Bachelor of Medicine & Bachelor of Surgery (MBBS) Curriculum in Bangladesh

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Preface

Medical science is constantly advancing with the advancement of science and technology. Global changes are happening in medical education in accordance and conformity of these advancements and changes. With the application of these knowledge and skills of medical science, future doctors should satisfy their patients with the changing needs of the community. Much changes are happening in teaching methods and teaching sites or learning environment. It is now an established fact that best learning is achieved through utilizing the learning environment in factual situation. A doctor can better learn by dealing with patients. Slogan of today is the unity of education and practice. The undergraduate curriculum for future doctor is expected to be so designed that it should focus more on real life situation and of learning i.e. more community oriented, community based as well as competency based. To achieve the competency to serve the people community campus partnership is very much appropriate and essential.

The undergraduate medical curriculum followed in the medical colleges was developed in 1988 through UNDP and WHO support by the Centre for Medical Education with an aim to produce community oriented doctors who will be able to provide essential primary health care to the community. That was the first documented curriculum ever developed in the country. But evaluation by UNDP (1990) and Godfrey et al (1996) revealed that it is neither community oriented nor competency based and there is room for much improvement. The need to develop a community- oriented and competency-based curriculum was felt by all concerned. For that series of workshops with specialists and experts from every discipline took place to develop a curriculum, which would reflect institutional, departmental objectives as well as subject wise learning objectives. As a whole the components of the curriculum such as, course contents, teaching method, strategy for teaching, materials or media used and the assessment system within the available timeframe were to be identified scientifically to provide the medical graduates with proper knowledge, skills and attitude. Thus the Undergraduate Medical Curriculum 2002 was developed and implemented. After a decade, with a view to the include the national goal, objectives, learning outcomes, competencies curriculum was updated as MBBS Curriculum 2012 which was implemented from session 2012-2013. After passing out of first batch of MBBS Curriculum 2012 in 2019 initiatives was taken to review and update the curriculum by the combined efforts of the Centre for Medical Education (CME), Directorate General of Health Services (DGHS) and Bangladesh Medical & Dental Council (BM&DC), MOH&FW and different Dean offices with the support from WHO Bangladesh. This enormous task has been efficiently completed with the most sincere and heartiest effort of the teachers of both public and private medical colleges and also delegates of concerned authorities and faculty members of CME. The activities in regards to technical support, compilation and editing were done by Centre for Medical Education (CME) as per its terms of reference.

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Preamble

The quality of health care is under scrutiny all over the world because of increasing public expectation of their health care services. Therefore a positive change is always expected in the role of doctors. The role of teachers and students in teaching learning can bring positive changes in medical education, its strategy and process also needs to be reviewed and developed.

This reviewed MBBS curriculum 2020 has been developed and scientifically designed, which is responsive to the needs of the learners and of the community. The present curriculum, its assessment method is expected to effectively judge competencies acquired that are required to meet the health need of our people. It is gratifying to note that all concerned in the promotion of medical education in the country have involved themselves in the planning and formulation of this need-based and competency based curriculum which has been initiated under the auspices of the Centre for Medical Education (CME).

Though curriculum is not the sole determinant of the outcome, yet, it is very important as it guides the faculty in preparing their instruction and tells the students what knowledge, skills and attitude they have to achieve through the teaching learning process. The ultimate indicators of assessing curriculum in medical education is the quality of health services provided by its graduates with required competencies.

In conclusion, I would like to mention that the curriculum planning process is continuous, dynamic and never-ending. If it is to serve best, the needs of the individual students, educational institutions and the community to whom we are ultimately accountable, must be assessed.

I congratulate all who were involved in reviewing, redesigning, updating and developing the MBBS curriculum, particularly the Centre for Medical Education. They contributed to complete this activity a commendable job and deserve special appreciation.

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Background and Rationale

Curriculum planning, scheming and updating is not a stationary process, rather a nonstop course of action done on a regular basis through a scheme. It has been long since the Centre for Medical Education (CME) updated the "Curriculum for Under-graduate Medical Education in Bangladesh 2012".

Now this MBBS curriculum 2012 is being reviewed and updated for coping with the changing needs of the society to achieve UHC & SDGs. Centre for Medical Education (CME) in association with BM&DC, Deans Offices, DGHS, MOH&FW under took the whole process. Need assessment for updating the 2012 MBBS curriculum in Bangladesh was conducted by CME after passing out of first batch in 2019. Findings of need assessment were disseminated among the principals, Deans, policy peoples from BM&DC, MOH&FW, DGHS and subject experts by CME with the support from WHO Bangladesh on 24th October 2019. Latter on the decisions were also shared and validated on 8th August 2020 with the concerned persons through Zoom meeting & through a stakeholders meeting on 26th August 2020. Several workshops were held through active participation of different subject experts professional groups, faculty members. Accordingly, first, second, third and fourth phase group meetings were held in September, October & November 2020 with support from WHO. Later on, in order to give a final shape of the recommendations a central core committee and technical working group meeting was held in November 2020 to sent the curriculum to BM&DC for further action. A taskforce group examined the revised undergraduate medical curriculum.

The revised undergraduate medical curriculum is expected to be implemented with the newly admitted students of 2021-2022 session. Performance of these; students as graduates will articulate about the achievement of this "Curriculum for Under-graduate Medical Education in Bangladesh–Updated 2020" with the reflection of integrated, need-based, core & optional, problem based, community oriented, community based & competency based though the curriculum is mainly discipline based.

I hope this curriculum will continue to serve as guiding principle for the students and faculty members. It is readily understood that in order to further improve, update this Curriculum for Under-graduate Medical Education in Bangladesh–Updated 2020 needs constant review, revision and updating to achieve UHC & SDGs.

Last but not least, I would like to extend my deep gratefulness to all faculty members of Centre For Medical Education and others who shared their expertise and insights and worked hard to generate this precious document.

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Acknowledgement

Factors contributing to an effective medical education system are quality of students, quality of teaching staff, and their effective delivery of need based scientific curriculum. Although the best students are admitted in the medical colleges every year yet the medical graduates are not always of the desired quality for providing health services to the community. The answer then should be sought in other factors of which the most important is the curriculum. A curriculum is generally regarded as a programme of instruction for an educational institution and its plan takes the form of a descriptive outline of courses, their arrangement and sequence, the time assigned to them, the contents to be covered in them, the instructional methods to be employed and finally evaluation.

The enormous task of reviewing and updating of the MBBS curriculum 2012 was assigned to Centre for Medical Education (CME) as per it's TOR. The curriculum was reviewed and updated with a scientific approach of Delphi Technique in national workshops. The participants of these meetings/workshops were the Professors of the concerned departments/subjects, principals of the medical colleges, medical educationists, faculty members of CME and a good number of resource persons including the President & members of the Bangladesh Medical & Dental Council (BM&DC) and Deans of the Faculty of Medicine of Dhaka/Chattogram/Rajshahi/Sylhet Medical Universities, Shah Jalal University and concerned persons from DGME, DGHS and MOH&FW. The other supplementary approach was to make it evidence based through need assessments where 102 academic councils out of 112 different medical colleges submitted their views, teachers and intern doctors participated in focus group discussions. The overwhelming response of all categories of teachers for reviewing & updating of this curriculum is indeed praiseworthy. They have worked hard to identify and discard the superfluous elements from the course contents and added new elements to make teaching-learning process more relevant, meaningful and up-to date. Congratulations to them, they have done a commendable job. Efforts given by the principals, members of academic councils, teachers, students and intern doctor providing their valuable opinions during the need assessment in 2019 at the beginning of reviewing and updating of this MBBS curriculum are duly acknowledged. As director, CME I express my gratitude to all the members of National Core Committee (NCC) for their all cordial co-operation, guidance all the ways since beginning up to the completion of reviewing and updating of MBBS curriculum. I would like to acknowledge Professor Dr. Md. Humayun Kabir Talukder, Professor (Curriculum Development & Evaluation), CME for his efforts in co-coordinating this activity without which it would be difficult to complete this work. I acknowledge the technical and financial support from WHO Bangladesh.

The composition of the planners of this curriculum is unique. The authorities responsible for approving, implementing and functioning of this curriculum have worked together and involved themselves in its reviewing & updating. It is only natural that they left no stone unturned to get a need based updated curriculum.

I am grateful to all, who actively participated in this great job, specially the faculty members and staffs of Centre for Medical Education who worked very hard and efficiently to develop this MBBS Curriculum 2020 which is mainly discipline based with the reflection of integrated, core & optional, problem based, community oriented, community based in nature.

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Vision, Mission, Goal and Objectives of MBBS Course, Learning Outcomes/Competences of Fresh Graduates

Vision:
Ensuring a learning environment in undergraduate medical programme that encourages and promotes development of clinically, socially and culturally competent professionals motivated to serve the community with compassion and dedication

Mission:

- To provide quality education with basic principles, methods and knowledge adequate to practice preventive, curative and promotive healthcare in the community
- To prepare professionals competent to deal with ethical and professional issues, having communication and decision making skills and attitudes, and capable of providing leadership and conducting research for future progression as a change agent.

Goal:

To produce competent, compassionate, reflective and dedicated health care professionals who:

- consider the care and safety of their patients their first concern
- establish and maintain good relationship with patients, their attendants and colleagues
- are honest, trustworthy and act with integrity
- are capable of dealing with common diseases and health problems of the country and are willing to serve the community particularly the rural community;
- but at the same time acquire firm basis for future training, service and research at both national and international level.
- are committed to keep their knowledge and skill up-to-date through 'Continuous Professional Development' all through their professional life.

Objectives of MBBS Course:

At the end of the MBBS Course students shall:

1. Acquire knowledge and understanding of
   a) the sciences upon which Medicine depends and the scientific and experimental methods;
   b) the structure, function and normal growth and development of the human body and the workings of the mind and their interaction, the factors which may disturb these, and the disorders of structure and function which may result;
   c) the etiology, natural history and prognosis of the common mental and physical ailments. Students must have experience of emergencies and a good knowledge of the common diseases of the community and of ageing processes;
   d) normal pregnancy and childbirth, the common obstetric emergencies, the principles of ante-natal and post natal care, and medical aspects of family planning and psycho-sexual counseling;

e) the principles of prevention and of therapy, including health education, the amelioration of suffering and disability, rehabilitation, the maintenance of health in old age, and the care of the dying;
f) human relationships, both personal and social and the interaction between man and his physical, biological and social environment;
g) the organization and provision of health care in the community and in hospital, the identification of the need for it, and the economic, ethical and practical constraints within which it operates; and
h) the ethical standards and legal responsibilities of the medical profession.

2. Develop the professional skills necessary to

a) elicit, record and interpret the relevant medical history, symptoms and physical signs, and to identify the problems and how these may be managed;
b) carry out simple practical clinical procedures;
c) deal with common medical emergencies;
d) communicate effectively and sensitively with patients and their relatives;
e) communicate clinical information accurately and concisely, both by word of mouth and in writing, to medical colleagues and to other professionals involved in the care of the patient; and
f) use laboratory and other diagnostic and therapeutic services effectively and economically, and in the best interests of his patients.

3. Develop appropriate attitudes to the practice of medicine, which include

a) recognition that a blend of scientific and humanitarian approaches is needed in medicine;
b) a capacity for self education, so that he may continue to develop and extend his knowledge and skills throughout his professional life, and recognize his obligation to contribute if he can to the progress of medicine and to new knowledge;
c) the ability to assess the reliability of evidence and the relevance of scientific knowledge, to reach conclusions by logical deduction or by experiment, and to evaluate critically methods and standards of medical practice;
d) a continuing concern for the interests and dignity of his patients;
e) an ability to appreciate the limitations of his own knowledge, combined with a willingness, when necessary, to seek further help; and
f) the achievement of good working relationships with members of the other health care professions.

Learning Outcomes of MBBS course:

To achieve the National goal and course objectives, a set of "Essential learning outcomes / competences" which students of the medical colleges/institutes on completion of MBBS course and at the point of graduation must be able to demonstrate has been defined.
These "essential learning outcomes / competences" are grouped under three board headings:

I The graduate with knowledge of scientific basis of Medical Practice

II The graduate as a practitioner

III The graduate as a professional

I. The graduate with knowledge of scientific basis of Medical Practice:

The graduate will understand and be able to apply basic bio-medical (anatomy, cell biology, genetics, physiology, biochemistry, nutrition, pathology, molecular biology, immunology, microbiology, pharmacology and community medicine) principles, methods and knowledge to

1.1 understand the normal processes governing homeostasis, and the mechanisms underlying the common diseases and health problems of the country.

1.2 understand the psychological and sociological concepts of health, illness and disease and explain psychological and sociological factors that contribute to illness, course of disease and success of treatment.

1.3 select appropriate investigations necessary for diagnosis of common clinical cases and explain the fundamental principles underlying such investigative procedures.

1.4 select appropriate treatment (including rational prescribing of drugs), management and referral (if in the patient's best interest) plan for common clinical cases, acute medical emergencies and minor surgical procedures.

1.5 understand biochemical, pharmacological, surgical, psychological, social and other interventions in acute and chronic illness, in rehabilitation, and end-of-life care.

1.6 understand disease surveillance and prevention, health promotion including wider determinants of health, health inequalities, health risks.

1.7 understand communicable disease control in health care facility and community settings.

1.8 understand international health status, including global trends in morbidity and mortality of chronic diseases of social significance, the impact of trade and migration on health and the role of international health organizations.

1.9 undertake critical appraisal of diagnostic, therapeutic and prognostic trials and other quantitative and qualitative studies as reported in medical and scientific literature.

1.10 understand simple research questions in biomedical and population science and the design of relevant studies.

II. The Doctor as a practitioner

2.1. The graduate will have the ability to carry out a consultation with a patient *(Appendix-III):*

2.1.1. Obtain and record an accurate medical history, including such related issues as age, gender, and socioeconomic status.

2.1.2. Perform a both comprehensive and organ system specific examinations, including a mental status examination.

2.1.3. Elicit patients' questions, understanding of their condition and treatment options, and their views, values and preferences.

2.1.4. Provide explanation, advice, reassurance and support.

2.2. The graduate will have the ability to diagnose and manage clinical cases or will refer when necessary. *(Appendix I & II):*

2.2.1. Interpret findings from the history, physical examination and mental-state examination and make an initial assessment of a patient's problems and a differential diagnosis appreciating the processes by which such diagnosis is tested scientifically.

2.2.2. Construct a plan of investigation in partnership with the patient, obtaining informed consent as an essential part of this process appreciating patient's right to refuse or limit the investigation.

2.2.3. Interpret the results of investigations, including growth charts, x-rays and the results of diagnostic procedures in *Appendix III.*

2.2.4. Synthesize a full assessment of the patient's problems and define the likely diagnosis or diagnoses.

2.2.5. Formulate a plan for management and discharge including referrals to the right professional, according to the established principles and best evidence, in partnership with the patient, their careers and other health professional as appropriate.

2.2.6. Respond to patients' concerns and preferences, obtain informed consent, recognize and respect patients' right to reach decisions about their treatment and care and to refuse or limit treatment.

2.3. **The graduate will have the ability to provide immediate care in medical emergencies in *Appendix IV:***

2.3.1. Assess and recognize the severity of a clinical presentation and need for immediate emergency care.

2.3.2. Provide basic first-aid and immediate life support.

2.3.3. Provide cardio-pulmonary resuscitation or direct other team members to carry out resuscitation.

2.4. **The graduate will have the ability to prescribe drugs safely, effectively and economically. *Appendix III:***

2.4.1. Obtain an accurate drug history, covering both prescription and non-prescription OTC drugs including complementary and alternative medications and demonstrate awareness of the existence and range of these therapies and how this might affect other types of treatment that patient are receiving.

2.4.2. Formulate appropriate drug therapy and record the outcome accurately.

2.4.3. Recognize and respect patients' right to information about their medicines.

2.4.4. Detect, mange and report adverse drug reactions.

2.5. **The graduate will have the ability to carry out practical procedures safely and effectively. *Appendix III*:**

2.5.1. Perform, measure and record the findings of diagnostic procedures.

2.5.2. Perform therapeutic procedures.

2.5.3. Demonstrate correct practice in general aspects of practical procedures.

2.6. **The graduate will have the ability to apply principles, method and knowledge of health informatics to medical practice:**

2.6.1. Keep accurate, legible and complete medical records.

2.6.2. Use effectively computers and other information systems, including storing and retrieving information.

2.6.3. Stick to the requirements of confidentiality and data protection legislation in all dealings with information.

2.6.4. Access and use effectively information sources in relation to patient care, health promotion, research and education.

2.7. **The graduate will have the ability to communicate effectively in a medical context. *(Appendix III):***

2.7.1. Communicate clearly and sensitively with patients, their relatives or other careers, and colleagues from medical and other professions by listening, sharing and responding.

2.7.2. Communicate by spoken, written and electronic methods and recognize and respect significance of non-verbal communication in medical consultation.

2.7.3. Communicate appropriately in difficult circumstances, such as in times of disclosing bad news and discussing sensitive issues, i.e. alcohol consumption, smoking or obesity.

2.7.4. Communicate appropriately with difficult, violent patients and with mentally ill people.

2.7.5. Communicate effectively in various roles, i.e. as patient advocate, teacher, manager or improvement leader.

III. The Doctor as a professional

3.1. **The graduate will apply to medical practice ethical, moral and legal principles and will be able to :**

3.1.1. Recognize and respect BM&DC's ethical guidance and standards and supplementary ethical guidance that describe what is expected of all doctors registered with BM&DC.

3.1.2. Demonstrate awareness of professional values which include excellence, altruism, responsibility, compassion, empathy, accountability, honesty and integrity, and a commitment to scientific methods.

3.1.3. Make the care of the patient the first concern and maintain confidentiality, respect patients' dignity and privacy and act with appropriate consent.

3.1.4. Respect all patients, colleagues and others regardless of their age, color, culture, disability, ethnic or national origin, gender, lifestyle, marital or parental status, race, religion or beliefs, sexual orientation or social or economic status.

3.1.5. Recognize patients' right to hold religious or other beliefs, and respect these when relevant to treatment options.

3.1.6. Know about laws and systems of professional regulation through BM & DC and others, relevant to medical practice and complete relevant certificates and legal documents and liaise with the coroner and others as appropriate

3.1.7. Use moral reasoning and decision-making to conflicts within and between ethical, legal and professional issues including those raised by economic constrains, commercialization of health care, and scientific advances.

3.2. **The graduate will be able to reflect, learn and teach:**

3.2.1. Establish the foundations for lifelong learning and continuing professional development, including a professional development portfolio containing reflections, achievements and learning needs.

3.2.2. Acquire, assess, apply and integrate new knowledge, learn to adapt to changing circumstances and ensure highest level of professional care to the patients.

3.2.3. Recognize own personal and professional limits and seek help from colleagues and supervisors as necessary.

3.2.4. Work with colleagues in ways that best serve the interests of patients, pass on information and hand over care, demonstrate flexibility, adaptability and a problem-solving approach.

3.2.5. Function effectively as a mentor and teacher, contribute to the appraisal, assessment and review of colleagues and give effective feedback.

3.3. **The graduate will be able to learn and work effectively within a multi-professional team:**

3.3.1. Recognize and respect the roles and expertise of health and social care professionals in the context of working and learning as a multi-professional team.

3.3.2. Build team capacity and positive working relationships and undertake leadership and membership roles in a multi-professional team.

3.4. **The graduate will have the ability to protect patient and improve care:**

3.4.1. Place patients' needs and safety at the center of the care process and deal effectively with uncertainty and change.

3.4.2. Know about the framework of medical practice in Bangladesh including the organization, management and regulation of healthcare provision; the structures, functions and priorities of the National Health Policy; and the roles of, and relationships between the agencies and services involved in protecting and promoting individual and population health.

3.4.3. Apply the principles of risk management and quality assurance to medical practice including clinical audit, adverse incident reporting and how to use the results of audit to improve practice.

3.4.4. Understand own personal health needs, consult and follow the advice of a qualified professional and protect patients from any risk posed by own health.

3.4.5. Recognize the duty to take action if a colleague's health, performance or conduct is putting patients at risk.

Basic Information about MBBS Course

1. **Name of the course:** Bachelor of Medicine & Bachelor of Surgery (MBBS)

2. **Basic qualifications & prerequisite for entrance in MBBS Course:**
   (i) HSC or equivalent with Science.(Biology, Physics, Chemistry)
   (ii) Candidate has to secure required grade point in the SSC and HSC examinations.

3. **Students selection procedure for MBBS course:** According to decision by the proper competent authority as per merit.

4. **Medium of Instruction:** English

5. **Duration:** MBBS course comprises of 5 Years, followed by mandatory logbook based rotatory internship for one year

6. Course structure, subject with duration and professional examination

The MBBS course is divided into four phases.

Phase	Duration	Subjects	Examination
1st phase	1½ years	• Anatomy • Physiology • Biochemistry	First Professional MBBS
2nd phase	1 year	• Pharmacology & Therapeutics • Forensic Medicine & Toxicology *Only lecture, small group teaching (practical, tutorial etc.), clinical teaching (as applicable) & formative assessment will be conducted in following subjects- General Pathology part of Pathology, General Microbiology part of Microbiology, Medicine & Allied subjects, Surgery & Allied subjects*	Second Professional MBBS
3rd phase	1 year	• Community Medicine & Public Health • Pathology • Microbiology *Only lecture, small group teaching (practical, tutorial etc.), clinical teaching (as applicable) & formative assessment be conducted in following subjects- Medicine & Allied subjects, Surgery & Allied subjects, Obstetrics and Gynaecology.*	Third Professional MBBS
4th phase	1½ years	• Medicine & Allied subjects • Surgery & Allied subjects • Obstetrics and Gynaecology	Final Professional MBBS

NB: All academic activities including professional examination of each phase must be completed within the specified time of the phase.

Special note: After taking admission into the first year of MBBS course, a student must complete the whole MBBS course (pass the final professional MBBS examination) within 12 years timeline.

7. Phase wise hours distribution for teaching-learning and assessment:

1st Phase: Hour Distribution											
Subject		**Lecture *(in hours)***	**Tutorial *(in hours)***	**Practical *(in hours)***	**Dissection and others *(in hours)***	**Integrated teaching**	**Formative Exam**		**Summative exam**		**Total *(in hours)***
							Preparatory leave	**Exam time**	**Preparatory leave**	**Exam time**	
Teaching-learning, both formative and summative assessment	Anatomy	115	53	52	307	36 hrs	35 days	42 days	30 days	30 days	527
	Physiology	120	120	97	-						337
	Biochemistry	117	100	100	-						317
	Total	352	273	249	307	36	77 days		60 days		1181+36 (IT) =**1217**
Generic Topics on Medical Humanities :(i) Behavioral science, (ii) Medical Sociology, (iii) Etiquette in using of Social Medias, (iv) Self- directed learning including team learning & (v) Medical ethics will be taught within 1st phase.											**8**
Grand Total											**1225**
Time for integrated teaching, examination, preparatory leave of formative & summative assessment is common for all subjects of the phase											
Related behavioral, professional & ethical issues will be discussed in all teaching learning sessions											

2nd Phase: Hour Distribution											
Subject		**Lecture *(in hours)***	**Tutorial *(in hours)***	**Practical/ Demonstration (in hours)**	**Others *(in hours)***	**Integrated teaching (IT) (in hours)**	**Clinical bedside teaching (in weeks)**	**Formative Exam**		**Summative exam**		**Total *(in hours)***
								Preparatory leave	**Exam time**	**Preparatory leave**	**Exam time**	
Teaching-learning, both formative & summative assessment	Pharmacology & Therapeutics	100	30	50	Clinical Pharmacology 15	17	-	10 days	15 days	10 days	15 days	195
	Forensic Medicine & Toxicology	100	45	40 hrs Visit to Morgue, Thana & court = 12 days	-		-					185+12days
Teaching,- learning and only formative assessment	General Pathology	35	40	07	-	-	-	-	-	-	-	82
	General Microbiology	13	07	15	-	-	-	-	-	-	-	35
	Medicine & Allied subjects	28	-	-	-	-	21 weeks	-	-	-	-	28
	Surgery & Allied subjects	35	-	-	-	-	20 weeks	-	-	-	-	35
Total		311 hrs	122 hrs	112 hrs + 12 days	15 hours	17 hours	41 weeks	25 days		25 days		**560 hrs + 12 days**
Grand Total		**577 hrs + 12 days**					42 weeks	45 days				**560 +17 (IT) = 577 hrs + 12 days**
Generic Topics on Medical Humanities: (i) Communication skill, (ii) Doctor–patient relationship (DPR) & (iii) Physicians'*/bedside manner,* etiquette and rapport building with patients will be taught within 2nd phase.												**5 hrs**
Time for integrated teaching, examination preparatory leave and formative and summative assessment is common for all subjects of the phase												
Preventive aspects of all diseases will be given due importance in teaching learning considering public health context of the country and others parts of the world.												
Related behavioral, professional & ethical issues will be discussed in all clinical and other teaching learning sessions												

3rd Phase: Hour Distribution

Subject		Lecture *(in hours)*	Tutorial *(in hours)*	Practical/ Demonstration *(in hours)*	Integrated teaching *(in hours)*	Clinical bedside teaching (in weeks)	Formative Exam		Summative exam		Total *(in hours)*
							Preparatory leave	Exam time	Preparatory leave	Exam time	
Teaching-learning, both formative & summative assessment	Community Medicine & Public Health	110	155	COME (community based medical education): 30 days (10 days day visit + 10 days RFST +10 days study tour)= **30 days** (10+10+10)	18	-	07 days	12 days	07 days	12 days	265 + 30 days
	Pathology	60	54	27		-					141
	Microbiology	87	38	30		-					155
Teaching-learning and only formative assessment	Medicine & Allied subjects	48	-	-	-	14	-	-	-	-	**48**
	Surgery & Allied subjects	103	-	-	-	15	-	-	-	-	**103**
	Obstetrics and Gynaecology	30	-	-	-	8	-	-	-	-	**30**
Total		438	247	57 hours + 30 days	18 hrs	37 weeks	19 days		19 days		**631**
Grand Total		760 hrs + **30 days**				37 weeks	38 days				742+18(IT) **=760 hrs +30 days**
Generic Topics on Medical Humanities: (i) Integrity and accountability of medical professionals (ii) Aspects of a good doctor will be taught within 3rd phase.											3 hrs
Time for integrated teaching, examination preparatory leave and formative and summative assessment is common for all subjects of the phase											
Preventive aspects of all diseases will be given due importance in teaching learning considering public health context of the country and others parts of the world.											
Related behavioral, professional & ethical issues will be discussed in all clinical and other teaching learning sessions											

4th Phase : Hour Distribution

Subject		Lecture *(in hours)*	Small group teaching (in hours)	Departmental integrated teaching (in hours)	Common hours for phase integrated teaching	Clinical teaching (in weeks)	Block posting (in weeks)	Formative Exam		Summative exam		Total *(in hours)*
			PBL, Practical demonstration, Instrumental demonstration, Skill lab, Demonstration on equipment, Demonstration on common clinical procedure, Tutorial & etc.					Preparatory leave	Exam time	Preparatory leave	Exam time	
Teaching-learning, both formative & summative assessment	Medicine & Allied subjects	153	199	20	126	24	4	Preparatory leave 10 days	Exam time 15days	Preparatory leave 10 days	Exam time 30days	372
	Surgery & Allied subjects	186	134	22		24	4					342
	Obstetrics and Gynaecology	60	58	20		08	4					138
Total		399	391	62	126	56wks	12 wks	25 days		40 days		852
Grand Total		978 hours				68 wks		65 days				852+126 (IT)=978
Generic Topics on Medical Humanities: (i) Medical professionalism, (ii) Inter-professionalism & (iii) Patient Safety & Medical Error will be taught within 4th phase.												5 hrs
Time for integrated teaching, examination preparatory leave and formative and summative assessment is common for all subjects of the phase												
Preventive aspects of all diseases will be given due importance in teaching learning considering public health context of the country and others parts of the world.												
Related behavioral, professional & ethical issues will be discussed in all clinical and other teaching learning sessions												

Generic Topics on Medical Humanities for Internship Period: (i) White coat ceremony, (ii) Career planning & (iii) Continuing Medical Education (CME), Continuing Professional Development (CPD) & Infection Control Practice (ICP)	10 hrs

Medicine & Allied Subjects: hour distribution in 2nd, 3rd & 4th phases in details

Subject	Lecture (in hours)				Small group teaching (in hours)	Departmental integrated teaching (in hours)	Phase integrated teaching (in hours)	Clinical/Bedside teaching (in weeks)			Total weeks	Block posting (in weeks)	Formative examination (in days)		Summative examination (in days)	
	2nd Phase	3rd Phase	4th Phase	Total	PBL, Practical demonstration , Instrumental demonstration, Skill lab, Tutorial & etc.			2nd Phase	3rd Phase	4th Phase						
Internal medicine	22	25	90	137	199 hours	(10 topics ×2 hours) = 20 hours	(42 topics × 3 hours) = 126 hours	14	06+ 2 (OPD)	12	34	04 wks	Preparatory leave-10 days	Exam time-15days	Preparatory leave-10 days	Exam time-30days
Psychiatry	02	-	18	20				-	02	03	05					
Dermatology	-	-	17	17				-	02	03	05					
Pediatrics	04	20	22	46				04	-	06	10					
Transfusion medicine	-	03	-	03				01	-	-	01					
Physical Medicine	-	-	04	04				02	-	-	02					
Nuclear Medicine	-	-	02	02				-	-	-	-					
Emergency	-	-	-	-				-	02	-	02					
Total	28	48	153	229	199	20	126 hours	21	14	24	59	04 wks	25 days		40 days	
Grand Total	**448 hours**						**126 hours**	**63 weeks**					**65 days**			
Time for integrated teaching, examination preparatory leave and formative & summative assessment is common for all subjects of the phase																
Preventive aspects of all diseases will be given due importance in teaching learning considering public health context of the country and others parts of the world.																
Related behavioral, professional & ethical issues will be discussed in all clinical and other teaching learning sessions																

Medicine & Allied Subjects: hour distribution for Clinical/Bedside teaching in 2nd, 3rd & 4th phases in details

Subject	Clinical/Bedside & Ambulatory care teaching (in hours)						Total hours (in three phases)	Total weeks {(2nd phase wks + 3rd phase wks + 4th phase wks = Total three phases wks) × (6 days × 4 or 2 hours)}
	2nd Phase		3rd Phase		4th Phase			
	Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching			
	Morning	Evening	Morning	Evening	Morning	Evening		
	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency		
	21 weeks		14 weeks		28 weeks			
Internal medicine	168 h (14w)	168 h (14w)	96 h (8w)	96 h (8w)	144 h (12w)	144 h (12w)	816 h	{14+(6+2)+12}= **34 w**× (6 days × 4 hrs)
Psychiatry	-	-	24 h (2w)	24 h (2w)	36 h (3w)	36 h (3w)	120 h	(0+2+3)= **05 w**× (6 days × 4 hrs)
Dermatology	-	-	24 h (2w)	24 h (2w)	36 h (3w)	36 h (3w)	120 h	(0+2+3)= **05 w**× (6 days × 4 hrs)
Pediatrics	48 h (4w)	48 h (4w)	-	-	72 h (6w)	72 h (6w)	240 h	(4+0+6)= **10 w** × (6 days × 4 hrs)
Transfusion medicine	12 h (1w)	-	-	-	-	-	12 h	(1+0+0) = **01 w**× (6 days × 2 hrs)
Physical Medicine	24 h (2w)	-	-	-	-	-	24 h	(2+0+0)= **02 w** × (6days × 2hrs)
Emergency	-	-	24 h (2w)	24 h (2w)	-	-	48 h	(0+2+0)= **02 w** × (6days × 4hrs)
Block posting	-	-	-	-	48 h (4w)	48 h (4w)	96 h	(0+0+4)= **04 w** × (6days × 4hrs)
Total	**252 hrs**	**216 hrs**	**168 hrs**	**168 hrs**	**336 hrs**	**336 hrs**	**1476 hrs**	**63 weeks**

Surgery & Allied Subjects: Hour distribution in 2nd, 3rd & 4th phases in details

Subject	Lecture (in hours)				Small group teaching (in hours)	Departmental integrated teaching (in hours)	Phase integrated teaching (in hours)	Clinical/Bedside teaching (in weeks)			Total weeks	Block posting (in weeks)	Formative examination (in days)		Summative examination (in days)	
	2nd Phase	3rd Phase	4th Phase	Total	PBL, Practical demonstration , Instrumental demonstration, Skill lab, Tutorial & etc.			2nd Phase	3rd Phase	4th Phase						
General surgery	35	30	60	125	134 hours	(11 topics × 2 hours) = 22 hours	(42 topics × 3 hours) = 126 hours	15	01	07	23	04 wks	Preparatory leave-10 days	Exam time-15days	Preparatory leave-10 days	Exam time-30days
Orthopaedic surgery	-	15	45	60				02	04	04	10					
Radiology	-	-	05	05				01	-	-	01					
Radiotherapy	-	-	08	08				-	01	-	01					
Anesthesia	-	10	-	10				01	-	-	01					
Neurosurgery	-	-	05	05				-	01	-	01					
Pediatric surgery	-	05	10	15				-	-	02	02					
Urology	-	05	10	15				-	-	02	02					
Burn & Plastic surgery/ Emergency & Casualty	-	-	05	05				-	-	01	01					
Dentistry	-	-	-	-				01			01					
Ophthalmology	-	38		38				-	04	04	08					
Otolaryngology	-	38		38				-	04	04	08					
Total	324				134	22	126 hrs	20	15	24	59 wks	04 wks	25 days		40 days	
Grand Total	**480 hours**						**126 hrs**	**63 weeks**					**65 days**			
Time for integrated teaching, examination preparatory leave and formative & summative assessment is common for all subjects of the phase																
Preventive aspects of all diseases will be given due importance in teaching learning considering public health context of the country and others parts of the world.																
Related behavioral, professional & ethical issues will be discussed in all clinical and other teaching learning sessions																

Surgery & Allied Subjects: Hours distribution for Clinical/Bedside teaching in 2nd, 3rd & 4th phases in details

Subject	Clinical/Bedside & Ambulatory care teaching (in hours)						Total hours (in three phases)	Total weeks {(2nd phase wks + 3rd phase wks + 4th phase wks = Total three phases wks) × (6 days × 4 or 2 hours)}
	2nd Phase		3rd Phase		4th Phase			
	Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching			
	Morning	Evening	Morning	Evening	Morning	Evening		
	Indoor/ OPD/ Emergency & Casualty	Indoor/ Emergency & Casualty	Indoor/ OPD/ Emergency & Casualty	Indoor/ Emergency & Casualty	Indoor/ OPD/ Emergency & Casualty	Indoor/ Emergency & Casualty		
	20 weeks		15 weeks		28 weeks			
General surgery	180 h (15w)	180 h (15w)	12 h (1w)	12 h (1w)	84 h (7w)	84 h (7w)	552 h	(15+01+07) = **23 w**× (6 days × 4 hrs)
Orthopaedic surgery	24 h (2w)	24 h (2w)	48 h (4w)	48 h (4w)	48 h (4w)	48 h (4w)	240 h	(2+4+4) = **10 w**× (6 days × 4 hrs)
Radiology	12 h (1w)	-	-	-	-	-	12 h	(1+0+0) = **01 w**× (6 days × 2 hrs)
Radiotherapy	-	-	12 h (1w)	-	-	-	12 h	(0+1+0) = **01 w**× (6 days × 2 hrs)
Anesthesia	12 h (1w)	12 h (1w)	-	-	-	-	24 h	(1+0+0) = **01 w**× (6 days × 4 hrs)
Neurosurgery	-	-	12 h (1w)	12 h (1w)	-	-	24 h	(0+1+0) = **01 w**× (6 days × 4 hrs)
Pediatric surgery	-	-	-	-	24 h (2w)	24 h (2w)	48 h	(0+0+2) = **02 w**× (6 days × 4 hrs)
Urology	-	-	-	-	24 h (2w)	24 h (2w)	48 h	(0+0+2) = **02 w**× (6 days × 4 hrs)
Burn & Plastic surgery/ Emergency & Casualty	-	-	-	-	12 h (1w)	12 h (1w)	24 h	(0+0+1) = **01 w**× (6 days × 4 hrs)
Dentistry	12 h (1w)	-	-	-	-	-	12 h	(1+0+0) = **01 w**× (6 days × 2 hrs)
Ophthalmology	-	-	48 h (4w)	48 h (4w)	48 h (4w)	48 h (4w)	192 h	(0+4+4) = **08 w**× (6 days × 4 hrs)
Otolaryngology	-	-	48 h (4w)	48 h (4w)	48 h (4w)	48 h (4w)	192 h	(0+4+4) = **08 w**× (6 days × 4 hrs)
Block posting	-	-	-	-	48 h (4w)	48 h (4w)	96 h	(0+0+4)= **04 w** × (6days × 4hrs)
Total	**240 hrs**	**216 hrs**	**180 hrs**	**168 hrs**	**336 hrs**	**336 hrs**	**1476 hrs**	**63 weeks**

Obstetrics & Gynaecology: Hours distribution in 3rd & 4th phases in details

Lecture (in hours)				Small group teaching (in hours)	Departmental integrated teaching (in hours)	Phase integrated teaching (in hours)	Clinical/Bedside teaching (in weeks)		Block posting (in weeks)	Formative examination (in days)		Summative examination (in days)	
	3rd Phase	4th Phase	Total	PBL, Practical demonstration , Instrumental demonstration, Skill lab, Tutorial & etc.			3rd Phase	4th Phase		Preparatory leave 10 days	Exam time 15 days	Preparatory leave 10 days	Exam time 15 days
							8wks	8wks					
Total	30	60	90	58 hours	(10 topics × 2 hours) = 20 hours	(42 topics × 3 hours) = 126 hours	16 weeks		04 wks	25 days		40 days	
Grand Total	**168 hours**					**126 hours**	**20 weeks**			**65 days**			
Time for integrated teaching, examination preparatory leave and formative & summative assessment is common for all subjects of the phase													
Preventive aspects of all diseases will be given due importance in teaching learning considering public health context of the country and others parts of the world.													
Related behavioral, professional & ethical issues will be discussed in all clinical and other teaching learning sessions													

Obstetrics & Gynaecology: Hours distribution for Clinical/Bedside teaching in 3rd & 4th phases in details

Subject	Clinical/Bedside & Ambulatory care teaching (in hours)						Total hours (in three phases)	Total weeks {(2nd phase wks + 3rd phase wks + 4th phase wks = Total three phases wks) ×(6 days× 4 or 7 hours)}
	2nd Phase		3rd Phase		4th Phase			
	Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching			
	Morning	Evening	Morning	Evening	Morning	Evening		
	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency		
			8 weeks		12 weeks			
Basic Clinical Skills (in-patient)	-	-	48 h (4w)	48 h (4w)	-	-	96 h	(0+4+0)= **04 w** × (6 days × 4 hrs)
Family Planning Clinic	-	-	24 h (2w)	24 h (2w)	-	-	48 h	(0+2+0)= **02 w**× (6 days × 4 hrs)
Gynae & Antenatal Out-patient Clinic	-	-	24 h (2w)	24 h (2w)	-	-	48 h	(0+2+0)= **02 w**× (6 days × 4 hrs)
Routine Obstetrics	-	-	-	-	36 h (3w)	36 h (3w)	72 h	(0+0+3)= **03 w**× (6 days × 4 hrs)
Routine Gynaecology	-	-	-	-	36 h (3w)	36 h (3w)	72 h	(0+0+3)= **03 w**× (6 days × 4 hrs)
Emergency Obstetric Care E.O.C (Labour Room)	-	-	-	-	24 h (2w)	60 h (2w)	84 h	(0+0+2)= **02 w**× (6 days × **7** hrs)
Block posting	-	-	-	-	48 h (4w)	48 h (4w)	96 h	(0+0+4)= **04 w** × (6days × 4hrs)
Total	-	-	**96 hrs**	**96 hrs**	**144 hrs**	**180 hrs**	**516 hrs**	**24 weeks**

8. **Teaching & learning methods**

The following teaching and learning methods will be followed:

Large Group Teaching:

- Lecture
- Seminar

Integrated teaching : 102 topics

- Phase I : 12 topics
- Phase II: 7 topics
- Phase III: 10 topics
- Phase IV: Common 42 topics + Departmental 31 topics = 73 topics
    - *(Departmental topics Medicine 10 topics + Surgery 11 topics + Gynae & Obs 10 topics)*

Small Group Teaching:

- Problem Based Learning (PBL)
- Tutorial
- Demonstration
- Students interaction

Practical session:

- Use of practical manual
- Performing the task/examination by the student
- Writing the practical note book

Field Placement (Community based medical education):

- In small groups for performing activities by the student themselves

Clinical teaching:

- In ward, OPD, ED, ambulatory care teaching, OT, POW, ICU, etc.
- By concerned persons

NB: Ambulatory care teaching, there should be a ratio of 1:4 (25% ambulatory care teaching and 75% indoor teaching).

Encourage to learn ICT through computer lab of the college.

9. **Assessment:**

A. There will be in-course/formative (item/card/term) and end-course/summative (professional) assessment for the students in each phase (1st, 2nd, 3rd & 4th phase) of the course i.e. formative and professional examination.

B. Formative assessment will be done through results of items, card and term ending examination, weightage from integrated teaching & class attendance.

C. For formative assessment, 10% marks of written examination of each paper of each subject is allocated

D. In written examination for MCQ of each paper, 20% marks are allocated. Out of that Single based answer (SBA) type of MCQ will be 50% and Multiple true false (MTF) type of MCQ 50% in formative and summative assessment of all subjects of MBBS course. There will be separate answer script for MCQ part of examination. Total number of MCQ will be 20 for 20 marks out of which 10marks for SBA and 10marks for MTF.

E. Short Answer Question (SAQ) and Structured Essay Question (SEQ) will be in written examination of each paper, 70% marks are allocated. Out of 70 marks Structured essay question (SEQ) will be around 25% along with short answer question (SAQ) around 75% in formative and summative assessment of all subjects of MBBS course

F. Oral part of the examination will be Structured Oral examination (SOE)

G. OSPE/OSCE will be used for assessing skills/competencies. Traditional long & short cases will be also used for clinical assessment

H. There will be phase final professional examination within the each academic phase.

I. Results will be published as per following GPA system with the provision of reflection of marks in the academic transcript

Numerical Grade	Letter Grade	Grade Point
80% and above	A^+	4.00
75% to less than 80%	A	3.75
70% to less than 75%	A^-	3.50
65% to less than 70%	B^+	3.25
60% to less than 65%	B	3.00
Less than 60%	F	0.00

J. <u>Eligibility for appearing in the professional examination</u>:

- Certificate from the respective head of departments regarding students obtaining at least 75% attendance in all classes (theory, practical, tutorial, residential field practice, clinical placement etc.) during the phase.
- Obtaining at least 60% marks in formative examinations.
- No student shall be allowed to appear in the professional examinations unless the student passes in all the subjects of the previous professional examinations

K. Pass Marks:

Pass marks is 60%. Student shall have to pass written (SBA & MTF-MCQ +SEQ+ SAQ + formative), oral, practical and clinical examination separately.

L. Examinations & distribution of marks:

First Professional Examination

Subjects	Written Exam marks	Structured Oral Exam marks	Practical Exam marks	Formative Exam marks	Total Marks
Anatomy	180	150	150	20	500
Physiology	180	100	100	20	400
Biochemistry	180	100	100	20	400
Total					1300

Second Professional Examination

Subjects	Written Exam marks	Structured Oral Exam marks	Practical Exam marks	Formative Exam marks	Total Marks
Pharmacology & Therapeutics	90	100	100	10	300
Forensic Medicine & Toxicology	90	100	100	10	300
Total					600

Third Professional Examination

Subjects	Written Exam marks	Structured Oral Exam marks	Practical Exam marks	Formative Exam marks	Total Marks
Community Medicine & Public Health	90	100	100	10	300
Pathology	90	100	100	10	300
Microbiology	90	100	100	10	300
Total					900

Fourth Professional Examination

Subjects	Written Exam marks	Structured Oral Exam marks	Clinical	Practical	Formative Exam marks	Total Marks
Medicine & Allied Subject	180	100	100	100	20	500
Surgery & Allied Subject	180	100	100	100	20	500
Obstetrics & Gynecology	180	100	100	100	20	500
Total						1500

M. Common Rules for Examinations

a) University professional MBBS examination will be started from May and November.

b) University professional MBBS examinations will be completed within the specified time of the concerned phase

c) No carry on system before passing 1st professional examination. Students who will appear first professional examination can attend the clinical class before publishing results of first professional examination. If any student fail any subject of first phase in the first professional examination he/she will not be able to continue clinical and other classes of second phase before passing first professional examination.

d) After passing all the subjects of first professional MBBS examination, students can appear in Second professional MBBS examination if all other prerequisites for appearing in second professional examination are fulfilled as per curriculum.

e) To appear in third professional MBBS examination students will have to pass all the subjects of the second professional MBBS examination and all other prerequisites for appearing in Third Professional MBBS examination must be fulfilled as per curriculum.

f) To appear in 4th (final) professional MBBS examination students have to pass all the subjects of previous 3rd professional MBBS examination if all other prerequisites are fulfilled. In the mean time students can attend clinical ward placement, teaching learning.

