- Pass = 50 % and above
- Moderated Pass = 46.0 % to 49.9%
- Fail = less than 46%
- Distinction = 80% and above

- If the overall continuous assessments score (in-class + end-module tests) of the year (i.e. all score of 5 modules for the Year-1) is less than 40%, the students shall be debarred from taking the final exam (and will be regarded as 1F)
- Students who fail in final summative assessment shall take a "**Re-sit exam**" after taking 6 weeks of remedial teachings.
- If student fail again in Re-sit exam (i.e. 2F) he/she have to take a whole academic year as a last chance.

## \*\*\* Important Notice for students\*\*\*

- Students are responsible to read "teaching schedule and learners guides" for each module, in which instruction for students' activities and assessment included teaching sessions are well described.
- Students who miss end-module tests and in-class tests without a "satisfactory explanation" shall not be get chance to re-take the test, so students "unable to take the tests because of illness or other reasons beyond their control must notify module-leader/ coordinator immediately. Students must report with documentation to the Rector's office the extenuating circumstances (medical, personal or social) that caused them to miss the exam.
- The University's medical board members will provide students with a medical excuse only if the student's illness warrants such action.
- In compliance with the University regulations governing class attendance, students who do not attend the class for 3-consecutive days will be notified by registrar, for those who had never attended class for the whole module would not fulfill the requirements of continuous assessment, so that the student will be debarred

This Learners Guide is prepared by Professor Khin Mar Myint, Pro rector (Academic) University of Medicine 1, Yangon