N. Few directives and consensus about the following issues of assessment:

i. Incase of OSPE/OSCE- Instruments/equipment's to be taken to oral boards to ask open questions to the students apart form Structured Oral Examination (SOE). There will be scope of instruments related viva, specially in clinical subjects and where applicable. Central OSPE/OSCE from Dean Office after moderation will be encouraged.

ii. Incase of Structured Oral Examination (SOE), instead of preparing specific structured question, topics will be fixed considering wide range of contents coverage. Rating scale will be used for marking the students concurrently. Each student will be asked questions from all topics of the set. Equal or average duration of time will be set for every student.

10. Internship :

I. After passing final professional MBBS examination students have to enroll for one year log book based mandatory rotatory internship programme. Internship programme will be more structured and supervised. It is compulsory to complete MBBS course & one year supervised internship programme to get permanent registration for doing independent practice.

II. MBBS graduates must join internship within one month after passing the final professional MBBS examination. Exception can be considered based on the only valid personal medical ground upon approval of the Director of the Medical College Hospital;

III. Within one year (12 months) of internship period 11 months at respective medical college hospital and one month at Upazila Health Complex (UHC)/field level.

IV. Timeline of completion of internship will be two years once after joining internship. i.e. it must be completed within two years from the starting date. Exception can be considered based on the only valid personal medical ground upon approval of the Principal of respective Medical College and Director of Medical College Hospital;

Generic Topics on Medical Humanities to be Taught in MBBS Course

The following sixteen generic topics on medical humanities will be taught within 1st, 2nd, 3rd & 4th Phase of MBBS course & Internship period under supervision of the concerned Phase coordination committee in collaboration with medical education unit (MEU). The sessions will be under the guidance of Principal & Vice-principal, coordinated by concerned departments and sessions will be delivered by concerned experts of the topics. Each session will be one and half hour. Attending these session will be mandatory and will be reflected in the formative & summative assessment.

Topics to be taught in Phase-I

1. Behavioral science
2. Medical Sociology
3. Etiquette in using of Social Medias
4. Self- directed learning including team learning
5. Medical ethics

Topics to be taught in Phase-II

1. Communication skill
2. Doctor–patient relationship (DPR)
3. Physicians' bedside manner, etiquette and rapport building with patients

Topics to be taught in Phase-III

1. Integrity and accountability of medical professionals
2. Aspects of good doctors

Topics to be taught in Phase-IV

1. Medical professionalism
2. Inter-professionalism
3. Patient Safety

Issues for Internship Period

1. White coat ceremony
2. Career planning
3. Continuing Medical Education (CME) & Continuing Professional Development (CPD)
4. Causes of death
5. Basic Infection Control Practice (ICP)

Integrated Teaching in Phase I

Teachers of all departments of Phase -1 (Anatomy, Physiology & Biochemistry) must be present during these integrated sessions along with the concerned faculties those are mentioned in the column four in the table below. Teachers will be the speakers/facilitators in each session. The students must actively participate in these sessions and have to submit the summary of each session to the concerned teacher/department as their assignments. This assignment will be a part of practical note book in the summative assessment. Students need to get some 'take home message' from every session. Schedule for integrated teaching session will be set at the phase I committee meeting in collaboration with medical education unit (MEU).

Total 36 hour. Each session will be for 3 hour

A) Term-I:

1. Coronary artery disease
2. Chronic obstructive pulmonary disease (COPD)
3. Anaemia

B) Term-II:

4. Diarrhea
5. Diabetes Mellitus (DM)
6. Jaundice
7. Electrolyte imbalance
8. Proteinuria

C) Term-III:

9. Thyroid disorder
10. Cerebro-vuscular disease (CVD)
11. Deafness
12. Errors of refraction

Integrated Teaching in Phase II

All the departments of Phase II (Pharmacology, Forensic Medicine & Toxicology) must be present and take part in the integrated teaching while the faculty representatives from concerned clinical & others departments will also participate actively. Teachers will be the speakers in each session. Participation of the students of phase II should be ensured. Concern audiovisual aid, equipment and patient will be used. Students need to get some 'take home message' from every session. To ensure presence of the students 10 (Ten) marks will be allocated from practical part of the professional examination as a part of integrated teaching and submission of write up on what was learned by the student as summary. Schedule for integrated teaching session will be set at the phase II committee meeting in collaboration with medical education unit (MEU).

Total -17 hour. Each session will be for at least 2 hour

1. Electrocution and lightening
2. Burn
3. Drowning
4. Death
5. Poisoning
6. Substance abuse
7. Pulmonary Tuberculosis
8. Malaria

Integrated Teaching in Phase III

All the departments of Phase III (Community Medicine & Public Health, Pathology, Microbiology) must be present and take part in the integrated teaching while the faculty representatives from concerned clinical & others departments will also participate actively. Teachers will be the speakers in each session. Participation of the students of phase III should be ensured. Students need to get some 'take home message' from every session. To ensure presence of the students Schedule for integrated

teaching session will be set at the phase III committee meeting in collaboration with medical education unit (MEU).

Total -18 hour. Each session will be for at least 2 hour

Topics:

1. Occupational and Environmental hazard
2. Snake bite
3. Transportation injuries
4. Disaster management
5. Shock
6. Glomerulonephritis
7. Rheumatoid Arthritis/ Osteomyelitis
8. Different Viral Fevers (Covid-19, Dengue, Chikungunya)
9. Carcinoma Cervix

Integrated Teaching In Phase IV

All the departments of phase iv (Medicine & Allied Topics, Surgery & Allied Topics and Gynecology & Obstetrics) must be present and take part in the integrated teaching while the faculty representatives from concerned clinical and other departments will also participate actively. Teachers will be the speakers in each session. Participation of the students of phase IV should be ensured. Students need to get some take home message from every session. To ensure presence of the students 10 (ten) marks will be allocated from practical part of the professional examination as a part of integrated teaching and submission of write up on what was learned by the student as summary. Schedule of integrated teaching session will be set at the phase IV committee meeting in collaboration with medical education unit (MEU).

Each session will be for at least 3 hours

Topics :

1. Hypertension
2. Tuberculosis
3. Thyroid Disorder
4. Acute Kidney Injury(AKI)
5. Fever
6. Oedema
7. Chest pain
8. Acute respiratory distress
9. DM
10. Jaundice
11. Diarrhea and vomiting
12. Nutrition
13. Pediatric Emergency
14. Headache
15. Anxiety
16. Depression
17. Psychosis
18. Drug reaction
19. Generalised pruritus
20. Purpura
21. STI
22. Low Back Pain
23. Joint Pain
24. Osteoporosis
25. Acute abdomen
26. Thrombophlebitis/Phlebothrombosis
27. Sepsis
28. Infection Prevention & Control
29. Shock
30. Fluid and Electrolytes-
31. Burn
32. Per rectal bleeding-
33. Vertigo
34. Congenital anomalies
35. Wound infection
36. Urinary Tract Infection (UTI)
37. AUB
38. Convulsion
39. Abdominal Lump
40. Anaemia
41. Unconsciousness
42. Delirium & Dementia

Medicine & Allied Subjects Departmental Integrated Teaching-Phase-IV

Medicine and Allied subjects of phase IV will organized the departmental integrated teaching on the following topics where faculty members of internal medicine and concerned allied subjects must be present and take part in the integrated teaching. While the faculty representatives from concerned clinical and other departments will also participate actively. Teachers will be the speakers in each session. Participation of the students of phase IV should be ensured. Students need to get some take home message from every session. To ensure presence of the students few marks will be allocated from practical part of the professional examination as a part of integrated teaching and submission of write up on what was learned by the student as summary. Schedule of the departmental integrated teaching session will be set by the department in coordination with the phase IV committee.

Each session will be for at least 2 hours

Topics :

1. Heart Failure
2. Congenital Heart Disease
3. Bronchial Asthma
4. Liver Abscess
5. Malabsorption syndrome
6. Irritable bowel syndrome(IBS)
7. Psoriasis
8. Leprosy
9. Autism spectrum disorder (ASD)
10. Somatoform disorder

Surgery & Allied Subjects: Departmental Integrated Teaching-Phase-IV

Surgery and Allied subjects of phase IV will organized the departmental integrated teaching on the following topics where faculty members of General Surgery and concerned allied subjects must be present and take part in the integrated teaching. While the faculty representatives from concerned clinical and other departments will also participate actively. Teachers will be the speakers in each session. Participation of the students of phase IV should be ensured. Students need to get some take home message from every session. To ensure presence of the students few marks will be allocated from practical part of the professional examination as a part of integrated teaching and submission of write up on what was learned by the student as summary. Schedule of the departmental integrated teaching session will be set by the department in coordination with the phase IV committee.

Each session will be for at least 2 hours

Topics :

1. Malignant Bone Tumour
2. Inflammatory Bowel Disease
3. Gastric Outlet Obstruction
4. Sub acute Intestinal obstruction
5. Neck Swelling
6. Epistaxis
7. Stridor in Children
8. Bladder Outflow Obstruction
9. Metabolic Bone Disease
10. Spinal Injury.
11. Proptosis

Obstetric & Gynecology : Departmental Integrated Teaching-Phase-IV

Obstetric & Gynecology of phase IV will organized the departmental integrated teaching on the following topics where faculty members of Obstetric & Gynecology and concerned other subjects must be present and take part in the integrated teaching. Teachers will be the speakers in each session. Participation of the students of phase IV should be ensured. Students need to get some take home message from every session. To ensure presence of the students few marks will be allocated from practical part of the professional examination as a part of integrated teaching and submission of write up on what was learned by the student as summary. Schedule of the departmental integrated teaching session will be set by the department in coordination with the phase IV committee.

Each session will be for at least 2 hours

Topics :

1. Pelvic Inflammatory Disease (PID)
2. Vaginal Discharge
3. Ovarian Tumour
4. Contraceptives
5. Pelvic tuberculosis
6. Normal labour
7. Antenatal care
8. Vital statistics (maternal & perinatal mortality)
9. Puerperium
10. Puberty

Phase IV

- Generic Topics on Medical Humanities to be taught in Phase-IV
- Integrated Teaching in Phase IV
- Subjects of Phase IV--
  - Medicine & Allied subjects
  - Surgery & Allied subjects
  - Obstetrics and Gynaecology

Generic Topics on Medical Humanities to be taught in Phase –IV

The following topics will be taught within 4th phase under supervision of Phase-IV coordination committee in collaboration with medical education unit (MEU). The sessions will be under the guidance of Principal & Vice-principal, coordinated by concerned departments and sessions will be delivered by concerned experts of the topics. Each session will be one and half hour. Attending these session will be mandatory and will be reflected in the formative & summative assessment of Phase-IV.

Topics:

1. Medical professionalism
2. Inter-professionalism
3. Patient Safety & Medical Error

Topics	Learning objective	List of Contents	Method	Time
Medical Professionalism	• explain the terminology: professionalism , medical professionalism • state the importance of medical professionalism • explain the professional responsibilities in health care • mention the ways and means of improving medical professionalism	• The terminology: professionalism , medical professionalism • Importance of medical professionalism • Professional responsibilities in health care • Ways and means of improving medical professionalism	Interactive Lecture Or Seminar	One and half hour
Inter-professionalism	• define Inter-professionalism (IP) • mention importance of IP in health care • list the members of the inter-professional collaboration • state the means of developing inter-professional collaboration among health team • mention some health service related areas requiring inter-professional collaboration	• Definition of Inter-professionalism (IP) • Importance of IP in health care • Members of the inter-professional team collaboration • Means of developing inter-professional collaboration among health team • Some health service related areas requiring inter-professional collaboration	Interactive Lecture Or Seminar	One and half hour
Patient Safety & medical error	• define patient safety • mention importance of patient safety • define medical errors and medical negligence • list common medical errors and medical negligence • explain responsibility of patient safety and rights of a patient • mention the common patient safety issues and goals • explain means of administration of quality care to the patient	• Definition and importance of patient safety • Definition and common medical errors and medical negligence • Responsibility of patient safety and rights of a patient • Common patient safety issues and goals • Means of administration of quality care to the patient	Interactive Lecture Or Seminar	One and half hour

Integrated Teaching In Phase IV

All the departments of phase iv (Medicine & allied Topics, Surgery & Allied Topics and Gynecology & Obstetrics) must be present and take part in the integrated teaching while the faculty representatives from concerned clinical and other departments will also participate actively. Teachers will be the speakers in each session. Participation of the students of phase IV should be ensured. Students need to get some take home message from every session. To ensure presence of the students 10 (ten) marks will be allocated from practical part of the professional examination as a part of integrated teaching and submission of write up on what was learned by the student as summary. Schedule of integrated teaching session will be set at the phase IV committee meeting in collaboration with medical education unit (MEU).

Each session will be for at least 3 hours

Topics :

1. Hypertension
2. Tuberculosis
3. Thyroid Disorder
4. Acute Kidney Injury(AKI)
5. Fever
6. Oedema
7. Chest pain
8. Acute respiratory distress
9. DM
10. Jaundice
11. Diarrhea and vomiting
12. Nutrition
13. Pediatric Emergency
14. Headache
15. Anxiety
16. Depression
17. Psychosis
18. Drug reaction
19. Generalised pruritus
20. Purpura
21. STI
22. Low Back Pain
23. Joint Pain
24. Osteoporosis
25. Acute abdomen
26. Thrombophlebitis/Phlebothrombosis
27. Sepsis
28. Infection Prevention & Control
29. Shock
30. Fluid and Electrolytes-
31. Burn
32. Per rectal bleeding-
33. Vertigo
34. Congenital anomalies
35. Wound infection
36. Urinary Tract Infection (UTI)
37. AUB
38. Convulsion
39. Abdominal Lump
40. Anaemia
41. Unconsciousness
42. Delirium & Dementia

Topic	Learning Objective	Core Contents	Other Discipline Involved
Hypertension	At the end of the session students will be able to - • define hypertension • classify hypertension • mention causes of secondary hypertension • mention complications • mention accelerated and malignant hypertension • plan Investigations • manage hypertension as well as complications • evaluate and manage hypertension in pregnancy • manage of hypertension before, during and after surgery	• Definition • Classification • Etiology • Secondary hypertension • Approach to newly diagnosed hypertension • Measurement of blood pressure in different posture with importance • History and physical examination • Target organ damage • Investigation • Management • Anti-hypertensive drugs • Hypertension in pregnancy • Hypertension and surgery	• Internal Medicine/ Cardiology • General Surgery • Obstetrics and Gynaecology • Ophthalmology
Tuberculosis	At the end of the session students will be able to - • mention epidemiology • explain pathology and pathogenesis • enumerate organ involvement • describe the natural history of untreated primary TB • mention clinical features of pulmonary TB • mention clinical features of extra pulmonary TB • perform necessary investigations • manage a case of TB • manage TB in pregnancy • diagnose and manage drug reaction to Anti TB drugs • evaluate role of surgery in TB	• Epidemiology • Pathogenesis & Pathology • Clinical features – pulmonary, extra pulmonary • Investigations • Management • TB in pregnancy • Drug reaction to Anti TB drugs • TB and surgery	• Internal Medicine • General Surgery • Obstetrics and Gynaecology • Dermatology • Ophthalmology • Otolaryngology • Orthopedics • Pediatrics

Thyroid Disorders	At the end of the session students will be able to -
	• list common thyroid disorders
	• mention hypo function of thyroid with etiology
	• mention hyperfunction of thyroid with etiology
	• state the causes of thyroid enlargement
	• enumerate the clinical features of hypothyroidism and hyperthyroidism
	• perform necessary investigations for suspected case of thyroid dysfunction and their interpretation
		• Thyrotoxicosis
		  ○ Definition
		  ○ Causes
		  ○ Clinical features
		  ○ Investigations
		  ○ Management
		  ○ Crisis
		• Hypothyroidism
		  ○ Definition
		  ○ Causes
		  ○ Clinical features
		  ○ Investigations
		  ○ Management
		  ○ Crisis
		• Thyroid lump/swelling
		  ○ Causes
			• Internal Medicine
			• General Surgery
			• Obstetrics and Gynaecology
			• Otolaryngology
			• Skin and VD

	• manage hypothyroidism and hyperthyroidism	○ Clinical assessment ○ Investigations • Transient thyroiditis • Autoimmune thyroiditis • Thyroid disorder in pregnancy • Surgery and thyroid dysfunction	
Acute Kidney Injury(AKI)	At the end of the session students will be able to - • define AKI • list causes of AKI • describe the pathophysiology of AKI • mention clinical features • plan Investigations • manage cases • mention complications of AKI • identify and manage AKI in paediatics • evaluate and manage pregnancy with AKI • diagnose and manage AKI related with surgery	• Definition of AKI • Causes of AKI • Pathophysiology of AKI • Clinical features • Investigations • Management • Complications of AKI • AKI in paediatics • AKI in Pregnancy • AKI related with surgery	• Internal Medicine/ Nephrology • General Surgery • Obstetrics and Gynaecology • Paediatrics
Fever	At the end of the session students will be able to - • list the etiology of fever • Investigate a case • mention management of cases & management of complications both in adults and in children. • evaluate and manage fever during pregnancy • mention the role of surgery in management of a case of fever • list the consequences of fever	• etiology of fever • Investigation of a case of fever • management of fever and management of complications both in adults and in children. • management of fever during pregnancy • the role of surgery in management of a case of fever • consequences of fever	• Internal Medicine/ Gastroenterology • General Surgery • Obstetrics and Gynaecology • Paediatrics
Oedema	At the end of the session students will be able to - • define oedema • explain the pathophysiology • list the causes • mention clinical assessment of a case of oedema • investigate a case • plan management both in adults and in children. • evaluate and manage oedema during pregnancy • mention the role of surgery in selective cases of oedema	• Definition of oedema • Pathophysiology • Causes of oedema • Clinical assessment of a case of oedema • Investigations • Management both in adults and in children. • Evaluation and management of oedema during pregnancy • Role of surgery in selective cases of oedema	• Internal Medicine • General Surgery • Obstetrics and Gynaecology • Paediatrics

Chest pain	At the end of the session students will be able to- • mention the causes of chest pain • outline the Systematic approach to most of the common causes chest pain (History and clinical exam) • interpret the findings in term of diseases, possible causes, and plan of investigations • make emergency decision regarding management • plan treatment	• Causes of chest pain • Systemetic approach to chest pain • Clinical features of chest pain • DDs of chest pain • Lab diagnosis of chest pain • Treatment of chest pain	• Internal Medicine/Respiratory Medicine • General Surgery • Obstetrics and Gynaecology • Cardiology
Acute respiratory distress	At the end of the session students will be able to- • mention the causes • outline the systematic approach to most of the common causes of respiratory distress(history and clinical exam) • outline the plan of investigations • interpret the findings to reach the cause and to exclude differential diagnosis • plan treatment approach	• Causes • Systemetic approach • Clinical features • Lab diagnosis • Treatment	• Internal Medicine • General Surgery • Obstetrics and Gynaecology • Cardiology • Respiratory Medicine
Diabetes Malaitus(DM)	At the end of the session students will be able to: • define DM • classify DM • describe brief pathophysiology • state presenting features • mention short term and long term complications. • outline laboratory diagnosis • mention WHO guideline • manage DM in different clinical settings (in pregnancy, children, in kidney disease)	• Definition of DM • Classification of DM • Pathophysiology of DM • C/F of DM • Complications of DM • Lab. diagnosis of DM • Management of DM (Including Special situation)	• Internal Medicine • General Surgery • Obstetrics and Gynaecology • Endocrinology • Skin and VD
Jaundice	At the end of the session students will be able to: • define jaundice • classify jaundice • explain the pathophysiology of different type of jaundice • outline systematic approach to differentiate different types of jaundice • plan relevant investigations • outline treatment approaches.	• Definition • Causes • Classification • Pathophysiology • C/F • Diffential diagnosis • Lab.investigations • Treatment	• Internal Medicine • General Surgery • Obstetrics and Gynaecology • Gastroenterology • Paediatrics

Diarrhea and vomiting	At the end of the session students will be able to: • define diarrhea • mention causes • describe pathogenesis • classify dehydration • assess dehydration • describe clinical presentation and consequences • plan investigations and interpretation • outline management • mention preventive measures	• Vomiting and causes • Diarrheal disease- a. Acute watery diarrhea b. Persistent diarrhea c. Dysentery • Assess dehydration and appropriate management • Composition of ORS , cholera saline • Complication • Prevention	• Paediatrics • Internal Medicine • General Surgery • Obstetrics and Gynaecology
Nutrition	At the end of the session students will be able to: • define IYCF • define nutrition • mention common nutritional problem • define malnutrition • classify malnutrition • explain growth chart • assess malnutrition • mention principals of management • describe vitamin deficiency • describe briefly the micronutrient deficiency • define obesity and malnutrition	• Nutrition • IYC • Definition • Common • nutritional • problems • Malnutrition • definition • classification • Growth chart • Assessment of malnutrition • Principals of • Management • Vitamin • Deficiency- common vit deficiency like A, D, K. • Micronutrient • Deficiency- Iron deficiency anemia • Obesity- definition, BMI, cause, clinical presentation, Investigations and interpretation • Complications	• Paediatrics • Internal Medicine • General Surgery • Obstetrics and Gynaecology
Pediatric Emergency	At the end of the session students will be able to: • mention the type of Poisoning • outline management of drowning, burn, dog bite, snake bite & status epilepticus • mention the preventive measures	• Poisoning- a) common house b) hold poisoning, c) kerosene poisoning, d) OPC poisoning, e) drug poisoning • Drowning • Burn • Dog bite • Snake bite • Status epilepticus	• Paediatrics • Internal Medicine • General Surgery • Obstetrics and Gynaecology
Headache	At the end of the session students will be able to:	• Definition of headache • Epidemiology of headache	• Psychiatry

	• define headache • mention the types of headache • perform the history taking of headache • state the clinical features of headache • mention the symptoms of headache related to intracranial causes • explain the symptoms of headache due to ophthalmic or ENT causes	• Common causes of headache • Types of headache • Tension headache • Migraine • Differential diagnosis of headache • Management of headache	• Internal Medicine • Neurology • Eye • ENT
Anxiety	At the end of the session students will be able to: • define anxiety • classify anxiety disorders • state the clinical features of anxiety disorder • diagnose GAD • mention the organic causes of anxiety • manage a case of anxiety disorder	• Definition of anxiety, anxiety disorder • Neurotransmitter involve in anxiety • Epidemiology of GAD • Signs and symptoms of anxiety disorders • Treatment of Anxiety disorder • Postpartum blue anxiety	• Psychiatry • Internal Medicine • Pediatrics • Obstetrics and Gynaecology
Depression	At the end of the session students will be able to: • define depression • classify depressive disorder • state the clinical features of depressive disorder • diagnose depressive disorder • mention the organic causes of depression • manage a case of depressive disorder	• Definition of depression & depressive disorder • Neurotransmitter involves in depression • Epidemiology of Depressive disorder • Sign symptoms of depressive disorder • Treatment of depressive disorder • Postpartum blue depression in children	• Psychiatry • Internal Medicine • Pediatrics • Obstetrics and Gynaecology
Psychosis	At the end of the session students will be able to: • define Psychosis • classify Psychotic disorder • state the clinical features of Psychotic disorder • diagnose Schizophrenia • diagnose Bipolar Disorder • manage a case of Schizophrenia • manage a case of Bipolar Disorder • state the prognosis of Psychotic disorder	• Definition of Psychosis, Hallucination, Delusion • Classification of Psychosis • Neurotransmitter involve in Psychosis • Epidemiology of Schizophrenia • Epidemiology of Bipolar disorder • Sign symptoms of Psychosis • ICU Psychosis • Postpartum Psychosis • Diagnostic criteria of schizophrenia	• Psychiatry • Internal Medicine • Obstetrics and Gynaecology

		• Diagnostic criteria of Bipolar Disorder • Treatment of Schizophrenia • Treatment of Bipolar disorder	
Delirium & Dementia	At the end of the session students will be able to: • define delirium & dementia • mention the causes of delirium & dementia • classify dementia • state the clinical features of delirium & dementia • diagnose a case of delirium & dementia • manage a case of delirium & dementia • state the prognosis of dementia	• Definition of delirium • Definition of dementia • Causes of delirium • Causes of dementia • Classification of dementia • Clinical feature of delirium • Clinical feature of dementia • Diagnosis of delirium • Diagnosis of dementia • Management of delirium • Management of dementia • Prognosis of dementia	• Psychiatry • Internal Medicine • Neurology
Drug reaction	At the end of the session students will be able to • define drug reaction • explain the pathogenesis of drug reaction • state the clinical features of drug reaction • differentiate drug reaction from other diseases • outline the investigations of drug reaction • outline the management of drug reactions	• Definition of drug reaction • Types of drug reaction • Pathogenesis of drug reaction • Clinical features of drug reaction • Differential diagnosis of drug reaction • Investigation of drug reaction • Management of drug reaction	• Department of Skin & VD, • Internal Medicine, • Paediatrics, • General Surgery, • Obstetrics and Gynaecology • Pharmacology, • Pathology
Generalised pruritus	At the end of the session students will be able to • define pruritus • mention the causes of generalized pruritus • mention the pathway of pruritus • explain pathophysiology of pruritus • outline the investigation of pruritus • outline the general and specific management of pruritus	• Definition of pruritus • Pathway of pruritus • Causes of pruritus • Pathophysiology of pruritus • Differential diagnosis • Investigation of pruritus • Management of pruritus	• Department of Skin & VD, • Internal Medicine, • Paediatrics, • General Surgery, • Obstetrics and Gynaecology
Purpura	At the end of the session students will be able to • define purpura and related terms • mention the causes of purpura • explain the pathogenesis of purpura • mention the types of purpura	• Definition of purpura • Types of purpura • Pathogenesis of purpura • Investigation of purpura • Management of purpura	• Department of Skin & VD, • Internal Medicine, • Haematology, • Paediatrics, • General Surgery, • Pathology

	• mention the investigation of purpura • describe the management of purpura		

STI	At the end of the session students will be able to • define STI and related terms • classify STI • clinical features of STI • mention the laboratory investigation of STI • differentiate STI from other diseases • describe the management of STI • outline prevention and control measures	• Definition of STI • Classification of STI • Clinical feature of STI • Laboratory investigations of STI • Differential diagnosis of STI • Management of STI • Prevention and control of STI	• Department of Skin & VD, • Internal Medicine, • General Surgery, • Microbiology , • Community • Medicine
Low Back Pain	At the end of session students will be able to: • define Low Back Pain • mention different types of Low Back Pain • describe the pathogenesis of Low Back Pain • enumerate the clinical features • list the required laboratory investigations • management with prevention.	• Definition of Low Back Pain • Types of Low Back Pain • Clinical stages of Low Back Pain • Pathophysiology • Clinical feature • Complication • Indication of operative and non-operative treatment.	• Pathology • Pharmacology • Physical Medicine • Radiology • Orthopedics
Joint Pain	At the end of session students will be able to: • explain the etiopathogenesis of the disease. • mention the causes of joint pain • list the types of arthritis • outline the management of the disease according to the causes	• Types of arthritis • Stages of all types of arthritis • Complications • Conservative vs surgical treatment	• Anatomy • Pathology • Pharmacology • Physical Medicine
Osteoporosis	At the end of session students will be able to: • mention basic physiology of the bone and pathology of osteoporosis • explain the consequences of osteoporosis • describe social and economic burden in the society • outline the management with a protocol of prevention	• Causes and types of Osteoporosis • Pathophysiology of osteoporosis • Complication • Drug used for Preventions	• Physiology • Pathology • Pharmacology • Endocrinology • Radiology • Obstetrics & Gynaecology
Acute abdomen	At the end of the session students will be able to: • define acute abdomen • list the common causes of acute abdomen	• Definition of acute abdomen • Causes and examples of acute abdomen • Surgical causes of acute abdomen • Medical causes of acute abdomen	• Internal Medicine • General Surgery • Obstetrics and Gynaecology

	• mention the surgical, medical & gynecological causes of acute abdomen • state the specific management protocol of acute abdomen	• Gynecological causes of acute abdomen • Specific management of acute abdomen	• Paediatrics,
Thrombophlebitis/Phlebothrombosis	At the end of the session students will be able to: • define thrombophlebitis • define phlebothrombosis • mention the etiology of thrombophlebitis & phlebothrombosis • explain the pathogenesis of thrombophlebitis & phlebothrombosis • state the clinical features of thrombophlebitis & phlebothrombosis • differentiate between thrombophlebitis & phlebothrombosis • state the name of procoagulant & anticoagulant • mention the complications of thrombophlebitis & phlebothrombosis • outline the management of thrombophlebitis & phlebothrombosis • state the measures of physiotherapy for prevention of thrombophlebitis & phlebothrombosis	• Definition of thrombophlebitis & phlebothrombosis • Etiology of thrombophlebitis & phlebothrombosis • Pathology of thrombophlebitis & phlebothrombosis • Clinical features of thrombophlebitis & phlebothrombosis • Names procoagulant & anticoagulant • Complications of thrombophlebitis & phlebothrombosis • Management of thrombophlebitis & phlebothrombosis • Preventive measures	• Internal Medicine • General Surgery • Obstetrics and Gynaecology • Pathology
Sepsis	At the end of the session students will be able to: • define sepsis, MODS, SIRS, bacteremia, pyemea, septic shock • mention the etiology of sepsis • explain the pathophysiology of sepsis • state the clinical features of sepsis • differentiate the stages of sepsis • state the investigations for sepsis • outline the general management of sepsis • assess the need of HDU and ICU support in sepsis • state the fate of sepsis	• Definition-MODS, SIRS, bacteremia, pyemea, septic shock • Etiology of sepsis • Pathophysiology of sepsis • Clinical features of sepsis • Investigations of sepsis • General management of sepsis • Fate of sepsis	• Internal Medicine, • General Surgery, • Obstetrics and Gynaecology • Pathology • Pharmacology

Infection Prevention & Control	At the end of the session students will be able to: • define sterilization • state the concept of disinfection • mention universal precaution of infection prevention & control • define hospital acquired infection • describe the cross infection • describe infection control in emerging diseases • mention prevention of hospital infections	• Concept of sterilization • Concept of disinfection • Universal precaution • Hospital acquired infection • Cross infection • Infection control in emerging diseases • Prevention of hospital infection	• Internal Medicine, • General Surgery • Obstetrics and Gynaecology • Pathology • Anaesthesiology • Critical care Medicine
Shock	At the end of the session students will be able to: • define shock • state the types of shock • explain the pathogenesis of shock • list the clinical features of shock • state the complications of shock • outline the general management of shock • state the indications of HDU and ICU	• Definition of shock • Types of shock • Pathogenesis of shock • Clinical features of shock • Complications of shock • General management of shock	• Internal Medicine, • General Surgery • Obstetrics and Gynaecology • Pathology • Anaesthesiology • Critical care Medicine
Fluid and Electrolytes	At the end of the session students will be able to: • state the daily input/output of fluids and electrolytes • mention the normal level of common electrolytes • define hypo and hyper natraemea • list the causes of hypo and hyper natraemea • mention the clinical feature of hypo and hyper natraemea • outline the treatment of hypo and hyper natraemea • define hypo and hyper kalaemea • state the causes of hypo and hyper kalaemea • mention the clinical feature of hypo and hyper kalaemea • outline the treatment of hypo and hyper kalaemea • define hypo and hyper calcimea • state the causes of hypo and hyper calcimea • mention the clinical feature of hypo and hyper calcimea • state the treatment of hypo and hyper calcimea	• Daily input/output • Normal level of common electrolytes • Definition of hypo and hyper natraemea, • Causes of hypo and hyper natraemea • Clinical features of hypo and hyper natraemea • Treatment of hypo and hyper natraemea • Definition of hypo and hyper kalaemea, • Causes of hypo and hyper kalaemea • Clinical features of hypo and hyper kalaemea • Treatment of hypo and hyper kalaemea • Definition of hypo and hyper calcimea , • Cuses of hypo and hyper calcimea • Clinical features of hypo and hyper calcimea • Treatment of hypo and hyper calcimea	• Internal Medicine, • General Surgery • Obstetrics and Gynaecology • Pathology • Anaesthesiology • Critical care Medicine • Biochemistry • Physiology

Burn	At the end of the session students will be able to: • define burn • state clinical feature of burn according to depth • explain the pathogenesis of burn • state the complications of burn • mention the assessment criteria of surface area of burn • state the assessment criteria of fluid requirement of burn • outline the general management of burn • state the compartmental syndrome and fasciotomy • define contracture • state the prevention of contracture • mention the reconstructive measures of contracture	• Definition of burn • Clinical features of burn according to depth • Pathogenesis of burn • Complications of burn • Surface area assessment of burn • Fluid requirement assessment of burn • General management of burn • Compartmental syndrome and fasciotomy • Contracture, prevention and reconstructive measures	• General Surgery • Plastic Surgery, • Paediatrics, • Anaesthesiology • Critical care Medicine
Per rectal bleeding	At the end of the session students will be able to: • define per rectal bleeding • state the types of per rectal bleeding • list the causes of per rectal bleeding • mention the clinical features of per rectal bleeding • state the investigation protocol of per rectal bleeding • outline the management of per rectal bleeding	• Definition of per rectal bleeding • Types of per rectal bleeding • Causes of per rectal bleeding • Clinical features of per rectal bleeding • Investigation protocol of per rectal bleeding • Management of per rectal bleeding	• Internal Medicine, • General Surgery • Obstetrics and Gynaecology • Pediatric surgery
Vertigo	At the end of session students will be able to: • define vertigo • classify vertigo • explain anatomy & physiology of balance • describe pathophysiology of vertigo • explain causes of vertigo • state sign & symptoms of vertigo • mention the investigations of vertigo • describe the management of vertigo • state rehabilitation procedure of patient with chronic vertigo	• Definition of vertigo • Classification of vertigo • Anatomy & physiology of balance • Pathophysiology of vertigo • Causes of vertigo • Symptoms & signs of vertigo • Investigation of vertigo • Management of vertigo • Rehabilitation of chronic vertigo	• **Otolaryngology** • **Medicine** • Ophthalmology • Orthopedics • Anatomy • Physiology
	At the end of session students will be able to: • define congenital anomalies / birth defects	• Definition of congenital anomalies / birth defects • Classification of congenital anomalies	• **Pediatrics** • **Orthopedics** • **Cardiology**

Congenital Anomalies	• classify congenital anomalies • mention the causes and risk factors of congenital anomalies • state the screening of congenital anomalies • list the common congenital anomalies • state epidemiology of common congenital anomalies • outline manage congenital anomalies • explain prevention of congenital anomalies • describe rehabilitation of a patients with congenital anomalies	• Causes & risk factors of congenital anomalies • Screening of congenital anomalies • Epidemiology of congenital anomalies • Common congenital anomalies • Management of congenital anomalies • Prevention of congenital anomalies • Rehabilitation of patients with congenital anomalies	• Plastic surgery • Otolaryngology • Anatomy
Wound Infection	At the end of session students will be able to: • define wound infection, surgical site infection & nosocomial infection • mention the causes and risk factors of wound infection and nosocomial infection • describe the pathophysiology of wound infection • list the clinical features of wound infection • describe the management of wound infection • explain prevention of wound infection and nosocomial infection • state the consequences of untreated wound infection	• Definition of wound infection, surgical site infection & nosocomial infection • Causes and risk factors of wound infection and nosocomial infection • Pathophysiology of wound infection • Clinical features of wound infection • Management of wound infection • Prevention of wound infection and nosocomial infection • Consequences of untreated wound infection	• **Surgery** • **Obstetrics & Gynecology** • **Otolaryngology** • Pathology • Microbiology
Urinary Tract Infection (UTI)	At the end of the session students will be able to: • define UTI • enumerate the micro-organisms responsible for UTI • explain the signs and symptoms of UTI • enumerate different investigations for UTI • explain the effects of pregnancy (hormonal) on UTI • explain the complications of UTI especially on pregnancy and fetus • list the drugs used for treatment of UTI • mention appropriate referral criteria for UTI	• Definition of UTI • Micro-organisms responsible for UTI • Signs and symptoms of UTI • Investigations for UTI • Effects of pregnancy (hormonal) on UTI • Complications of UTI on pregnancy and fetus • Drugs used for treatment of UTI • Criteria ofr referral for UTI	• **Medicine / Nephrology** • **Obstetrics & Gynecology** • Microbiology • Pharmacology

Abnormal uterine bleeding (AUB)	At the end of the session students will be able to : • define different types abnormal uterine bleeding (AUB) • explain the causes and pathophysiology of AUB • state the clinical features of AUB • mention the investigations for AUB • name the differential diagnosis of different causes AUB • outline the management approach of the cases of AUB	• Definition of different types AUB (like-menorrhagia, polymenorrhoea, oligomenorrhoea, amenorrhoea etc.) • Causes & Pathophysiology of AUB • Clinical features of AUB • Investigations for AUB • Differential diagnosis of different causes AUB (like- hypothalamic pituitary dysfunction, ovarian dysfunction, thyroid dysfunction, diabetes mellitus, haemoginopathies, thrombocytopenia & dengue) • Management approach of the cases of AUB	• **Obstetrics & Gynecology** • **Medicine** • Endocrinology • Haematology
Convulsion	At the end of the session students will be able to: • define convulsion • state the magnitude & patient profiles of convulsion • mention the causes of convulsion • list the clinical features convulsion • mention D/Ds of different types of convulsion • list the investigations for convulsion • outline the treatment of convulsion • state the prevention of convulsion • state complications of convulsion	• Definition of convulsion • Magnitude & patient profiles of convulsion • Causes of convulsion • Clinical features convulsion • D/Ds of different causes of convulsion (like- Head Injury, Brain Abscess, Brain Tumour, Tuberculosis, Epilepsy, Sepsis, Poisoning, Eclampsia) • Investigations for convulsion • Treatment of convulsion • Prevention of convulsion • Complications of convulsion	• Paediatrics • Obstetrics & Gynecology • Medicine / Neuro-medicine • Surgery /Neuro-surgery
Abdominal Lump	At the end of the session students will be able to- • define abdominal lump • mention the causes of different forms of abdominal lump • state the magnitude & patient profiles of abdominal lump • mention the clinical presentation abdominal lump • mention the investigations for abdominal lump • explain differential diagnosis of different form of abdominal lump • outline treatment of abdominal lump	• Definition of abdominal lump • Causes of abdominal lump (Different forms of abdominal lump like - GIT lumps, Lymphoma, Mesenteric Cyst, Enlarged liver, Enlarged Spleen, Fibroid Uterus, Benign Ovarian Tumor, Malignant Ovarian. Tumor & TO mass) • Magnitude & patient profiles of abdominal lump • Clinical presentation abdominal lump • Investigations for abdominal lump • Differential diagnosis of different form of abdominal lump • Treatment of abdominal lump	• **Obstetrics & Gynecology** • **Surgery** • Medicine • Oncologist

	• explain follow up of abdominal lump	• Follow up of abdominal lump	
Anaemia	At the end of session students will be able to: • define anaemia • classify anaemia • list common causes of anaemia in Bangladesh • explain clinical approaches (history taking, physical examination & investigations)) a patient with anaemia • describe treatment of anaemia • state management of anaemia before surgery • outline management of anaemia during pregnancy • mention prevention of anaemia	• Definition of anaemia • Classification of anaemia • Common causes of anaemia in Bangladesh • Approach (history taking, clinical examination and lab investigation) towards an anaemic patient • Treatment of anaemia • Management of anaemia before surgery • Management of anaemia during pregnancy • Prevention of anaemia	• **Medicine**/ Hematology • **Obstetrics & Gynecology** • Surgery
Unconsciousness	At the end of session students will be able to: • define unconsciousness • mention the level of unconsciousness. • list the causes of unconsciousness. • explain clinical approaches (history taking, physical examination & investigations)) towards an unconsciousness patient • outline emergency management of an unconscious patient. • describe general management of unconscious patient • mention indications emergency surgery for unconscious patient • mention emergency obstetrics care for unconscious patient.	• Definition of unconsciousness • Level of unconsciousness(including Glasgow Coma Scale) • Approach to an unconscious patient (history taking ,clinical examination, lab investigation and bedside investigation) • Responsibility of an emergeny medical officer(ABC) • General management of unconscious patient • Indications emergency surgery for unconscious patient • Emergency obstetric care for unconscious patient.	• **Medicine-** Neuro-medicine • **Surgery** • **Obstetrics & Gynecology**

Medicine & Allied Subjects Departmental Integrated Teaching-Phase-IV

Medicine and Allied subjects of phase IV will organized the departmental integrated teaching on the following topics where faculty members of internal medicine and concerned allied subjects must be present and take part in the integrated teaching. While the faculty representatives from concerned clinical and other departments will also participate actively. Teachers will be the speakers in each session. Participation of the students of phase IV should be ensured. Students need to get some take home message from every session. To ensure presence of the students few marks will be allocated from practical part of the professional examination as a part of integrated teaching and submission of write up on what was learned by the student as summary. Schedule of the departmental integrated teaching session will be set by the department in coordination with the phase IV committee.

Each session will be for at least 2 hours

Topics :

1. Heart Failure
2. Congenital Heart Disease
3. Bronchial Asthma
4. Liver Abscess
5. Malabsorption syndrome
6. Irritable bowel syndrome(IBS)
7. Psoriasis
8. Leprosy
9. Autism spectrum disorder (ASD)
10. Somatoform disorder

Topic	Learning Objective	Core Contents	Other Discipline Involved
Heart Failure	At the end of the session students will be able to • define heart failure • classify heart failure • mention causes of heart failure • explain the pathophysiology of heart failure • state the clinical features • plan Investigations • outline management • mention complications	• Definition • Classification • Etiology • Pathophysiology • History and physical examination (clinical feature) • Investigation • Management • Complications	• Medicine • Cardiology • Pediatrics • Pharmacology • Pathology
Congenital Heart Disease	At the end of the session students will be able to • classify congenital heart diseases • mention the causes, pathogenesis and pathology of congenital heart diseases • state the clinical features • plan necessary investigations • outline management plan • evaluate role of surgery	• Classification • Aetiology • Pathogenesis & Pathology • Clinical features • Investigations • Management	• Medicine • Cardiology • Pediatrics
Bronchial Asthma	At the end of the session students will be able to • define Asthma • mention pathophysiology	• Definition • Pathophysiology • Clinical features • Diagnosis	• Medicine • Respiratory Medicine • Pediatrics

	• state clinical features • outline diagnosis measures of Bronchial asthma • outline management plan • outline diagnosis & management of acute severe asthma.	• Management • Acute severe asthma	• Cardiology • Dermatology • Psychiatry
Liver Abscess	At the end of the session students will be able to • define Liver Abscess • mention causes • describe pathophysiology of Liver Abscess • mention clinical features • plan Investigations • outline management of a case • outline plan to manage complications	• Definition • Causes • Pathophysiology • Clinical features • Investigations • Management • Complications	• Medicine • Gastroenterology/Hepatology • Paediatrics • Microbiology
Malabsorption syndrome	At the end of the session students will be able to • define malabsorption • explain pathophysiology • mention eitiology • state clinical features • outline investigation of a case • plan management of malabsorption syndrome	• Definition • Pathophysiology • Clinical features in adults & in children • Investigations • Management of malabsorption both in adults and in children.	• Medicine • Gastroenterology • Paediatrics
Irritable bowel syndrome(IBS)	At the end of the session students will be able to • define IBS • describe pathophysiology • mention clinical features • outline investigation of a case • plan management	• Definition of IBS • Pathophysiology • Clinical features • Investigations • Management of IBS	• Medicine • Gastroenterology • Psychiatry
Psoriasis	At the end of the session students will be able to • define psoriasis • classify psoriasis • mention the causes and aggravating factors of psoriasis • explain the pathogenesis of psoriasis • mention the pathology of psoriasis • describe the clinical features of psoriasis • differentiate psoriasis from other mimicking diseases • mention the laboratory investigations of psoriasis • describe the management of psoriasis including special situations (pregnancy, children, kidney and liver diseases) • mention the complications and their managements	• Definition of psoriasis • Classification of psoriasis • Aetio-pathogenesis of psoriasis • Pathology of psoriasis • Clinical features of psoriasis • Differential diagnosis of psoriasis • Laboratory investigations of psoriasis • Management of psoriasis • Complications of psoriasis	• Department of Skin & VD • Immunology & Microbiology • Pathology • Rheumatology • Medicine • Psychiatry

Leprosy	At the end of the session students will be able to • define leprosy • mention the epidemiology of leprosy • classify leprosy • mention the clinical features of leprosy • mention the laboratory investigations of leprosy • differentiate leprosy from other mimicking diseases • describe the management of leprosy • mention the management of complications of leprosy • mention the prevention and control measures of leprosy	• Definition of leprosy • Epidemiology of leprosy • Classification of leprosy • Pathology of leprosy • Clinical features of leprosy • Differential diagnosis of leprosy • Laboratory investigation of leprosy • Management of leprosy • Complications of leprosy • Prevention and control of leprosy • Patient Education	• Department of Skin & VD • Medicine • Neuromedicine, • Community Medicine, • Microbiology, • Orthopedics
Autism spectrum disorder (ASD)	At the end of the session students will be able to • define ASD • classify ASD • explain pathophysiology • mention the epidemiology of ASD • state the aetiology of ASD • mention the presentation of ASD • list the clinical features of somatoform disorder • mention the differential diagnosis of ASD • differentiate the DDs of ASD • outline the management of a case of ASD • plan counseling • state the prognosis of ASD	• Definition of ASD • Classification of ASD • Pathophysiology • History and physical examination • Epidemiology of ASD • Aetiology of ASD • Clinical feature of ASD • Differential diagnosis of ASD • Difference between DDs • Management of ASD • Prognosis of ASD • Counselling	• Department of Psychiatry • Pediatrics • Neuromedicine • Medicine
Somatoform disorder	At the end of the session students will be able to • define somatoform disorder • mention the epidemiology of somatoform disorder • classify somatoform disorder • enumerate the aetiology of somatoform disorder • state the clinical features of somatoform disorder • mention the differential diagnosis • differentiate the different somatoform disorders • diagnose somatoform disorder • mention the management of a case of somatoform disorder	• Definition of somatoform disorder • Epidemiology of somatoform disorder • Classification of somatoform disorder • Aetiology of somatoform disorder • Clinical feature of somatoform disorder • Differential diagnosis of somatoform disorder • Different type of somatoform disorder • Management of somatoform disorders • Counseling	• Department of Psychiatry, • Medicine, • Neuromedicine • Physical medicine

Surgery & Allied Subjects: Departmental Integrated Teaching- Phase-IV

Surgery and Allied subjects of phase IV will organized the departmental integrated teaching on the following topics where faculty members of General Surgery and concerned allied subjects must be present and take part in the integrated teaching. While the faculty representatives from concerned clinical and other departments will also participate actively. Teachers will be the speakers in each session. Participation of the students of phase IV should be ensured. Students need to get some take home message from every session. To ensure presence of the students few marks will be allocated from practical part of the professional examination as a part of integrated teaching and submission of write up on what was learned by the student as summary. Schedule of the departmental integrated teaching session will be set by the department in coordination with the phase IV committee.

Each session will be for at least 2 hours

Topics :

1. Malignant Bone Tumour
2. Inflammatory Bowel Disease
3. Gastric Outlet Obstruction
4. Sub acute Intestinal obstruction
5. Neck Swelling
6. Epistaxis
7. Stridor in Children
8. Bladder Outflow Obstruction
9. Metabolic Bone Disease
10. Spinal Injury.
11. Proptosis

Topic	Learning Object.	Core Content	Discipline Involved
Malignant Bone Tumour	At the end of the session the students will able to- • define bone tumour • classify bone malignancy • mention the Clinical features of bone malignancy • state the Investigations protocol of bone malignancy • outline different treatment options of bone malignancy	• Definition of bone tumour • Classification of bone malignancy • Clinical features of bone malignancy • Investigations protocol of bone malignancy • Treatment modalities of bone malignancy	• Orthopaedics • Histopathology • Radiology & Imaging • Oncology • Physical Medicine
Inflammatory Bowel Disease	At the end of the session the students will able to- • define inflammatory bowel diseases • mention the Clinical features of inflammatory bowel diseases • state the Investigations protocol of inflammatory bowel diseases • outline the management protocol of inflammatory bowel diseases	• Definition of inflammatory bowel diseases • Variants Clinical features of inflammatory bowel diseases • Investigations of inflammatory bowel diseases • Management of inflammatory bowel diseases	• General Surgery • Internal Medicine • Radiology & Imaging • Skin & VD
Gastric Outlet Obstruction	At the end of the session the students will able to- • define gastric outlet obstruction • mention the causes of gastric outlet obstruction • state the clinical features of gastric outlet obstruction • list the metabolic changes in gastric outlet obstruction • state the Investigations protocol of gastric outlet obstruction	• Definition of gastric outlet obstruction • Causes of gastric outlet obstruction • Clinical features of gastric outlet obstruction • Metabolic changes in gastric outlet obstruction • Investigations of gastric outlet obstruction	• General Surgery • Radiology & Imaging • Oncology • Biochemistry

	• mention the preoperative preparation of gastric outlet obstruction • outline the different treatment options of gastric outlet obstruction	• Preoperative preparation of gastric outlet obstruction • Treatment of gastric outlet obstruction	
Sub acute Intestinal obstruction	At the end of the session the students will able to- • define sub-acute intestinal obstruction • list the causes of sub-acute intestinal obstruction • mention the clinical features of sub-acute intestinal obstruction • state the investigations protocol of sub-acute intestinal obstruction • outline the treatment of sub-acute intestinal obstruction	• Definition of sub-acute intestinal obstruction • Causes of sub-acute intestinal obstruction • Clinical features of sub-acute intestinal obstruction • Investigations of sub-acute intestinal obstruction • Treatment of sub-acute intestinal obstruction	• General Surgery • Radiology & Imaging
Neck Swelling	At the end of the session the students will able to- • define neck swelling • list the midline & lateral neck swelling types • enumerate the causes of neck swelling • mention the common clinical presentations of neck swelling • state the investigations of neck swelling • outline the management protocol of neck swelling	• Definition of neck swelling • Midline & lateral neck swelling types, • Causes of neck swelling • Clinical presentations of neck swelling • Investigations of neck swelling • Management protocol of neck swelling	• E N T • General Surgery • Vascular Surgery.
Epistaxis	At the end of the session the students will able to- • define epistaxis • describe the anatomy of nasal septum • state the sites of epistaxis • list the causes of epistaxis • outline the step wise management protocol of epistaxis	• Definition of Epistaxis • Anatomy of nasal septum • Sites of epistaxis • Causes of epistaxis • Step-wise management of epistaxis	• E N T • Anatomy • Medicine
Stridor in Children	At the end of the session the students will able to- • define stridor • list the causes of stridor in children • enumerate the causes of pyrexial & apyrexial stridor in children • state the investigations of stridor in children • outline the management protocol of stridor in children	• Definition of stridor • Causes of pyrexial & apyrexial stridor in children • Investigations of stridor in children • Treatment of stridor in children	• Paediatrics • Paediatric Surgery • E N T
Bladder Outflow Obstruction	At the end of the session the students will able to- • define bladder outflow obstruction	• Definition of bladder outflow obstruction	• Urology • Radiology & Imaging

	• mention the causes of bladder outflow obstruction • explain the patho-physiology of bladder outflow obstruction • list the clinical feature of bladder outflow obstruction • state the investigations of bladder outflow obstruction • outline the treatment of bladder outflow obstruction	• Causes of bladder outflow obstruction • Patho-physiology of bladder outflow obstruction • Clinical Features of bladder outflow obstruction • Investigations of bladder outflow obstruction • Treatment of bladder outflow obstruction	• Gen. Surgery
Metabolic Bone Disease	At the end of the session the students will able to- • define metabolic bone disease • enumerate the types of metabolic bone disease • list the causes of metabolic bone disease • state the clinical feature of metabolic bone disease • state the complications of metabolic bone disease • list the investigations of metabolic bone disease • outline the management protocol of metabolic bone disease • mention the prevention of metabolic bone disease	• Definition of metabolic bone disease • Types of metabolic bone disease • Causes of metabolic bone disease • Clinical Features of metabolic bone disease • Complications of metabolic bone disease • Investigations of metabolic bone disease • Management of metabolic bone disease • Prevention of metabolic bone disease	• Orthopaedics • Physiology • Radiology • Physical Medicine
Spinal Injury.	At the end of the session the students will able to- • define spinal injury • state the types of spinal injury • list the causes of spinal injury • mention the clinical features of spinal injury • state the complications of spinal injury • list the investigations of spinal injury • outline the management protocol of spinal injury • outline the rehabilitation process of spinal injury	• Definition of spinal injury • Types of spinal injury • Causes of spinal injury • Clinical Features of spinal injury • Complication of spinal injury • Investigations of spinal injury • Treatment of spinal injury • Rehabilitation process of spinal injury	• Orthopaedics • Surgery • Radiology & Imaging • Anatomy • Neurology • Urology • Neurosurgery
Proptosis	At the end of the session the students will able to- • define proptosis • state the types of proptosis • list the causes of proptosis • mention the clinical feature of proptosis • state the effects of proptosis • list the investigations of proptosis • outline the management protocol of proptosis	• Definition of proptosis • Types of proptosis • Causes of proptosis • Clinical features of proptosis • Effects of proptosis • Investigations of proptosis • Treatment of proptosis	• Ophthalmology • E N T • Endocrinology • Internal Medicine.

Obstetric & Gynecology : Departmental Integrated Teaching-Phase-IV

Obstetric & Gynecology of phase IV will organized the departmental integrated teaching on the following topics where faculty members of Obstetric & Gynecology and concerned other subjects must be present and take part in the integrated teaching. Teachers will be the speakers in each session. Participation of the students of phase IV should be ensured. Students need to get some take home message from every session. To ensure presence of the students few marks will be allocated from practical part of the professional examination as a part of integrated teaching and submission of write up on what was learned by the student as summary. Schedule of the departmental integrated teaching session will be set by the department in coordination with the phase IV committee.

Each session will be for at least 2 hours

Topics :

1. Pelvic Inflammatory Disease (PID)
2. Vaginal Discharge
3. Ovarian Tumour
4. Contraceptives
5. Pelvic tuberculosis
6. Normal labour
7. Antenatal care
8. Vital statistics (maternal & perinatal mortality)
9. Puerperium
10. Puberty

Topic	Learning Objective	Core Contents	Discipline involved
Pelvic Inflammatory Disease (PID)	At the end of the session students will be able to : • define PID • explain the etiology of PID • describe clinical presentations of PID • differentiate between PID from other DDs • manage a case of PID • describe consequences of PID	• Definition of PID • Etiology of PID • Clinical presentations (Pt. Profile and Clinical sign symptoms) • D/Ds • Investigations • Treatment • Complications of PID	• Gynecology • Microbiology • Pathology • Pharmacology • Radiology imaging • Surgery
Vaginal Discharge	At the end of the session students will be able to : • define Vaginal discharge • list causes of Vaginal discharge • identify clinical types of Vaginal discharge • differentiate between different types of vaginal discharge • describe management approach of a patient with Vaginal discharge	• Definition of vaginal discharge • Natural defence of Genital tract • Important causative organism of vaginal discharge • Differential diagnosis • Investigation • Management	• Gynecology • Microbiology/ Pathology • Pharmacology • Skin & VD
Ovarian Tumour	At the end of the session students will be able to : • classify ovarian tumour • describe Clinical presentations of ovarian tumour • differentiate ovarian tumour from other abdominal lumps • outline the investigations	• Classification of ovarian tumour • Clinical presentation of ovarian tumour • Differential diagnosis (fibroid, mesenteric cyst, other abdominal lump) • Investigations	• Gynecology • Pathology • Pharmacology • Oncology • Radiology & Imaging • Surgery

	• describe treatment outline • mention the complications	• Treatment • Complications	
Contraceptives	At the end of the session students will be able to : • describe national status and targets of Family planning • describe importance of contraceptives • classify contraceptives • list advantages and disadvantages of different contraceptives • mention mechanism of action of each method • state complications of each method • mention counselling about contraceptive	• Contraceptive prevalence rate • Unmet need • Importance of contraceptives • Classification of contraceptives • Advantages and disadvantages of each method(natural,barrier,hormonal,non hormonal IUCD, sterilization) • Mechanism of action of hormonal and non hormonal method • Complications of each method • Counselling about contraceptive • Follow up of user	• Obstetrics & Gynecology • Community Medicine • Pharmacology
Pelvic tuberculosis	At the end of the session students will be able to : • define pelvic tuberculosis • state magnitude of the problem (Nationally & Globally) • state pathogenesis & pathology of pelvic tuberculosis • mention clinical presentations of pelvic tuberculosis • mention differential diagnosis • list investigation • mention treatment of pelvic tuberculosis • discuss complication of pelvic tuberculosis	• Definition of pelvic TB • Magnitude of the problem • Aetiopathogenesis • Clinical presentations • Lab investigations • Treatment outline of pelvic tuberculosis • Complications of pelvic tuberculosis	• Obstetrics & Gynecology • Pharmacology • Community Medicine • Pathology
Normal labour	At the end of the session students will be able to : • define normal labour • describe anatomy & physiology of uterus • list the hormones involved in labour • mention the criteria of normal labour • mention onset and stages of normal labour • describe mechanism of normal labour • state monitoring and progress of normal labour • mention management in different stages of normal labour	• Definition of normal labour • Anatomy &physiology of uterus • Hormones involved in labour • Criteria of normal labour • Stages of normal labour • Mechanism of normal labour • Monitoring and progress of normal labour(partograph) • Management in different stages of labour	• Obstetrics & Gynecology • Physiology • Community medicine • Pharmacology

Antenatal care	At the end of the session students will be able to : • define antenatal care • mention objective of antenatal care • mention physiological changes during pregnancy • describe management of an antenatal patient • identify high risk patient • state nutrition during pregnancy • describe counselling of antenatal patient	• Definition of antenatal care • Objectives of antenatal care • Physiological changes during pregnancy • Management of antenatal patient (history,examination,investigation,treatment) • High risk pregnancy • Calculation of calorie intake for a pregnant lady • Counselling of antenatal patient	• Obstetrics & Gynecology • Physiology • Community Medicine • Pharmacology
Vital statistics (maternal & perinatal mortality)	At the end of the session students will be able to : • define MMR &perinatal mortality • mention current situation of MMR &perinatal mortality in Bangladesh • list important causes of maternal and perinatal mortality • describe measures to reduce maternal and perinatal mortality • Govt. initiatives to prevent maternal and perinatal mortality	• Definition of maternal and perinatal mortality • current situation of MMR &perinatal mortality in Bangladesh • Causes of maternal and perinatal mortality • Measures taken to reduce maternal and perinatal mortality • Govt. initiatives to prevent maternal and perinatal mortality	• Obstetrics & Gynecology • Community Medicine
Puerperium	At the end of the session students will be able to : • define normal puerperium • mention the anatomical and physiological changes in normal puerperium • describe process of involution • mention management of normal puerperium • describe abnormal puerperium • mention complications of puerperium • state management of abnormal puerperium	• Definition of normal puerperium • Anatomical and physiological changes in puerperium • Process of involution • Management of normal puerperium(rest,diet,ambulation,care of breast,care of genital organ,contraceptive) • Abnormal puerperium • Complications of puerperium • Management of abnormal puerperium	• Obstetrics & Gynecology • Physiology • Pharmacolgy • Microbiology
Puberty	At the end of the session students will be able to : • define puberty • mention physiological changes of puberty • list complications of puberty • describe clinical management of puberty problems	• Definition of puberty • Physiological changes of puberty • Complications/problems during puberty • Clinical management of puberty problems	• Obstetrics & Gynecology • Anatomy • Physiology • Endocrinology

Medicine &Allied Subjects

Departmental Objectives

At the end of clinical postings in Medicine, the under graduate medical students will be able to:

- acquire appropriate knowledge, attitude and skill to become an effective doctor for the society
- elicit an appropriate clinical history, and physical findings, identify the clinical problems based on these and identify the means of solving the problems
- Plan relevant investigations considering socioeconomic perspective
- outline the principles of management of various diseases considering the patient's socio-economic circumstances
- diagnose and manage medical and pediatric emergencies
- diagnose and manage common psychiatric disorders
- recognize& provide competent initial care and refer complicated cases to secondary and tertiary care centers at appropriate time
- perform common clinical procedures
- possess knowledge to consider the ethical and social implications of his/ her decision
- demonstrate the art of medicine involving communication, empathy and reassurance with patients
- develop an interest in care for all patients and evaluate each patient as a person in society
- have an open attitude to the newer developments in medicine to keep abreast of new knowledge
- learn how to adapt new ideas in situations where necessary
- learn to keep the clinical records for future references
- make them oriented to carry out clinical research in future

List of competencies to acquire

At the end of the course of Medicine the undergraduate medical students will be able to:

1. Gather a history and perform a physical examination
2. Prioritize a differential diagnosis following a clinical encounter
3. Recommend and interpret common diagnosis and screening tests
4. Enter and discuss orders and prescriptions
5. Document a clinical encounter in patient record
6. Provide an oral presentation of clinical encounter
7. Form clinical questions and retrieve evidence to advance patient care
8. Give or receive a patient handover to transition care responsibility
9. Collaborate as a member of an inter-professional team
10. Recognize a patient requiring urgent or emergent care and initiative evaluation and management
11. Obtain informed consent for test and/or procedures
12. Perform general procedures of a physician
13. Understand preventive perspective of disease
14. Identify system failures and contribute to a culture of safety and improvement

Distribution of teaching - learning hours

Subject	Lecture (in hours)				Small group teaching (in hours)	Departmental integrated teaching of Medicine & Allied Subjects (in hours)	Phase IV common integrated teaching (in hours)	Clinical/Bedside teaching (in weeks)			Total weeks	Block posting (in weeks)	Formative examination (in days)		Summative examination (in days)	
	2nd Phase	3rd Phase	4th Phase	Total	PBL, Practical demonstration, Instrumental demonstration, Skill lab, Tutorial & etc.			2nd Phase	3rd Phase	4th Phase						
Internal medicine	22	25	90	137	199 hours	(10 topics ×2 hours) = 20 hours	(42 topics × 3 hours) = 126 hours	14	06+ 2 (OPD)	12	34	04 wks	Preparatory leave-10 days	Exam time-15days	Preparatory leave-10 days	Exam time-30days
Psychiatry	02	-	18	20				-	02	03	05					
Dermatology	-	-	17	17				-	02	03	05					
Pediatrics	04	20	22	46				04	-	06	10					
Transfusion medicine	-	03	-	03				01	-	-	01					
Physical Medicine	-	-	04	04				02	-	-	02					
Nuclear Medicine	-	-	02	02				-	-	-	-					
Emergency	-	-	-	-				-	02	-	02					
Total	28	48	153	229	199	20	126 hours	20	14	24	59	04 wks	25 days		40 days	
Grand Total	**448 hours**						**126 hours**	**63 weeks**					**65 days**			
Time for integrated teaching, examination preparatory leave and formative & summative assessment is common for all subjects of the phase																
Preventive aspects of all diseases will be given due importance in teaching learning considering public health context of the country and others parts of the world.																
Related behavioral, professional & ethical issues will be discussed in all clinical and other teaching learning sessions																

Medicine & Allied Subjects: hour distribution for Clinical/Bedside teaching in 2nd, 3rd & 4th phases in details

Subject	Clinical/Bedside & Ambulatory care teaching (in hours)						Total hours (in three phases)	Total weeks {(2nd phase wks + 3rd phase wks + 4th phase wks = Total three phases wks) × (6 days × 4 or 2 hours)}
	2nd Phase		3rd Phase		4th Phase			
	Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching			
	Morning	Evening	Morning	Evening	Morning	Evening		
	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency		
	20 weeks		14 weeks		22 weeks			
Internal medicine	168 h (14w)	168 h (14w)	96 h (8w)	96 h (8w)	144 h (12w)	144 h (12w)	816 h	{14+(6+2)+12}= **34 w**× (6 days × 4 hrs)
Psychiatry	-	-	24 h (2w)	24 h (2w)	24 h (2w)	24 h (2w)	96 h	(0+2+2)= **04 w**× (6 days × 4 hrs)
Dermatology	-	-	24 h (2w)	24 h (2w)	24 h (2w)	24 h (2w)	96 h	(0+2+2)= **04 w**× (6 days × 4 hrs)
Pediatrics	48 h (4w)	48 h (4w)	-	-	72 h (6w)	72 h (6w)	240 h	(4+0+6)= **10 w** × (6 days × 4 hrs)
Physical Medicine	24 h (2w)	-	-	-	-	-	24 h	(2+0+0)= **02 w** × (6days × 2hrs)
Emergency	-	-	24 h (2w)	24 h (2w)	-	-	48 h	(0+2+0)= **02 w** × (6days × 4hrs)
Total	**240 hrs**	**216 hrs**	**168 hrs**	**168 hrs**	**264 hrs**	**264 hrs**	**1320 hrs**	**56 weeks**

Teaching-learning methods, teaching aids and evaluation

Teaching Methods				Teaching aids	In course evaluation
Large group	**Small group**	**Self learning**	**Others**		
Lecture Integrated Teaching	Bed side clinical teaching in ward, emergency room, OPD, Clinical teaching in CCU/ ICU. Clinical case presentation. Demonstration of Xray, CTscan ,MRI ,ECG ,Instruments, Photos, Data etc. Practice in medical skill centre Practical Demonstration Writing case problem Practical Skills (Video)	Self-directed learning, assignment, self test/assessment	Integrated teaching, With other dept.	Laptop, Computer, OHP/ Multimedia presentation, Slide Projectors, Video, Slide, Dummy (Manikins), Model, Real patients, attendants, Simulation, Charts e.g. growth chart, IMCI Chart, Others e.g. ECG machine, X-ray, photographs, Black board, White board, Flow chart, X-rays, ECG Reports, Samples, Audio, Instrument, Photographs Reading materials o Modules &national guidelines on different childhood /adult illnesses o Study guide o Books, journals	Item Examination Card final (written), Term Examination Term final (written, OSPE, oral+ practical+ clinical)

Related Equipments:
Stethoscope, BP Machine, Hammer, Fluid bags, Blood bags, I.V sets & cannula, Transfusion sets, Feeding tubes (Ryles tube , Catheter, airway, X-rays, ECG, Appliances, Water seal drainage bottle ESR tube. LP needle, BM needle, Tongue depressor etc. face mask, nonrebreather (NRB) mask, nasal cannula, pulse oxymeter, DOTs medicine strip (for TB, leprosy), glassslide, wood's lamp, ORS packet ,micro burette, manikin, Thermometer, ORS packet, MUAC tap (padeatric and adult)

Final Professional Examination:
Marks distribution:
Total marks – 500 (Summative)

- Written = 200
  - MCQ: MTF-20+SBA-20,
  - SAQ -105+SEQ-35(SAQ-75%, SEQ-25%)
  - Formative assessment -20
- Oral and Clinical= 250
  - Oral -150
  - Clinical=100
- OSPE = 50

Learning Objectives and Course Contents in Medicine

Learning Objectives	Contents	Teaching Hours
Students will be able to: • value Doctor-Patients relationship • define, differentiate, diagnose diseases • demonstrate clinical skills required for history taking, physical care and laboratory tests, care for diagnosing a disease stepwise and participate in the management plan of a patient under doctor supervision • differentiate clinically (History & Physical examination) one DD from other. • participate in patient education and counseling	**Introduction to Medicine (to be covered in 3rd year classes)** Overview of Medicine as a discipline and subject Learning Clinical Approach 1. Doctor- Patient Relationship, Medical Ethics, Patient's safety. 2. Communication Skills 3. Behavioural Science Approach to common symptoms of disease: • General concept of Pain, chest pain and abdominal pain • Fever • Dyspnoea • Cough, expectoration, and Haemoptysis • Anorexia, Nausea, Vomiting, Weight loss and Weight gain • Haematemesis, Melaena, Haematochezia • Diarrhea, Dysentery and Constipation • Edema and Ascites • Jaundice • Syncope and Seizures • Fainting and Palpitations • Headache and Vertigo • Paralysis, movement disorders & disorders of gait • Coma and other disturbances of consciousness • Common urinary symptoms including anuria, oliguria, nocturia, polyuria, incontinence and enuresis • Anaemia and Bleeding • Enlargement of Lymphnodes, Liver and Spleen • Joint pain, neck pain and back ache	L- 22 hrs. 4 hrs(1x4) 2 h for medicine 2h for psychiatry 20 hrs.(1x20)

Learning Objectives	Contents	Teaching Hours
The students will be able to : • define nutrition and its importance • describe normal requirement of nutrients for maintaining health at various periods of human life including healthy adult, pregnancy, infancy, childhood and adolescence • classify nutritional disorders • define protein energy malnutrition and explain its associated factors, precipitating factors • list the clinical features, describe treatment of protein-energy malnutrition • list and recognize the clinical features, provide treatment and advise for prevention and treatment of vitamin deficiency diseases • list and recognize the clinical features, provide treatment and advise to be given for prevention and treatment of deficiency diseases • list and recognize the clinical features, provide treatment and advice to be given for prevention of obesity • apply basic principles of nutrition in clinical medicine	3rd phase (4th year) –Lecture-25 hrs **Clinical Medicine: Nutritional Factors in diseases** **CORE :** • Energy yielding nutrients • Protein energy malnutrition in adult • The vitamins- deficiency **Additional** • Nutrition of patients in hospital • Obesity ***Lectures to be covered on*** 1.Nutrients and vitamin deficiency 2.Obesity	L - 2hrs.

The students will be able to :
 	
• list the clinical features, describe principles treatment and advise for prevention of heat hyperpyrexia, heat syncope and heat exhaustion and hypothermia
• list the clinical features, describe principles of treatment and advise for prevention of pollution related to :
  • Arsenic problem
  • Lead poisoning
  • Environmental radiation
	Climatic and environmental factors in disease
	
	CORE :
	
	• Disorders related to temperature
	• Disorders related to pollution
	• Drowning, electrocution and radiation hazards
	• Health hazards due to climate change
		L –2 hr.

Learning Objectives	Contents	Teaching Hours
The students will be able to: • diagnose infectious diseases. • explain principles of management of infection • describe general principles and rational use of antibiotics and other chemotherapy against infectious and parasitic diseases • list the clinical features, describe principles of treatment and advise for prevention of common infectious and tropical diseases.	**Diseases due to infections** **CORE :** • Approach to infectious diseases-diagnostic and therapeutic principles • General principles and rational use of antibiotics • Enteric fever • Acute Diarrhoeal Disorders • Cholera & food poisoning • Amoebiasis, Giardiasis • Tetanus • Influenza and infectious mononucleosis • Malaria • Kala-azar • Filariasis • **Helminthic diseases** ▪ Nematodes ▪ Cestodes ▪ Trematodes • HIV and infections in the immunocompromised conditions • Rabies • Herpes simplex & herpes zoster • Chickenpox • Viral haemorrhagic fever: dengue • Anthrax • Brucellosis • Covid -19,Influenza,MARS,SARS	L-14 hrs.

Learning Objectives	Contents	Teaching Hours
The student will be able to define, describe prevalence, aetiologic factors, pathophysiology, pathology, investigations and principles of treatment of the common problems in haematology.	**Diseases of the blood** **CORE:** • Anemia • Leukaemia • Lymphoma • Multiple myeloma • Bleeding disorders • Coagulation disorders • Transfusion medicine **Additional:** • Bone marrow transplantation	L - 7hrs.
The students will be able to: • describe applied anatomy and physiology & explain lung function tests; • describe prevalence, aetiologic factors, pathophysiology, pathology, investigations and principles of treatment of common respiratory diseases.	4^{th} phase(5^{th} year)- Lecture 90 hrs **Diseases of the respiratory system** **CORE :** • Applied anatomy and physiology • Investigations for respiratory diseases • Upper respiratory tract infections • Pneumonias • Tuberculosis: 1(Pulmonary) • Tuberculosis:2 (Extra-pulmonary) • Lung abscess and bronchiectasis • Diseases of the pleura: Pleurisy, Pleural effusion & empyema, Pneumothorax • Chronic Obstructive lung diseases and corpulmonale • Bronchial asthma & pulmonary eosinophilia • Acute and chronic respiratory failure • Neoplasm of the lung **Additional:** • Common occupational lung disease with DPLD	L - 10hrs.

Learning Objectives	Contents	Teaching Hours
The student will be able to : • describe applied anatomy, applied physiology and investigations for the diseases of cardiovascular system • describe etiology, pathophysiology, clinical features, investigations and treatment of Ischemic heart disease • describe etiology, pathophysiology, clinical features, investigations and treatment of acute rheumatic fever & rheumatic heart diseases • describe etiology, pathophysiology, clinical features, investigations and treatment of valvular diseases • describe etiology, pathophysiology, clinical features, investigations, treatment and complications of infective endocarditis • describe etiology, pathophysiology, clinical features, investigations, treatment and complications of systemic hypertension • define and describe cardiac arrhythmias	**Diseases of the cardiovascular system** **CORE :** • Applied anatomy and physiology and investigations • Ischemic heart disease ▫ Angina pectoris ▫ Myocardial infarction ▫ Sudden (cardiac) death • Rheumatic fever • Valvular diseases of heart ▫ Mitral stenosis & regurgitation ▫ Aortic stenosis & regurgitation ▫ Tricuspid & pulmonary valve diseases • Infective endocarditis • Hypertension • Cardiac arrhythmias (common) ▫ Sinus rhythms ▫ Atrial tachyarrhythmias ▫ Ventricular tachyarrhythymias ▫ Cardiac arrest ▫ Anti arrhythmic drugs • Heart block and pacemakers. • Heart failure – acute and chronic • Acute and chronic pericarditis, pericardial effusion, & cardiac tamponade **Additional :** • Peripheral arterial diseases • Common congenital heart diseases in child and adult • Venous Thrombosis and Pulmonary Thromboembolism	L – 10 hrs .

Learning Objectives	Contents	Teaching Hours
• describe congenital heart diseases • define, describe patho-physiology, types, clinical features, investigation and treatment of heart failure • define, describe patho-physiology, causes, clinical features, and treatment of acute circulatory failure • describe etiology, pathophysiology, clinical features, investigations, treatment and complications of diseases of the pericardium	Congenital heart diseases ▪ ASD ▪ VSD ▪ PDA ▪ TOF ▪ Coarctation of Aorta Acute circulatory failure Diseases of pericardium ▪ Acute pericarditis ▪ Pericardial effusion Cardiac tamponade Cardiomyopathies	
The student will be able to • define, describe the etiology, pathophysiology, investigation, complications and management. of peptic ulcer disease • define, describe the etiology, pathophysiology, investigation and management. of gastrointestinal haemorrhage • describe Investigations of the alimentary tract. • define, describe the causes, pathophysiology, investigation and management. of gastro-oesophageal reflux disease • define, describe the etiology, pathophysiology, investigation and management of dysphagia. • define & describe the etiology pathophysiology, investigation and management of malabsorption disorders • define& describe the etiology, pathophysiology, investigation and management of Inflammatory bowel disease - Crohn's disease, Ulcerative colitis. • define & describe the etiology, pathophysiology, investigation and management of acute pancreatitis • define & describe the etiology, pathophysiology, investigation and management of functional disorders of GIT • define & describe the etiology, pathophysiology, investigation, complications and management of acute and chronic liver disease	**Diseases of the Gastro-intestinal and Hepato-billiary system**s **CORE :** • Applied physiology and investigation of the alimentary tract. • Stomatitis and Mouth Ulcers • Peptic Ulcer disease and non-ulcer dyspepsia • Malabsorbption syndrome • Irritable bowel syndrome • Inflammatory bowel disease • Acute viral hepatitis • Chronic Liver Diseases and its complications • Acute and chronic Pancreatitis **Additional:** • Dysphagia • Hepatotoxicity of drugs • Carcinoma of stomach/colon,Hepatocellular carcinoma	L – 10 hrs.

Learning Objectives	Contents	Teaching Hours
The students will be able to • define, diagnose, investigate and treat different nephrological diseases • make differential diagnosis • mention basic/ initial treatment • name the conditions for referral & follow-up care • describe preventive measures • explain the reasons for gender differences & issues, e.g. UTI in males & females • describe the special dietary modulations & Nutrition • outline of RRT • mention indications for RRT • list the special renal medicines & their interactions with commonly used medicines • describe nephrotoxicity of drugs • list indication for Renal biopsy and patient preparation • provide patient education about renal disorders • list the common disorders with renal sequel e.g., malaria, diabetes, hypertension, pregnancy • explain appropriate use of therapeutic tools • use interpretation of charts & lab data • orientation& care of modified anatomy & physiology, e.g. A-V Fistula, renal allograft.	**Nephrology & Urinary System** **CORE :** • Nephritic &Nephrotic Illness • UTI/ Pyelonephritis • ARF/Acute Kidney Injury • Chronic Kidney Disease • Renal manifestations of systemic diseases **Additional:** • Adult polycystic kidney disease	7 hrs.

Learning Objectives	Contents	Teaching Hours
Student should be able to: • identify syndromes of CNS & PNS diseases • identify signs of CNS & PNS diseases • identify clinical syndromes of brain, spinal cord & peripheral nerve. disorders • plan investigations in neurological disease • identify Vascular neuralgic syndromes. • define where? & What? is the lesion • describe the risk factors for CVD's • performacute management & Subsequent management. • identify complicating, management • value the importance of rehabilitation / return of function • identify clinical syndrome of meningeal infection • plan immediate and subsequent investigations including confirmation of diagnosis. • provide give empiric therapy or clinical judgement. • provide Diagnosis & exclusion • identify& treats complications. • able to make a D/D of coma & differentiate structural cause of diseases from others • plan investigations in a suspected V. encephalitis. • describe general management of patient with fever, coma & convulsion. • state the specific Diagnosis of encephalitis & treatment • identify acute & chronic syndromes of P.N.S. • identify emergencies and manage • make D/D • describe management & Rehabilitation	**Neurology** • Concept of neurological diagnosis including investigations • Cerebrovascular diseases(I &II) • Headache • Meningitis: viral, bacterial and tuberculous • Encephalitis • Peripheral neuropathy • Disorder of cranial nerves	9 hrs.

Learning Objectives	Contents	Teaching Hours
Student should be able to: • identify a seizure & elicit history from an eyewitness. • identify common clinical syndrome of Epilepsy • plan management • advise to the patient and attendants. • identify syndrome of EP system • mention etiologic agent(s) • plan investigations • decide for initial and subsequent treatment. • provide explanation, motivation and rehabilitation advises to patient. • identify common syndromes of motor system disease. • plan investigations • identify primary muscle diseases and differentiate from primary neurologic diseases • identify clinical syndrome of Neuromascularjunctional defect. • plan investigations in a suspected muscle diseases • provide treatment for myasthenia gravis. • advises& genetic conselling for muscular dystrophy.	• Epilepsy • Extrapyramidal diseases • Common compressive and non compressive spinal cord syndromes • Myasthenia gravis • Myopathies and skeletal muscle disease	

Learning Objectives	Contents	Teaching Hours
The students will be able to : • describe causes, clinical features and management of fluid and electrolyte disorders including ❑ Hyponatremia ❑ Hypernatremia ❑ Hyperkalemia ❑ Hypokalemia • describe causes, clinical features and management of disorders of acid-base balance in particular relevance to vomiting, diagnoses of uremia and diabetic ketoacidois.	**Water and electrolytes and acid-base homeostasis** CORE : • Disorders due to Sodium and Potassium imbalance • Disorders of acid-base balance	L – 4 hrs.
The student will be able to : • describe applied anatomy, physiology and investigations of endocrine disorders • describe epidemiology, etiology, pathophysiology, clinical features, complications, investigation, treatment and management of diabetes mellitus • describe epidemiology, etiology, pathophysiology, clinical features, complications, investigation, treatment and management of disorders of thyroid including ❑ Hyperthyroidism ❑ Hypothyroidism ❑ Solitary thyroid nodule ❑ Parathyroid disorders and calcium metabolism • describe epidemiology, etiology, pathophysiology, clinical features, complications, investigation, treatment and management disorders of adrenal gland including ❑ Cushing's syndrome ❑ Addison's disease • describe epidemiology, etiology, pathophysiology, clinical features, complications, investigation, treatment and management of disorders of hypothalamus and pituitary gland including ❑ Acromegaly, Sheehan's syndrome	**Endocrine and Metabolic diseases** CORE : • Diabetes mellitus(I & II) • Thyrotoxicosis • Hypothyroidism. • Cushing's syndrome and Addisons disease. • Hypo- and Hyperparathyroidism • Calcium and Vitamin –D related disorders ***Additional*** • Acromegaly and Sheehan's syndrome	L – 8 hrs.

Learning Objectives	Contents	Teaching Hours
The students will be able to: • classify diseases of the connective tissues, joints and bones • mention the epidemiology, etiology, pathology, clinical features, complications, investigation, treatment and management of Inflammatory joint diseases . • mention epidemiology, etiology, pathogenesis, clinical features, investigation, diagnosis, treatment and management of osteoarthritis. • mention the epidemiology, etiology, pathogenesis, clinical features, investigation, diagnosis, treatment and management of connective tissue diseases including systemic lupus erythematosus& systemic sclerosis • mention the epidemiology, etiology, clinical features, investigation, diagnosis, treatment and management of gout • mention the causes, clinical features, investigations, treatment and management of back disorders including low back pain & spondylosis	**Connective tissue Disorder** **CORE :** • Rheumatoid arthritis • Degenerative joint diseases • Gout • Ankylosing spondylitis and other spondyloarthropathies. • The collagen vascular diseases including systemic lupus erythematosus, systemic sclerosis • Osteoporosis	L - 7 hrs.

Learning Objectives	Contents	Teaching Hours
The students will be able to : • take history of elderly patients • perform physical examination • perform mental status examination • evaluate functional capacity of the elderly • interpret the report of laboratory examinations & imaging • state the general principles of treating the elderly.	**Geriatric medicine** **CORE :** • General Principles of treating the elderly/senior citizen • Health problems of the elderly/ senior citizen • Four Geriatric Giants – Acute confusional State, Falls, Incontinence and Frailty. • Healthy aging • Rehabilitation and Physical medicine.	L – 3 hrs.
The students will be able to describe medical genetics including ❑ Genes and chromosomes ❑ Mutation ❑ Genes in individual ❑ Genes in families ❑ Disorders of multifactorial causation ❑ Chromosomal aberrations The student will be able to describe the techniques of Medical genetics including ❑ Cyto genetics ❑ Biochemical genetics ❑ Molecular genetics ❑ Prenatal diagnosis ❑ Neoplasia : chromosomal & DNA analysis	**Genetic Disorders** **CORE :** • General concept of genetic diseases and management of genetic disorder • Single gene disorder • Clinical aspects of medical biotechnology • Chromosal disorder (Down, Turner, klinefelters)	L -2 hrs.

Learning Objectives	Contents	Teaching Hours
The students will be able to describe basic facts of immunology including • Immunoglobulins& antibodies • Cellular immunity • Autoimmunity The students will be able to describe aetiology, pathogenesis, pathology, clinical features, investigations and treatment of • Immunologic deficiency diseases • Autoimmune disease • Allergic disease	**Immunologic disorders** **CORE :** • Immunologic deficiency diseases • Auto immunity, Allergy & hypersensitivity and immunogenetics& transplantation • Immunosuppressive drugs	3 hrs.
The students will be able to describe : • prevention and early detection of common cancers • primary cancer treatment including ▫ Surgery and radiation ▫ Chemotherapy ▫ Adjuvent therapy • evaluation of tumour response including ▫ Tumour size ▫ Tumour markers ▫ General well being and performance status • role of nuclear medicine in diagnosis and treatment in Medical conditions.	**Oncology, Principles** **CORE :** • General principles of diagnosis and management of neoplastic diseases • Palliative care	4 hr.

Learning Objectives	Contents	Teaching Hours
The students will be able to describe : • initial evaluation of the patient with poisoning or drug overdose • general principles of management including ❑ Care of unconscious patient ❑ Respiratory support ❑ Cardiovascular support ❑ Special problems such as hypothermia, hypertension, arrhythmia, convulsions • management of common specific poisonings including ❑ organophosphorus compound ❑ sedative and hypnotic,(benzodiazepines) ❑ detergents, kerosene, pesticides etc. ❑ datura, methylalcohol • acute and chronic effects of alcohol and their management • venomous stings, insect bites, poisonous snakes and insects .	**Poisoning and drug overdose** **CORE :** • Initial evaluation of the patient with poisoning or drug overdose and general principles of management • Treatment of common specific poisonings a) Organophosphorous compounds b) Sedatives and Hypnotics c) Household Poisons • Venomous stings, insect bites, poisonous snakes and insects. **Additional:** • Acute and chronic effects of alcohol and Methanol and their management • Copper sulphate, Paracetamol, Kerosene etc	6 hrs.
The students will be able to describe : • general principles of intensive care • acute disturbances of haemodynamic function including Shock • aetiology, pathogenesis, clinical features, investigations, and management in acute medical emergency	**Emergency medicine** **CORE :** • Cardiac Arrest – ALS, BLS • Acute pulmonary oedema and severe acute asthma • Hypertensive emergencies • Diabetic ketoacidosis and hypoglycaemia • Status epileptics • Acute myocardial infarction, shock and anaphylaxis • Upper G.I bleeding and hepatic coma • Diagnosis and management of comatose patient	5 hrs.
	Environmental disease & heat illness **Global warming & Health hazards**	2 hrs

Learning Objectives	Contents	Teaching Hours
The students should be able to : • use a humane approach during history taking and performing a physical examination • examine all organs/systems in adults and children including neonates • arrive at a logical working diagnosis after clinical examination (General & Systemic) • order appropriate investigations keeping in mind their relevance (need based) and cost effectiveness • plan and institute a line of treatment which is need based, cost effective and appropriate for common ailments taking into consideration : ❑ patients ❑ disease ❑ socio-economic status ❑ institutional / government guidelines • recognise situations which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment • assess and manage fluid / electrolyte and acid-base balance • interpret abnormal biochemical laboratory values of common disease • interpret skiagram of common diseases • identify irrational prescriptions and explain their irrationality • interpret serological tests such as VDRL, ASO, Widal, HIV, Rheumatoid factor • demonstrate interpersonal and communication skills befitting a physician in order to discuss the illness and its outcome with patient and family • write a complete case record with all necessary details	**Clinical Methods in the Practice of Medicine** **CORE :** • History Taking • Physical Examination • Investigations • Diagnosis • Principles of treatment • Interpersonal skills • Communication skills • Doctor - Patient relationship • Ethical Behaviour • Patient's Safety • Referral services • Medical Certificate • Common Clinical Procedures ❑ Injections ❑ IV infusion and transfusion ❑ FIRST AID ❑ Intubation ❑ CPR ❑ Hyperpyrexia ❑ ECG ❑ Skin Sensitivity Test	W-14 weeks (3^{rd} year) See Appendix-1 W – 6 weeks (4^{th} year) See Appendix-2 W - 12weeks (5^{th} year) See Appendix-3 Opd-2 weeks

Learning Objectives	Contents	Teaching Hours
• write a proper discharge summary with all relevant information • write an appropriate referral note to secondary or tertiary centres or to the physicians with all necessary details • assess the need for and issue proper medical certificates to patients for various purposes • record and interpret an ECG and be able to identify common abnormalities like myocardial infarction, arrhythmias • start I.V. line and infusion • performe venous cut down • give intradermal / SC / IM / IV / injections • insert and manage a C.V.P. line • conduct CPR (Cardiopulmonary resuscitation) and first aid in new born/ children including endotracheal intubation. • introduce a nasogastric tube • manage hyperpyrexia	**Procedural skill** **CORE** • Lumbar puncture • Bone marrow aspiration • Thoracocentesis / paracentesis • Oxygen Therapy • Oropharygeal suction • Shock management • Brochodilator inhalation technique, nebulization • Urethral Catheterisation **Additional** • Administration of Enema • Postural drainage • Dialysis • Electro convulsive therapy	
Attitude : The student should: 1. develop a proper attitude towards patients, colleagues and the staff. 2. demonstrate empathy and humane approach towards patients, relatives and attendants. 3. maintain ethical behaviour in all aspects of medical practice. 4. develop a holistic attitude towards medicine taking in social and cultural factors in each case 5. obtain informed consent for any examination / procedure 6. appreciate patients right to privacy 7. adopt universal precautions for self protection against HIV and hepatitis and counsel patients 8. be motivated to perform skin sensitivity tests for drugs and serum	Attitudes to be supervised by clinical teachers.	

Appendix -1

Clinical Teaching

2nd Phase **1st Round** **14 Weeks**

Learning Objectives	Contents	Teaching Hours
The student will be able to : • narrate the role of ward duties in learning clinical medicine. • develop interpersonal and communication skills befitting a physician in order to discuss illness and its outcome with patient and family • elicit different components of history and understand its importance – particulars of the patient, the presenting symptoms, the history of the present illness, H/O previous illness, Family history, Personal & Social history, Drug history, & allergy, menstrual history (in female) • record and analyze symptoms of presentation **History taking** The student will be able to ask patients about : • cough- nature, relation with chest pain, time of the day, any particular condition aggravates or relieves: • shortness of breath- onset, duration, relation with exertion, episodic or not etc. • haemoptysis- amount, is it rusty or fresh blood • sputum- amount, colour, odour, associated with wheezing.	**Introduction to clinical ward duties and approach to a patient** ❑ Art of Medicine ❑ Doctor patient relationship ❑ Different component of history ❑ Symptom analysis in relation to diseases of different systems: • Respiratory System ❑ Shortness of breath ❑ Haemoptysis ❑ Cough ❑ Sputum ❑ Chest pain ❑ Fever	

Learning Objectives	Contents	Teaching Hours
• The student will be able to ask patients about symptoms mentioned in contents in detail e.g. site, nature, aggravating or relieving factor of chest pain. • The student will be able to elicit informations related to the symptoms of presentation e.g. frequency of bowel, nature of stool, amount, blood in stool, tenesmus etc. if complaining of diarrhoea. The student will be able to ask patients about : • H/O vaccination, transfusion • Chronology of development of symptoms with different parameters.	**<u>CVS</u>** • Palpitation • Chest pain • Leg oedema • Shortness of breath **<u>GIT</u>** • Abdominal pain • Haematemesis and Melaena • Loss of appetite • Diarrhoea & Constipation • Haematochezia • Nausea, Vomiting • Weight loss • Difficulty in swallowing **Hepatobiliary** • Jaundice • Abdominal swelling • Impaired consciousness **<u>Rheumatology</u>** • Multiple joint pain • Monoarticular joint pain	

Learning Objectives	Contents	Teaching Hours
The student will be able to: • ask the patient about the symptoms e.g. seizure – duration, interval between attack, any injury during attack, sphincter disturbance, aura, • define fit, syncope, hemiplegia, monoplegia, paraplegia etc. The student will be able to: • ask the patients about the presenting symptom • define – oliguria, anuria, polyuria, dysuria Students will be able to take relevant history, related to disorders of Haemopoetic system The student will be able to : • take detail history about fever and different tropical & infection diseases, animal bite diseases, animal bite like snakebite, dog bite.	**Nervous System** • Loss of consciousness • Fit or convulsion • Syncope • Paralysis • Headache • Vertigo **Urinary System** • Puffiness of face • Oliguria & anuria, Polyuria • Dysuria • Incontinence • Nocturnal enuresis • Loin pain • Pus per urethra **Endocrine System** • Swelling of neck • Weight gain • Weight loss **Haemopoetic system** • Pallor • Bleeding **Other** • Tropical and infections diseases	

Learning Objectives	Contents	Teaching Hours
The student will be able to • perform general physical examination and observe record and interpret findings.	**General examination** • Appearance ⇐Facies • Built • Nutrition • Hydration status • Decubitus • Anthropometric measurement • Anaemia, Jaundice, Cyanosis • Clubbing, Koilonychia, leukonychia • Oedema, Dehydration, Pulse, BP, Temperature, Respiration • JVP • Lymph node • Thyroid, salivary gland • Skin, Hair, Nail • Skin (Petichae, purpura, echymosis, bruise, haematoma, rashes), pigmentation etc • Hair distribution • Nail • Breast • Eye – Proptosis	

Learning Objectives	Contents	Teaching Hours
Students will be able to : • record pulse e.g. radial pulse and peripheral pulse and observe Jugular Venous Pressure • record Blood Pressure • inspect chest shape, symmetry, movement, type of breathing • palpate apex beat, trachea, thrill • percuss cardiac outline, liver dullness and areas of resonance • auscultate the heart sounds, murmur, pericardial rub Students will be able to : • inspect the chest, palpate trachea, chest for expansion, vocal fremitus • percuss the lungs. • auscultate for breath sounds, rhonchi, creps, pleural rub.	**Systemic examination** **CVS** • Pulse, BP, JVP • Pericardium ❑ Inspection ❑ Palpation ❑ Percussion ❑ Auscultation of heart ❑ Auscultation of lung base • Related G/E of CVS e.g. clubbing, cyanosis,edema. **Respiratory System** • Respiration rate /Type • Inspection • Palpation • Percussion, Auscultation • Examination of sputum • Lung function test • Pleural fluid aspiration	

Learning Objectives	Contents	Teaching Hours
Students will be able to: • assess levels of consciousness • identify the facial expression • examine cranial nerves Students will be able to: • examine motor system • examine sensory system • observe different types of gait • elicit signs of meningeal irritation • perform SLR test • observe lumbar puncture • examine Fundus by ophthalmoscope	**<u>Nervous System</u>** • Higher mental function ❑ Co-operation ❑ Appearance ❑ Level of consciousness ❑ GCS ❑ Memory ❑ Speech ❑ Orientation of time, space, person ❑ Hallucination, Delusion, Illusion • Cranial nerves. (1^{st} -12^{th}) • Motor function • Sensory function • Gait • Signs of meningeal irritation • Examination of peripheral nerves • Involuntary movement **CSF Study** **<u>Ophthalmoscopy</u>** • Ophthalmoscope	

Learning Objectives	Contents	Teaching Hours
Students will be able to: • assess joints and muscles by inspection, palpation • test range of movement • test muscle around joints • assess posture Students will be able to: • inspect oral cavity, orpharynx. • palpate abdomen e.g. Liver, spleen, kidney • demonstrate fluid thrill, shifting dullness • perform PR examination • observe aspiration of peritoneal fluid Students will be able to: • detect general signs of renal disease • perform bimanual palpation of kidney, renal tenderness • examinational gthitalia • examine urine for sugar, albumin. • prepare and read blood film (eg. Malarial parasite) The student will be able to do: physical examination and certain minor procedures e.g. blood film, ESR, Hb%, Urine – albumia, Sugar, Stool ME.	**Rheumatology** • Joints ⇐ (Look & feel) • Inspection • Palpation • Movement Muscle • Wasting • Swelling Skeleton • Survey **GIT** • Inspection of oral cavity & oropharynx • Abdomen Inspection / Palpation • Test for ascites • Percussion/ auscultation ❑ Per-rectal examination ❑ Examination of stool, vomitus, groin, genitalia, perianal region ❑ Aspiration of peritoneal fluid **Urinary system** • Kidneys • Bladder • Uretheral orifice • Urine analysis **Haemopoetic system** **Tropical and infectious illness** **Animal bite – snakebite, dog bite**	

Annex - 1

Department of Medicine CARD - 1
_____ Medical College (3rd Year)

Grading
A = 75 - 100
B = 60 - 74
C = 50 - 59
D = 40 - 49
E = 00 - 39

Clinical Registration No. _____

Name : _____

Roll No. _____ Batch _____

Medicine unit : _____

Professor : _____

Duration of Placement (1st Round) from _____ to _____

No.	Items	Marks Obtained	Signature of teacher
1.	Procedure of History taking and writing and questions related to elaboration of different systems.		
2.	General examination and questions related to general examination.		
3.	Systemic examination of the Alimentary system and related questions.		
4.	Systemic examination of the Respiratory system and related questions.		
5.	Systemic examination of the Cardiovascular system and related questions.		
6.	Systemic examination of the Renal system and related questions.		
7.	Systemic examination of the Nervous system and related questions.		
8.	Examination of the haemopoietic system and related questions.		
9.	Examination of the musculoskeletal system and related questions.		
10.	Miscellaneous e.g. examination of the hands, lower limbs, neck etc.		
11.	Teaching learning on basic concept of behavioral science with the expectation of demonstration by learners in all systems (mandatory to pass)		

Total attendance _____ days, out of _____ days

Marks obtained in all items (%) _____ & in Card final Examination _____

Comment_____

_____

Professor
Department of Medicine

Registrar
Department of Medicine

Appendix -2

Clinical Teaching

3rd Phase 2nd Round 6 Weeks

Learning Objectives	Contents	Teaching Hours
Continue to develop skills in history taking & physical examination. Students will be able to: • interpret the findings in terms of diseases, possible causes, make a differential diagnosis & plan investigations.	**Approach to Sign & Symptom** **<u>GIT & HBS</u>** • Ascites • Hepatosplenomegaly • Oral ulcer • Abdominal swelling • Abdominal pain • Vomiting &diarroehea • Haematemesis, melaena • Jaundice **<u>CVS</u>** • Respiratory distress • Chest pain • Jugular Venous Pulse (JVP) • Hypertension • Abnormal heart sound & murmur • Pulse **<u>Respiratory System</u>** • Haemoptysis • Cough • Pleural effusion • Pneumothorax • Collapse, Consolidation, Fibrosis • Breath sound • Sputum analysis	

Learning Objectives	Contents	Teaching Hours
Students will be able to: • interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations. Students will be able to: • be acquainted with instruments commonly used for medical procedure observe the doctors performing the procedures	<u>Urinary System</u> Approach to patient with : • Oliguria, polyuria, anuria • Anasarca • Urine analysis <u>Nervous System</u> • Unconscious patient • Hemiplegia, monoplegia, paraplegia • Upper Motor Neuron Lesion (UML) • Lower Motor Neuron Lesion (LML) • Cerebellar sign • Extrapyramidali sign • Involuntary movement • Vertigo & Headache <u>Haematology</u> Approach to patient with : • Bleeding disorder • Anaemia • Lymphadenopathy <u>Rheumatology</u> Approach to patient with • polyarthiritis • oligoarthiritis <u>Clinical skills</u> • Lumbar puncture • Bone marrow aspiration • Aspiration of serous fluid/ synovial fluid • Ryles tube • Catheterization • I/V fluid, IV Canula • Stomach wash	

Annex - 2

Department of Medicine

Card - II
(4th Year)

Grading
A = 75 - 100
B = 60 - 74
C = 50 - 59
D = 40 - 49
E = 00 - 39

Name of the student: _____

Roll No. _____

Medicine unit: _____

Name of Professor: _____

Duration of Placement (2nd Round) from _____ to _____

Total attendance _____ days, out of _____ days

No.	Items	Marks obtained	Signature of Teacher
1.	Review of clinical methods (interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations)		
2.	Respiratory diseases (interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations)		
3.	Cardiovascular diseases (interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations)		
4.	Alimentary & Hepatobiliary disorders (interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations)		
5.	Renal diseases (interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations0		
6.	Endocrine disorders (interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations)		

7.	Haemopoietic disorders (interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations)		
8.	Diseases of Nervous system (interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations)		
9.	Infectious diseases (interpret the findings in terms of diseases, possible causes, to make a differential diagnosis & plan investigations)		
10.	Common Laboratory investigations		
11.	Basic knowledge on X-ray & ECG		

Marks Obtained:
Comments:

Professor
Department of Medicine

Registrar
Department of Medicine

Appendix -3

Clinical Teaching

4th Phase **3rd Round** **12 Weeks**

Learning Objectives	Contents	Teaching Hours
Students will be able to : • take detailed history from a patient • carry out detailed general and systemic clinical examination • present long cases on different body system including Respiratory System Cardiovascular System Gastro-intestinal System Endocrine System Urinary System Haematology system Nervous System Rheumatology Infections • plan appropriate investigations • plan appropriate treatment of common medical conditions	**Review of history taking & clinical examinations (3rd year, 4th year)** ***Case discussion*** ❑ Long cases <u>Respiratory System</u> ❑ COPD ❑ Bronchogenic carcinoma ❑ Pneumonia ***CVS*** ❑ CCF ❑ CHD ❑ IHD ❑ VHD ❑ Rheumatic heart disease ❑ Hypertension ❑ Pericardial diseases	

Learning Objectives	Contents	Teaching Hours
Students will be able to: • evaluate the patients by follow up and monitoring • assist in managing critically ill patients • interpret various common investigation reports – ECG, X-rays, Biochemical tests, etc. • assist doctors in counselling patients and their families about treatment, follow up and prevention.	***GIT*** • Haematemesis&mealena • PUD • V. Hepatits • CLD • Carcinoma of Liver • Pancreatitis • Heapatic failure ***Endocrine*** • Hyperthyroidism • Hypothyroidism • DM ***Rheumatology*** • Rheumatoid arthritis • Seronegative arthritis • Osteoarthritis • Gout ***Urinary*** • Glomerulonephritis • Nephrotic Syndrome • Acute Kidney Injury • Chronic Kidney Disease • Urinary Tract Infection ***Haematology*** • Anaemia • Leukaemia • Bleeding diathesis	

Learning Objectives	Contents	Teaching Hours
Students will be able to: • demonstrate in-depth skills, in history taking, clinical examination, diagnosis and management of NS diseases & infectious diseases.	**Nervous System** • CVD • Multiple Sclerosis • Myasthenia Gravis • Parkinsonism • Peripheral neuropathy • GBS • Cranial neuropathy **Infection** • Enteric fever • Malaria • Kala Azar • Filarisis • Amoeabiasis • Tetanus • Rabies • Poisoning • Snake bite • Tuberculosis • Diarroehea & Dysentery • Shock • Dengue	

Learning Objectives	Contents	Teaching Hours
Students will be able to: • present short cases on different body system	**Short Cases :** ❑ Hepato or Splenomegaly or both ❑ Pleural effusion ❑ Pneumothorax ❑ Consolidation ❑ Collapse ❑ Fibrosis ❑ Hemiplegia ❑ Paraplegia ❑ Facial nerve palsy (UMN + LMN) ❑ Ascites ❑ Lymphadenopathy ❑ Thyroid ❑ Examination of knee ❑ Examination of precordium ❑ Auscultation of lung	
Students will be able to: • demonstrate certain skills • carry out certain procedures e.g. lumbar puncture under supervision, IM injection, IV injection, Infusion	**Clinical skills :** • Bone Marrow aspiration • Aspiration of serous fluid ❑ Pleural ❑ Peritoneal ❑ Pericardial • Foley's catheterization • Intercostal tube • I/V canula • Lumbar puncture • Venesection • CPR	

Learning Objectives	Contents	Teaching Hours
Students will be able to : • interpret routine examination findings for Blood, Stool, Urine • interpret FBS, GTT and HbA1C • interpret certain specific laboratory tests e.g. Liver Function Tests etc. Students will be able to: • interpret common radiological findings on plain skiagrams of chest, skull, sinuses, neck, abdomen, pelvis, upper and lower extremities	**Interpretation of Laboratory Data** • **General :** ❑ Blood for R/E ❑ Urine for R/E ❑ Stool for R/E ❑ FBS / GTT • **Specific :** ❑ Liver function test (LFT) ❑ Thyroid function test (TFT) ❑ Kidney function test ❑ Pulmonary function tests (PFT) ❑ Test for malabsorption ❑ Test for rheumatology ❑ Test for neurology ❑ Cardiac function test ❑ Haematological test ❑ Test for certain infectious diseases, e.g. Widal test. • **Radiology :** ❑ X-ray chest ❑ X-ray • Bones • Skull • Joints ❑ X-ray abdomen	

Learning Objectives	Contents	Teaching Hours
Students will be able to: • interpret findings on certain contrast X-rays e.g. Barium Meal etc. • establish a good-student patient relationship • communicate with patients in understanding manner. • observe and assist in terminal care • observe in care of death & dying patient	• Contrast X-rays : ❑ Barium Meal ❑ Barium Follow through ❑ Barium Enema ❑ ERCP ❑ Myelogram) ❑ IVU. • USG • CT & MRI • Communication Skills • Terminal Care • Care of death and dying	

Note:

1. Each student will be able to get certain number of beds, they will write down their history, physical examination, follow-up, observe the management and follow-up including counselling.
2. Each student will submit a complete case history per week of placement in every assignment in medicine.

Annex - 3

Department of Medicine

Card - III
(5th Year)

Grading
A = 75 - 100
B = 60 - 74
C = 50 - 59
D = 40 - 49
E = 00 - 39

Name of the student : _____

Roll No. _____

Medicine unit : _____

Name of Professor : _____

Duration of Placement (3rdRound) from _____to_____

Total attendance _____days, out of_____days

No.	Items	Marks obtained	Signature of Teacher
1.	Respiratory diseases		
2.	Cardiovascular diseases		
3.	Alimentary &Hepatobiliary disorders		
4.	Renal diseases		
5.	Endocrine disorders		
6.	Bones, joints & connective issue diseases		
7.	Diseases of nervous system		
8.	Haemopoietic disorders		
9.	Interpretation of X-ray		
10.	Interpretation of ECG		
11.	Instrumental uses in clinical practice		
12.	Interpretation of laboratory investigations		

Marks obtained (%):

Professor
Department of Medicine

Registrar
Department of Medicine

Physical Medicine & Rehabilitation

Learning Objectives	Contents	Teaching Hours
Students will be able to: • describe historical aspect, spectrum of physical medicine & rehabilitation • describe rehabilitative management of certain conditions including: ❑ Low back pain and common spinal disorder ❑ Rheumatoid Arthritis and other inflammatory arthritides ❑ Stroke and other common neurological conditions ❑ Arthritis and allied conditions ❑ Degenerative Joint diseases ❑ Cerebral palsy and other paediatrics conditions ❑ Chronic pain and palliative care ❑ Common geriatric disorders ❑ Orthopedic conditions and sports injury ❑ Cardiopulmonary rehabilitative conditions • identify the various modalities of physical therapy • plan to apply physical therapy for certain clinical conditions	**CORE:** • Principles of management and rehabilitation of musculoskeletal and neurological disorders	5th year 5 hours lecture

Appendix-4

Physical Medicine and Rehabilitation
Clinical Attachment (WARD DUTY)
4th Year- 2 weeks

Learning Objectives	Contents	Teaching Hours
Students will be able to: • outline the role and importance of Physical Medicine & Rehabilitation • identify the various modalities of Physical Medicine & Rehabilitation management • plan to apply physical therapy for certain clinical conditions	• Introduction to Physical Medicine & Rehabilitation ❑ History ❑ Background ❑ Spectrum ❑ Visit to Physical Medicine & Rehabilitation Ward • Modalities of Physical Therapy • Management and Rehabilitation of ❑ Neck pain & Back pain ❑ Soft tissue Rheumatism ❑ Painful Conditions of upper & lower extremities ❑ Neurological conditions including Stroke ❑ Spinal cord injuries ❑ Arthritis & allied conditions ❑ Orthopaedic conditions ❑ Cerebral Palsy ❑ Non-surgical & post-operative complications ❑ Cardiopulmonary rehabilitations	2 hr 2 hrs 12 hrs

Annex-4

CARD for Physical Medicine and Rehabilitation

ITEM	MARKS	Signature
Definition, Historical aspects, background, spectrum of Physical Medicine & visit in Physical Medicine ward		
Various modalities of Physical therapy		
Management and Rehabilitation of Neck Pain & Back Pain		
Management and Rehabilitation soft tissue metabolism		
Management and Rehabilitation of painful conditions of upper & lower limbs		
Management and Rehabilitation of stroke and other Neurological conditions		
Management and Rehabilitation of Spinal cord injuries		
Management and Rehabilitation of Arthritis and allied conditions		
Management and Rehabilitation of non surgical orthopaedic & post operative complication		
Management and Rehabilitation of Cerebral Palsy and other paediatric neurological conditions		

Time Schedule
Medicine & Allied Subjects (lecture)

Discipline	2nd phase (In hrs.)	3rd phase (In hrs.)	4th phase (In hrs.)	Total hours
Internal medicine	22	25	90	137
Psychiatry	02	-	18	20
Dermatology	-	-	17	17
Pediatrics	04	20	22	46
Physical Medicine	-	-	04	04
Emergency	-	-	-	-
Total	28hrs	45 hrs	151 hrs	224 hrs

Ward duty
Subjects (weeks)
Time: 9.30-11.30am & 7.00pm- 9.00pm (4 hours)

Phase	Medicine (weeks)	Emergency (weeks)	Pediatrics (weeks)	Psychiatry (weeks)	Skin & VD (weeks)	Physical Medicine (weeks)	Total weeks
2nd	14	-	04	-	-	02	20
3rd	6+2 (OPD)	02	-	02	02	-	14
4th	12	-	06	02	02	-	22
Total	34 wks.	2 wks.	10 wks.	04 wks.	04 wks.	02 wks	56

Note: Teachers for supervising the evening duties must be available

Final professional examination

Assessment of Medicine

Assessment systems and mark distribution

<table>
<tr><th>Components</th><th colspan="3">Marks</th><th>Total Marks</th></tr>
<tr><td>WRITTEN EXAMINATION
Paper – I- Internal Medicine
a) MCQ (Format- 10 multiple true false and 10 single best response)
b) SAQ+ SEQ
c) Marks from formative assessment</td><td colspan="3">20

70
10</td><td rowspan="3">100

100</td></tr>
<tr><td>Paper - II- Internal medicine with allied subjects & Paediatrics
Psychiatry, Dermatology& Veneral disease, Neurology, Poisoning, Infections, Geriatrics, Genetics, Cardiology, Nephrology and Paediatrics</td><td>Int.Me. & Allied</td><td>Paediatrics</td><td>Total</td></tr>
<tr><td>a) MCQ (Format-10 multiple true false and 10 single best response)
b) SAQ+SEQ
c) Marks from formative assessment</td><td>10

35
05</td><td>10

35
05</td><td>20

70
10</td></tr>
<tr><td></td><td colspan="3">Total</td><td>200</td></tr>
<tr><td>OSPE</td><td colspan="3">10 stations x 05</td><td>50</td></tr>
<tr><td colspan="5">Continued (P.T.O)</td></tr>
</table>

ORAL & CLINICAL **<u>8 Examiners in 4 boards</u>**. **Day -1** Board- A- 1 examiner from internal Medicine 1 examiner from internal Medicine Board-B- 1 examiner from Internal Medicine 1 examiner from allied subjects **Day-2** Board- A- 1 examiner from Paediatrics 1 examiner from Paediatrics Board-B- 1 examiner from Skin & VD/Internal medicine 1 examiner from Psychiatry/ Internal medicine NB: Where there is availability of teachers of Dermatology & Psychiatry there must be one examiner from Dermatology and one from Psychiatry for Board-B. NB: Allied subjects means- Cadiology, Neurology, Nephrology, Gatroenterology, Haematology, Hepatology, Rheumatology, Pulmonology/ Respiratory Medicine, Endocrinology etc. Examiner will be selected according to seniority. For each board during oral examination Xrays, ECG, photographs, lab data etc. are to be included and 40 marks are to be allotted for this purpose No temp. Chart, slides, specimen in Practical Exam.	**Oral** **40** Marks for Each Board (10 marks for each board for Xray, ECG, lab data, photographs etc and **30** marks for each board for structured oral examination) **Clinical** **a) Day-1:** i) 1 Long case =**20** Marks (IM) ii) 3 Short cases=30 Marks (IM) **b) Day-2:** i) 1 Long case =**20** Marks (Paed) ii) 2 Short case s=20 Marks (1 for Paed)+(1 for Skin & VD/ Psychiatry)	**160** *(Oral- 30 marks x 4 boards) =120* *(Practical-10 marks x 4 boards) =40* **90**
	Grand Total	**500**

There will be separate Answer Script for MCQ. Pass marks 60% in each of written, oral and practical examinations. After aggregating obtained marks of **4** oral boards (comprising of SOE & Practical) students pass or fail will be finalized in oral section.

INTEGRATED TEACHING EXERCISE

- The integrated teaching should be established as a routine
- It should be on selected topics
- It should be started from year 3 M.B.B.S Class
- It should involve teachers of pre-clinical, para-clinical & clinical subjects
- It should be on theoretical, clinical & Paraclinical aspects aided by audio-visual devices
- Programme should be made well ahead of commencement of the course & concerned persons shall be informed in time
- It should be mostly community, Primary Health Care & National Health problems oriented
- It should be held preferably twice a year ,each for two hours between 9 - 11 am
- It should involve all clinical students & teachers and the site, lecture theatre & attendance must be recorded

Some examples of Multi-Disciplinary Integrated Exercise topics are:

Trauma
Cancer
Tuberculosis
C P R
Jaundice
Acid base electrolyte balance / imbalance
Death and dying
- Medical ethics
- Maternal and child health

Diabetes Mellitus

Departments:
MEDICINE + SURGERY + OBGYNE

Day : Thursday
Time : 09.00 – 11.00 a.m.
Frequency : Once in a month

WARD PLACEMENT

- To introduce uniform card system and feasible card in all the medical colleges
- To prepare a central card for different components of medicine incorporating teachers of all medical colleges on priority basis
- Each card will carry 100 marks, 10% of the card marks will be added to the summative assessment
- 52 weeks- 100 mark.

OPPORTUNITY FOR COMMUNITY ORIENTATION

- Teaching - learning sessions will be organised in inpatient departments in different wards e.g. Internal medicine, Paediatrics, Psychiatry, Dermatology, etc., outpatient departments, emergency room, infections diseases hospital
- The patients attending the different areas will mostly represent the community
- Medical college hospitals cover a good area of community health problems
- Attempt can be made to motivate students for meeting health needs of people
- For further attitudinal shift to serve people, field site training in 3rd 4th year and a short stay (1-2 weeks) during internship in Thana Health Complex will be of much help

BLOCK POSTING

Time	: Total 4 weeks	
Break up	: Internal medicine	12days
	Paediatrics	6 days
	Psychiatry	3 days
	Dermatology	3days

BLOCK POSTING is a most important part of clinical teaching. It is a preparation to step in internship training. It is full time training

WORKING HOURS

- 09.00 am. – 02.30 pm (Compulsory for all)
- 02.30 pm. – 08.30 pm.(Roaster duty time)

Teaching / learning schedule: to be arranged locally
The duties of the students during block posting will include:

a. small group teaching,
b. ward round
c. roaster duty during morning and evening hours

Every student will have a separate log book for his attendance, performance etc.
Log book to be attached with the formative assessment

SKIN & VD

Course Objectives:

At the end of the course students will be able to:

- take appropriate history from the patients of skin & VD
- perform the dermatological examination properly
- select and interpret relevant investigations
- diagnose and manage the most common skin and venereal diseases prevalent in Bangladesh
- deal with dermatological and venereological emergencies
- identify problematic patients that require specialised care and refer them appropriately
- communicate effectively with patients, relatives and colleagues regarding complications, prognosis and others
- participate in the related national disease control programs of skin & VD
- conduct relevant research

List of Competencies to acquire :

- Taking appropriate history from patients of skin & VD
- Performing proper dermatological examination of the said patients
- Performing the relevant investigations and interpreting the results
- Diagnosing common skin & VD cases
- Managing common skin & VD cases
- Counselling the cases of skin & VD
- Referring the complicated cases timely & to the appropriate authority for better management

Learning Objectives and Course Contents in SKIN & VD (lectures)

Learning Objectives	Contents	Teaching Hours
Students will be able to: • describe the structure and functions of the skin as an organ • mention the symptoms of skin diseases & their causes • mention the cutaneous lesions & their causes • describe the etiology, pathogenesis & clinical features of common skin and venereal diseases • mention the differential diagnosis of each disease with differentiating features • request and interpret investigations like gram staining/ AFB / skin scraping for fungus microscopy & culture/VDRL/ TPHA/ skin biopsy • diagnose and manage common skin and venereal diseases	**CORE:** • Structure and functions of the skin • Cutaneous Signs /Symptoms • Scabies and Pediculosis • Atopic Dermatitis & Contact and Seborrhoeic dermatitis • Superficial fungal infections • Pyoderma • Bullous diseases (Pemphigus) • Cutaneous manifestations of systemic diseases • Viral disease (Herpes) • Syphilis & Genital ulcers • AIDS • Gonorrhoea, Non-Gonococcal Urethritis • Psoriasis • Acne • Skin Tuberculosis • Urticaria • Pigmentary diseases (Vitiligo), Alopecia	1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour 1 hour **Total: 17 hours**

CARD for Skin & Venereal Diseases

ITEM	MARKS	Signature
Procedure of dermatological history taking and writing		
Examination of the integumentary system (skin, hair, nail & mucosa)		
Symptomatology of skin (generalised & localised pruritus)		
Symptomatology of skin (generalised & localised pigmentation)		
Maculo-papular lesions (Scabies, Pediculosis, Eczema)		
Scaly lesions (Psoriasis, SD, Dermatophytosis, Pityriais, Rosea)		
Pyogenic lesions (Impetigo centagiosa, Bullus Impetigo, SSSS)		
Vesicobullous lesions (Herpes, Pemphigus, Pemphigoid, STS)		
Acne		
TB, Leprosy		
Drug reactions & urticaria		
Urethral/vaginal discharge (Gonorrhoea & NGU)		
Genital ulcer (Syphilis & Chancroid)		
AIDS		

Skin & Venereal Diseases
Clinical Attachment (WARD DUTY)

Total 96 hours (24 Days) in 3rd Phase (2 wks) & 4th Phase (2wks)

Learning Objectives	Contents	Teaching Hours
Students will be able to: • take appropriate history from the patients of skin & VD • perform the dermatological examination properly • select and interpret relevant investigations • describe Aetiology & clinical features of common skin and venereal diseases • diagnose and manage the most common skin and venereal diseases prevalent in Bangladesh • deal with dermatological and venereological emergencies • acquaint with universal precautions, syndromic management, counselling of STD/ AIDS Cases.	**Dermatology** **CORE:** • Structure and function of the skin • Cutaneous symptom- generalized pruritus • Cutaneous symptom- G. hyperpigmentation • Cutaneous symptom- hypopigmentation • Types & causes of cutaneous lesions • Scabies and Pediculosis • Atopic Dermatitis • Seborrhoeic Dermatitis & other Dermatitis • Contact Dermatitis • Fungal infections-Dermatophytosis & Candidiasis • Acne • Psoriasis • Parapsoriasis & Pityriasis Rosea • Erythroderma • Viral Diseases (Herpes simplex, Herpes zoster, wart, molluscumcontagiosum) • Leprosy • Bacterial infections of the skin(impetigo contagiosa, B impetigo, SSSS) • Filariasis	4 hours 4 hours 2 hours 2 hours 2 hours 4 hours 2 hours 2 hours 4 hours 4 hours 4 hours 2 hours 2 hours 4 hours 2 hours 4 hour 2 hour

Learning Objectives	Contents	Hours/days
Students will be able to • describe the clinical feature, management. • Interpret result of patch test/ prick test / tuberculin test. • perform gram staining/ bubo aspiration • request& interpret tests like VDRL/ TPHA/ ELISA/ Western blot/ CFT for chlamydia.	**<u>Additional:</u>** • Drug Reactions • Urticaria & angioedema • Skin tuberculosis • Genodermatoses (Ichthyosis, Neurofibromatosis, etc.) • Melanocytic & non melanocytic nevi • Skin tumours • Bullous diseases (Pemphigus, Dermatitis herpetiformis) • Systemic diseases and the skin • Chronic arsenicosis • Hair (AA, Telogen effluvium, Anagen effluvium, Androgenetic alopecia) • Hypertrichosis & Hirsutism • Nail diseases-(fungal infection, LP, Psoriasis) • Mucous membrane diseases (Aphthous ulcer, stomatitis/glossitis) **<u>Venereology</u>** **CORE** • Basics of STI (definition & classification) • Syphilis • Chancroid & other genital ulcers • Gonorrhoea & Nonspecific Urethritis • AIDS • Syndromic management of STI	2 hours 2 hours 2 hours 4 hours 2 hours 2 hours 4 hours 4 hours 2 hours 4 hours 2 hours 2 hours 2 hours 2 hour 2 hour 2 hour 2 hours 2 hours 2 hours

While taking history and examining a patient the following steps should be followed by students:

Greetings to the patient
Introduction of self as a medical student
Explanation to the patient what is to be done
Use of understandable language of patient
Seeking permission and co-operation
Adequate exposure in lighted area having maintaining privacy
Giving thanks to the patient at the end of examination
Adopting correct procedure by use of appropriate instrument while doing procedure.

Instructions for Item Cards:

Students should complete the cards during clinical attachment
Teacher should sign the card against the item completed
At the end of the attachment the card must be submitted to the Head of the department for countersigning.

Psychiatry

Course Objectives

After completion of the course a medical student will be able to:

- comprehend the concept of mental health care and be aware of the role of the medical doctor in detecting common mental disorder in the community
- provide appropriate management to patients in the community
- comprehend the historical concept of psychiatry and its gradual development.
- comprehend normal and abnormal human behaviour in terms of personality, memory, intelligence, and learning.
- classify psychiatric disorders, recognise clinical manifestation of common psychiatric syndrome during clinical assessment and plan their appropriate management.
- deal psychiatric emergencies in hospital and community.
- diagnose and manage common psychiatric disorders
- develop communication skill and doctor patient relationship

Learning Objectives and Course Contents in Psychiatry

Learning Objectives	Contents	Teaching Hours 20 hours
Students will be able to : • describe the historical concepts related to psychiatry • describe psychosocial aspects of patients in medical settings • explain the basic concepts related to learning, memory, personality, and intelligence • classify common psychiatric disorders prevalent in Bangladesh • describe the aspects of mental health care to patients at the community level including drug abuse • classify common child psychiatric, neurological, behavioral, and psychosocial disorders prevalent in Bangladesh • recognise clinical manifestation of common psychiatric syndrome during clinical assessment • plan their appropriate management. • provide care to the patients presenting with psychiatric emergencies in hospital • give long term care to patients at the community level provide preventive mental health care especially to high risk groups	**CORE :** • Historical concepts & classification • communication skill and doctor patient relationship • Behavioural Science • Learning, memory, personality, intelligence • Symptommatology • Organic psychiatry: Dementia & Delirium • Substance Abuse &Alcoholosim • Child psychiatry including Autism • Psychosexual Disorders • Psychoparmacology • Behavioral addiction(internet,socialmedia,gaming,pornographyetc) **Clinical Placement:** • Mental state exam • Schizophrenia • Mood Disorders: Depression & Bipolar Mood Disorder (BMD) • Anxiety Disorders: GAD, phobia, obsession, panic dis. • Psychiatric emergencies • Psychotherapy	1 hour 1 hour 1 hour 2 hour 1 hour 1 hour 2 hour 1 hour 1 hour 1 hour 1 hours 2 hours 1 hours 1hour 1 hour 1 hour

CARD for Psychiatry

ITEM	MARKS	Signature
History taking		
Mental State Examination		
Symptomatology		
Schizophrenia		
Mood Disorder – Mania		
Mood Disorder Depression - Suicide & DSH		
Anxiety Disorders (GAD, phobic disorders, OCD, panic disorder, PTSD, ASD)		
Somatoform Disorder (Somatization, Hypochondriasis, body dysmorphic disorders, chronic pain)		
Delirium – Dementia		
Childhood Psychiatric Disorders including Autism		
Substance Abuse Disorder & Alcoholism		
Psychotherapy & ECT		

Learning Objectives and Course Contents in Psychiatry

Psychiatric Diseases

Clinical Attachment (WARD DUTY)

Total 96 hours (12 days in 3rd phase + 12 days in 4th phase) = 24 Days in 3rd & 4th phase

Subject	Learning Objectives	Contents	Teaching Hours
1. Symptomatology in Psychiatry	Students will be able to: • Identify common psychiatric sign, symptoms in patient.	• Mood- anxiety, depression, elation, irritability, anger. • Perceptual symptoms- Hallucination, imagery, illusion. • Thought symptoms- delusion, different types of delusion, obsession, compulsion	2 hrs
		• Disturbance of thinking process- speech abnormality. • Motor symptoms and signs. • Disturbance of body image self, memory, consciousness. • Attention, concentration • Insight • Different between psychosis and neurosis.	2 hrs
2. History taking & Mental status examination (MSE)	Students will be able to: • Prepare the patient for interview • Starting, continuing and completing interview • Finding out proper information • Proper history taking of a psychiatric patient • Analysis of personality of patient • Identify all points of mental status examination • Carry out neuro psychiatric examination	• History taking • Personality analysis	2 hrs
		• Mental status examination- appearance and behavior Rapport establishment Speech- rate, rhythm, content, flow mood Suicidal ideation Thoughts Perception Cognitive function- orientation, attention, concentration, memory • Language abilities, contraction, abilities	2 hrs

Subject	Learning Objectives	Contents	Teaching Hours
3. Personality & Personality disorder	Students will be able to: • Understand personality pattern of the patient • Understand different type of personality disorder • Diagnose and manage common personality disorder	• Origin of personality • Classification of abnormal personality • Different personality disorder • Diagnosis and management of personality disorder	2 hrs 2 hrs
4. Reaction to stressful experience	Students will be able to: • Understand the response to stressful events • Identify sign symptom of ASD, PTSD, Adjustment disorder • Diagnose and manage cases of ASD, PTSD, Adjustment disorder • identify special kinds of adjustment	• Response to stressful event • Defense mechanism • ASD- sign symptom, etiology, diagnosis and management • PTSD- sign symptom, etiology, diagnosis and management • Adjustment disorder- sign symptom, etiology, diagnosis and management • Adjustment to physical illness and handicap • Grief • Bereavement • Adjustment to sexual abuse	2hr - 1 hr - 1 hr - 1 hr 2 hr
5.Generalized anxiety disorder (GAD)	Students will be able to: • Identify clinical features and etiology of GAD • Take appropriate history from patient • Perform mental status examination of GAD patient • Diagnose and manage case of GAD	• GAD- sign symptom, etiology, diagnosis and management	- 4 hrs
6. Phobic anxiety disorder	Students will be able to: • Identify clinical features and etiology of Phobic disorder • Diagnose and manage case of Phobic disorder	• Specific phobia • Social phobia • Agoraphobia	2 hrs

Subject	Learning Objectives	Contents	Teaching Hours
7. Panic disorder	Students will be able to: • Identify clinical features and etiology of Panic disorder • Take appropriate history from patient • Perform mental status examination of Panic disorder patient • Diagnose and manage case of Panic disorder	• Panic disorder - sign symptom, etiology, diagnosis and management	2 hrs
8. Obsessive compulsive disorder (OCD)	Students will be able to: • Identify clinical features and etiology of OCD • Take appropriate history from patient • Perform mental status examination of OCD patient • Diagnose and manage case of OCD	• OCD - sign symptom, etiology, diagnosis and management	2 hrs
9. Major depressive disorder (MDD)	Students will be able to: • Identify clinical features and etiology of MDD • Take appropriate history from patient • Perform mental status examination of MDD patient • Diagnose and manage case of MDD	• MDD - sign symptom, etiology, types diagnosis and management	2 hrs 3 hrs
10. Bipolar disorder	Students will be able to: • Identify clinical features and etiology of Bipolar disorder • Take appropriate history from patient • Perform mental status examination of Bipolar disorder patient • Diagnose and manage case of Bipolar disorder	• Bipolar disorder - sign symptom, etiology, types, diagnosis and management	2 hrs 3 hrs

Subject	Learning Objectives	Contents	Teaching Hours
11. Schizophrenia	Students will be able to: • Identify clinical features and etiology of Schizophrenia • Take appropriate history from patient • Perform mental status examination of Schizophrenia patient • Diagnose and manage case of Schizophrenia	• Schizophrenia - sign symptom, etiology, types • Diagnosis and management	- 2 hrs - 4 hrs
12. Dementia	Students will be able to: • Identify clinical features and etiology of Dementia • Take appropriate history from patient • Perform mental status examination of Dementia patient • Diagnose and manage case of Dementia	• Dementia - sign symptom, MMSE, etiology, types, diagnosis and management	4 hrs
13. Movement disorder	Students will be able to: • Identify common movement disorder prevalent in psychiatric patient • Diagnose & manage movement disorder in psychiatric patient	• EPSE • Parkinson's disease • Tics	2 hrs
14. Seizure disorder	Students will be able to: • Understand seizure and pseudo seizure • Differentiate different types of seizures • Identify clinical features and etiology of Seizure disorder • Take appropriate history from patient • Perform mental status examination of Seizure disorder patient • Diagnose and manage case of Seizure disorder • Understand psychiatric aspect of epilepsy	• Seizure disorder- sign symptom, etiology, types, diagnosis and management • Pseudo seizure • Different types of seizure • Preictal, ictal, postictal, interictal disturbance and social aspect of epilepsy	4 hrs

Subject	Learning Objectives	Contents	Teaching Hours
15. Eating disorder	Students will be able to: • Identify clinical features of Eating disorder • Diagnose and manage case of Eating disorder	Sign symptom, etiology, types, diagnosis and management of – • Anorexia • Bulimia nervosa • Eating disorder (NOS)	2 hrs
16. Sleep disorder	Students will be able to: • Identify clinical features and etiology of Sleep disorder • Take appropriate history from patient • Diagnose and manage case of Sleep disorder	Sign symptom, etiology, types, diagnosis and management of – • Insomnia • Narcolepsy • Breathing related sleep disorder • Parasomnias	4 hrs
17. Sexual disorder	Students will be able to: • Identify clinical features and etiology of Sexual disorder • No classification of sexual disorder • Take appropriate history from patient • Diagnose and manage case of Sexual disorder	Sign symptom, etiology, types, diagnosis and management of – • Sexual dysfunction- in case of male and female • Paraphilia • Gender dysphoria	4 hrs
18. Somatoform disorder	Students will be able to: • Identify clinical features and etiology of Somatoform disorder • Take appropriate history from patient • Perform mental status examination of Somatoform disorder patient • Diagnose and manage case of Somatoform disorder	• Somatoform disorder- sign symptom, etiology, types, diagnosis and management	2 hrs
19. Conversion disorder	Students will be able to: • Identify clinical features and etiology of Conversion disorder • Take appropriate history from patient • Perform mental status examination of Conversion disorder patient • Diagnose and manage case of Conversion disorder	• Conversion disorder- sign symptom, etiology, types, diagnosis and management	4 hrs

Subject	Learning Objectives	Contents	Teaching Hours
20. Psychiatric aspect of obstetrics and gynaecology	Students will be able to: • Identify clinical features and etiology of Psychiatric diseases in obstetrics and gynecological cases • Take appropriate history from patient • Perform mental status examination of patients • Diagnose and manage the case	Sign symptom, etiology, types, diagnosis and management of – • Pseudocyesis • Postpartum mental disorders- maternity blue, Postpartum psychosis • Premenstrual syndrome	2 hrs
21. Suicide and deliberate self-harm	Students will be able to: • Identify clinical features and etiology of Suicide / deliberate self-harm • Take appropriate history from patient • Perform mental status examination of Suicide / deliberate self-harm patient • Diagnose and manage case of Suicide/ deliberate self-harm	• Suicide /deliberate self-harm - sign symptom, etiology, types, diagnosis and management • Assessment of suicidal risk • Care of suicidal patient • Motive for deliberate self-harm • Suicide prevention	4 hrs
22. Substance related disorder	Students will be able to: • Identify clinical features and etiology of Substance related disorder • Take appropriate history from patient • Perform mental status examination of Substance related disorder patient Diagnose and manage case of Substance related disorder	• Terminology- intoxication, Abuse, Dependence, Tolerance, Withdrawal state • Sign symptom, etiology, types, diagnosis and management of- Alcohol related disorder Opioid related disorder Benzodiazepine related disorder Cannabis related disorder Amphetamine related disorder Social media related disorder	1 hr 1 hr 1 hr 1hr 1 hr 1 hr 1 hr
23. Psychopharmacology	Students will be able to: • Understand classification, mechanism of action indication, contra indication, adverse effects, dosages, and advises regarding use of psychotropic medicines.	• Class of drugs- Antipsychotic Antidepressant Mood Stabilizer Anxiolytic Hypnotic Psychostimulant	4 hrs

Subject	Learning Objectives	Contents	Teaching Hours
24. Psychological treatment	Students will be able to: • Understand different types of psychological treatment applicable on psychiatric patients	• Types of psychological treatment- counselling Cognitive behavior therapy Supportive psycho therapy Insight oriented psycho therapy Dialectic behavior therapy Family therapy Couple therapy	4 hrs
25. Child psychiatric disorder	Students will be able to: • Identify clinical features and etiology of Child psychiatric disorder • Take appropriate history from patient • Perform mental status examination of patients • Diagnose and manage case of Child psychiatric disorder	• Sign symptom, etiology, types, diagnosis and management of – ASD ADHD Conduct disorder Intellectual disability disorder	4 hrs

Paediatrics

The curriculum in pediatrics, 2002 has been revised and updated in 2012 to emphasize the issues related to child health problems of the country.

The undergraduate medical students need to know these common childhood problems and how to manage these efficiently. This need based revised curriculum will certainly enable them to serve the community.

The contents of the curriculum as well as the skills to be acquired by the students are categorized as "must know", "useful to know", "nice to know" according to their importance at this level. These categories are marked as ∗∗∗, ∗∗ and ∗ respectively. Teachers are requested to follow this guideline while planning their teaching-learning sessions.

Departmental Objective:

To train medical graduates who will be able to manage common childhood problems in the community. Hence, at the end of the course they will be able to −

- manage common pediatric and neonatal problems at hospital and the community level.
- manage acute neonatal and pediatric emergencies efficiently
- identify neonatal and pediatric problems that require secondary and tertiary care and refer them appropriately.
- To diagnosis and manage pediatric emergencies commonly encountered in hospital practice.
- refer appropriately for rehabilitation where necessary
- use growth chart in order to assess the growth of a child to differentiate normal from abnormal.
- provide emergency cardiopulmonary resuscitation to newborns and children
- select and interpret relevant investigations
- perform routine therapeutic procedures
- communicate effectively with the child, parents, relatives and colleagues.
- counsel, explain and guide parents and relatives regarding the illness, the management plan, the possible complications and the prognosis
- participate in the national programmes providing both service and training and preventive activities: IMCI, NNS, EPI and other programmes
- serve the community during disaster and epidemics
- update with latest information related to core paediatric problems
- conduct research
- perform/discharge medico-legal and ethical responsibilities

List of Competencies to acquire:

- communicate and counsel patients, parents and relatives.***
- demonstrate empathy and humane approach towards patients, parents and relatives. ***
- exihibit a proper attitude towards colleagues and other staffs.***
- take relevant history and perform clinical examination to arrive at a working diagnosis***
- perform the anthropometric measurements in order to assess the growth of a child.***

- use and interpret the growth chart to compare the anthropometric values with the standard one.***
- suggest appropriate investigations keeping in mind their relevance and cost effectiveness***
- plan and outline a treatment at primary facilities which is need based, cost effective and evidence based***
- recognize situations which need urgent treatment at secondary and tertiary level hospitals and be able to make a prompt referral with a referral note after giving first aid or emergency treatment at primary health care facilities.***
- use and interpret the Integrated Management of Childhood Illness (IMCI) Chart prepared by WHO***
- prepare and administer oral rehydration therapy (ORT)***
- explain mother about appropriate positioning and attachment in breast feeding & effective suckling**

Students must observe the following skills

- Hand/ forearm washing***
- Cardio-pulmonary resuscitation (CPR)***
- First aid to children and neonates including endotracheal intubation and mouth to mouth breathing.**
- Lumbar puncture***
- Bone marrow aspiration***
- Thoracocentesis/ paracentesis*
- Umbilical catheterization*
- Exchange transfusion*
- Blood and blood products transfusion including mobile transfusion***
- I/V cannulation, collection of samples for routine examination (RE)*
- Use of AMBU bag***
- Administration of an enema*
- Phototherapy**
- Incubator (open and closed) care*
- Oxygen therapy***
- Nebulization***
- Bedside urine for albumin & sugar***
- Capillary blood glucose estimation**
- Preparing balanced diet**
- Performing intradermal / subcutaneous/ intramuscular/intravenous or per rectal injections in children*
- Constructing a vaccination schedule for a child*
- Applying vaccine to children*
- Mantoux test and interpret the result*
- Introduction of nasogastric tube*
- Managing hyperpyrexia or hypothermia and convulsion and other paediatric emergencies*

- Applying otoscope, tongue depressor during examination of the child*
- Writing discharge certificate*

Final Professional Examination:

Marks distribution:

Total marks – 500 (Summative)

Pediatrics -130

Written = 50
- MCQ-MTF (05) + SBA(05)=10
- 2SEQ 20-+ 6SAQ 15 = 35
- Formative assessment = 05

Oral, Practical and Clinical=80
- Oral, Practical =30 +10 =40
- Clinical-1 long case-20
- -1 Short case-10
- OSPE =10.

Components	**Marks**			**Total Marks**
Paper l – Internal Medicine Paper - ll - Medicine with allied and Pediatrics				
	Int Me.& Allied	**Pediatrics**		
Pediatrics MCQ (MTF, 5 + SBA, 5)	10	10	20	100
Total 2 SEQ + 6SAQ Group B1 - 1SEQ 10+3SAQ (2.5X3) Group B2 – 1SEQ10 +3SAQ(2.5X3)	35	35	70	
Formative assessment	05	05	10	
	Total			
OSPE		10		
Oral, Practical and clinical		30+10+30		
	Total	130 (For Pediatrics)		

Paediatrics

Learning Objectives	Contents	Teaching Hours
At the end of the sessions, students will be able to • define Pediatrics and Primary health care • state the stages of a child's life • describe the current child health status in Bangladesh • describe the major child health problems in the country • describe Millennium Developmental Goals (MDG), particularly MDG 4 • describe the components of essential service package (ESP) and essential newborn care (ENC) • discuss the emergency triage assessment and treatment • state the National Child Health programmes • describe the preventive programmes of pediatrics e.g. Integrated Management of Childhood Illness (IMCI), EPI, National Nutrition Services (NNS), Infant and Young Child Feeding (IYCF), vitamin-A supplementation	**Preventive Paediatrics** **<u>CORE:</u>** • An introduction to Paediatrics& MDG*** • IMCI*** • EPI*** • IYCF*** • IDD** • ENC** • NNS*** • ETAT** • ECD** • Vitamin-A supplementation**	1 hr 2 hrs 1hr Total = 4 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions, students will be able to • describe the procedure for taking care of new-born e.g. maintenance of body temperature, feeding, care of eyes etc. • define perinatal asphyxia, hypoxic ischemic encephalopathy (HIE), describe APGAR Score, causes, management (Newborn resuscitation) & complication of perinatal asphyxia. • state the common causes of respiratory distress in newborn (RDS & meconium aspirates) & clinical presentation and management • define preterm & low birth weight, epidemiology, causes, clinical presentation, complications & management of preterm low birth weight babies. describe the common infections of newborn (neonatal sepsis), their etiology /organism patterns, risk factors and types of neonatal sepsis • describe the clinical presentation of neonatal sepsis, diagnosis (e.g. sepsis screening), treatment and prevention of neonatal sepsis • describe the causes of neonatal jaundice, clinical presentation, complications& management of different types of neonatal Jaundice. • State the causes and clinical presentations of neonatal convulsions and it's diagnosis and treatment • describe the different types of birth injuries & their management	**Neonatology** **CORE:** • Care of a normal newborn*** • Perinatal asphyxia*** • Neonatal resuscitation*** Neonatal seizure** • Birth injuries * • Pre-term/ Low birth weight/ SGA*** • Neonatal infection*** • Respiratory distress in newborn* • Neonatal jaundice***	1hr 1hr 1hr 1hr Total = 4 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • define Infant and young child feeding (IYCF) • describe IYCF global & national perspectives and IYCF recommendations • describe the effective breast feeding; exclusive breast feeding (including colostrum) • describe advantages of breastfeeding and hazards of artificial feeding • describe anatomy of breast and physiology of lactation • describe techniques of breastfeeding: position and attachment & effective suckling • counsel for breast feeding & complimentary feeding • describe the baby friendly hospital initiatives • describe breast milk substitute (BMS) code • describe maternal nutrition & drugs in breastfed mother • describe guiding principle of complementary feeding & advantage of complementary feeding, age specific appropriate food	**Infant and young child feeding (IYCF)** **CORE:** • Breast feeding*** • Complementary feeding***	1 hr 1hr Total = 2 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • define growth and development • describe normal growth and development of a child • describe factors influencing growth and development • state the principles of development • describe early childhood development (ECD) and its importance • describe ways of assessing growth and development of a child • describe growth chart • define failure to thrive and state it's causes and management	**Growth and Development, ECD** **CORE:** • Growth & Development*** Failure to thrive** • Early childhood development*	1 hr 1hr Total = 2hrs
At the end of the sessions the students will be able to • define and classify protein energy malnutrition (PEM) • define severe acute malnutrition (SAM) • state the risk factors of protein energy malnutrition • describe the clinical presentation, complications & management of a child with severe acute malnutrition • describe the various types of vitamin deficiency disorders & their management • describe micro nutrients and their importance in malnutrition/child health • list the causes of obesity, consequences & management of obesity	**Nutritional Disorders** **CORE:** • PEM, SAM & CMAM*** • Vitamin deficiencies (Xerophthalmia, Rickets, Scurvy)*** • Micro nutrient deficiencies (Iron, Zinc, Calcium)** • Obesity*	1 hr 1 hr Total = 2 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • list the common infectious diseases of children in Bangladesh • discuss the aetiology, clinical presentation, complications, treatment & prevention of vaccine preventable disease. • discuss the pathogenesis, clinical presentation, diagnosis & treatment of enteric fever • discuss the aetiology, clinical presentations of dengue fever and the complications • describe the management of a case of dengue haemorrhagic fever (DHF) and dengue shock syndrome (DSS) • describe the aetio-pathology, clinical presentation, complications and management of kala-azar • describe the aetio-pathology, clinical presentation, complications and management of malaria • describe national programme for eradication of kala-azar and malaria	**Infectious Diseases** **<u>CORE:</u>** • Tetanus** • Diphtheria** • Pertussis*** • Tuberculosis*** • • Measles** • Mumps** • Poliomyelitis*** • Enteric fever*** • Dengue*** • Malaria*** • Kala-azar***	1 hr 1hr 1hr 1hr 1hr 1hr 1hr Total = 7 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • define diarrhoea, it's aetio-pathogenesis, classification, clinical presentation, complications of diarrhoea • define persistent diarrhoea and dysentery • assess dehydration & to offer appropriate management (Plan A, B,C) • select relevant investigations and their interpretation • describe the composition of ORS, Cholera Saline, Ringer's solution. • describe prevention of diarrhoea • describe helminthiasis and their management	**Gastrointestinal disorders** **CORE:** • Diarrhoeal disorders & management*** – Acute watery diarrhoea*** – Dysentery*** – Persistent diarrhoea*** • Abdominal Pain &Helminthiasis**	1 hr 1 hr Total = 2 hrs
At the end of the sessions the students will be able to • state the common respiratory illnesses of children • describe aetiology, clinical presentation, complication& management of pneumonia • describe aetiology, clinical presentation, complication& management of bronchiolitis • state the common causes of respiratory distress • differentiate asthma, pneumonia and bronchiolitis • define childhood asthma & describe the presentation & management of asthma. • describe the common differential diagnoses of stridor in children • describe the management of a case of acute laryngotracheobronchitis	**Respiratory Disorders** **CORE:** • ARI*** • Pneumonia*** • Bronchiolitis*** • Childhood Asthma*** • Croup and other causes of stridor And their management**	1 hr 1hr 1hr Total = 3 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • list the common causes of anaemia in children • classifyanaemia. • describe the risk factors, clinical presentation & management of iron deficiency anaemia. • describe the pathogenesis, clinical & laboratory features and management of congenital haemolyticanaemia (CHA) • differentiate the laboratory features of these 2 diseases • counsel the parents about the prognosis of CHA. • describe the cause/ differential diagnoses of bleeding disorder. • describe the etiopathogenesis, clinical presentations, laboratory features and management of ITP, hemophilia, von Willebrand disease and aplastic anaemia	**Haematological Disorders** **CORE:** • Iron deficiency anaemia*** • ITP *** • Haemophilia*** • Congenital haemolyticanaemia *** • Hypoplasticanaemia/ aplastic anaemia**	1hr 1 hr Total = 2 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • list the common causes of generalized swelling and haematuria among children • define and classify nephrotic syndrome • describe the aetio-pathology, cardinal features, complication, diagnosis, treatment and prognosis of nephrotic syndrome. • describeaetio-pathogenesis of acute glomerulonephritis, clinical presentation, complication & management of acute glomerulonephritis. • identify & describe management of a child with hypertensive encephalopathy & acute LVF • differentiate nephrotic syndrome from acute glomerulonephritis • describe the aetiology, risk factors, pathogenesis, cardinal features, complications, laboratory findings & management of UTI in children • counsel the parent for prevention of UTI • describe the causes, clinical presentation, complication & management of acute renal failure • describe the fluid & electrolytes homeostasis and acid base homeostasis • name common fluid, electrolytes and describe acid base imbalance.	**Renal disorder** **CORE:** • Nephrotic syndrome*** • Acute glomerulonephritis*** Acute Renal Failure** Fluid & Electrolytes & acid base balance*** • Urinary Tract Infection***	1 hr 1 hr 1hr Total = 3hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • state the different causes of jaundice • describe the clinico-pathological consequences of hepatotrophic viruses • describe the aetiopathogenesis, clinical presentation and complications of acute hepatitis • describe the stigmata of chronic liver diseases (CLD)/ cirrhosis of liver • list the relevant investigations for a child with liver disease e.g. acute hepatitis or chronic liver disease etc and their interpretation. • describe the treatment of a child with acute hepatitis or chronic liver diseases • describe the clinical presentation & management of hepatic coma. • list the common causes of haematemesis in children • describe the aetio-pathogenesis, clinical presentation of a case of portal hypertension. • outline the management of a case of hematemesis and malaena	**Diseases of Liver** **CORE:** • Viral hepatitis *** • Fulminant hepatic failure*** • Hepatic coma/ hepatic encephalopathy*** • Portal hypertension ** • Chronic liver disease eg. cirrhosis**	1 hr 1 hr Total = 2 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • classify congenital heart diseases • describe the haemodynamics, clinical presentation, complication & management of common congenital heart diseases e.g. ASD, VSD, TOF & PDA. • describe aetio- pathogenesis of acute rheumatic fever • describe the clinical presentation, diagnosis, & management of acute rheumatic fever and rheumatic carditis. • describe the prevention of acute rheumatic fever • describe the causes, clinical presentation & management of heart failure in infant & children	**Disease of Cardio-vascular system** **CORE:** • Congenital heart disease (ASD, VSD, TOF & PDA)*** • Rheumatic fever & Rheumatic heart disease*** • Heart failure in infancy & childhood***	2 hrs 1 hr Total = 3 hrs

Learning Objectives	Contents	Teaching Hours

At the end of the sessions the students will be able to
• describe causes of convulsions in children
• describe the criteria of diagnosis & management of febrile convulsion
• describe the aetio-pathogenesis, clinical presentation & management & prognosis of acute pyogenic and viral meningitis
• describe the aetio-pathogenesis, clinical presentation & management & prognosis of encephalitis
• describe the pathogenesis, clinical staging, management & prognosis of tubercular meningitis.
• describe the CSF findings of acute bacterial, tubercular and viral meningitis
• define and classify epilepsy
• describe the clinical presentation, management & prognosis of epilepsy
• define and list the differential diagnoses of acute flaccid paralysis (AFP).
• describe the clinical presentation, management & complication of GuillainBarre syndrome (GBS), poliomyelitis and transverse myelitis
• differentiate GBS, polio and transverse myelitis
• describe causes of mental retardation, it's management, counseling & rehabilitation
• define cerebral palsy & describe its causes, types, clinical feature, management, counseling & rehabilitation
	Disease of Nervous system
	CORE:
	• Febrile convulsion ***
	• Epilepsy**
	• Meningitis & Encephalitis
	• Mental retardation **
	• Cerebral palsy**
	• Acute Flaccid Paralysis (AFP)***
	  • GuillainBarre syndrome
	  • Transverse myelitis
	  • Polio myelitis
		1hr
		1hr
		Total = 2 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • Enumerate common childhood malignancies • define and classify leukaemia • describe the clinical presentation and diagnosis of acute leukaemia • describe the blood & bone marrow features of acute leukemia • describe the treatment of acute leukaemia • classify lymphoma	**Malignant diseases** **CORE:** • Leukaemia*** • Lymphoma & other tumours*	1 hr
At the end of the sessions the students will be able to • describe the causes of short stature • describe the aetiopathology, clinical presentation, diagnosis & management of hypothyroidism • classify diabetes mellitus & describe the clinical presentation, diagnosis & management of type I (IDDM) Diabetes Mellitus • classify the chromosomal disorders • describe clinical presentation, management and prognosis of Down syndrome • counsel parents about the prognosis of the diseases mentioned above	**Endocrine and Chromosomal Disorders** **CORE:** • Short stature *** • Hypothyroidism*** • Diabetes Mellitus * • Down syndrome***	1 hr 1hr Total = 2 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • list the common causes of pain and swelling of joints • classify juvenile idiopathic arthritis (JIA) • describe clinical manifestations and complications of JIA. • describe relevant investigation and interpretation • enumerate the different treatment options of JIA • classify myopathy • describe the clinical features and diagnosis of pseudo hypertrophic muscular dystrophy/ Duchene muscular dystrophy (DMD) • describe the relevant investigations and their interpretation • describe the management including counseling & rehabilitation of pseudo hypertrophic muscular dystrophy (DMD)	**Connective Tissue & Musculo-skeletal Disorders** **CORE:** • Juvenile idiopathic arthritis (JIA)*** • Myopathy • Pseudohypertrophic muscular dystrophy**	1 hr
At the end of the sessions the students will be able to • list the common accidents and emergencies of children • describe the principles and management of poisoning • describe the clinical presentation, complications and management of kerosene poisoning • describe the clinical presentation, complications and management of organophosphorus poisoning • describe the aetio-pathogenesis, clinical presentation and management of snake bite • describe the pathogenesis and clinical presentation of drowning (salt and fresh water drowning)	**Accidental poisoning & Drowning** **CORE:** • Kerosene*** • Organophosphorus compound*** • Snake bite** • Drowning**	1 hr 1hr Total = 2 hrs

Learning Objectives	Contents	Teaching Hours
At the end of the sessions the students will be able to • state the common behavioral disorders of children • describe the risk factors & management of nocturnal enuresis • differentiate true seizure from pseudo-seizure • describe causes, early identification management & counseling of autism spectrum disorder (ASD) • describe child abuse and neglect	**Paediatric Psychological and Psychiatric disorder** **CORE:** • Childhood behavioural disorders** • Autism spectrum disorder (ASD)*** • Somatoform disorder** • Enuresis*	1 hr
At the end of the sessions the students will be able to • describe the steps of communication /counseling • counsel a parent or care giver regarding any illness	**Communication & Counseling** **CORE:** • Counseling	1 hr

Pediatrics
Teaching/ Learning Methods & Aids

Teaching methods	Aids
Lectures: • Large group teaching & lectures • Small Group teaching: (Clinical) ▪ Bedside teaching ▪ Case demonstration & practice ▪ Practical Skills (Video) • Field Site training : (with Community Medicine) • Integrated Teaching • Self-directed learning	OHP/ Multimedia presentation, Video, Slide • Patients • Simulated Patients • Dummy (Manikins) • Charts e.g. growth chart, IMCI Chart • Reading materials o Modules & national guidelines on different childhood illnesses o Study guide o Books, journals • Others e.g. ECG, Instruments, X-ray, photographs

ACADEMIC CALENDAR – PAEDIATRICS

<table>
<tr><td rowspan="2">LECTURE</td><td colspan="3">2nd Phase</td><td>3rd Phase</td><td colspan="2">4th Phase / Final Phase</td></tr>
<tr><td colspan="3">4 hours
INTRODUCTION
PREVENTIVE
PAEDIATRICS</td><td>20 hours
IYCF, Growth & development, Nutritional disorders, Infectious diseases, Childhood tuberculosis, Respiratory disorders, Gastrointestinal disorders, Accidental poisoning</td><td colspan="2">26 hours
Neonatology, Hematologic disorders, Renal disorders, Disease of liver, Disease of cardiovascular system, Diseases of nervous system, Malignant diseases, Endocrine and chromosomal disorders, Connective tissue & musculoskeletal disorders, , Paediatric Psychological and Psychiatric disorders, Communication and counseling</td></tr>
<tr><td rowspan="15">CLINICAL</td><td colspan="3">4 weeks</td><td></td><td colspan="2">6 weeks</td></tr>
<tr><td colspan="2">2 WEEKS</td><td>2 WEEKS</td><td rowspan="14">No clinical placement in 4th year</td><td colspan="2">INDOOR PLACEMENT</td></tr>
<tr><td>Day</td><td>IMCI</td><td>Neonatology</td><td>Morning (2 hours)</td><td>Evening (2 hours)</td></tr>
<tr><td>1</td><td>IMCI</td><td>History writing</td><td rowspan="14">1st Week
D1-2 : Introduction + history taking
D3 : IMCI
D4-5 : Cough & difficult breathing, diarrhea
D6 : Presentation & discussion
2nd Week
D1 : Bleeding disorder
D2 : Pallor
D3-4 : Fever, Leukaemia
D5 : Accidental poisoning
D6 : Presentation & discussion
3rd Week
D1- 2: PEM
D3-4: Hepatosplenomegaly
D5 : Lymphadenopathy
D6 : Presentation & discussion
4th Week
D1- 3: Scanty urine, ARF, NS/AGN
D4 : RF & RHD
D5 : Joint swelling
D6 : Presentation & discussion
5th Week
D1-4 : Neonatology
D5 : IYCF
D6 : Presentation & discussion
6th Week
D1-2: Convulsion
D3 : Developmental Assessment
D4- 5: OSCE
D6- : Feedback</td><td rowspan="14">Self-directed learning
Self-directed learning
Self-directed learning
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Self-directed learning</td></tr>
<tr><td>2</td><td>IMCI</td><td rowspan="3">Clinical examination of
i. Newborn
ii. Child</td></tr>
<tr><td>3</td><td>IMCI</td></tr>
<tr><td>4</td><td>IMCI</td></tr>
<tr><td>5</td><td>IMCI</td><td rowspan="5">Common neonatal problems:
• Perinatal asphyxia
• Low birth weight
• Neonatal sepsis
• Neonatal Jaundice
• Neonatal convulsion</td></tr>
<tr><td>6</td><td>IMCI</td></tr>
<tr><td>7</td><td>IMCI</td></tr>
<tr><td>8</td><td>IMCI</td></tr>
<tr><td>9</td><td>IMCI</td></tr>
<tr><td>10</td><td>IMCI</td><td>IYCF</td></tr>
<tr><td>11</td><td>Assessment</td><td>Assessment</td></tr>
<tr><td>12</td><td>Feedback</td><td>Feedback</td></tr>
</table>

PLAN FOR ACADEMIC CALENDAR – PAEDIATRICS

Annex-

FIRST PROF.	SECOND PROF.	THIRD PROF.	FINALPROF.

6m	6m	6m	6m	6m	6m	6m	6m	6m	6m
			4 LECTURE		20 LECTURE		22 LECTURE		
			Introduction to Pediatrics, MDG -1 IMCI-2 National programmes-1		IYCF-2 (breast feeding-1, complementary feeding-1) Growth & development-2 Protein energy malnutrition, SAM, CMAM- 1 Other Nutritional disorders -1 Infectious diseases -7 Respiratory disorders- 3 Gastrointestinal disorders -2 Accidental Poisoning -- 2		Neonatology – 4 Haematologic disorders – 2 Renal disorders – 3 Disease of liver – 3 Disease of cardiovascular system – 2 Disease of nervous system – 2 Malignant disease – 1 Endocrine and chromosomal disorders – 2 Musculoskeletal disorders -- 1 Pediatric psychological and psychiatric disorders – 1 Communication and counseling -- 1		
			CLINICAL				CLINICAL		
			4 WEEKS				6 WEEKS		10 days for block teaching
0	Yr -1		3^{rd}	Yr -2	4^{th}	Yr -3	5^{th}	Yr -4	Yr -5

Photograph

Name : ……

Session :…… …….Batch :..... Roll Number :……..

Group : Phase II :……..…..Phase IV……

Period of attachment :

Phase II : ……Phase IV :…….

Contact address with phone No :

NOTE:

- Students must complete the activities shown on the card during the clinical attachment in Paediatrics.
- Card will be signed by registrar grade and above.
- At the end of the attachment the card must be submitted and signed by the Head of Department. The card will be retained by the Department.
- During 2nd round, students have to write down history, to perform physical examination, to observe the management and follow-up including counseling in two of their allocated beds.
- Each student will submit five complete case history.
- At the end of each phase formative assessment will take place and marks of formative assessment will be added to the summative assessment.
- Ward duties will start from 09:30 am to 11:30 am & from 06:00 pm to 08:00 pm (total 04 hours) in each day.

Summative assessment of Paediatrics

Assessment system and mark distribution:

Components	Marks
Formative assessment	5
Paper – II Paediatrics Written (Group B1 and B2) MCQ (Single based answer + Multiple True False) SEQ (2) + SAQ (6)	 10(5+ 5) 35
OSPE	10(5+5)
Oral & Practical	40(30+10)
Clinical: 1 Long case 1 Short case	 20 10
Grand Total	**130**

Pass mark will be 60% in each written, oral, practical & clinical examination

Prerequisite for appearing in Final Professional examination for Paediatrics

After successful completion of Lectures, clinical placement, Integrated teaching & Block posting students will appear in final professional examination. Eligibility for final professional examination is subjected to

- 75% attendance in Lectures and integrated teaching.
- 75% attendance in Clinical placement and block posting.
- 60% marks in Formative assessment.

1st Round (2nd Phase MBBS)
Duration – 4 weeks (96 hours)

Learning Objectives:

The student will be able to describe

- describe the definition of paediatrics
- Who is a child? Stages of a child's life
- The current child health statistics e.g. NMR, IMR, under 5 mortality etc.
- Definition and important components of MDG and SDG
- IMCI strategy, the principles of integrated care, IMCI case management process
- Major health problem in paediatrics
- Develop interpersonal and communication skills benefiting a physician in order to discuss illness and its outcome with patient and family.
- Different components of paediatric history – particulars of the patient, presenting symptoms, history of the present illness, history of past illness, birth history, feeding history, immunization history, developmental history, treatment history, family history, personal & social history etc.
- Perform clinical examination and will be able to elicit different signs.
- National child health programme- IMCI, IYCF, EPI,CNCP,ETAT etc.

Time Management :

2nd Phase = 4 weeks
6 days / week, 24 days in Total
32 hours in morning
32 hours in evening
16 hours in Outpatient Department
16 hours in Emergency Department

Duration of Placement (1st Round) from ……..to ……...
Total attendance ……days, out of ……..days

SL	Date	Topic(morning) 9.30- 11.30 am	Teacher's initial	Topic (Evening) 6 - 8 pm	Teacher's initial
1		• Introduction to Paediatrics. • Introduction of IMCI. • Introduction of IMCI student's hand book • Introduction of IMCIWall Chart, case recording form • Reading on introduction of • General danger signs, cough or difficult breathing		• Reading on Introduction, General danger sign, cough & difficult breathing • Practice on relevant cases	
2		• Video exercise on general danger sign, cough & difficult breathing • Case demonstration • Clinical practice by the students (up to cough & difficult breathing) • Reading on diarrhea		• Reading on diarrhea • Practice on relevant cases	
3		• Video exercise on diarrhea & dehydration • Case demonstration on diarrhoea • Clinical practice by the students upto diarrhoea • Reading on fever and measles		• Reading on fever and Measles • Practice on relevant cases	
4		• Video exercise on fever & measles • Case demonstration on fever &measles • Clinical practice by the students upto fever & measles • Readingon ear problem & checking nutritional status: malnutrition & anaemia		• Reading on ear problem & checking nutritional status: malnutrition & anaemia • Practice on relevant cases up to fever	
5		• Video on ear problem, malnutrition &anaemia • Demonstration of WHO growth charts • Case demonstration on		• Reading on immunization status, assessing the child's feeding up to other problems • Practice on relevant cases	

		malnutrition • Reading on immunization status, assessing the child's feeding up to other problems			
6		• Clinical practice on full assessment by the student • Drill on fast breathing • Reading Identify treatment & treat the child		• Reading on identify treatment & treat the child	
7		• Reading on counseling & follow-up • Introduction of backside of case recording form • Clinical practice on full assessment by the students including the backside		• Reading on counseling & follow-up • Practice on relevant cases	
8		• Role play on treat the child, demonstration & practice by students • Reading on sick young infant • Introduction of case recording form of sick young infant		• Reading on sick young Infant	
9		• Video on sick young infant &feeding assessment • (Positioning &attachment) • Case demonstration • on sick young infant • Clinical practice by the student on sick young infant		• Practice on full • assessment of the students includ back side	
10		• Demonstration on feeding assessment (Positioning& attachment) • Clinical practice by the students on feeding assessment(Positioning & attachment)in the postnatal ward • Drill on weight for age • Review & feed back		• Reading on infant& young child and early childhood development • Review	
11		• Newborn Resuscitation		• History Taking	
12		• Low Birth weight		• General Examination	
13		• Neonatal Jaundice		• Examination of GIT	

14		• Examination of Respiratory System		• Examination of CVS	
15		• Examination of Nervous System		• Practice on relevant cases	
16		• Examination of Musculo Skeletal System		• Practice on relevant cases	
17		• Assessment by OSPE+ MCQ+SAQ			
18		• Feedback with all faculty members			

Marks Obtained (%):

Comment:

GRADING
A = 75-100%
B = 60-74%
C = 50-59%
D = 40-49%
E = 00-39%

Professor
Department of Paediatrics

Registrar
Department of Paediatrics

2nd Round (4th Phase MBBS)
Duration – 06 weeks (144 hours)

Learning Objectives:

At the end of round students will be able to-

- develop skills in history taking & physical examination.
- identify sign & symptom of different systems.
- Interpret the findings in terms of diseases, make differential diagnosis & an laboratory investigations.
- Identify instruments commonly used for medical procedures and observe the doctor performing the procedures.
- assess the growth and development of the child and early childhood development(ECD).
- know different nutritional disorders.
- Know the infectious diseases.
- know common neonatal problems.
- diagnose and manage diseases of different systems given below:
  Alimentary tract, Liver, Biliary tract and pancreatic disease
  Cardiovascular disease
  Respiratory Disease
  Kidney and Genito-urinary disease
  Neurological diseases

Blood disorders
Musculoskeletal and connective tissue disorders
Endocrine and metabolic diseases
Genetic and chromosomal diseases
Accidental poisoning and Drowning
Paediatric psychiatric and psychological disorders

- To know communication skills and counseling patients

Time Management :

4th Phase = 6 weeks
6 days / week, 36 days in Total
48 hours in morning
48 hours in evening
24 hours in Outpatient Department
24 hours in Emergency Department

Duration of Placement (2nd Round) from ……..to ……...
Total attendance ……days, out of ……..days

A. History writing :

SL	Case	Date	Supervisor

B. Case Management to be observed

Serial Number	Case Management to be observed	Date	Signature of the teacher
1.	Nutritional: PEM (MAM, SAM), Xerophthalmia ,Rickets		
2.	Cardiovascular: Ventricular septal defect, TOF,HF		
3.	Respiratory: Pneumonia, bronchiolitis, asthma		
4.	Gastrointestinal: diarrhea, hepatitis, chronic liver disease		
5.	Renal: NS, AGN		
6.	Nervous system: Febrile convulsion, meningitis, encephalitis		
7.	Infection: Enteric fever, UTI, Dengue fever, malaria, TB,Kala-azar		
8.	Hematology: ITP, Hemophilia, Thalassemia, Aplastic anemia		
9.	Rheumatology: Rheumatic fever, JIA, HSP, SLE		
10.	Endocrine: Congenital hypothyroidism, DM		
11.	Genetic: Down syndrome, Turner syndrome		
12.	Malignancy: ALL, Lymphoma		
13.	Neonatal: Perinatal asphyxia, LBW, Sepsis, neonatal jaundice		
14.	Accidental poisoning: OPC poisoning, Kerosene poisoning, Corrosive poisoning, Drowning, Snake bite.		

C. Events to be observed:

SL	Events name	Date	Signature
1.	Lumber Puncture		
2.	Bone Marrow Aspiration		
3.	Insertion of Intravenous Line		
4.	Naso-gastric tube introduction		
5.	Per rectal diazepam		
6.	Breast feeding (Positioning & attachment)		
7.	Tepid sponging		
8.	Mantoux test/BCG		

9.	Blood Transfusion/Mobile transfusion		
10.	Collection of blood samples		
11.	Pulse/Temp/Resp recording		
12.	B.P. recording		
13.	Collection of throat swab		
14.	Collection of urine/stool		
15.	Aspiration of Fluid-pleural/abdominal		
16.	Use of Pulse Oxymeter, ambu bag		
17.	Enema Simplex		
18.	Nebulization		
19.	Use of glucometer		
20.	CPR		

D. Clinical classes to attend:

SL No.	Date	Topic	Signature of the teacher	Signature of evening teacher
01		Introduction		
02		History taking		
03		IMCI, IYCF		
04		Developmental Assessment And Growth chart		
05		A child with malnutrition		
06		A child with malnutrition		
07		Diarrhoea in children		
08		A Child with cough & difficult breathing		
09		A Child with cough & difficult breathing		
10		Recurrent wheeze in children		
11		Approach to child with fever and rash		
12		An approach to child with jaundice		
13		A Child with lymphadenopathy		
14		A Child with fever, pallor & hepatosplenomegaly		
15		Management of pallor		
16		Congenital Heart disease & Heart failure		
18		Bleeding disorder in children		
		Bleeding disorder in children		
19		A child with joint swelling		
20		A child with joint swelling		
21		A Child with scanty micturition		
22		A Child with scanty micturition		
23		Convulsion In Children		
24		Convulsion In Children		

25		Accidental Poisoning		
26		Snake bite, Drowning		
27		Breast feeding, IYCF		
28		Low Birth Weight		
29		PNA with neonatal resuscitation		
30		Neonatal Sepsis		
31		Neonatal Jaundice		
32		Vaccination		
33		Assessment		
34		Feedback		

E. Practical works to be done:

SL		Date	Teacher
1.	Pulse/Respiration Rate /Temperature Measurement		
2.	Use of ambu bag		
3.	Measurement of weight, height/Length/OFC & MUAC		
4.	Use of growth chart		
5.	E.N.T examination-auroscope, tongue depressor		

F. Paedatric Emergency management to be observed

Sl		Date	Teacher
1.	Convulsion		
2.	Severe dehydration		
3.	Childhood poisoning Accidents		
4.	Respiratory distress- Acute Asthma		
5.	Heart failure		
6.	Shock		

G. Activities in Child OPD Date Teacher

(1) ORT corner ……. ……

i) Preparation ORT ……. ……

ii) Monitoring ORT ……. ……

iii) Counseling mother ……. ……

iv) Preparation of high energy density food

(khichuri, halwa) …..……. …….

(2) Immunization clinic …… ……..

i) EPI Vaccination observed/practice OPV …….. ……..

ii) Counseling witnessed practice ……. …….

iii) Cold chain observed ……. …….

(3) Shishu Bikashkendro ……. …….

(4) Lactation Management Centre ……. …….

(identification of problem in breastfeeding,

Positioning and attachment)

H. Activities on Neonatal Ward **Date** **Teacher**

(1) Examination of Newborn

i) …… ……. ……

ii) ……. ……. ……

(2) **Case management to be observed**

i) Perinatal Asphysia ……. ……

ii) Low birth weight ……. ……

iii) Prematurity ……. ……

iv) Neonatal jaundice ……. ……

v) Neonatal infection ……. ……

Pneumonia ……. ……

Septicaemia ……. ……

Umbilical infection ……. ……

Oral thrush ……. ……

vi) Essential newborn Care ……. ……

(3) Events to be observed **Date** **Teacher**

1. Hand washing ……. ……
2. Breast feeding ……. ……
3. Endotracheal intubation/CPR ……. ……
4. N.G. tube feeding ……. ……
5. Phototherapy ……. ……
6. Exchange transfusion ……. ……
7. Umbilical Catherization ……. ……

Marks Obtained (%):
Comment:

Professor
Department of Paediatrics

Registrar
Department of Paediatrics

Surgery & Allied Subjects

Departmental Objectives

The aim of this course is to provide community oriented & need based education so as to produce basic doctors who will be able to:

- elicit a complete clinical history & physical findings and formulate diagnosis of common surgical problems prevalent in Bangladesh and abroad.
- carry out necessary investigations & interpret the results with proper utilization for management
- perform minor surgical procedures and treat minor surgical problems
- recognize the major surgical problems needing specialized care, initiate the primary treatment and refer to the appropriate centers
- diagnose and provide competent primary care in surgical emergencies.
- carry out the responsibility of management in common casualties or natural calamities to offer and arrange basic life support.
- take necessary preventive & prophylactic measures for surgical problems
- be involved in continued care & rehabilitation of surgical patients.
- deliver health education in the community with emphasis to the preventive aspects of surgical disorders.
- demonstrate the right attitude in
  - Patient Care
  - Community health care
  - Continuing medical education & research
  - Observing the moral & legal codes of medical ethics

List of Competencies to acquire:

1. **Clinical –**
   a. rapport building with patients, relatives, colleagues, health care professionals and supporting staffs of the hospital
   b. take detail relevant history
   c. conduct thorough clinical Examination
   d. decide on a provisional working diagnosis
   e. perform and/or order relevant investigations considering the cost effectiveness
   f. interpret common laboratory and imaging investigations
   g. calculate fluid and electrolyte requirements
   h. evaluate and make initial management of acute trauma patient
   i. adopt aseptic techniques and procedures and maintain principles of sterilization
2. **Communication-**
   a. obtain permission before any examination and clinical procedures
   b. obtain informed consent for surgical procedures including organ ablation.
   c. appreciate right to privacy and information about the disease and its consequence
3. **Managerial-**
   a. provide leadership during team work
   b. implement time management skills
   c. issue certificates (discharge, death, medical and injury).
   d. write notes (case notes, operation notes, referrals)
   e. keep detail and systematic records both manual and electronic
   f. use computer and IT facilities.

4. **Manipulative and practical skills-**
    a. adopt universal aseptic techniques in handling surgical patient
    b. start IV lines
    c. insert NG tubes
    d. introduce urethral catheter and perform supra-pubic cystostomy
    e. drain superficial abscesses
    f. perform per-rectal examination
    g. achieve emergency control of revealed hemorrhage
    h. carry out initial management of wound
    i. repair minor wounds
    j. complete primary management of fractures and arrange transfer to appropriate centers.
    k. apply splints, slings, POP casts and slabs, tractions, bandages, sterile dressings

Distribution of teaching - learning hours Surgery & Allied Subjects

Subject	Lecture (in hours)				Small group teaching (in hours)	Departmental integrated teaching (in hours)	Phase integrated teaching (in hours)	Clinical/Bedside teaching (in weeks)			Total weeks	Block posting (in weeks)	Formative examination (in days)		Summative examination (in days)	
	2nd Phase	3rd Phase	4th Phase	Total	PBL, Practical demonstration , Instrumental demonstration, Skill lab, Tutorial & etc.			2nd Phase	3rd Phase	4th Phase						
General surgery	35	30	60	125	134 hours	(11 topics ×2 hours) = 22 hours	(42 topics × 3 hours) = 126 hours	15	01	07	23	04 wks	Preparatory leave-10 days	Exam time-15days	Preparatory leave-10 days	Exam time-30days
Orthopaedic surgery	-	15	45	60				02	04	04	10					
Radiology	-	-	05	05				01	-	-	01					
Radiotherapy	-	-	08	08				-	01	-	01					
Anesthesia	-	10	-	10				01	-	-	01					
Neurosurgery	-	-	05	05				-	01	-	01					
Pediatric surgery	-	05	10	15				-	-	02	02					
Urology	-	05	10	15				-	-	02	02					
Burn & Plastic surgery/ Emergency & Casualty	-	-	05	05				-	-	01	01					
Dentistry	-	-	-	-				01			01					
Ophthalmology	-	38		38				-	04	04	08					
Otolaryngology	-	38		38				-	04	04	08					
Total	324				134	22	126 hrs	20	15	24	59 wks	04 wks	25 days		40 days	
Grand Total	**480 hours**						**126 hrs**	**63 weeks**					**65 days**			
Time for integrated teaching, examination preparatory leave and formative & summative assessment is common for all subjects of the phase																
Preventive aspects of all diseases will be given due importance in teaching learning considering public health context of the country and others parts of the world.																
Related behavioral, professional & ethical issues will be discussed in all clinical and other teaching learning sessions																

Surgery & Allied Subjects: Hours distribution for Clinical/Bedside teaching in 2nd, 3rd & 4th phases in details

Subject	Clinical/Bedside & Ambulatory care teaching (in hours)						Total hours (in three phases)	Total weeks {(2nd phase wks + 3rd phase wks + 4th phase wks = Total three phases wks) × (6 days × 4 or 2 hours)}
	2nd Phase		3rd Phase		4th Phase			
	Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching			
	Morning	Evening	Morning	Evening	Morning	Evening		
	Indoor/ OPD/ Emergency & Casualty	Indoor/ Emergency & Casualty	Indoor/ OPD/ Emergency & Casualty	Indoor/ Emergency & Casualty	Indoor/ OPD/ Emergency & Casualty	Indoor/ Emergency & Casualty		
	21 weeks		15 weeks		24 weeks			
General surgery	180 h (15w)	180 h (15w)	12 h (1w)	12 h (1w)	84 h (7w)	84 h (7w)	552 h	(15+01+07) = **23 w**× (6 days × 4 hrs)
Orthopaedic surgery	24 h (2w)	24 h (2w)	48 h (4w)	48 h (4w)	48 h (4w)	48 h (4w)	240 h	(2+4+4) = **10 w**× (6 days × 4 hrs)
Radiology	12 h (1w)	-	-	-	-	-	12 h	(1+0+0) = **01 w**× (6 days × 2 hrs)
Radiotherapy	-	-	12 h (1w)	-	-	-	12 h	(0+1+0) = **01 w**× (6 days × 2 hrs)
Anesthesia	12 h (1w)	12 h (1w)	-	-	-	-	24 h	(1+0+0) = **01 w**× (6 days × 4 hrs)
Neurosurgery	-	-	12 h (1w)	12 h (1w)	-	-	24 h	(0+1+0) = **01 w**× (6 days × 4 hrs)
Pediatric surgery	-	-	-	-	24 h (2w)	24 h (2w)	48 h	(0+0+2) = **02 w**× (6 days × 4 hrs)
Urology	-	-	-	-	24 h (2w)	24 h (2w)	48 h	(0+0+2) = **02 w**× (6 days × 4 hrs)
Burn & Plastic surgery/ Emergency & Casualty	-	-	-	-	12 h (1w)	12 h (1w)	24 h	(0+0+1) = **01 w**× (6 days × 4 hrs)
Dentistry	12 h (1w)	-	-	-	-	-	12 h	(1+0+0) = **01 w**× (6 days × 2 hrs)
Ophthalmology	-	-	48 h (4w)	48 h (4w)	48 h (4w)	48 h (4w)	192 h	(0+4+4) = **08 w**× (6 days × 4 hrs)
Otolaryngology	-	-	48 h (4w)	48 h (4w)	48 h (4w)	48 h (4w)	192 h	(0+4+4) = **08 w**× (6 days × 4 hrs)
Total	**240 hrs**	**216 hrs**	**180 hrs**	**168 hrs**	**288 hrs**	**288 hrs**	**1380 hrs**	**59 weeks**

Teaching-learning methods, teaching aids and evaluation

Teaching Methods				Teaching aids	In course evaluation/ Formative
Large group	**Small group teaching**	**Self learning**	**Others**		
Lectures	Tutorials, Problem Based Learning, Clinical demonstrations OPD / indoor attending & observing minor operations Demonstrations of X-rays specimen, Observations in ICU, Postoperative ward, Case Presentation and discussion. Skill lab practice	Assignment, Self study	Integrated teaching, Visit to radiotherapy Attend centers where investigations for hearing impairment, vertigo, Tinnitus are available.	Computer, Chalk & board, OHP, Multimedia, Photographs &Videos, Specimens, & Models, Plain & Contrast X-rays of Upper & lower GIT, I.V.U, Fractures Skull X-rays Sinogram & Fistulogram Ultrasonogrphy, Abdomen HBS & Pancreas Urinary tract Scans, thyroid scans, C.T. Scan, MRI, PET Scan, Bone scan, Doppler and duplex imaging. Immunohistochemistry	Item Examination Card final, Term Examination Term final (written, oral+ practical + clinical) Marks distribution: a) Surgery— I. Card final-3 II. Term Final-2 III. MCQ of Integrated teaching-5 b) Ophthal- 5 c) ENTD-5

Final professional Examinations:

Marks distribution for assessment of surgery

Total marks Surgery and allied Subjects – 500

- Written = 200 (Formative Assessment-20 +(MCQ- SBA & MTF) 40+ (SAQ +SEQ) 140 =200)
- Structured Oral = 100 (60+20+20)
- Clinical = 100 (60+20+20)
- Practical (OSPE/OSCE) = 100 (60+20+20)

Total in Surgery and allied---500.

Related Equipments:

General surgery	**Materials**
a. Sets -butterfly needle & cannula, Infusion and Transfusion sets b. Tubes--Feeding tubes, NG tube, Flatus tube , 'T' tube, Chest drain set, Endo-tracheal tube c. Bags- Blood bags, Stoma bags, Fluid bags, Nutrition bags, Urine bags, Drain bags, Bi-channel d. Sharps- BP blade and handle, surgical scissors, Needle holder, Surgical suture materials, Gloves, gown, mask, caps, surgical goggles e. Forceps-Sponge holding forceps , towel clip, Alli's tissue forceps, artery forceps, Sinus forceps, dissecting forceps, Kocher's artery forceps, kidney tray, gully pot, intestinal clamps, f. Retractors—Deavers, abdominal, Morris abdominal retractor, Langhanbach's retractor,	g. Special-Lane's twin gastro jejunostomy clamp, proctoscope, metalic urethral dilators, nephrolithotomy forceps, Bone nibbler, Osteotome, chisel, hammer, amputation saw, SPC set, CV line set, Spinal needle, h. Orthopedic--Plaster of Paris bandage, crepe bandage, Splints supporting aids- Cervical collar, Circle brace, artificial limb, i. Anesthesia- machine, Laryngoscope, airway tube, Umbo bag, pulse oximetry, Digital Thermometer, Oxygen cylinder with devices (These equipment may be used in OSPE procedure stations)
ENTD	
Thudicum nasal speculum, Killians self retaining nasal speculum, Lichwitz antrum puncture trocar and cannula, Higginson's rubber syringe, Walsham's forceps, Luc's forceps, Tilleys forceps, St Clair Thomson post nasal mirror, Jobson horne probe and ring curette, Tuning fork, Head mirror,	Boyle Davis mouth gag, Luc's tongue depressor, Draffins bipod metallic stand, Eve's tonsillar snare, St Clare Thomson Adenoid curette and cage, Trousseau's tracheal dilator, Jackson's metallic tracheostomy tube, Direct laryngoscope Chevalier Jackson's oesophagoscope, Negus bronchoscope etc.
Ophthalmology	
Trial lens, trial frame, Eye speculums (Wire, Universal), DCR punch, Tonometer, Ophthalmoscope, Cat's paw retractor, BP Blade & handle, Keratome, Squint hook	Iris repositor, lens dialer, two way cannula, chalazion clamp and scoop, corneal forceps, irrigating vectis, sac guard, sac dissector, lacrimal probe, punctum dialtor etc.

Learning Objectives and Course Contents in Surgery

Learning Objectives	Contents	Teaching Hours
A. Basic and Principles of Surgery Student should be able to: 1. state the history , evolution and scope of Surgery 2. assess and prepare patient for surgery 3. understand the patho-physiology of trauma 4. diagnose, treat and manage minor wounds 5. diagnose, treat and manage surgical infections (boil, abscess, carbuncle & gangrene) . 6. diagnose and provide basic treatment for shock & haemorrhage. 7. recognize all external hernias & their complications & initiate primary care for complicated hernias. 8. recognize & differentiate different types of burns and initiate primary care &take measure to prevent complications. 9. recognize fluid & electrolytes imbalance states, investigate & initiate appropriate therapy. 10. recognize, & investigate different types of skin ulcerations. 11. recognize, investigate & treat superficial skin tumour & cysts 12. take appropriate measures to prevent hospital infection. 13. understand and comply with ethical principles in clinical practice	***CORE*** ***Phase II*** 1. History, evolution and scope of surgery 2. Approach to a surgical patients 3. Surgical diagnostic process and techniques 4. Surgical Infection (Boil , Furuncle, Abscess, Carbuncle , cellulites) 5. Septicemia (causes, complications and treatment) 6. Sinus, Fistula and cysts 7. Wounds (classification and management) 8. Ulcers , pressure sores 9. Groin hernias 10. Haemorrhage 11. Shock ***Phase III*** 12. Metabolic response to injury 13. Principles of Management of Trauma 14. Management of a severely injured patient 15. Fluid and electrolytes balance 16. Enteral and Parenteral nutrition ***Phase IV*** 17. Pre operative assessment and preparation 18. Tumours of skin 19. Lymphadenopathy (causes, investigations, diagnosis, biopsy) 20. Surgical ethics ***ADDITIONAL*** Organ transplantation, Robotics in surgery	20 hours 10 hours 10 hours

Learning Objectives	Contents	Teaching Hours
B. Systemic Surgery ***1. Alimentary System*** Student should be able to : 1. investigate and diagnose the common surgical diseases of alimentary system and suggest management 2. diagnose the acute conditions of alimentary system and initiate primary care 3. identify the patient requiring specialty surgical intervention & refer to appropriate centre 4. take continued care of the operated patients 5. recognise post operative complications & take appropriate measures.	**CORE** **Phase II** Complications of Peptic ulcer (Perforation, Pyloric stenosis) Upper G.I. Tract bleeding Appendicitis Intestinal obstruction; **Phase III** Abdominal trauma (Diagnostic and Management principles) Ruptured Spleen Ruptured liver Ruptured intestine **Phase IV** Tongue, Lip & other oral lesions (ulcer, cancer) Oesophagus Carcinoma oesophagus and stricture Carcinoma stomach Neoplasm of colon and rectum Intestinal tuberculosis Anal canal Haemorrhoids, Fistula, Sinus & Fissure, Carcinoma anus Colostomy & ileostomy (indications and management) Abdominal incisions (Tutorial) **ADDITIONAL** Intra abdominal abscess Diseases of salivary glands Hiatus hernia.	5 hours 5 hours 5 hours

Learning Objectives	Contents	Teaching Hours
2. Genito-Urinary System Student should be able to- 1. diagnose common congenital G.U. anomalies & advise / refer to appropriate centers 2. diagnose and manage acute GU conditions like • Acute retention of urine • Acute epidedymo- orchitis • Torsion testis • Paraphimosis • Phimosis • Acute ureteric colic • Urosepsis 3. evaluation of scrotal swelling 4. evaluate a case of haematuria 5. order necessary investigations, and interpret the result of investigation & suggest principles of management 6. recognize a case of retention of urine , find out causes perform aseptic catheterization 7. introduce suprapubic catheter 8. describe the steps of circumcision	**CORE** ***Phase III*** 1. Urinary symptoms & definitions 2. Urological investigations and their interpretations, 2. Developmental genito-urinary anomalies 3. Scrotal swelling • Hydrocele • Scrotal cellulitis 4. Acute scrotal conditions • Epididymo- orchitis • Torsion testis ***Phase IV*** 5 Urolithiasis (Causes ,Diagnosis , Principles and modalities of treatment) 6 Retention of urine (acute and chronic 7 Hydronephrosis 8 UTI 9 Urinary tract injury. • Renal injury • Urethral injury 10. Renal Neoplasm • RCC • Wilm's Tumour 11 Testicular Tumour 12 BPH 13 Stricture urethra ***<u>ADDITIONAL</u>*** • Male infertility • Minimal Invasive Surgery in Urology	20 hours 10 hours

Learning Objectives	Contents	Teaching Hours
3 Hepatobiliary & Pancreas Student will be able to: 1. diagnose, investigate cholecystitis, cholelithiasis & Choledocholithiasis 2. suspect pancreatitis; initiate primary case management & suggest management 3. investigate & interpret the results in case of obstructive jaundice & suggest appropriate treatment 4. diagnose & investigate suspected case of liver & sub-phrenic abscess & suggest appropriate treatment.	**CORE** **Phase II** Cholelithiasis (causes and complications) Cholecystitis (acute & chronic) Pancreatitis (acute pancreatitis) **Phase IV** Obstructive jaundice Pancreatic tumours Liver abscess **ADDITIONAL** Hepatic neoplasm Cysts of liver Neoplasm of Gall Bladder	5 hours 5 hours 4 hours
4 Endocrine & Breast Students will be able to: 1. assess, investigate & diagnose thyroid swelling & thyrotoxicosis and suggest principles of management 2. diagnose & manage a case of breast abscess 3. assess, investigate & interpret the status and diagnose a case of breast lump & suggest principles of treatment.	**CORE** **Phase IV** ***Thyroid*** Goitre and Neoplasms of thyroid ***Breast*** Breast pain, Mastitis and Breast Abscess Fibro-adenosis and Fibroadenoma Carcinoma of breast **ADDITIONAL** Diseases of adrenal gland Diseases of Parathyroid gland	4 hours 4 hours 2 hours

Learning Objectives	Contents	Teaching Hours
5 Chest Students will be able to: • assess & diagnose traumatic haemopneumo-thorax, associated injuries & introduce water seal drain in appropriate case.	**CORE** ***Phase IV*** Chest injury (Haemothorax, Pneumothorax) Chest tumours, Chest drain, **ADDITIONAL** Dysphagia Empyaema thoracis	3 hours
6. Cardio-vascular System Students will be able to: 1. recognize chronic ischaemic conditions of limbs 2. take appropriate preventive measures & refer to specialized centre. 3. take appropriate measure to prevent DVT 4. recognize early cases of DVT ***7. Plastic & Reconstructive*** Students will be able to 1. manage Burn patient and minimize their complications 2. take any major wound care 3. suggest measures for con. External deformity & disfiguration	**CORE** ***Phase III*** Vaso occlusive disorders Atherosclerosis, Buerger's disease Varicose vein Thrombophlebitis Deep vein thrombosis **ADDITIONAL** Pulmonary embolism Angioplasty, CABG and cardiac surgery **Core** ***Phase IV*** Burn (Causes, complications and management) Skin grafting Skin tumours, Special area burn , Inhalation and electric burn	5 hours 5 hours

Learning Objectives	Contents	Teaching Hours
8. Neuro surgery Students will be able to: 1. provide primary care of head injury & Spinal injury cases. 2. take measures to prevent complications in neuro surgical patients. 3. involve effectively in continued care & rehabilitation of neuro surgical cases.	**CORE** **Phase IV** Head injury ICSOL PLID Paraplegia/hemiplagia **ADDITIONAL** Hydro cephalus Tumours of brain Tumours of spinal cord	5 hours
9. Operative Surgery Student should be able to perform: 1. primary & delayed primary & Secondary suture closure of wounds 2. Circumcision 3. Vasectomy 4. drainage of superficial Abscess 5. Venesection 6. Hydrocele operation 7. excision of superficial cysts & tumours 8. dressing of surgical wounds	**CORE** **Phase III** Principles of Asepsis & Antisepsis Pre-operative assessment & preparation Venus access Cricumcision Operation for hydrocele Repair of D.U perforation Wound care ***Tutorials*** Universal precautions (Scrubbing , gloving & gowning) O.T. environment & behavior Preoperative skin preparation and draping Suturing materials ,Stitches	5 hours 5 hours

Learning Objectives	Contents	Teaching hours
Student should be able to : • assist in common major operations & take post operative care	**Phase IV** Common Abdominal incision Operation for inguinal hernia Drainage of abscesses Catheterisation , Supra-pubic cystostomy Anastomosis Appendicectomy Cholecystectomy Gastrojejunostomy Basic principles of Laparoscopy. **Additional** Thyroidectomy, Nephrectomy, Mastectomy / Prostatectomy	10 hours
10. Orthopedic Surgery Student should be able to: • apply ATLS protocol to provide resuscitation of polytrauma patient. • manage simple and undisplaced factures • demonstrate skill in wound excision of open fractures . • demonstrate skill in: ▪ application of splints, slings , traction. ▪ application of plaster cast and slab ▪ plaster techniques and design ▪ versatility & possible complications of plaster ▪ the art of application of plaster & its' removal ▪ manipulative reduction of common fracture and dislocation. ▪ aseptic technique of joint fluid aspiration. • diagnose and outline treatment for acute osteomylities and septic arthritis • identify patient for referral to appropriate centre • demonstrate knowledge and understanding of the basic principle of physiotherapy and rehabilitation.	**CORE** ***Phase III*** **a) General Orthopedics** • Introduction to orthopaedics • Hard tissue trauma :- - Fracture classification - Principal of management of open and closed facture - Fracture healing –nonuninon, malunion, delayed union. • Infection of bone (Acute and chronic osteomyelitis) ***Phase III*** **b) Regional orthopedics** Upper limb Colles' fracture Supracondylar fracture Clavicle fracture Radius Ulna fracture (Shaft) Humerus fracture (Shaft) Lower limb Fracture of Shaft of femur Fracture of Tibia fibula	5 hours 10 hours

Learning Objectives	Contents	Teaching Hours
	Phase IV **Regional Orthopaedics** • Upper Limb Hand injuries and Hand Infection • Lower Limb Frac ture of Neck of femur Fracture of Pelvis Ankle and foot injuries Amputations Additional Dislocation – Hip, Haemarthosis • Soft tissue trauma (muscle and tendon injuries, compartmental syndrome) . • Infection of joint including osteoarticular tuberculosis • Mass Casualty- ATLS, Disaster management. • Bone tuberculosis **Additional** Dislocation of shoulder and elbow b) Paediatric orthopedics : Congenital anomalies-talipes, DDH, Bow legs, Polydactyly, Claw c) Bone tumors : Classification of bone tumor Common benign and malignant bone tumor – osteochondroma, Giant cell tumor, Osteosarcoma, Metastatic bone tumor. Vertebral fracture – (primary management, transportation. Principles of definitive management) **Additional** d) Tendinitis, Tenosynovitis, bursitis.	45 hrs

Learning Objectives	Contents	Teaching Hours
11. Anaesthesiology Student should be able to : • be aware of the safety in Anaesthesia. • be aware of the possible complications & management • demonstrate basic knowledge and perform Cardio-Pulmonary Resuscitation (CPR) • describe the scope of Anaesthesia in rural environment. **Practical Skills** Student should be able to perform : • pre-operative assessment • induction • intubation • I/V line • artificial ventilation • post-operative room care	***Phase III*** **CORE** a) Anesthesia as a subject: its scope, outline- present & future b) Anesthesia Pharmacology: Drugs: induction, maintenance, muscle relaxants c) Intra-operative management d) Post-operative management and complication e) General GAnes (G.A) f) Local/Regional anesthesia g) Management of Pain (chronic) h) Intensive Care Unit (ICU) i) Basic life support. j) Cardio-Pulmonary Resuscitation (CPR) **Exposure to practical procedures** (Tutorial) : • Pre-operative assessment • Induction • Endo tracheal Intubation • CV line • Artificial ventilation • Face mask ventilation. • Recovery room experience	10 hours

Learning Objectives	Contents	Teaching Hours
12. Radio Diagnosis & Imaging Student should be able to : • demonstrate knowledge and understanding of the principles of radiology and imaging • appreciate the importance of imaging as investigation & diagnosis of clinical conditions • describe the hazards of radiation • describe the protection measures for personal patient and the community. • write proper requisition for various x-rays & imaging. ***X-RAY Chest*** Student should be able to : • differentiate normal anatomical images from those due to pathological states, • diagnose the common conditions like tuberculous consolidation, pleural effusion, pneumothorax, lung abscess, collapse, bronchogenic carcinoma. • make radiological diagnosis of mediastinal masses	**CORE** **Phase IV** • Introduction of radiology & imaging including CT & MRI • Hazards of radiation and protection for personals, and patients. • Principles of ultra-sonography & its clinical application • Plain & contrast X-Rays • Interventional imaging • USG **CORE:** • Normal and pathological image • Pneumonic and Tuberculous consolidation • Pleural effusion • Pneumo Thorax **Additional** • Lung abscess • Mediastinal mass	6 hours 2 hours

Learning Objectives	Contents	Teaching Hours
Gastro intestinal system Student should be able to : • diagnose intestinal obstruction, perforation etc. • recognise indications and contra-indication for barium studies e.g. meal, swallow, follow-through & enema. • make differential diagnosis of stones & calcification on plain X-Ray. • diagnose gastric ulcer, duodenal ulcer, growth in the stomach, oesophageal cancer on barium studies. • interpret the finding of cholangiogram.	**Core:** • Plain X-ray findings of Acute abdomen. • Indications & contraindicatious for barium studies. Hepatobiliary system Cholangiogram & ERCP • USG of HBS and Pancreas **Additional:** MRCP	
Skeletal system Student should be able to : • diagnose common fractures, dislocations & bone tumours bone infections with the help of X-rays ***Excretory System*** Should be able to : • identify renal calculi in plain X-ray • understand USG & IVU findings in renal stone and other renal diseases.	**CORE** • Diagnosis of common fractures of upper and lower limb • skull fractures • Spinal fractures and caries spine • Acute osteomyelitis • common bone tumours • diseases of joints • dislocations **CORE** • X-ray KUB & IVU • USG of Kidney, Ureter , Bladder and prostate	

Learning Objectives	Contents	Teaching Hours
13. Radiotherapy Students will be able to: • appreciate the role of radiotherapy in the management of cancer • demonstrate knowledge of radiation • identify different sources of radiation • refer the patients to radiotherapy department • recognize common radiation hazards after primary care Students will be able to: • recognise common cytotoxic drugs. • refer appropriate cases for chemotherapy. • recognise common complication & offer primary care.	***Phase IV*** **CORE** ***Introduction to Radiotherapy*** **Radiation oncology, basic principles and practices :** • Aims of radiation oncology • Sources of radiation , Isotopes and their mechanism of action • Curative/Palliative radiotherapy • Radiosensitivity, radioresistance, radiocurability and normal tissue tolerance. • Common radiation reactions and management. **Medical oncology, basic principles and practice :** • Cell cycle and Mechanism of action of cytotoxic drugs • Clinical aspect of cancer chemotherapy • Complications of chemotherapy (Infection and bleeding tendency) • Chemotherapy of common cancers, • Common Chemotherapeutic regimes	5 hours

Learning Objectives	Contents	Teaching Hours
Students will be able to: • appreciate the role of doctors in prevention and early diagnosis of cancer & referral of cancer patients. • take leadership in the community to offer rehabilitative support • offer follow up & terminal care of cancer patients. • recognise clinical condition as which could be diagnosed by radio-isotope & interpret the results. • recognise diseases requiring isotope therapy.	**Prevention of common cancer :** • Primary prevention, Secondary prevention • Early diagnosis • Referral to appropriate centre **Palliative support and terminal care :** • Follow-up of cancer patients and terminal care **Nuclear Medicine, basic Principles and practice :** • Radio-isotope in diagnosis • Radio-isotope in therapy	1 hour 1 hour 1 hour

Learning Objectives	Contents	Teaching Hours
14. Paediatric Surgery Students will be able to: • identity common paediatric surgical problems including emergencies. • initiate primary care • refer the cases to appropriate hospital	**CORE** **Phase III** • Examination of a child and neonate (Special considerations) • Infantile Inguino scrotal swellings • Acute abdomen in infants & children • Congenital hypertrophic pyloric stenosis **Phase IV** • Neonatal/Infantile intestinal obstruction • Intussusception • Anorectal malformations. • Maldescended Testis • Torsion Testis • Haemangioma and other Cutaneous lesions • Child-hood tumours. • Rectal bleeding and prolapsed rectum **Tutorials** • Cystic hygroma, Branchial fistula • Phimosis/balanitis • Paraphimosis • Phimosis/balanitis • Paraphimosis	5 hours 10 hours

Appendix-1

COLLEGE MONOGRAM

Photograph of the student

CLASS PERFORMANCE RECORD CARD

DEPARTMENT OF SURGREY

---------- Medical College

Bangladesh.

Name of the student: .....

Father's Name: ……Mother's Name……

Address: -- Village/road with no……

P.O: ……P.S: ……..Dist: …….

Postal Code no…….Country: …….

Telephone No: ……..Mobile No: ……..

Batch..... Roll No: ..... Admission Session.....

Local Address: ..... ……..

Hostel:-……. Room No: .....

Year of admission in 1st year MBBS.....

Promoted to 3rd year: Jan/ July - Year.....

2nd Professional examination due in- Jan/ July- Year.....

2nd professional passed on Jan/July-Year……

3rd Professional due on Jan/July, Year----------

3rd Professional Passed on Jan/July----------

Final Professional examination due in- Jan/ July- Year.....

For foreign students

Citizenship: .....Passport no……

SURGERY- Card-One

Cl. Reg. No.	
Roll No.	
Group	
Batch	

Card No.	1 (One) :12 wk
Year	3rd year
Total marks	100
Pass marks	60%

Name of the student						
Period of placement	From :		To :		Unit :	
Professor / Asso. Professor in charge						
Academic Co-ordinator						

No.	CLINICAL	Satisfactory / Unsatisfactory	Marks	Signature
1.	Rapport development with patient and hospital supporting stuffs			
2.	History taking and writing (at least 10 different cases)			
3.	General examination and general principle of examination			
4.	Examination of swelling, ulcer, sinus, fistula, etc. (at least 10 different cases)			
5.	Examination of a) Inguino-scrotal swelling b) Vascular system			
6.	Examination of chronic abdominal conditions. (5 cases) a) G.I. tract condition • Lumps in different quadrants. • Gastric outlet obstruction b) Hepato biliary conditions c) Pancreatic conditions			
7.	Examination of acute abdominal conditions • Acute Appendicitis • Perforation of the hollow viscus • Acute Pancreatitis • Intestinal obstruction			
8.	Short cases in out patient clinics • Lipoma, Neurofibroma • Cyst, Ganglion, Keloid • Haemangioma, Umbilical • Inguinal Hernias ,Hydrocele			

No.	PRACTICAL	Satisfactory / Unsatisfactory	Marks	Signature
1.	5-infusions are to be observed & recorded			
2.	10 I.M. injections are to be given & recorded			
3.	Observe Ryles tube introduction in 5 cases			
4.	10 X-rays are to be seen & findings recorded			
5.	6 operations are to attain & observe in OT & record			
6.	Specimen-Gallstone, G. Bladder, Appendix, Urinary stones, Breast lump			
7.	Instruments			
	TUTORIAL			
1.	Shock			
2.	Fluid electrolyte balance			
3.	Sterilization, Tetanus, gas gangrene			
4.	Gangrene, Boil, abscess, carbuncle, ulcers			
5.	Sepsis and asepsis in surgery			
6.	Preoperative & postoperative care			

OFFICIAL RECORD

(To be completed by department of Surgery)

Date of issue of Card			
Date of return of the Card			
Date of entry of the Result			
Date of issue of next Card			
Card No.			

Excellent/Good/ Satisfactory /Unsatisfactory/ to be repeat

Remarks and Counter signature of
Unit Chief

Registrar
Department of Surgery

Neurosurgery (1wk)

No.	CLINICAL	Satisfactory/ Unsatisfactory	Marks	Signature
1.	Examination of Neurosurgical patients			
2.	Examination of Hydrocephalus, Meningocele, Brain tumours, Extradural & Sub dural haemorrhage, Brain Abscess			
5.	Examination and assessment of Head injury patients.			
6.	PLID- Back pain			

CARD COMPLETION EXAMINATION

Attendance		out of	
Total marks obtained in items		Percentage	
Marks obtained in card Completion		Percentage	
Remarks			

Unit chief of Neuro-Surgery

Registrar
Neuro Surgical Unit

OFFICIAL RECORD

(To be completed by department of Surgery)

Date of issue of Card			
Date of return of the Card			
Date of entry of the Result			
Date of issue of next Card			
Card No.			

Remarks and Counter signature of
Academic Co-ordinator

Dealing Assistant
Department of Surgery

Cl. Reg. No.	
Roll N0.	
Group	
Batch	

Card no.	2 (Two)-A
Year	4th year
Total marks	100
Pass marks	60%

ORTHOPAEDIC & TRAUMATOLOGY

Name of the student						
Period of placement	From:		To:		Unit:	
Professor/Associate Professor						
Academic coordinator						

	CLINICAL	Satisfactory/ Unsatisfactory	Marks	Signature
1.	General principle of Musculoskeletal history taking			
2.	General principle of Musculoskeletal examination			
3.	Clinical examination of Hand & Wrist, Elbow& Shoulder.			
4.	Clinical examination Hip, Knee, Foot & Ankle.			
5.	Examination of Bone disorders – Chronic pyogenic osteomyelitis, Bone tumours.			
6.	Examination of fractures & dislocations			
7.	Examination and assessment of polytrauma patient.			
8.	Examination of bones & joints deformity, club foot.			

No.	PRACTICAL	Satisfactory /Unsatisfactory	Marks	Signature
1	**ORTHOPAEDICS** a. Splint, Bandage, technique of immobilization-Plaster slab & cast. b. Observation of orthopaedics OT			
2	**CASUALTY** a. At least five emergency cases to be received at Emergency Department & recorded. b. At least five minor wounds to be repaired. c. At least three operations are to be assisted.			
3	**X-ray** of fractures, dislocations, tumours and osteomyelitis **Specimens** of BoneTumours and Ostemyelitis Common Orthopaedic I**nstruments**			
	TUTORIAL			
1	Fracture, Complication			
2	Dislocation, Subluxation			
3	Open fracture Management			

CARD COMPLETION EXAMINATION

Attendance		Out of	
Total marks obtained in items		Percentage	
Marks obtained in card completion		Percentage	
Remarks			

Excellent/Good/ Satisfactory /Unsatisfactory/ to be repeat

Professor of Orthopeadics/Unit Chief

Registrar (Ortho Unit-)

ORTHOPAEDIC & TRAUMATOLOGY

Cl. Reg. No.	
Roll No.	
Group	
Batch	

Card No.	2 (Two)-B
Year	5th year
Total Marks	100
Pass marks	60%

Name of the Student						
Period of placement	From:		To:		Unit:	
Professor/Associate Professor						
Academic coordinator						

N	**CLINICAL**	Satisfactory/ Unsatisfactory	Marks	Signature
1	Review on General principle of Musculoskeletal history taking&examination			
2	Clinical examination of upper & lower extremities.			
3	Principle of examination of muscles, tendons & joints instabilities.			
4	Examination of muscles, tendons & joints instabilities of Knee& Shoulder.			
	Examination of Spine& spinal cord injury.			
6	Examination of peripheral nerves.			
7	Long cases presentation & discussion.			
8	Short cases presentation & discussion.			

No.	**PRACTICAL**	Satisfactory/ Unsatisfactory	Marks	Signature
1	ORTHOPAEDICS a. Use of functional braces, Walking aids, Caliper. b. Observation of orthopaedics OT & Operations (At least five)			
2	CASUALTY a. At least five emergency cases to be received at Emergency Department & recorded. b. At least five minor wounds to be repaired. c. At least three operations are to be assisted.			
3	**X-ray** of fractures, dislocations, tumours and osteomyelitis **Specimens** of Bone Tumours and Ostemyelitis & others Common Orthopaedic I**nstruments**			
	TUTORIAL			
1	Bone tumours& Osteomyelitis			
2	Children fractures& Compart ment Syndrom			
3	Mass casualty & ATLS			

CARD COMPLETION EXAMINATION

Attendance		Out of	
Total marks obtained in items		Percentage	
Marks obtained in card completion		Percentage	
Remarks			

Professor of Orthopaedics/Unit Chief Registrar Ortho unit---

SURGERY-CARD-Three

Cl. Reg. No.	
Roll No.	
Group	
Batch	

Card No.	3 (Three) 10 wk
Year	5th year
Total marks	100
Pass marks	60%

Name of the student						
Period of placement	From :		To :		Unit :	
Professor / Associate Professor						
Academic Co-ordinator						

No.	CLINICAL	Satisfactory / Unsatisfactory	Marks	Signature
1.	Examination of neck swelling • Lymph Nodes • Thyroid • Thyro glossal Cyst			
2.	Examination of extremities for peripheral vascular conditions			
3.	Examination of chronic abdominal conditions. (5 cases) a) G.I. tract condition • Lumps in different quadrants. • Gastric outlet obstruction • Ascitis b) Hepato biliary conditions c) Pancreatic conditions			
4.	Examination of acute abdominal conditions • Acute Appendicitis, lump • Perforation of the hollow viscus • Acute Pancreatitis • Intestinal obstruction			
5.	Examination of face & oral cavity, paritid			
6.	Examination of breast & axillary's lymph node (Benign & Malignant tumours)			
7.	Examination of anorectal condition			
8.	**UROLOGY**(2 Wk) Examination of Genitor-Urinary system a. Hydronephrosis, Kidney tumours b. Bladder tumours c. BEP & Carcinoma Prostate with Retention of Urine d. Scrotal Swellings, Epididymo orchitis e. Hypospedias, Phimosis, Para phimosis			

9.	**PAEDIATRIC SURGERY (2 WK)** Examination of Paediatric surgical cases • Anorectal malformation • Hernias • Urogenital malformations • Congenital Hypertrophic Pyeloric stenosis • Cleft lip, palate. • Haemangioma, Cystic Hygroma, Branchial cyst • Neonatal Intestinal obstruction			
10.	Short cases in out patient clinics • Lipoma, Neurofibroma • Cyst • Haemangioma • Inguinal Hernias ,Hydrocele • Neck swellings • Breast tumours & abscess			
	PRACTICAL			
1.	Ten complete histories with clinical examination are to be taken & recorded (2 of pediatric surgery, 2 of Urology)			
2.	Three proctoscopic examination are to be done & recorded			
3.	Observe surgical dressings & stitch-usually in 3 cases.			
4.	Ten X-rays (Including Urological) are to be seen and findings recorded			
5.	Three operations are to be assisted			
6.	Observe & introduce urethral Catheter in 5 cases			
7.	Specimen-Ca-Breast, Prostate, Sequestrum, Stomach, Thyroid, testis, Gallstones & Urinary stones.			
	TUTORIAL			
1.	Gastro-intestinal bleeding			
2.	Acute abdomen			
3.	Surgical jaundice			
4.	Chronic abdominal condition			
5.	Burn, Fluid & electrolytes, Parentral Nutrition			
6.	LUTS, Haematuria			
7.	Retention of urine			

CARD COMPLETION EXAMINATION			
Attendance		out of	
Total marks obtained in items		Percentage	
Marks obtained in card Completion		Percentage	
Remarks			

Unit Chief of Surgery

Registrar
Surgical Unit

OFFICIAL RECORD

(To be completed by department of Surgery)

Date of issue of Card			
Date of return of the Card			
Date of entry of the Result			
Date of issue of next Card			
Card No.			

Excellent/Good/ Satisfactory /Unsatisfactory/ to be repeat

Remarks and Counter signature of
Unit Chief of Surgery

Registrar
Department of Surgery

Ophthalmology

Departmental Objectives

The objective of this course is to provide need-based education so as to produce a quality doctor who will be able to

- deal with common ocular ailments
- identify, give initial management & refer ocular emergency cases appropriately
- provide leadership in the sphere of primary eye care in the country as well as abroad.

To achieve the above mentioned departmental objectives, the following learning objectives will be required:

List of Competencies to acquire:

1. Measure visual acuity of adult and children, a. unaided b. with pin hole c. with glass;
2. Examine color vision & examination of visual field (confrontation method)
3. Examine ocular movement and alignment; assessment of pupillary light reflex (direct and consensual)
4. Perform direct ophthalmoscopy.
5. Perform digital tonometry.
6. Perform Regurgitation test of lacrimal sac.
7. Perform Fluorescein dye test, irrigation of conjunctival sac & installation of eye drops/ointment.
8. Perform eversion of upper lid & removal of conjunctival foreign body.
9. Diagnose and give treatment of bacterial conjunctivitis, vitamin A deficiency disease (night blindness, Bittot's spot, xerophthalmia), initiate treatment of minor trauma, correction of simple presbyopia and referral of difficult cases.
10. Diagnose and initiate treatment and referral of ocular emergency cases:
    a. trauma, b. painful red eye. c. corneal ulcer/keratits, d. corneal foreign body, e. acute dacryocystits.
11. Diagnose and referral for specialist management: cataract, chalazion, pterygium, leucocoria of children, squint, cases with reduced vision

Fundamentals and principles of ophthalmology

Goal: The students will have the overall understanding of external and internal ocular structures of the normal human eye and will be able to perform the eye examination in normal and disease conditions.

Topic Specific objectives:

At the end of the teaching of the course the students will be able to:

- describe normal ocular anatomy.
- obtain detail ocular history.
- measure and record visual acuity in adults and children.
- assess pupillary reflexes.
- evaluate ocular motility.
- use the direct ophthalmoscope for gross assessment of red reflex, the optic disc and fundus examination.
- perform and evaluate visual fields by confrontation.

Specific contents in this subject will include:

A. Ocular Anatomy.

Students should be able to define gross anatomy of the eyeball& adnexa

1. Eyelids.
2. Extraocular muscles.
3. Lacrimal apparatus
4. Conjunctiva.
5. Cornea
6. Sclera.
7. Anterior chamber
8. Iris
9. Pupil.
10. Lens
11. Ciliary body
12. Posterior chamber
13. Vitreous cavity.
14. Retina
15. Optic disc.
16. Macula.
17. Choroid.
18. Optic nerve.

Learning Objectives

A. Knowledge components:

Students will be able to describe:

1. basic ocular anatomy
2. concept of measuring visual acuity without correction ,with pinhole and with correction
3. the importance of assessing ocular motility in the six cardinal positions of gaze and ocular alignment in primary position
4. the basic function of ophthalmoscope
5. importance of dilatation of pupil for fundus examination
6. abnormal fundal appearance in diabetic and hypertensive retinopathy
7. the concept of measuring intraocular pressure
8. the technique of determining the peripheral visual field by confrontation method
9. referral guideline

B. Skill Components:

At the end of the course, the students will able to demonstrate the skill of:

1. examination of each eye individually.
2. test V/A each eye individually and with pinhole.
3. evaluation of the position of the lids, and inspection of the conjunctiva, sclera, cornea and iris with a penlight.
4. examination of the pupil and assessment of the pupillary reaction.
5. ocular motility test in six positions and cover test
6. manual sac regurgitation test
7. assessment of intraocular pressure by digital method
8. performing visual field assessment by confrontation method
9. eversion of the upper lid and examine for the presence of foreign bodies
10. fluorescein dye test and its interpretation.
11. performing direct ophthalmoscopy and identify structures eg. optic disc, macula, and major vessels.

C. Attitude component:

Students will show continuous interest in gaining information in the subject and at the end of the teaching; they will be able to demonstrate the following:

a. A patient-centered role:
b. Scientific Integrity:
c. Ethical medical Professional Behavior:
d. Dedication to Continuous Learning:

Learning will be facilitated by:

Active participation in the

a. Classroom discussion
b. Completion of assignments
c. Formal presentations in tutorials.
d. Self-initiated independent thinking, presentation skill.

Evaluation:

Students will be evaluated by

a. Written examination(Short Essay test and MCQ test)
b. Formal and informal observations by instructor
c. Terms examinations
d. Final assessment together with other topics in the final Professional MBBS examination.
e. Class and ward attendance

Remediation during training:

1. The course coordinator will review the student's performance and will:
    i. Identify any specific deficits
    ii. Document all areas requiring remediation or additional concentration.
    iii. Provide additional recommendations for remediation of specific lackings.

Method of teaching:

a. Didactic lecture
b. In-class group session
c. Clinical class in the hospital out-patient, in-patient and Operation Theatre settings
d. Problem based discussion.

Materials

Models, power point presentation will be provided and students will get copies of handout whenever available.

Learning Objectives and Course Contents in ophthalmology

Learning Objectives	Contents	Teaching Hours
Student will be able to: 1. describe the anatomy of orbit and its contents 2. describe gross anatomy of the extra ocular muscles 3. diagnose orbital cellulitis, proptosis, squint /deviation and asymmetry and refer to specialist care 4. list the conditions for further referral to specialist care	**Orbit:** **1. Gross Anatomy:** a. Bones of the orbit constituting walls, roof and floor b. Contents of the orbit **2. Clinical examination of orbital disease:** **3. Orbital diseases:** a. Orbital cellulitis b. Proptosis	2 hrs
Students will be able to 1. describe gross anatomy of the lid 2. describe surgical steps of chalazion operation. 3. demonstrate the skill of step wise clinical examination, 4. describe diagnosis and treatment procedure of the followings; Stye, chalazion and blepharitis. 5. identify and refer the following: Trichiasis, ptosis, ectropion, entropion, chalazion 6. perform eversion of the lid.	**Eye lids:** **1. Gross Anatomy of the eye lid & its disease** **2. Clinical Examination procedure** a. Corneal light reflex & palpebral fissure height b. Visual inspection of eyelids and periocular area. **3. Diseases of Lid** a. Malpositions.(definitions) i. Trichiasis ii. Ptosis iii. Ectropion iv. Entropion. b. Inflamations. i. Stye ii. Chalazion iii. Blepharitis iv. Internal hordeolum	2 hrs

Learning objectives	Contents	Teaching Hours
Students will be able to : 1. describe gross anatomy of conjunctiva 2. name diseases of the conjunctiva 3. describe surgical steps of pterygium operation. 4. examine the conjunctiva 5. diagnose and manage of viral, bacterial, allergic conjunctivitis & ophthalmia Neonatorum 6. diagnose pterygium and refer for surgical management 7. remove superficial conjunctival foreign body	**Conjunctiva:** **1. Gross Anatomy of the Conjunctiva & its diseases:** **2. Examination procedure for conjunctiva** **3.Disease of conjunctiva**: a. Conjunctivitis - Bacterial - Viral - Allergic b. Ophthalmia neonatorum c. Trachoma (Gross idea) d. Pterygium **4.Precautionary measures:**	2 hrs
Students will be able to: 1. describe the anatomy of lacrimal apparatus 2. describe production, and functions of tear. 3. describe steps of sac patency test with interpretation 4. describe symptoms, signs of lacrimal sac diseases. 5. diagnose and manage lacrimal sac diseases. 6. mention indication, contraindication and major complications of DCR and DCT 7. perform digital regurgitation test 8. perform digital massage in congenital nasolacrimal duct obstruction. 9. initiate treatment of acute & chronic dacryocystitis, and congenital nasolacrimal duct obstruction, and referred to an ophthalmologist	**Lacrimal Apparatus:** **1. Gross Anatomy of the Lacrimal Apparatus& its diseases:** **2. Physiology:** Function of tear. **3.Examination Technique:** **4. Lacrimal sac disease:** a. Actuate dacryocystitis. b. Lacrimal sac abscess c. Chronic dacryocystitis. d. Congenital nasolacrimal duct obstruction	2 hrs

Learning objectives	Contents	Teaching Hours
Students will be able to 1. describe gross anatomy of the fibrous coat of the eye 2. describe supply of nutrition to cornea and maintenance of its transparency 3. describe steps of performing fluorescein dye test. 4. describe Keratoplasty 5. examine cornea 6. perform fluorescein dye test (to detect corneal epithelial defect) 7. remove superficial nonimpacted corneal foreign body 8. diagnose, and initiating treatment of corneal ulcer, keratitis and appropriate referral	**Cornea and sclera:** **1. Gross anatomy of cornea and sclera** **2. Physiology:** a. Maintenance of nutrition& transparency of cornea b. Function of cornea c. Tear film **3. Diseases of cornea** a. corneal ulcer b. keratitis c. Keratoplasty (Gross idea)	3 hrs
Student will be able to 1. describe the parts of uveal tract. 2. describe diseases of uveal tract, symptoms, signs and management of acute iritis & endophthalmitis 3. identify circumcorneal / ciliary congestion 4. perform pupil examination 5. identify ciliary tenderness 6. diagnose, initiation of treatment of iritis, endophthalmitis and appropriate referral.	**Uveal tract** **1. Gross Anatomy** **2. Diseases of uveal tract** a. Anterior uveitis/uveitis b. Endophthalmitis c. Panopthalmitis	2 hrs

Learning objectives	Contents	Teaching Hours
Students will be able to: 1. describe clinical features of age related cataract 2. describe stages of senile cataract 3. mention indications of cataract surgery 4. mention complications of untreated cataract 5. perform the preoperative evaluation 6. state ECCE, SICS and phaco surgery. 7. mention Complications of cataract operation 8. state Advantage of IOL implantation over spectacle 9. demonstrate the skill of diagnosis of cataract and referral to proper ophthalmologist	**Lens and cataract:** **1. Gross Anatomy:** **2. Physiology:** Accommodation **3. Disease of the lens** a. Cataract b. Pseudophakia c. Aphakia **4. Management of cataract:** a. Cataract surgery (Gross idea) b. Intraocular lens and its advantage (Gross idea) **5. Referral criteria of a cataract case**	3 hrs
Student will be able to: 1. describe anatomy of the anterior chamber and anterior chamber angle 2. describe production circulation and outflow of the aqueous humor 3. define and classify glaucoma. 4. describe Symptoms, signs and management of POAG, PACG and congenital glaucoma 5. demonstrate the skill of: a. taking history of glaucoma patients. b. digital tonometry. c. conformation test d. direct ophthalmoscopy 6. diagnose and provide initial management of PACG and early referral. 7. counseling of all glaucoma patient regarding blinding nature of disease & necessity of life long regular treatment & follow up	**Glaucoma:** **1. Gross Anatomy** **2. Physiology** a) Production, circulation and outflow of the aqueous humor. b) Intra ocular pressure and factors influencing IOP. **3. Classification of glaucoma.** **4. Disease.(gross aspect)** **a)** Primary angle closure glaucoma i) Risk factors ii) Symptoms iii) Signs iv) Management **b)** Primary open angle glaucoma: i) Risk factors ii) Symptoms **c)** Congenital glaucoma i) Genetics ii) Symptoms iii) Signs **d)** Secondary Glaucoma: Causes **6. Principles of Management:** a. Pharmacological treatment. b. Surgical Management: c. Laser treatment	4 hrs

Learning objectives	Contents covered in this topic	Teaching Hours
Student will be able to: 1. describe the gross anatomy of the retina and its function 2. describe the normal fundus. 3. describe the fundal features of diabetic, hypertensive retinopathy. 4. examine normal eye with use of direct ophthalmoscope 5. identify or suspect vitro retinal disorder and refer patient	**Retina and vitreous:** **1. Gross Anatomy:** i. Vitreous ii. Retina **2. Function of retina.** i. Normal vision. (acuity of vision) ii. Color vision **3. Symptoms Suggestive of vitro- retinal disorder.** **4. Examination of normal eye with direct ophthalmoscope.** **5. Fundal features of** a. Diabetic retinopathy. b. Hypertensive retinopathy. **6. Referral criteria** a. Abnormal red reflex of fundus b. Visual loss or symptoms	3 hrs
Student will be able to: 1. define the common refractive errors eg. myopia, hypermetropia & astigmatism. 2. define Aphakia and pseudophakia 3. define presbyopia and describe the rule of thumb for correction of presbyopia 4. demonstrate basic knowledge about contact lens and refractive surgery. 5. define low vision and mention importance of low vision aid for rehabilitation. 6. record visual acuity. 7. do prescription of presbyopic glass as per rule of thumb and referring difficult patients to ophthalmologists. 8. refer all cases for final correction by ophthalmologist 9. detection of cases with low vision and refer to low vision aid centers	**Refraction, Contact lens, Refractive Surgery and Low vision (Gross idea):** **1. Refractive status& management** a. Emetropia. b. Myopia. c. Hypermetropia. d. Astigmatism. e. Presbyopia f. Aphakia- I. Spectacle correction II. Contact lens III. Intraocular lens and pseudophakia IV. **Refractive surgery** (Basic idea) **6. Low vision.** Definition of low vision. Refer to low vision aid centre	3 hrs

Learning objectives	Contents	Teaching Hours
Students will be able to. 1. name tumors affecting the eye and adnexa 2. name the causes of leucokoria in children. 3. describe stages, symptoms, signs and management of retinoblastoma 4. diagnosef Leucokoria and mention its importance for early referral	**Leucocoria in children** a. Cataract b. Retinoblastoma c.. Endophthalmitis d. Persistent fetal vasculature (PVF/PHPV) e. Retinopathy of prematurity	1 hrs
Student will be able to: 1. describe Strabismus. 2. describe the importance of measuring visual acuity of children of two to five years old 3. describe the causes of amblyopia in children 4. describe the causes of Leukocoria 5. demonstrate the skill of: a. recording visual acuity in children b. ocular motility test c. recognize strabismus, nystagmus and amblyopia for immediate specialist referral.	**Ocular motility and paediatric ophthalmology:** **1. Gross Anatomy.** Extra-ocular muscles **2. Amblyopia.**- Definition, cause & impact **3. Strabismus/squint:** Definition, cause, diagnosis,effects and management principle **4. Nystagmus:** Definition & identification	2 hrs

Learning objectives	Contents	Teaching Hours
Student will be able to: 1. describe visual and pupillary, path ways. 2. describe manifestations of III, IV & VI cranial nerve palsy. 3. describe Papilloedema 4. record visual acuity. 5. perform confrontation visual field testing in four quadrants for each eye. 6. examine pupillary light reflex 7. recognize and diagnose nystagmus. 8. examine the optic disc with the direct ophthalmoscope	**Optic Nerve and Neuro Ophthalmology:** **A. Gross Anatomy** 1. Visual path way. 2. Pupillary Pathway **B. Examination procedure:** 1. VA 2. Visual field testing (confrontation) 3. Pupillary light reflex. 4. Direct Ophthalmoscopy	2 hrs
Student will be able to: 1. describe types of ocular injury 2. explain the effect of different types of ocular trauma 3. mention criteria for referral of the patients 4. demonstrate skill of: a) examination of the eye to assess the effect of injury b) removal of superficial conjunctival, sub-tarsal and superficial corneal foreign body c) performing pad-bandage of the eye d) providing primary management of ocular trauma e) referring the patient after primary management to ophthalmologist /hospital	**Ocular trauma:** 1. Blunt injury (Details) 2. Perforating Injury. 3. Foreign Body:(Extra and intra ocular) 4. Chemical Injury (details) 5. Thermal injury (Basic idea) 6. Radiation injury (Basic idea)	2 hrs

Learning objectives	Contents	Teaching Hours
Students will be able to: a. describe fundal change in hypertension b. describe fundal change in diabetes mellitus. c. describe ocular manifestation of vitamin-A deficiency and management. d. provide health education regarding importance of yearly eye checkup by ophthalmologist for prevention of blindness due to diabetes. e. demonstrate the skill of detecting disc oedema on fundus examination with direct ophthalmoscope f. recognize Bittot's spot, xerophthalmia and Kerotomalacia & referal.	**Ocular Manifestations of systemic diseases (Gross idea):** 1. Diabetes mellitus 2. Hypertension 3. Vitamin A Deficiency 4. Auto-immune diseases (Basic idea) 5. Tuberculosis 6. AIDS	2 hrs
Student will be able to: a. describe etiology, magnitude and impact of blindness. b. demonstrate the concept of 'Primary Eye care' c. describe Ocular hygiene. d. describe diseases and conditions for referral. e. describe concept of school sight test. f. define low vision g. demonstrate gross idea about communicable and preventable eye diseases. h. perform school sight test i. identify cases of low vision and referral. j. implement "Primary Eye Care" concept at the place of work k. develop awareness about eye donation in the community. l. diagnose & initiate initial management of ocular emergency	**Miscellaneous & Community eye care:** 1. Etiology and magnitude of blindness 2. School sight test. 3. Primary eye care 4. Referral guide line 5. Low vision and rehabilitation 6. Outreach activities. 7. Eye donation & eye banking. 8. Vision 2020, The right to sight (Gross idea) 9. Ocular therapeutics 10. Ocular emergency 11. Sudden loss of vision 12. Painful loss of vision 13. Painless loss of vision 14. Gradual dimness of vision 15. Red eye 16. Ocular effects of environmental change	5 hrs

EXAMINATION SKILLS	Skills-		Assist	Observe
	Able to perform Independently	Able to Perform under Guidance		
1. Visual Acuity test and Use of pinhole (including light perception, projection)	✓			
2. Colour Vision test		✓		
3. Visual field by confrontation	✓			
4. Examination of ocular movements	✓			
5. Flourescien staining to identify corneal abrasion		✓		
6. Pupillary size and reaction	✓			
7. Distant direct ophthalmoscopy on dilatedpupils to diagnose lens opacities		✓		
8. Method of Direct ophthalmoscopy		✓		
9. Digital tonometry	✓			
10. Schiotz tonometry				✓
11. Regurgitation for NLD Block	✓			
12. Syringing				✓
13. Instillation of eye drops/ ointment	✓			
14. Irrigation of conjunctiva	✓			
15. Applying of patching	✓			
16. Epilation of cilia		✓		
17. Eversion of upper eye lid	✓			
18. Removal of corneal foreign body				✓
19. Cataract surgery				✓
20. Glaucoma surgery				✓
21. Chalazion/Stye				✓
22. Tarsorraphy			✓	
23. Assessment of Opacity in the media	✓			
24. Lacrimal Sac Surgery				✓

DEPARTMENT OF OPHTHALMOLOGY

CARD FOR EVALUATION

First clinical Card (4th year) **Total Marks = 100**

Name of the student			
Roll No		**Class**	
Session		**Batch**	
Period of placement in Eye 4 weeks			
From		**To**	

No.	Items	Day of teaching	Marks obtained	Teacher's Signature
1.	History taking	1 day		
2	Examination of the Eye: Adnexa, **Lid, Chalazion, Ext.Hordeolum, Int.Hordeolum** Visual Acuity (Adult & children unaided, with pinhole, with present glass), Ant. Segment. Ocular motility, Digital tonometry, Confrontation test.(Visual field test)	3 days		
3	Methods of application of ocular drugs: Eye Bandage, removal of sup. Corneal F.B, Irrigation of conj. Sac.	1 day		
4	'RED EYES' - case demonstrations. Including fluorescein dye test & cilliary tenderness.	2 day		
5	Trial box, Snellen's chart	1 day		
6	Regurgitation test, Sac Patency Test and Epiphora 3 cases	1 day		
7	Assessment	1 day		
8	Total	10 days		

Total No. of attendance	
Marks obtained	
Comment	
Signature of the Registrar/RS	**Signature of Head of the Department**

DEPARTMENT OF OPHTHALMOLOGY

CARD FOR EVALUATION

Second clinical Card (5th Year) Total Marks = 100

Name of the student			
Roll No		**Class**	
Session		**Batch**	
Period of placement in Eye Ward 4 (four) weeks. (ward + OPD)			
From		**To**	

Total No. of attendance	
Marks obtained	
Comment	
Signature of the Registrar/RS	**Signature of Head of the Department**

Teaching Hours

Methods	Total

No.	Items	Day of teaching	Marks obtained	Teacher's Signature
1.	History & Exam (Colour vision, Field of vision, pupillary light reflex)	4 days		
2.	Corneal ulcer, Corneal abrasion: Diagnosis and management.	2 days		
3.	Uveitis: Diagnosis and management.	2 days		
4.	Cataract diagnosis and management.	3 days		
5.	OT, surgical demonstration Chalazion, Stye, DCR, Cataract surgery with IOL implantation (SICS/ECCE/Phaco)	2 days		
6.	Glaucoma.	3 days		
7.	Ocular Injury, Conjunctival irrigation, Eversion of lid, Epilation	2 days		
8.	Ophthalmoscopy, Tonometry, Assessment of opacity in media	2 days		
9.	Dacryocystitis: Diagnosis & management.	2 days		
10.	Xerophathalmia, paediatric cases.	2 days		
11.	Assessment	2 days		
	Total	**26 days**		

Lectures	40 hours
Ward Teaching	8 weeks

Otorhinolaryngology & Head-Neck Surgery

Departmental Objectives

The aim is to teach undergraduate medical students so as to produce need based community oriented doctors who will be capable of :

1. diagnosing and managing common ENT & Head-Neck disorders.
2. referring complicated ENT and head-neck disorders to appropriate centres if and when necessary
3. managing common emergencies in ENT & head-neck disease
4. giving preventive advice on certain aspects of ENT & head-neck diseases

To achieve above mentioned departmental objectives the following learning objectives should be achieved:

1. The art of appropriate history taking
2. Should perform primary ENT & head-neck examination procedure
3. Should use the aural speculum, nasal speculum, tongue depressor, laryngeal mirror, tuning fork and head mirror/light, otoscope & other instruments as listed in the enclosure
4. Should be able to describe the clinical application of basic anatomy & physiology of Ear, Nose and Throat
5. Should be able to describe the pathology of common ENT disorders & disorders of the Head-Neck region
6. Should list commonly used drugs and describe their adverse effects
7. Should recommend common investigative procedures and special investigation (CT, MRI, and sonography, etc)

Learning Objectives and Course Contents in Otorhinolaryngology & Head-Neck Surgery

Learning Objectives	Contents	Teaching Hours
Students will be able to: 1. demonstrate the applied Anatomy of ear. 2. demonstrate the applied Physiology of ear. 3. take History of ear diseases 4. conduct clinical hearing test and value the significance of audiometry and caloric test. 5. diagnose various ear diseases by clinical examination (FB, Otitis Exerna, Traumatic Tympanic membrane perforation, ASOM, CSOM, Otosclerosis. 6. remove impacted wax, foreign body, Aural toileting 7. diagnose ear diseases and Its complications and refer to appropriate hospital when needed. e.g.- perichondritis otosclerosis extra and intracranial complications of middle ear diseases 8. make D/D of earache 9. differentiate safe from unsafe variety of CSOM.	**EAR** **CORE** 1. applied Anatomy of ear 2. applied Physiology of ear:- hearing, Balance 3. congenital diseases of ear-Preauricular sinus 4. causes of earache 5. causes of deafness 6. diseases of ext. ear-Furuncle, Otitis externa ,Otomycosis, Foreign body, Trauma,Perichondritis of pinna 7. diseases of middle ear-ASOM, CSOM, OME, Otosclerosis. 8. diseases of internal Ear-Meniere's disease, Labyrinthitis. 9. Tuning fork test, Audio metry, Caloric test 10. micro ear surgery-Myringotomy Myingoplasty & different types of mastoidectomies. 11. neurootological complications: Lateral sinus thrombosis, general idea about intra cranial complications of ASOM & CSOM. **Additional:** 12. causes of Vertigo &Tinnitus 13. management of deafness.	

Learning Objectives	Contents	Teaching Hours
Student will be able to : 1. describe applied anatomy and applied physiology of nose. 2. manage epistaxis 3. remove FB and reduction of Fracture nasal bone. 4. diagnose nasal diseases by clinical examinations 5. refer the patient to specialized ENT centre 6. apply ANS Pack. 7. history taking of disease of Nose and PNS.	**<u>NOSE</u>** **CORE:** 1. Anatomy of nose 2. Physiology of nose 3. Epistaxis. 4. FB nose, Fracture nasal bone 5. Nasal allergy 6. Nasal polyp 7. Rhinitis, Sinustitis 8. DNS, septal perforation, septal abscess, septal haematoma 9. Nasal papilloma, rhinosporidiosis. 10. Atrophic rhinitis 11. Nasopharyngeal angiofibroma and naso-pharyngeal carcinoma. 12. Sino-nasal malignancy **Additional** Headache Tumours of nose and PNS Common nasal and sinus Operation:- Polypectomy SMR, Septoplasty Caldwell Luc operation BAWO	

Learning Objectives	Contents	Teaching Hours
Student will be able to : 1. Describe anatomy of oral cavity, pharynx, larynx and oesophagus. 2. Describe Physiology of deglutition. 3. Make D/D of white patches, ulcers in oral cavity, Leukoplakia and Sorethroat. 4. Diagnose Diphtheria and refer it to appropriate hospital 5. Diagnose acute & recurrent tonsillitis, adenoids, 6. Describe indications of adenotonsillectomy and principles of post operative management and contraindications. 7. Diagnose complications of adenotonsillectomy and its management 8. List D/D of dysphagia. 9. List D/D of hoarseness of Voice. 10. List D/D of Stridor 11. Describe indications of trachestomy & its steps, postoperative management and complications.	**Mouth cavity, pharynx, larynx and esophagus** **CORE** 1. Anatomy of oral cavity, pharynx, larynx and Oesophagus 2. Physiology of salivation, deglutition and functions of larynx, pharynx. 3. Diseases of oral cavity Congenital anomalies like Hare lip, cleft palate White patch-oral cavity, oral ulceration, Leukoplakia and neoplasm. 4. Acute & recurrent tonsillitis faucial diphtheria. 5. Adenoids 6. Tonsillectomy and adenoidectomy 7. Peritonsillar abscess, retro pharyngeal abscess, parapharyngeal abscess. **Larynx** Acute Epiglottitis, Acute Laryngo tracheo bronchitis Acute & chronic laryngitis Papillomalarynx Stridor Causes of hoarseness of voice Tracheostomy Carcinoma-larynx. Foreign Body larynx, trachea, bronchus.	

Learning Objectives	Contents	Teaching Hours
	Pharynx FB Malignancy of Pharynx **Oesophagus** PV syndrome Dysphagia Foreign Body Benign & malignant lesion of Oesophagus (strictures, rupture) **Head-Neck** 1. Applied anatomy of salivary glands, Thyroid & Parathyroid glands 2. Physiology of salivary glands, Thyroid & Parathyroid glands 3. Salivary gland diseases 4. Thyroid and parathyroid diseases 5. Neck mass 6. Congenital sinus & cyst of head neck (Thyroglossal cyst, Branchial cyst, Branchial sinus) **General Idea about head neck malignancies**	

Integrated Teaching

Topic	Learning Objective	Teaching Aids	Assessment	Department
• Otogenic and Rhinogenic extra-cranial & intra-cranial complications • Facio-Maxillary Neoplasm	Student will be able to: • state the causes of extra-cranial & intra-cranial complications of ASOM and CSOM • describe the symptoms & signs of acute mastoiditis, facial palsy, labyrinthitis lateral sinus thrombosis. • Investigate & interpret the results of investigation. • treat different complications (gross idea) State common causes of maxillary swelling/carcinoma of Maxilla.	Video cassette film of C.T. Scan, X-ray, Diagram, Otoscope, Hammer, Cotton, Pin & Patients. Tongue depressor, PNS mirror, laryngeal mirror Nasal speculum. (Nice to know fundoscopy) Ophthalmoscope	Performance, Interpretation, Short Question, Modified short Question, MCQ Practical Exam OSCE	ENT & Neuro Surgery ENT & Eye

Teaching Methods:

- Lecture/ Mini Lecture
- Tutorial/ Demonstration - Video
- Case presentation- Subject – Operation- Programe side Teaching Theatres
- Discussion, Visit to RHC / Specialised Centre (If available)

Teaching Hours for Otorhinolaryngology & Head-Neck Surgery

Methods	Total
Lectures	38 hours
Ward Teaching	8 weeks

CARD SYSTEM FOR WARD & OUTDOOR DUTIES

Clinical Card in Otorhinolaryngology & Head-Neck Surgery

(4 weeks in 3rd phase and 4 weeks in 4th phase - Total marks = 100)

Name of the student			
Roll No		**Class**	
Session		**Batch**	
Period of placement in ENT Outdoor /Ward			
From		**To**	

3rd Phase

No.	Item	Date of teaching & learning	Marks obtained	Signature of teacher
1.	History taking, examination & investigations of ear diseases			
2.	History taking, examination & investigations of diseases of nose & Paranasal Sinuses.			
3.	History taking, examination and investigation of diseases of pharynx, larynx & Oesophagus			
4.	Examination of Head-Neck & differential diagnosis of neck swellings.			
5.	Observe 10 cases of discharging ears and establish diagnosis			
6.	Observe 10 cases of deafness and establish diagnosis			
7.	Observe 10 cases of nasal obstruction & establish diagnosis. Learn all about septal deviation			
8.	Observe 5 cases of nose bleeding and learn nasal packing			
9.	Observe 5 cases of wax in ears and learn toileting			
10.	Observe 10 cases of neck swellings and establish diagnosis			

4th - phase

No.	Items	Date of teaching & learning	Marks obtained	Signature of teacher
1.	Observe 5 cases of Recurrent tonsillitis tonsillectomy, also learn pre & postoperative management.			
2.	Observe cases of Peritonsillar abscess/ retropharyngeal abscess. Establish diagnosis. Learn principles of management			
3.	Observe 10 cases of hoarseness of voice. Establish diagnosis & learn principles of treatment			
4.	Observe instruments for laryngoscopy, oesophagoscopy & bronchoscopy. Learn procedures of each			
5.	Observe 5 cases of tracheostomy. Learn technique of pre & post-operative management			
6.	Observe 2 antral washout operation. Learn instruments & principles of operation. See 3 cases of FB Nose. Learn technique of removal.			
7..	Observe 5 cases of dysphagia. Learn management. Learn all about nasogastric feeding			
8.	Observe 10 cases of Head & Neck swellings Establish diagnosis.			
9.	Observe ENT X-rays. Interpret common findings			

Total Number of attendance		**Out of**	
Punctuality			
Attitude to learning			
Relationship with staff & patients			
Percentage of marks obtained in items examination			
Signature of Professor / Associate Professor	**Date :**		

Instruments

1. Ear speculum
2. Otoscpe
3. Nasal speculum (Thudicum)
4. Antrum puncture trocar and cannula (Lichwitz)
5. Tongue depressor (Luc's)
6. PNS mirror
7. Laryngeal mirror
8. Boyle Davis mouth gag
9. Adenoid curette with / without cage (St Clare Thomson)
10. Tracheostomy tube-metallic/PVC
11. Laryngoscope
12. Oesophagoscope
13. Bronchoscope
14. Head light/mirror
15. Tuning Fork

Operative Procedures

a. Tonsillectomy
b. Adenoidectomy
c. Septoplasy/SMR
d. Caldwell-Luc operation
e. Myringoplasty
f. Mastoidectomy
g. Thyroidectomy
h. Salivary gland excision
i. Biopsy for diagnosis of carcinoma of tongue, oral lesions etc
j. Direct larygnoscopy
k. Neck node biopsy
l. Antral washout

X-ray

m. X-ray paranasal sinus (occipito-mental view)
n. X-ray nasopharynx – lateral view
o. X-ray mastoid
    - Towne's view
p. X-ray neck
    - Lateral view
    - Ba swallow x-ray of esophagous

Nice to know

CT scan /MRI

FOL – Fibre Optic Laryngoscopy

CLINICAL PLACEMENT OF STUDENTS DURING PHASE II, III & IV (for 62 weeks)

WEEKS	PHASE II 20 WEEKS	WEEKS	PHASE III 14 WEEKS	WEEKS	PHASE IV 12+12 + 04 WEEKS
01-15	**Surgery indoor** **Surgery OPD**	**01-04**	**Orthopaedics & traumatology**		**1st term**
16-17	**Orthopaedic surgery**	**05-08**	**Ophthalmology**	**01-04**	**Orthopedics**
18	**Radiology**	**09-12**	**ENT**	**05-08**	**Ophthalmology**
19	**Anaesthesia**	**13**	**Radiotherapy**	**09-12**	**ENT**
20	**Dentistry**	**14**	**Neurosurgery**		**2nd & final term**
		15	**General Surgery**		
				01-07	**Surgery**
				08-09	**Urology**
				10-11	**Paediatric Surgery**
				12	**Emergency & Casualty** **Burn & Plastic Surgery**
Card completion exam at the end of rotation & **Term exam at 41st week**		**Term exam at 41st week**		**04 weeks**	**BLOCK POSTING**
					Final assessment

Time schedule for the lecture classes (number)

DICIPLINE	2ND PHASE	3RD PHASE	4TH PHASE	TOTAL
Gen Surgery	35	30	60	125
Orthosurgery	0	15	45	60
Radiology	0	0	5	5
Radiotherapy	0	0	8	8
Anaesthesia	0	10	0	10
Neurosurgery	0	0	5	5
Paediactric Surgery	0	5	10	15
Urology	0	5	10	15
Burn Plastic Surgery	0	0	5	5
	35	**65**	**148**	**248**

Large Group Teaching

All lectures should be interactive one.
It should be directed to develop analytical and problem solving attitude.

Student should be encouraged to adopt self-directed learning.

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Clinical Teaching and tutorials

- Students are to attend the wards as per placements twice in a day in morning and evening sessions as fixed by the respective college authority.
- They must be well dressed along with apron & nameplate. Shirts, Pants (full length) Shoes only and Winter apparels are allowed in ward settings. Three quarter pant, T-shirt, Sandals are not allowed and teacher may disallow those students to continue the class.
- They will carry stethoscope, percussion hammer, pencil torch and measuring tape and other necessary clinical examination tools.
- During their ward visit, they will examine patients and try to make working diagnosis and write the history as per prescribed format.
- They will go through hospital documents and look what necessary measures and decision has been taken to follow the management of the patient in the ward.
- They will observe and practice techniques of IV & IM injection, infusion, dressing of the wounds. Student will also attend the operation theater and observe the instruments and equipments used in the operation theater.
- They will observe the techniques of different anaesthesia and the drugs used, techniques of hand scrubbing, gowning gloving, scrubbing and draping of operation field, making incisions, haemostasis, saturating technique and wound repair.
- Students performance will be assessed by item examinations, ward and term examinations.

Assessment-

1. **Internal assessment: (Marks for formative assessment)**
    a. Items & Card completion examination ,
    b. Year final assessment at the end of Phase-II & III (written)
    c. MCQ in Integrated teaching.
    d. Final assessment examination (similar to final professional examination) at the end of block posting. (Medicine, Surgery, Obs & Gynae)
2. **Final professional MBBS Examination:**
    a. **Written:** (MCQ- 20 (10 SBA and 10 MTF) ; SAQ & SEQ=70) each paper
    Time allocation: MCQ- 30 minutes; SAQ+SEQ – 02hrs 30minutes.

    i. Paper – I SAQ & SEQ consists of 4 groups.

Group -1:- Principles of surgery, Vascular Diseases, Anaesthesia, Radiology, Radiotherapy.
Group -2:- GIT, Paediatric surgery, Operative Surgery, Chest disease
Group -3:- HBS & Pancreas, Urology, Breast, Endocrine.
Group -4:- Orthopaedics & Traumatology, Neurosurgery,
There will be 05 questions in each group and out of those 04 are to be answered carrying 3.5 marks each.
At least two Structured Essay Question (SEQ) will be in each paper.

ii. Paper –II:
Ophthalmology-- MCQ-10 (5 SBA, 5 MTF) & SAQ & SEQ -35;
ENT-- MCQ-10 (5 SBA, 5 MTF) & SAQ & SEQ -35
Group-1and Group 2 = Ophthalmology
Group-3 and Group 4 = ENT
At least two Structured Essay Question (SEQ) will be in each paper.

iii Preferably questions will be of
recall type- 30%,
understanding or data interpretation type- 30% and
problem solving type- 40%

iv Question should cover the whole curriculum .
90% of the questions should preferably be from core content and 10% from additional content of course.

v. Scripts distribution: Group-1 will be assessed by General surgeon, Group -2 will be assessed by General surgeon, Group-3 will be assessed by a General surgeon/allied subject expert and Group -4 will be assessed by an Orthopedic surgeon.

b. OSPE –

i. Stations will be constructed centrally by two experience examiners nominated and supervised by chairman of the examination committee of the respective university.
ii. Each station will of 5 minutes time and marks will be allocated according to rules mentioned in the subject concerned.
iii. All the examinee under each university will appear in OSCE/OSPE exam in their designated centers on a same date and before 9 am scheduled by University for a particular subject. Failure to arrive at examination center before 9 am is an offense and examiner may dis qualify the candidate.
iv. OSPE examination of Surgery, Ophthalmology and ENT will be in two different days.
v. Answer scripts of OSPE will be divided among the examiners for evaluation and the marks are to be submitted prior to final day of the oral examination scheduled in the respective centre.

vi. Every examination center should be prepared for testing competencies including different procedure stations, data analysis, counseling, displaying x-ray, specimens and instruments. Original materials should be placed at each station.
vii. Station setup
1. Total 20 stations will be made comprising 10 from Surgery,
2. Five (5) Ophthalmology and
3. Five (5) ENT stations.

Out of those, at least two stations from surgery, one from Ophthalmology and one from ENT will be procedural station.

ix Marks allocation

Surgical stations are- (10 x 6 = 60 marks)

		No.
a.	Plain x-ray	-1
b.	Contrast x-ray	-1
c.	Orthopaedic X-ray	-1
d.	Specimen	-1
e.	Instrument/s	-1
f.	Appliances (Catheter, tubes, stoma or reservoir bags etc)	-1
g.	Data interpretation	-1
h.	Procedure stations	-2
i.	Splint/bandage	-1

4. Ophthalmology -5 and ENT-5 stations are- (5+5) x4 = 40 marks)

		No.
a.	Instrument station	= 1
b.	X-ray station/ Specimen	= 1
c.	Clinical photograph/ tracing	= 1
d.	Procedure	= 1

c. Structured Oral Examination. (SOE)

NB: Oral & Practical Examination Boards of **Surgery & Allied Subjects**: Eight (8) Examiners in 4 boards in two days.

Day -1:

Board- A- 1 examiner from General Surgery & 1 examiner from Allied subjects

Board-B-1 examiner from General Surgery & 1 examiner from Orthopaedics

Day-2:

Board-A-1 examiner from Ophthalmology & 1 examiner from Ophthalmology

Board-B-1 examiner from ENT & 1 examiner from ENT

NB: In case of unavailability of any concerned examiner of any board the convener of the examiner in consultation with concerned dean of the faculty of medicine will select the examiner from General surgery or sub specialty or any allied subject

Paper-1 (General surgery and allied subjects) Marks-30X2=60

a. Two separate boards comprising one internal and one external examiner will assess written scripts, oral, practical and clinical examination.
b. There are two other reserve examiners in each internal and external pool. One of the reserve examiner should be from allied subject like urology, pediatric surgery, plastic surgery or neurosurgery.
c. Out of four examiners two will be from general surgery, one will be an orthopedician & another one will be from allied subjects of surgery.
d. There will be four boxes covering questions on surgery and allied specialties assigned for each examiner.
e. Each box will contain at least 20 sets of questions.
f. A set of question will contain 3 small questions of three-difficulty level (Must Know, Better to Know & Nice to Know)
g. Content of the box-
    1. Box-1:- Principles of surgery, Vascular Diseases, Anaesthesia, Radiology, Radiotherapy.

2. Box-2:- GIT, Paediatric surgery, Operative Surgery, Chest disease
3. Box-3:- HBS & Pancreas, Urology, Breast, Endocrine.
4. Box-4 :- Orthopaedics & Traumatology, Neurosurgery.

Paper –II (Ophthalmology and ENT) Marks 20X 2= 40

i. Two separate boards for each specialty comprising one internal and one external examiners will assess written scripts, oral, practical and clinical examination.
ii. There will be one reserve examiner in each specialty.
iii. Instruments and x-rays will not be examined in viva board.
iv. Each student will be allocated 15 minutes
v. Problem solving skills / Judgment of knowledge should be examined
vi. The question and answer will be constructed by the examiners in advance
vii. Question is typed in a card and put in box of defined domain
viii. A number of questions from each topic should be constructed covering the content area.
ix. Content will be changed on alternate days
x. The candidate randomly selects one card from each box and answer.
xi. The candidate should answer selected number of question in the board
xii. The examiner read the question, repeat it if necessary or the candidate reads the question if allowed.
xiii. When candidate answers the questions, the examiner will put a tick in appropriate site on a prepared rating scale

d. Clinical examination of surgery

a. Surgery -60
    1. Short cases 3 x 10 =30
    2. One Long case- 30.
b. Ophthalmology cases -2 x 10=20
c. ENT cases- 2 x 10=20

Mark distribution of oral, clinical and practical examination in surgery in final professional examination

Subject	Oral	Practical/OSPE	Clinical	Total
Surgery + Allied & Orthopaedics	30+30	60	30+30	180
Ophthalmology	20	20	20	60
ENT	20	20	20	60
Total	100	100	100	300

ssss

- There will be separate Answer Script for MCQ (SBA & MTF) and written SAQ &SEQ assessment.
- Pass marks is 60 % in EACH of Written, oral, practical and clinical components.
- Practical Examination will be in 2 days, one day Surgery, One day Eye-ENT
- Oral+Clinical will be in 2 days, One day- Surgery, another day- Ophthalmology + ENT.
- Marks and Written examination scripts must be returned before last day of oral-clinical examination at respective examination center. Otherwise convener of the center will return the whole scripts to Dean office for final decision.
- For declaration of results in earliest possible time after compilation of marks quick disposal of marks to competent authority is desirable.

FINAL PROFESSIONAL EXAMINATION

Assessment of Surgery

(MARKS DISTRIBUTION)

Components	Marks On each component	Sub total Marks	Total Marks
Written examination			
Formative assessment marks			
General Surgery & allied subjects	10	20	20
Ophthalmology	05		
ENT	05		
Written			
Paper – 1: General Surgery + allied & Orthopaedics : MCQ- (SBA+MTF) +(SAQ + SEQ)	(20+70)	90	180
Paper – II: Ophthalmology: MCQ- (SBA+MTF) +(SAQ + SEQ)	(10+35)	45	
ENT : MCQ- (SBA+MTF) +(SAQ + SEQ)	(10+35)	45	
Oral, Clinical & Practical			
General Surgery + allied & Orthopaedics (Oral+ Clinical+ Practical)	(60+60+60)	180	300
Ophthalmology (Oral+ Clinical+ Practical)	(20+20+20)	60	
ENT (Oral+ Clinical+ Practical)	(20+20+20)	60	
Oral examination should be structured.			
Grand Total Marks			500

Obstetrics & Gynaecology

Departmental Objectives

At the end of the course of obstetrics & gynaecology the undergraduate medical students will be able to:

- provide proper care in managing women's health including pregnancy, labour and puerperium and to ensure maternal and neonatal health and well being and give proper advices.
- diagnose and manage patients with common obstetrical and gynaecological problems.
- describe the basic concept of Counselling and counsel the women in the field of Obstetrics and Gynaecology.
- refer high risk cases appropriately.
- resuscitate new born babies and impart proper care.
- initiate & promote infant & young child feeding practices including exclusive breast feeding
- demonstrate appropriate attitude required to practise obstetrics and gynaecology.
- demonstrate an understanding about the impact of socio-cultural beliefs and environmental factors on women in pregnancy, labour and puerperium including their overall reproductive health and violence against women.
- counsel and inform women about contraception and family planning, and women's right.
- be acquainted with ongoing programme to reduce maternal mortality & morbidity.
- demonstrate an understanding about common problem of adolescent females and care them
- describe the common problems of peri and post menopausal women and can provide proper care
- value the ethical issues in obstetrics and gynaecology.

List of Competencies to acquire:

- History taking, communication skill, obstetrical examination, gynaecological examination.
- Diagnosis of common clinical problems
- Preparation of a patient before anaesthesia
- Writing a discharge certificate after
  - Normal delivery
  - Caesarean section
  - D & C
  - Evacuation of mole
  - Hysterectomy
- Care of antenatal patients including nutrition and daily calorie calculation
- Care of postnatal patient
  - Appropriate technique of breast feeding including position and attachment.
  - Demonstation of complementary feeding- amount, frequency, content of food
- Management of normal labour with partograph plotting
- 1st stage, 2nd stage & 3rd stage (AMTSL)
- Skill about Episiotomy
- PPH management
- Management of Eclampsia
- Shock management
- Writing a BT order
- Blood transfusion note
- Insertion of a cannula
- Catheterization
- Drawing of blood
- Hand washing
- Wearing of gloves,wearing PPE (Donning and Doffing)
- Identification of instruments/suture materials
- Trolly preparation for major & minor surgery

Obstetrics & Gynaecology: Hours distribution in 3rd & 4th phases in details

<table>
<tr><th colspan="4">Lecture (in hours)</th><th>Small group teaching (in hours)</th><th rowspan="2">Departmental integrated teaching (in hours)</th><th rowspan="2">Phase integrated teaching (in hours)</th><th colspan="2">Clinical/Bedside teaching (in weeks)</th><th rowspan="2">Block posting (in weeks)</th><th colspan="2">Formative examination (in days)</th><th colspan="2">Summative examination (in days)</th></tr>
<tr><td></td><td>3rd Phase</td><td>4th Phase</td><td>Total</td><td>PBL, Practical demonstration , Instrumental demonstration, Skill lab, Tutorial & etc.</td><td>3rd Phase</td><td>4th Phase</td><td>Preparatory leave 10 days</td><td>Exam time 15 days</td><td>Preparatory leave 10 days</td><td>Exam time 15 days</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>8wks</td><td>8wks</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Total</td><td>30</td><td>60</td><td>90</td><td>58 hours</td><td>(10 topics × 2 hours) = 20 hours</td><td>(42 topics × 3 hours) = 126 hours</td><td colspan="2">16 weeks</td><td>04 wks</td><td colspan="2">25 days</td><td colspan="2">40 days</td></tr>
<tr><td>Grand Total</td><td colspan="5">168 hours</td><td>126 hours</td><td colspan="3">20 weeks</td><td colspan="4">65 days</td></tr>
<tr><td colspan="12">Time for integrated teaching, examination preparatory leave and formative & summative assessment is common for all subjects of the phase</td></tr>
<tr><td colspan="12">Preventive aspects of all diseases will be given due importance in teaching learning considering public health context of the country and others parts of the world.</td></tr>
<tr><td colspan="12">Related behavioral, professional & ethical issues will be discussed in all clinical and other teaching learning sessions</td></tr>
</table>

Obstetrics & Gynaecology: Hours distribution for Clinical/Bedside teaching in 3rd & 4th phases in details

Subject	Clinical/Bedside & Ambulatory care teaching (in hours)						Total hours (in three phases)	Total weeks {(2nd phase wks + 3rd phase wks + 4th phase wks = Total three phases wks) ×(6 days× 4 or 7 hours)}
	2nd Phase		3rd Phase		4th Phase			
	Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching		Indoor clinical/ bedside teaching & Ambulatory care teaching			
	Morning	Evening	Morning	Evening	Morning	Evening		
	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency	Indoor/ OPD/ Emergency/ Out reached center	Indoor/ Emergency		
			8 weeks		8 weeks			
Basic Clinical Skills (in-patient)	-	-	48 h (4w)	48 h (4w)	-	-	96 h	(0+4+0)= **04 w** × (6 days × 4 hrs)
Family Planning Clinic	-	-	24 h (2w)	24 h (2w)	-	-	48 h	(0+2+0)= **02 w**× (6 days × 4 hrs)
Gynae & Antenatal Out-patient Clinic	-	-	24 h (2w)	24 h (2w)	-	-	48 h	(0+2+0)= **02 w**× (6 days × 4 hrs)
Routine Obstetrics	-	-	-	-	36 h (3w)	36 h (3w)	72 h	(0+0+3)= **03 w**× (6 days × 4 hrs)
Routine Gynaecology	-	-	-	-	36 h (3w)	36 h (3w)	72 h	(0+0+3)= **03 w**× (6 days × 4 hrs)
Emergency Obstetric Care E.O.C (Labour Room)	-	-	-	-	24 h (2w)	60 h (2w)	84 h	(0+0+2)= **02 w**× (6 days × **7** hrs)
Total	**-**	**-**	**96 hrs**	**96 hrs**	**96 hrs**	**132 hrs**	**420 hrs**	**16 weeks**

Teaching/learning methods, teaching aids and evaluation

Teaching Methods				Teaching aids	In course evaluation
Large group	**Small group**	**Self learning**	**Others**		
Lecture (video presentation)	Bed side teaching, Tutorials PBL (Problem based learning) OPD- teaching Teaching in Family planning clinic Demonstration in Operation theatre Demonstration in wards/ skill room (video presentation) Field side teaching	Assignment, Self study	Integrated	Laptop, Computer & Multimedia OHP, Transparency & Marker White board & Marker, Black board & chalks, Flip Chart, Slide projector Video, Dummy, Ultrasonography report, X-ray plate, View Box Model, Television, VCR, Cassette, Specimen, Analysis report	• Item Examination • Card final • Term Examination • Term final (written, oral+ practical+clinical)

Final Professional Examination:

Marks distribution of Assessment of Obstetrics & Gynaecology

Total marks – 500 (Summative)

- Written =200

(Formative =(10+10)=20, MCQ=40 (SBA-20, Multilpe true false -20), SAQ & SEQ=140 (SAQ-50+50=100) (SEQ-20+20=40)

- SOE=100
- Clinical=100
- Practical=100

Related Equipments/Instrument:

Forceps, Ventouse, Female bony pelvis & dummy foetus, Folley's catheter, Plain rubber catheter Sponge holding forceps, Alli's tissue forceps, Artery forceps, Volsellum, Hegar's dilators, Uterine sound & Currette, Sim's vaginal speculum, Cusco's speculum, BP blade with handle, Dissecting forceps, Needle holder, Suture materials

Contraceptives – OCP, progesterone only pill (POP or minipill), implants (2 rods and 1 rod), Injectable contraceptives (IM and sub-cutaneous), IUCD, Barrier methods (condoms), IUD and Emergency Contraceptive Pill (ECP).

MR Syringe with Canula

Core contents of Obstetrics:

Conception and development of fetoplacental unit

(a) Fertilisation, implantation, fetoplacental unit, placental barrier
(b) Placenta, amniotic fluid and umbilical cord: Development, structure and function

Anatomical and physiological changes during pregnancy
Diagnosis of pregnancy
Counselling in reproductive health
Antenatal care
(a) Counselling
(b) Objectives, principles of antenatal care, identification of high risk pregnancy
(c) Nutrition during pregnancy and lactation
(d) Vomiting in early pregnancy

Normal labour
(a) Criteria of normal labour
(b) Stages, mechanism of normal labour
(c) Diagnosis of labour
(d) Management of normal labour
(e) Assessment of progress of labour
(f) Monitoring maternal and fetal condition
(g) Partograph
(h) Pain relief

Normal puerperium
(a) Anatomical and physiological changes during puerperium
(b) Management of normal puerperium
(c) Post partum family planning
(d) IYCF -- Breast feeding & Complementary feeding

Hypertensive disorder in pregnancy including pre-eclampsia and eclampsia
Medical disorders in obstetrics
(a) Anaemia in pregnancy
(b) Urinary problems in obstetrics
(c) Diabetes
(d) Heart disease
(e) Hepatitis

Ante-partum haemorrhage
Definitions, classification, clinical features, complications and management
Rh incompatibility
Blood transfusion in Obstetrics
Multiple pregnancy
Definitions and types, clinical features, complications, diagnosis and principles of management
Malposition and malpresentation
Types, causes, diagnosis, complications and management
Abnormalities of labour
(a) Prolonged labour: Definition, aetiology, diagnosis, complications, management
(b) Obstructed labour: Definition, aetiology, diagnosis, complications, management

Post-partum haemorrhage (PPH)
Definitions, causes (atonic, traumatic and others) of PPH, prevention and management, follow up.

Abnormal puerperium
Causes ,diagnosis and management

The newborn
Resuscitation, examination and care of the newborn.

Neonatal problems

Birth Asphyxia
Jaundice
Infection
Feeding
Other problems of newborn
IYCF -- Breast feeding & Complementary feeding

IUGR & IUD
Causes, diagnosis and management

Obstetric operative procedures
Episiotomy, caesarean section, vacuum and forceps deliveries, version, destructive operations: their indications an complications
Steps of operation:Episiotomy,vacuum & forcep delivery

Vital statistics:
Maternal morbidity & mortality
Perinatal morbidity.and mortality
Neonatal morbidity & mortality

Diagnostic aids in obstetrics
(a) Ultrasonography
- Basics of ultrasound
- Role in obstetrics

(b) Fetal monitoring- CTG
(c) Amniocentesis and other prenatal diagnostic techniques

Social Obstetrics
(a) Maternal & perinatal morbidities and mortalities
(b) Direct causes of maternal & perinatal morbidity and mortality – Contributing socio-economic & environment factors
(c) Importance of family planning in prevention of obstetric problem
(d) Strategies for promotion of maternal health & prevention of illness emphasising maternal nutrition, hygiene & medical care
(e) National programs for MCH&FP, EOC, Combined service delivery

Core contents of Gynaecology

Anatomy of the female reproductive organs
(a) Basic anatomy of uterus, ovaries, tubes, vagina and vulva
(b) Relationship of uterus, ovaries, tubes and vagina to other pelvic organs
(c) Developmental anomaly of genital organs

Physiology of reproduction
(a) Puberty and its complication, menstruation, ovulation
(b) Fertilisation and implantation

Bleeding in early pregnancy

- Abortion:
  Definition, types, causes and management of all types of abortion and this complications.
- Ectopic pregnancy:
  Definition, aetiopathology, clinical feature, differential diagnosis and abdomen of acute principles of surgical management
- Trophoblastic tumours:
  (i) Hydatidiform mole: types, clinical features, complications, differential diagnosis, management and follow up.
  (ii) Choriocarcinoma: diagnosis and management, follow up

Vaginal discharge

Physiological and pathological, Diagnosis and treatment.

Menstrual disorder

(a) Amenorrhoea:
  Types, causes and principles of management
(b) Menorrhagia:
  Definition, causes and management
(c) Metrorrhagia:
  Definition, causes and management
(d) Dysmennorhoea : Definition types, causes and management.
(e) Abnormal uterine bleeding
  Definition, PALM-COIN classification, diagnosis, principles of investigation and management

Genital tract infection

(a) Defensive mechanism of genital tract
(b) Pelvic inflammatory diseases: acute and chronic
(c) Sexually transmitted diseases
(d) Genital tuberculosis

Urinary incontinence – definition, types

(a) Genitourinary fistula:-
  Types, causes, clinical features, principles of management, prevention

Other genital tract injuries:

(a) Perineal tear
(b) RVF

Genital prolapse

Types, aetiology,supports of uterus, clinical features, diagnosis, differential diagnosis, principles of management,prevention

Endometriosis

Definition, types, clinical features, principles of management

Neoplasia of reproductive organs

- Benign & malignant conditions of vulva & vagina
- Benign, precancerous & malignant conditions of cervix
- Benign and malignant conditions of uterus
- Benign and malignant tumours of ovary

Subfertility

(a) Causes, investigation and management both male and female partner.

(b) Assisted reproductive techniques
(c) Concepts of medical biotechnology in relation to Obstetrics

Contraception
Importance
Counselling
Classification, mechanism of action, advantages, disadvantages, complications of all methods particularly sterilization and MR & MRM

Menopauses
(a) Definition, physiological basis, changes in different organs of body, clinical features of menopausal syndrome, principles of management
(b) Post-menopausal bleeding
(c) Hormone replacement therapy (HRT)

Diagnostic Technique
(a) Cervical smear
(b) Laparoscopy
(c) Hysteroscopy
(d) Colposcopy
(e) Ultrasonography
(f) CT scan
(g) MRI

Principles of common gynaecological operations:MVA,D&C,E&C,suction evacuation,hysterectomy.

Additional Contents

Obstetrics

(1) Developmental structure of placenta
(2) Antenatal foetal screening
(3) Mechanism of onset of normal labour (theories)
(4) Labour analgesia
(5) Thromboembolism
(6) Other hypertensive disorders
(7) Pathophysiology of pre-eclampsia and eclampsia in details
(8) Haemolytic anaemia
(9) Nephritis and renal failure in obstetrics
(10) Treatment of Rh incompatibility
(11) Management of IUGR
(12) Management of inversion of uterus
(13) Post-partum and post-MR contraception
(14) Diagnostic aids in obstetrics
    (a) Ultrasonography
    (b) Foetal monitoring-CTG
    (c) Amniocentesis, CVS, MSAFP
    (d) X ray

Gynaecology

(1) Management of endometriosis - recent advances
(2) Assisted reproductive techniques
(3) Hormone replacement therapy
(4) Diagnostic techniques
    (a) Laparoscopy

(b) Hysteroscopy
(c) Colposcopy
(d) Ultrasonography

(5) Hormonal disorders in gynaecology

(6) STDS

Lectures in Obstetrics (4th Year)

Content		Lecture Hours (16)
FIRST TERM		
1. Conception and development of fetoplacental unit		1 hour
2. Fertilisation,implantation, placental barrier		1 hour
3. Placenta, amniotic fluid and umbiliucal cord: Development, structure and function		1 hour
4. Anatomical and physiological changes during pregnancy		1 hour
5. Diagnosis of pregnancy		1 hour
6. Antenatal care	(a) Objectives, principles of antenatal care, identification of high risk pregnancy (b) Nutrition during pregnancy, lactation and Counseling on IYCF (c) Vomiting in early pregnancy	1 hour 1 hour 1 hour
Evaluation		1 hour
SECOND TERM		
7. Normal labour	(a) Def, Stages, mechanism of normal labour (b) Management of normal labour	1 hour 1 hour
8. Normal puerperium	Physiology & Management	1 hour
9. Baby	(a) Examination and care of newborn baby (b) IYCF	1 hour 1 hour
Evaluation		1 hour

Lecture contents in Obstetrics (5th Year)

Content		Lecture Hours
FIRST TERM		
1. Hypertensive disorder in pregnancy including pre-eclampsia and eclampsia		2 hours
2. Medical disorders in obstetrics	(a) Anaemia in pregnancy (b) Diabetes (c) Heart diseases (d) UTI, Hepatitis, Dengue, COVID & other	3hours
3. RH incompatibility		1 hour
4. Ante-partum haemorrhage	(a) Definitions, classification, clinical features, complications and management	2 hours

5. Multiple pregnancy	Types and definitions, clinical features, complications, diagnosis and principles of management	1 hour
6. Malposition and malpresentation: causes and management (Breech, transverse lie)		1 hours
Formative Assesment		1 hour
SECOND TERM		
7. Normal labour 8 Induction of labour	• Review of what has already been taught • Diagnosis of stages and assessment of progress of labour • PARTOGRAPH • Pain relief • Foetal monitoring	2 hours 1 hour
9. Abnormal labour	(a) Prolonged labour: Definition, aetiology, diagnosis, complications, management (b) Obstructed labour: Definition, aetiology, diagnosis, complications, management (c) Ruptured uterus	3 hours
10. Post-partum haemorrhage (PPH)	Definitions, causes (atonic, traumatic and others) of PPH, prevention and management	1 hour
11. Puerperium	(a) Review of what has already taught (b) Abnormal puerperium and management	1 hour 1 hour
12. The new born	(a) IYCF --Breast feeding and complementary feeding (b) Management of asphyxia neonatorum (c) Jaundice & other problems in new born	1 hours 1 hour 1 hour
Formative Assesment		1 hour

THIRD TERM		
12. IUGR, Pre-maturity, Post-maturity & IUFD and their complication		2 hours
13. Obstetric operative procedures	Episiotomy, caesarean section, vacuum and forceps deliveries, version, destructive operations: their indications and complications	2 hours
14. Vital statistics: MMR and perinatal mortality and morbidity: Definitions & ethical obstetrics, MDG, EOC		2 hours
15. Diagnostic aids in obstetrics and modern advances in obstetrics (a) Ultrasonography - Basics of ultrasound - Advantages of ultrasound - Role in obstetrics - Limitation (b) Foetal monitoring - CTG (c) Amniocentesis, CVS		1 hours
Formative Assesment		1 hour

Learning Objectives and Course Contents in Obstetrics

Learning Objectives	Contents	Teaching hours

The student should be able to
• define the common terms used in obstetrics
• define conception, fertilization implantation, fetoplacental unit and placental barrier.
	• Feto placental Unit :
	  • Terms & definition
	  • Fertilisation, implantation, fetoplacental unit, placental Barrier
		2hrs

• mention development, structure & function of placenta. • describe the formation, circulation and function of amniotic fluid. • mention structural, function and development of umbilical cord.	• Placenta, amniotic fluid and umbilical cord: Development, structure and function	1 hr
• describe the anatomical changes during pregnancy • describe the physiological changes of pregnancy	• Anatomical and physiological changes during pregnancy	1 hr
• take history of early pregnancy • mention the early symptoms and signs of pregnancy	• Diagnosis of Pregnancy • Antenatal care	1 hr 4 hours
• describe the characteristics of normal labour. • recognise each stage of labour • plot the events of labour on partograph and interpret the graph • describe the mechanism of labour • mention the management of each stage of labour	• Normal Labour – stages, Mechanism and management.	2 hrs
• define pre-eclampsia, eclampsia, mention incidence, etiology, theories ognise complications and describe management including use of Magnesium Sulphate	• Pregnancy induced Hypertension • Pre-eclampsia • Eclampsia	3 hrs
• define APH, mention its causes understand the types of APH • differentiate between placenta previa and abruptio placentae • mention the complication of abruptio placentae including DIC. • manage the placenta praevia, abruptio placentae	• APH • Placenta previa • Abruptio placenta	2 hrs
• define post-dated pregnancy, state etiological factors, diagnose post-dated pregnancy, list complications, manage post-dated pregnancy	• Post Dated Pregnancy	1 hr

Learning Objectives	Contents	Teaching hours
The student should be able to • define and describe, incidence, complications, diagnosis and management of anaemia, Diabetes in pregnancy , Hypertensive disorders and heart disease in pregnancy	• Medical disorder in pregnancy :- a. Anemia b.Diabetes in pregnancy c.Hypertensive disorders d. Heart disease in pregnancy	6hrs
The student should be able to • define obstructed labour • mention the etiological factors • diagnose and manage the obstructed labour • describe the complications of obstructed labour • define prolonged labour • differentiate prolonged labour from obstructed labour • describe the complications • manage the prolonged labour • define the ruptured uterus • mention the etiological factors and incidence • diagnose and manage	**Abnormal labour:** • Obstructed Labour • Prolonged Labour • Raptured Uterus	3 hrs
• define PPH • list the types • describe the causes of PPH • describe the complications of PPH • describe retained placenta • diagnose and manage retained placenta • diagnose and manage PPH. • Prevention of PPH through use of AMTSL in facilities and Tab. Misoprotol (orally) in the home deliveries.	• PPH • Retained placenta	1 hrs

Learning Objectives	Contents	Teaching hours
The student should be able to • describe the common obstetric procedures • describe the role of these procedures in obstetrics • define and to differentiate it from trial of Labour • mention the types of induction • describe the indication and complication of each type of induction • define and know the types • describe the procedure of version • describe the indication and complications • describe the post version management • define and state the types and Episiotomy • explain the indication and procedure • describe the management • describe the complications • list the types • explain the indication and prerequisite and contraindications • describe the procedure • list the complications • write down the postnatal management	**Obstetric operative procedure:** • Induction of Labour • Version • Episiotomy /perineotomy • Forceps delivery	2 hrs

Learning Objectives	Contents	Teaching hours
The student should be able to • describe the ventouse extraction • mention the indications and contraindications • mention the advantages • describe the complications • give postnatal management • describe common obstetrics operations • mention the history & define LUCS • mention the different types • describe the indications • mention the steps of operation • describe the complications • write down the pre-operative and post-operative treatment. • describe the different types & perineal tear • diagnose and to manage the perennial tears • describe Cervical Tears • mention the etiological feature • diagnose and manage • mention the complications and its relations to PPH	• Ventouse • LUCS • Perineal tear • Cervical Tear	

Learning Objectives	Contents	Teaching hours
The student should be able to • describe the different destructive operations • mention the indication of each destructive operations • mention the pre-operative and post-operative management • describe the complication of each destructive operation • mention the role of destructive operations in modern obstetrics	• Destructive operations	2hrs
• define and understand the normal puerperium • mention the anatomical and physiological changes in normal puerperium • describe the process of involution • manage the normal puerperium • describe the abnormal puerperium • mention the complications of puerperium • manage the abnormal puerperium	• Normal and abnormal puerperium	1hrs
• describe the care of new born including application of Chlorhexidine drop on the umbilical stump • mention the immunization schedule of new born care • mention the management of umbilical cord	• Care of New Born:	1 hr

Learning Objectives	Contents	Teaching hours

The student should be able to
• describe the asphyxia neonatorum
• mention the causes of asphyxia
• describe APGAR score and its interpretation
• diagnosis and manage
• list the complications
• describe the physiology of lactation
• describe the pre-lacteal feed, attachment, nipple infection, exclusive Breast feeding Describe the physiology of lactation
• mention the advantages of breast feeding
• describe
  • exclusive Breast feeding for the first 6 months and use it as Lactational Amenohoea Method (LAM) of contraception
  • colostrum and mature milk
  • position, attachment and expression
  • breast problem
  • breast feeding in special situation
• list the 10 (Ten) steps
• describe BMS code
• describe LAM
• state maternity protection (leave and creche)
• counsel a mother for Breast feeding
• mention the advantages of breast feeding
• counsel a mother for Breast feeding
• list the 10(Ten) steps
• list the types
• describe the aetiology
• manage the birth injuries
• describe the common neonatal infection
• outline Diagnose and to manage
• list the complications
• describe foetal monitoring in pregnancy and in labour
• mention the different method used for foetal monitoring
• recognise the foetal distress and describe the management
• describe the interpretation of foetal monitoring.
	• Asphyxia, Neonatorum
	• Breast Feeding & IYCF
	• Birth Injuries
	• Neonatal Infections
	• Neonatal Jaundice
	
	• Foetal Monitoring
		5 hours

Learning Objectives	Contents	Teaching hours
The student should be able to • describe the diagnosis and in obstetrics • mention the principles of ultrasound • mention the role and advantages of ultrasonography in obstetrics • describe the indications of ultrasonography • mention the limitations • mention the principles of radiology • mention the role and advantages • describe its limitation in obstetrics • mention the different views of Radiology in obstetrics • define amniocentesis • mention the advantages • state the indications	**Diagnostic aid in obstetrics :** • Ultrasonography • Radiology • Amniocentesis, CVS	2 hrs

Learning Objectives for Obstetrics

The student will be able to apply knowledge and understand of the following:

1. Normal pregnancy
    - Diagnosis of pregnancy
    - Antenatal Care
    - Screening for high risk pregnancy
    - Nutrition and Hygiene of a pregnant mother

2. Hypertensive disorders of pregnancy including pre-eclampsia, Eclampsia. APH, Rh incompatibility, IUGR, Multiple pregnancy, grand multiparity, pre-maturity, post maturity.
    - Definition
    - Aetiology
    - clinical presentation
    - Diagnosis
    - Management
    - Complication
    - Follow up of treatment.

3. Medical disorders in pregnancy (Anaemia, Diabetes, UTI, Heart disease, Jaundice, Tuberculosis & others)
    - Incidence of diseases
    - Natural history of diseases
    - Aetiology
    - Clinical presentation
    - Diagnosis
    - Management
    - Effect on pregnancy and vice versa

4. Normal labour
    - Definition
    - Stages; mechanism
    - Diagnosis
    - Management
    - Partograph

5. Abnormal labour
    - Definition
    - Types
    - Diagnosis
    - Management
    - Follow-up

6. Puerperium:
    - Definition of normal puerperuim
    - Anatomical and physiologial changes
    - Management of normal puerperium
    - Post-natal care including general advice
    - Course of abnormal puerperium
    - Management of abnormal puerperium

7. New born:
    - Definitions related to newborn
    - Examinations and care of newborn
    - Resuscitations
    - Diagnosis and management of asphyxia, jaundice and neonatal infections
    - Feeding problems

8. Common diagnostic techniques Ultrasonography, Radiology, Foetal Monitoring and Amniocentesis, CVS
    - Uses
    - Advantages
    - Disadvantages

9. Obstetric procedures and operations:
    - Induction of labour
    - Version
    - Episiotomy
    - LUCS
    - Forceps delivery
    - Ventouse delivery
    - Destructive operations

10. Vital statistics and social obstetrics
    - Maternal & Perinatal mortality and morbidities
    - Causes of maternal and perinatal mortality and morbidities including socio-economic and environmental factors.
    - Method of calculating MMR, PNMR
    - National programs for MCH&FW, EOC,
    - Counseling –basic concepts and specific counselling in specific obstetric situations.
    - Ethical issues in obst. & gynae

Lectures in Gynaecology (4th Year)

Content		Lecture Hours
FIRST TERM		
1. Anatomy of the female reproductive organs	(a) Basic anatomy of uterus, ovaries, tubes, vagina and vulva (b) Relationship of uterus, ovaries, tubes and vagina to other pelvic organs (c) Development & developmental anomaly of genital organs	2 hours
2. Physiology of reproduction	(a) Puberty, menstruation, ovulation (b) Fertilisation and implantation	2 hours
3. Formative Assesment		1 hour
SECOND TERM		
4. Bleeding in early pregnancy	(a) Abortion Definition, types, causes and management of all types of abortion (b) Ectopic pregnancy Definition, aetiopathology, clinical features, differential diagnosis and principles of surgical management. (c) Trophoblastic tumours I. Hydatiform mole: types, clinical features, complication differential diagnosis, management and follow up. II. Choriocarcinoma: diagnosis and management	1 hour 1 hour 1 hour
4. Formative Assesment		1 hour
THIRD TERM		
6. Vaginal discharge	(a) Physiological, vaginal discharge (b) Pathological and their management	1 hour
7. Menstrual disorder	(a) Amenorrhoea Types, causes and principles of management (b) Menorrhagia Definition, causes and management (c) Metrorrhagia Definition, causes and management (d) Dysmennorhoea (e) Dysfunctional uterine bleeding Definition, classification, diagnosis, principles of investigation and management	1 hour 2 hours 1 hour
8. Formative Assesment		1 hour

Lecture contents in Gynaecology (5th Year)

Content		Lecture Hours
FIRST TERM		
1. Genital tract infection	(a) Defense mechanism of genital tract (b) Pelvic inflamatory diseases: acute and chronic (c) Sexually transmitted diseases including AIDS (d) Genital tuberculosis	1 hour 1 hour 1 hour
2. Urinary incontinence	(a) Definition, types (b) Genitourinary fistula: Types, causes, clinical features, principles of management, prevention	1 hour 1 hour
3. Genital tract injuries:	(a) Perineal tear (b) RVF (c) Vaginal stenosis	1 hour
4. Genital prolapse	Types, aetiology, clinical features, diagnosis, differential diagnosis, principles of management	2 hours
5. Formative Assesment		1 hour
SECOND TERM		
6. Endometriosis	Definition, types, clinical features principles of management	1 hour
7. Neoplasia of reproductive organs	(a) Benign and malignant tumours of cervix Classification (fibroid, polyp, carcinoma cervix), clinical features, staging investigation, diagnosis, principles of management (b) Benign and malignant tumours of uterus (c) Benign and malignant tumours of ovary	5 hours 2+1+2
8. Subfertility	(a) Causes, investigation and management both male and female partner (b) Assisted reproductive techniques	2 hours
9. Formative Assesment		1 hour
THIRD TERM		
10. Contraception	Importance of contraception, classification, mechanism of action, advantages, disadvantages, complications of all methods particularly sterilization and menstrual regulation and MRM	3 hours
11. Menopause	(a) Definition, physiological basis, changes in different organs of body, clinical features of menopausal syndrome, principles of management (b) Post menopausal bleeding (c) Hormone replacement therapy	2 hours
12. Diagnostic Technique	(a) Cervical smear (b) Laparoscopy (c) Hysteroscopy (d) Coloscopy (e) Ultrasonography	2 hours
13. Principle of common gynaecological surgeries		1 hour
14 .Preoperative preparation & post operative management of common gynaecological surgery		1 hour
15. Formative Assesment		1 hour

Learning Objectives and Course Contents in Gynaecology

Learning Objectives	Contents	Teaching hours
At the end of session the students will be able to: • describe the gross anatomy of ovaries, uterus, fallopian tubes, vagina & vulva • mention the blood supply, lymphatic drainage and nerve supply of these organs • discuss the relations of the pelvic organs with each other • describe the development and developmental anomly of pelvic organs	**Basic Anatomy of genital organs**	2 hours
• define puberty, ovulation, menstruation, menopause, climacteric, fertilisation and implantation • mention the changes in reproductive organs in different stages of life • describe the mechanism of ovulation, menstruation fertilisation, implantation • mention the situations where physiology can get disturbed. • describe the subject more clearly • demonstrate communication and presentation skill.	**Physiology of reproduction**	2 hours

Learning Objectives	Contents	Teaching hours
At the end of session the students will be able to: • define each problems • mention the incidence of each problem • classify abortions • differentiate different abortions • describe the pathology of mole and choriocarcinoma • diagnose each problem • manage each problem • mention the complication of each problem	**Bleeding in early pregnancy Abortion, ectopic pregnancy, hydatidiform mole, choriocarcinoma**	(2 + 1+ 2+ 1) hour
• describe the physiology of vaginal discharge. • differentiate physiological and pathological vaginal discharge. • diagnose the diseases causing vaginal discharge • mention the treatment of vaginitis, cervicitis	**Vaginal discharge**	1 hour
• define amenorrhoea, menorrhagia, polymenorrhoea, polymenorrhagia, Metrorrhegia, dysmenorrhoea, dysfunctional uterine bleeding. • mention types of amenorrhoea its causes and management • mention types of dymenorrhoea • describe the causes and management of metrorrhagia • mention the classification, diagnosis, principles of investigations and management of dysfunctional uterine bleeding.	**Menstrual Disorder**	4 hours

Learning Objectives	Contents	Teaching hours
At the end of session the students will be able to: • describe the defence mechanism of genital tract • define, classify, diagnose manage pelvic inflammatory disease. • mention the effects of sexually transmitted diseases on reproductive health of women • diagnose and treat a case of genital tuberculosis. • define and classify urinary incontinence • mention the types, causes, diagnosis, presentation and management of genitourinary fistula. • mention different types of perineal tear • diagnose and manage perineal tear and RVF, vaginal stenosis • describe the aetiology of genital prolopse • classify genital prolapse • mention the clinical features • diagnose a case of genital prolapse • mention the principles of management of genital prolapse. • demonstrate communication and presentation skill	**Genital Tract infections** **Urinary Incontinence** **Genital tract injuries** **Genitourinary prolapse**	3 hours 2 hour 1 hour 2 hours 2 hours

Learning Objectives	Contents	Teaching hours
At the end of session the students will be able to: • define endometriosis and adenomyosis • mention the clinical features and pathology of endometriosis • describe the effects of endometriosis on reproductive health • mention the principles of treatment of endometriosis. • mention the different types of tumours arising from uterus, cervix, ovraries, vagina, vulva • classify the tumours of individual organs • diagnose the tumours • differentiate tumours arising from different organs. • describe the complications of different tumours. • discuss the principles of management of tumours of individual organs. • name different screening tests done for gynaecological cancers. • define infertility • classify infertility • describe the aetiology of infertility • suggest investigations for both male and female partners. • interprete the investigation reports. • suggest appropriate treatment • mention the assisted reproductive techniques available.	**Endometriosis** **Neoplasm of reproductive organs** **Subfertility**	1 hours 5 hours 2 hours

Learning Objectives	Contents	Teaching hours
At the end of session the students will be able to: • define contraception • mention different types of contraceptions available • describe the characteristics of ideal contraceptive • describe the mechanism of action of each contraceptive • state the advantages and disadvantages of different contraceptives. • describe the methods of tubal ligation and vasectomy and anaesthesia used • mention the complications of tubectomy • define MR. • name the instruments used in MR. • describe the procedure and importance of follow-up • mention advantages and complications of MR • mention the importance of counselling • define menopause • describe the anatomical and physiological changes in menopause • describe menopausal syndrome and its management • define post-menopausal bleeding (PMB) • mention the causes of post-menopausal bleeding • write down the investigation PMB • mention the management • mention the hormone replacement therapy(HRT) in post-menopausal women	**Contraception** **Menopause**	2 hours 2 hours

Learning Objectives	Contents	Teaching hours
At the end of session the students will be able to: • mention the different diagnostic techniques commonly used including Visual Inspection with Acetic acid application (VIA test)	**Diagnostic Technique**	2 hours
• mention the indication of cervical smear • describe the procedure of cervical smear • interprete the findings • explain its relation with carcinoma cervix	**Cervical Smear**	
• be acquainted with instruments used in laparoscopy • mention the indications and contraindications • describe the procedure • mention the complications • interprete the findings	**Laparoscopy**	
• describe colposcopy • be acquainted with instruments • mention the indications • describe the procedure • interprete findings • describe the advantages	**Colposcopy**	
• be acquainted with ultrasonography • be acquainted with instrument • describe the role of ultrasonography in gynaecology • interprete the findings	**Ultrasonography**	

Learning Objectives	Contents	Teaching hours
At the end of session the students will be able to: • describe the different gynaecological operations • mention the indication of each operation • describe the complications of each operations • write down the pre-operative treatment of each operation • mention the pre-operative investigation of each operation • write down post-operative treatment of each operation • mention the relation of each operation with pregnancy and reproductive life. • describe the name of anaesthesia for each operation	**Common Gynaecological Surgery**	1 hour

CLINICAL TEACHING OF OBSTETRICS & GYNAECOLOOGY

INTRODUCTION

The Core Curriculum for Clinical Attachment of 16 weeks has been organised into components of clinical experience as follows:

1.	Basic Clinical Skills (in-patient)	4 weeks
2.	Family Planning Clinic	2 weeks
3.	Gynae & Antenatal Out-patient Clinic	2 weeks
4.	Routine Obstetrics	3 weeks
5.	Routine Gynaecology	3 weeks
6.	Emergency Obstetric Care E.O.C (Labour Room)	2 weeks

Fourth year M.B.B.S. students will participate in batches in turns in components 1, 2 and 3.

Component 1 will have 24 clinical teaching and learning sessions (4w x 6d=24) and component 2 & 3 will have 12 like-wise sessions each (2w x 6d = 12).

Each session will be conducted for 2 hours every morning from 09.00 a.m. – 11.00 a.m.

In the evenings, students will clerk/ practise for 2 hours from 07.00 p.m. – 09.00 p.m., under supervision

Fifth year M.B.B.S. students will participate in components 4, 5 and 6.

Component 4 and 5 will have 18 clinical teaching and learning sessions each (3w x 6d =18) and component 6 will have 12 like-wise sessions (2w x 6d =12).

Each session will be conducted for 2 hours every morning from 09.00 a.m. – 11.00 a.m.

In the evenings, students will clerk/ practise under supervision from 7.00 p.m. – 9.00 p.m.

The evening timing for component 6, however, will be from 4.00 p.m. – 9.00 p.m.

CONTENTS:

Topics included are relevant to every day clinical practise in the field of Gynaecology and Obstetrics.

Learning objectives (skills) are shown against each topic under each sessions.

Many of the topics of the content of the clinical course are supplemented by a study guide.

The study guides are structured to provide students with varied opportunities to facilitate active involvement and self-directed learning and also to enable them to exercise responsibility under guidance by making maximum and productive use of the period of time of their clinical attachment.

The study guide for the respective topic details

(a) introduction,
(b) pre-requisite learning,
(c) the learning objectives,
(d) learning opportunities,
(e) assignments,
(f) tasks to be performed,
(g) resources,
(h) self assessment questions.

4TH YEAR BASIC CLINICAL SKILLS
(COMPONENT – ONE)

4 weeks – 24 sessions in the morning

SESSIONS	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 1	(a) Introduction to Obstetrics & Gynaecology Review 1. Common diseases 2. Commonly used definitions (b) Brief students on course objectives/ activities and student's cards (c) Visit to ante-natal/ postnatal wards; labour/ eclampsia room; septic ward; Gynae ward; operation theatres	At the end of the session student will acquire knowledge and understanding of: (a) Common gynaecological & obstetrics terms, common disease of O&G that are prevalent in the community (b) Course objectives, activities and students, continuous assessment card	Tutorial/small group discussion Organise	Participate in the discussion Visit to different activity areas of O&G Department
Session 2	Obstetric History taking This session will take the format of a discussion detailing Obs. History taking, followed by the opportunity to clerk an Obs. patient in the ward and subsequently present the case history.	Student will be able to: (a) Take history of an obstetrical case (b) Record the information on the history sheet (c) Present case history	Demonstration by teacher	a) Practice by students in groups b) Practice by individual student c) Case presentation

SESSIONS	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 3	Gynaecology history taking This session will take a similar format to Session II.	Student will be able to: (a) Take history of gynaecological case (b) Record the information on the history sheet (c) Present a case	Demonstration by teacher	a) Practice by students in groups b) Practice by individual student c) Case presentation
Session 4	Obstetric examination	(a) Perform obstetrical examination (i) General (ii) Abdominal	Demonstration by teacher	a) Practice by students in groups b) Individual case study using study guide c) Present clinical findings
Session 5	Gynaecological examination Taking of cervical smears (using models).	Perform gynaecological examination I. General II. Abdominal III. Speculum examination IV. Bimanual examination	Demonstration by teacher	Practice by students on dummy in clinical skill room
Session 6	Antenatal care with identification of high risk pregnancies	1. To record the finding on the antenatal cards by (I) Taking proper history (II) Performing general & abdominal examination 2. To advise pregnant women for appropriate investigation for screening for common risks	(a) Demonstration by a teacher (b) Lecture	Practice by case study in groups Case study by group
Session 7 & 8	Bleeding in early pregnancy Abortion, Ectopic Pregnancy, molar pregnancy- chorio-carcinoma	Rationalize the plan of management	Lecture/ video show	Discussion on individual case study

SESSIONS	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 9	Septic Abortion	Rationalize the plan of management	Lecturette/ video show	Discussion, individual case study
Session 10 to 12	Normal labour and Partogram Diagnosis, stages, Mechanism, Management with partogram	Recognise the events of labour Plot the events on the partogram and interpret the graph Rationalize the use of analgesic Conduct normal labour	Arrange video show/ Demonstration on partograph Demonstration of conducting normal labour	a. Observe video show b. Observe teacher's demonstration c. Plotting on partograph by individual d. Conduction of labour under supervision
Session 13	APGAR score, examination of new born, resuscitation & care of new born, breast feeding	Examine, diagnose problems and take immediate care of a new born	Arrange video show/ slide show/ demonstration	Observe: - video show - slide show - teacher's demonstration
Session 14 & 15	Normal puerperium & post natal care Abnormal puerperium	Counsel on (a) Nutrition of mother (b) Personal hygiene (c) Postnatal exercise (d) Breast feeding and weaning (e) Immunisation of baby (f) Postnatal check-up (g) Contraception	Role play by teacher	Role play by students in small group Practice with patients

SESSIONS	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 16	Abnormal uterine bleeding Definition, differential diagnosis	(a) Collect appropriate clinical information by history taking and examination (b) Suggest appropriate investigation (c) Interpret and correlate the investigations data with clinical findings for clinical diagnosis (d) To plan and rationalize the management	Lecture/ video show/ case demonstration	Discussion Individual case study
Lump Abdomen	-do-	-do-	-do-	
Abdominal / pelvic pain – P.I.D.	-do-	-do-	-do-	
Theatre sessions Preparation of patient, preoperative management, operative procedure, post operative management	(a) Write up appropriate pre & post operate order (b) Rationalize the order	Demonstration	Practise by students and peer group discussion Using study guide	
Evening Session	Clerk patients, observe labour room activities and practise the skills that the student learned in the morning sessions.			
Session 23	**Assessment (Oral/ Clinical / OSCE)**			
Session 24	Feedback			

N.B: Students must submit 3 obs. & 2 Gynae, history and must fill up assessment card.

Family Planning Course
For
4th year Medical Students
(COMPONENT –TWO)

Venue – Model Clinics of the Medical College Hospitals **Duration–2 weeks**

Day	1	-	Administration and maintenance of records	
	2	-	Promotion of family planning	
	3	-	Counselling	
	4	-	Oral combined contraceptive pills (OCPs) and Progesterone only pills (POPs)	
	5	-	Intra-uterine contraceptive device	
	6	-	Permanent methods	
	7	-	Injectable contraceptives (IM and sub-cutaneous)	
	8	-	Implant (0ne rod and two rods)	
	9	-	Safe period, lactational amenohhorrea method (LAM), condoms, coitus interruptus	
	10	-	Day visit:	Management issues in family planning. Organisation of a clinic.
	11	-	Day visit:	Organisation of a clinic (continued) Working as a member of a team. Acting as a supervisor.
	12	-	Assessment and feedback	

Family Planning Course

Methods	Aids	Assessment
• Lecture • Visit antenatal clinic & paediatric clinic. • Group discussion • Demonstration of record keeping • Inspection of raw data collected at the clinic. • Interpretation of the results in group discussion • Small group teaching • Role play • Demonstration • Brainstorming • Visit postnatal ward, Interview of patients individually to motivate them towards family planning. • History of patients & counselling observation of examination. • Demonstration of operative steps on models or video • Demonstration of counselling of a patient in real life or by video • Demonstrating on injection, syringes, needle • Demonstrate on storage • Demonstration of condoms • Referral procedures	• Black board • OHP • Radio • Cassette • Posters • Flip chart • Video • Variety of OCPs including progesterone only pill (POP) • Menstrual chart • Client • Specimen of IUCD • Clients and dummy • Models • Chart • Different types of injectable contraceptives (IM and SC) • Implant (one rod and two rods) • Model of arm for demonstration of implant insertion • Model breast + baby • Condom • Emergency Contraceptive Pills (ECPs)	• Question & answers • Observation of students • Check-list completion

Day 1: Administration and Maintenance of records

Intermediate Educational Objective: At the end of the session the student will be able to perform the necessary supervisory and administrative procedures of a family planning clinic and maintain proper records.

Specific educational objectives	Contents
The student will be able to: 1) monitor staff programme maintain harmonious staff relations maintain good communications monitor the out put of a worker 2) make appropriate referrals in an effective way between departments like the antenatal clinic, paediatric clinic, menstrual regulation clinic, and the family planning clinics 3) follow standard procedures which will prevent medico-legal problems 4) write useful clinical records and maintain the ledger book 5) maintain data in an accessible and analysable form. analyse data collected at a family planning clinic and interpret the results	Administration (organogram, responsibility, supervisory method, Method of communication) Staff pattern Interdepartmental linkages and Co-operation. Informed consent before prescription or procedure. Written consent. Standard procedure manuals. Communication with other staff Clinical record keeping Data recording, analysis and interpretation.

Day 2: Promotion of Family Planning

Intermediate role: At the end of the session the student will be able to play a leadership role in the promotion of family planning.

Specific educational objectives	Contents
A. At the end of the session the student should be able to: 1. define Family Planning 2. describe the importance of Family planning, particularly for our country 3. demonstrate understanding that pregnancies can be avoided and spaced 4. describe the personal benefits of birth spacing 5. communicate with, advice and motivate individuals and group of clients 6. supervise and support health education programme 7. administer available posters/ leaflets 8. use electronic and other media 9. demonstrate the ways and means of community education/ mobilization 10. list the opportunities a medical practitioner has to promote Family Planning B. At the end of this session the students should have acquired the required skill to: 1. communicate with an individual client about family planning 2. build rapport	Definition of family planning The population explosion - Health & population indices - Demographic pattern & trends in Bangladesh Benefits of Family Planning: - personal - national - environmental Health education and counseling Community mobilization and participation The use of media in the promotion of family planning The role of general practitioners, medical officers and specialists in the promotion of family planning Health care interview

Day 3: Counselling

Intermediate Educational Objective: At the end of the session the student should be able to explain the component of counselling, and be able to achieve good Inter-personal relations in a counselling situation.

Specific educational objectives	Contents
A. At the end of the session the student should be able to: i) explain and define counselling and it's need ii) explain inter-personal communication iii) list the barriers to inter-personal communication B. Students should have acquired the skill to be able to: 1. greet the client 2. establish rapport 3. ask reasons for coming 4. Inform about available contraceptive methods with their - mode of actions - effectiveness - method of application - availability of services - follow up - referral system 5. Assist the client in making decisions	I) Definition of counselling and the need for it II) Level of communication III) Inter-personal communication and feedback IV) Barrier to communications i) Communication skill ii) Counselling skill iii) Taking account of educational status of the client Merits and demerits

Day 4: Oral Contraceptive Pill

Intermediate Educational Objective: At the end of the session the student will be able to prescribe an appropriate Oral Contraceptive pill to the client.

Specific educational objectives	Contents
The student should be able to: 1. explain the mode of action and effectiveness of the OCP 2. list the advantages and disadvantages of OCP 3. make a checklist for indications and contraindications, and make appropriate case selection 4. describe different OCP for making options for the client and advise the client about proper administration of OCP 5. write history and physical findings to identify contraindications to the OCP 6. list the appropriate investigations 7. explain the follow-up procedure to the patient 8. describe the side-effects and complications of OCP and their management 9. describe how to keep proper records for patients on OCP	Pharmacology of Oral contraceptives Comparison of OCP with other contraceptives Side effects and complications of their management History and physical examination prior to OCP prescription

Day 5: I.U.C.D.

Intermediate Educational Objective: Student will be able to advise clients on I.U.C.D. insertion & refer them to specific clinic.

Specific educational objectives	Contents
A. At the end of the session the student should have acquired knowledge of the following and be able to: 1. explain IUCD as a method of contraception 2. explain mode of action of IUCD and its effectiveness 3. explain the advantage & disadvantage of IUCD 4. list different types of IUCD 5. take history and describe the steps of physical examination for case selection 6. describe the insertion procedure 7. describe the follow-up procedure 8. explain the need of record keeping	1. Definitions & varieties 2. Mode of action and effectiveness 3. Advantage & disadvantage 4. Selection criteria 5. Time of insertion 6. P.V. steps of examination 7. Management of complications and referral
B. Student should have acquired skills to do the following: 1. Communicate with client 2. Build rapport with his/her client 3. Assure clients 4. Take history of the client 5. Physical examination of the client 6. Refer to insertion centre	a. Health care interview - interview planning - time - space - kind of exchange - interview questions - termination of interview b. Assurance c. Steps of history taking d. Steps of physical examination e. procedure of referral
C. Should be able to describe the 3(three) procedure of IUCD insertion	Procedure of insertion of IUCD

Day 6: Permanent Methods

Intermediate Educational Objective: Students will be able to counsel clients to enable them to make a choice about the acceptance of vasectomy or tubal occlusion.

Specific educational objectives	Contents
At the end of the session, students should be able to: 1. name and define different permanent methods of contraception and their effectiveness 2. counsel the patients 3. select the patients 4. list the merits and demerits of these methods 5. refer the patients to the appropriate centres 6. take informed consent (obtaining consent from both husband and wife is not mandatory according to Bangladesh Government policy) 7. describe the steps of the operative techniques of these methods and the anaesthetic techniques used 8. list the complication sand their management 9. mention the time of effectiveness of each method 10. describe the importance of record keeping 11. give appropriate advice for post-operative follow-up 12. give advice about the very limited scope of reversal and the techniques used	Description of different method Health care interview Steps of history taking and physical examination Steps of operative techniques Advantages and disadvantages Complications and their management

Day 7: Injectables

Intermediate Educational Objective: Student will be able to select suitable patients for use of injectable contraceptives and counsel them appropriately.

Specific educational objectives	Contents
At the end of the session the student should be able to: 1. name different types of injectables 2. counsel the clients 3. establish rapport 4. describe mode of action 5. describe the advantage of injectables 6. describe the route of administration and duration of action 7. take an appropriate history and carry out an appropriate physical examination 8. identify the different injectables and state their dose 9. select appropriate cases 10. list and manage the complications 11. advise the clients for follow-up 12. describe the importance of record-keeping	Nature and type of injectables Mode and duration of their action Advantages and disadvantages Indications and contra-indications Complications and their management

Day 8: Implant

Intermediate Educational Objective: Student will be able to advise clients on norplant implantation and refer them to specific clinic for implantation.

Specific educational objectives	Contents
A. At the end of the session the student should be able to: 1. explain Implant as a contraceptive method 2. explain mode of action of Implant and its effectiveness 3. list advantages and disadvantages of Implant 4. describe how to take history 5. describe how to do physical examination needed for selection of client for implantation 6. list important laboratory investigation before doing implantation 7. describe implantation procedure (insertion of one rod and two rods are different) 8. describe follow-up procedure 9. explain the management of minor complication 10. describe the implant removal procedure	1. Definition 2. Role of implant as contraceptive method 3. Pharmocokinetics of Implant 4. Mode of action of implant 5. Advantages and disadvantages of implant 6. Steps of history taking of the client for implant 7. Steps of physical examination 8. Hb% urine for routine and microscopy 9. Implantation procedure 10. Follow-up procedure 11. Management of minor complications and referral for the major one 12. Implant removal procedure with indications
B. At the end of the session the student should acquire skills to do the following: 1. Communicate with the client 2. Build rapport 3. Obtain consent paper signed by couple 4. assure client 5. take history of the client 6. physical examination of clients 7. refer to implantation clinic C. Should be able to describe the procedure of implant implantation	1. Health care interview - interview planning - time - space - kinds of exchange - interview questions - terminating interview 2. Consent paper and obtain sign/ agreement from the couple 3. Assurance 4. Steps of history taking 5. Steps of physical examination 6. Procedure of referral Procedure of implant implantation

Day 9: Safe period, lactational amenorrhoea method (LAM), condoms, coitus interruptus

Intermediate Educational Objective: Student will be able to advise clients about safe period as contraceptive procedure.

Session 1 – Safe period

Specific educational objectives	Contents
A. At the end of the session the student should acquire knowledge of the following and be able to: 1. explain safe period as a method of contraceptive 2. explain how safe period works as contraception 3. list advantages and disadvantages of safe period 4. describe how to produce menstrual chart and its use 5. describe follow-up procedure B. Should be able to: 1. communicate with the client 2. take history of the client 3. construct menstrual chart and explain to client	1. Definition of safe period 2. Physiology of safe period and its role as contraceptive 3. Advantages and disadvantages 4. Menstrual chart - definition - preparation - use 5. Follow up advice 1. Health care interviewing 2. Steps of history taking 3. Menstrual chart and its use

Session 2- Lactational amenohorrea method (LAM)

Intermediate Educational Objective: Student will be able to advise clients about lactation as a contraceptive method by explaining it be an Exclusive Breast Feeding approach.

Specific educational objectives	Contents
A. At the end of the session the student should acquire knowledge of the following and be able to: 1. explain lactation as a method of contraception, & describe exclusive breast feeding 2. explain the amount of protection afforded by 'exclusive breast feeding' 3. describe the mode of action 4. list the advantages and disadvantages 5. describe the steps of history taking of breast feeding 6. describe the follow-up advice 7. explain the place of adopting additional method B. Should have skill of the following and be able to: 1. communicate with client 2. take history of breast feeding of the client	1. Physiology of lactation 2. Role of lactation as contraception 3. Advantages and disadvantages of lactation as contraceptive method 4. History taking of breast feeding 5. Follow-up measures 6. Place of adopting additional method 1. Communication skill 2. Steps of history taking of breast feeding

Session 3 – Condom

Intermediate Educational Objective: Student will be able to advise the clients about the condom and its use.

Specific educational objectives	Contents
A. At the end of the session the student should acquire knowledge of the following and be able to: 1. explain condom as a method of contraception 2. describe its mode of action 3. list its advantages and disadvantages 4. describe the role of condoms in preventing STD/HIV infection. B. At the end of the session the student should acquire skill of the following and be able to: explain what to tell about the use of condom to the client	1. Description of condom - materials 2. How it works as contraceptive 3. Advantages and disadvantages - follow-up 4. STD/HIV- AIDS Use of condom

Session 4 – Coitus Interruptus

Intermediate Educational Objective: Student will be capable of advising a client about coitus interruptus

Specific educational objectives	Contents
At the end of the session the student should be able to: 1. describe the place played by coitus interruptus in reducing the fertility rate in the population 2. recognise from what a couple say that they are using coitus interruptus as a method of family planning 3. communicate with clients about the method and describe its advantages and disadvantages, especially the failure rate	1. Local terminology used to describe coitus interruptus 2. Reasons for failure of the method 3. Advantages and disadvantages

Management issues in family planning. Organisation of a clinic

Day 10:

Specific educational objectives	Contents
At the end of the session the student should be able to: 1. list characteristics of a good Manager/ Team Leader 2. identify weaknesses of a bad Manager/ Team Leader 3. differentiate good management and poor management 4. identify management issues such as logistic supply system, FP user FU and complication management.	1. Management issues 2. Leadership - strengths - weaknesses

Organisation of a clinic. Working as a member of a team. Acting as a supervisor

Day 11

Specific educational objectives	Contents
5. discuss organisational issues related to: - booking of patients, - record keeping, - signed consent forms, - prescription, and - follow-up procedure - issuing & administration of FP methods 6. describe a good referral procedure B. Should acquire the necessary skill and be able to: 1. write report on day visit 2. present in forum	3. Record keeping - booking - signed consent form - follow-up procedure 4. Referral procedure 1. Report writing 2. Presentation

Day 12: Assessment and Feedback

(1) An OSCE will be held. Questions will be based on the educational objectives.

(2) Feedback on performance will be given by different teachers

(3) Students will provide the teacher with feedback on their perception of the course

(4) Marks will be awarded for attendance,
General performance,
Team performance on report and presentation,
The O.S.C.E.
Marks will be sent to the students the week after the course.

4TH YEAR in 3rd Phase GYNAE AND ANTENATAL OUTPATIENT CLINIC
COMPONENT – THREE

2 weeks (12 sessions in the morning)

SESSION	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 1	Introduction to Gynaecology and obstetrics (a) Commonly used definitions (b) Common diseases prevalent in the community (c) Vital statistics: birth rate, MMR, causes, prevention, perinatal mortality, live birth, still birth (d) Brief students on course objectives/ activities and student's cards.	At the end of the session student will demonstrate knowledge and understanding of: (a) Common gynaecological & obstetrics terms, common disease of O &G that prevalent in the community (b) vital statistics (c) course objectives, activities and students continuous assessment card	Lecture	Participate Discussion Collect student assessment card
Session 2	History taking (obstetric & Gynae history)	Student will be able to: (a) take history of an obstetric and a gynaecological case (b) record the information on the history sheet	Demonstration by teacher	a) Practice by students in groups b) Practice by individual

SESSION	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 3	Clinical examination (Obstetrical & Gynaecology)	(a) Perform obstetrical & gynaecological examination (i) General (ii) Abdominal	Demonstration by teacher	a) Practice by students in groups b) Individual case study using study guide
Session 4 & 5	(a) Diagnosis pregnancy, antenatal care and advice and advice. (b) Hyperemesis and minor ailments common in pregnancy.	(a) Collect appropriate clinical information by history taking and examination (b) Suggest appropriate investigation (c) Interpret and correlate the results of investigations with clinical findings for clinical diagnosis (d) To plan and rationalize the management	Case demonstration Tutorial	Participation by students Case study in groups
Session 6 to 11	Common out patient gynaecological problem Abdominal swelling, abdominal pain/ P.I.D., vaginal discharge, amenorrhea, menorrhagia, infertility.	-do- Counsel patient or her spouse or relative or hospitalization for any common gynaecological problems	Case demonstration Tutorial Demonstration Role play	Participation by students Case study in groups Role play Practice by students
Session 12	**Assessment (Oral/ Clinical/ OSCE) & feedback**			

5th YEAR in 4th Phase ROUTINE OBSTETRICS

(COMPONENT – FOUR)

3 weeks – 18 sessions in the morning

SESSION	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 1 & 2	Ante-natal Care and Screening for high risk pregnancies	1. Interpret the findings obtained by history taking physical examination and investigation	Demonstration by a teacher	Practise by case study in groups
		2. Identify anaemia clinically		Case study by group
		3. Identify nutritional status	Lecture	Practice by students on individual cases
		4. Identify hypertension		-do-
		5. Counsel women on importance of	Demonstration by the teacher	
		(a) Regular antenatal care (b) Nutrition (c) Personal hygiene		Role play by students in small group
		(d) Healthy life style during pregnancy (e) Breast feeding (f) Contraception	Role play by a teacher	Exercise with patient

SESSION	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 3 &4	Hypertensive disorders in pregnancy	(a) Collect appropriate clinical information by history taking and examination (b) Suggest appropriate investigation (c) Interpret and correlate the investigations data with clinical diagnosis (d) Plan and rationalize the management	Case demonstration by the teacher	Practise with problem solving exercise in tutorial
Session 5	Abnormal lie/ presentation (Breech)	-do-	-do-	-do-
Session 6	Multiple pregnancy & hydromnios	-do-	-do-	-do-
Sessions 7 & 8	Medical disorders Diabetes, Heart disease & others	-do-	-do-	-do-
Session 9	Rh isoimmunization/ Grand Multipara / BOH/ H/O / C/S	-do-	-do-	-do-
Session 10	Ante partum haemorrhage	-do-	-do-	-do-
Session 11	I.U.G.R.	-do-	-do-	-do-
Session 12 to 13	Puerperium & its complications	-do-	-do-	-do-

SESSION	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 14 to 16	Theatre Session Writing of preoperative orders, operation note, post operative order, observe common obstetric operations.	To write preoperative orders, operation notes, post operative orders	Demonstration by teacher	Write preoperative orders, operation notes, post operative orders Observe common obstetric operations
Evening Session	Clerk patients, observe labour room activities and emergency operations and practise skills that the students learned in the morning sessions			
Session 17	**Assessment (Oral/ Clinical/ OSCE**			
Sessions 18	Feedback			

N.B. All students must submit 5 histories and fill up the assessment card.

5TH YEAR in 4th Phase ROUTINE GYNAECOLOGY

(COMPONENT – FIVE)

3 weeks – 18 sessions in the morning

SESSION	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 1 & 2	Bleeding in early pregnancy Abortion, ectopic pregnancy, molar pregnancy including choriocarcinoma	(a) Collect appropriate clinical information by history taking and examination (b) Suggest appropriate investigation (c) Interpret and correlate the investigations data with clinical findings for clinical diagnosis (d) To plan and rationalize the management	Case demonstration by the teacher Arrange problem solving tutorial	Practise with problem solving exercise in tutorial Case study
Session 3 & 4	Abnormal uterine bleeding/ Amenorrhea	-do-	-do-	-do-
Session 5	Abdominal pain Pelvic inflammatory disease	-do-	-do-	-do-
Sessions 6	Abdomino-Pelvic swelling Ovarian tumour, Fibroid	-do-	-do-	-do-
Session 7 & 8	Infertility Causes, investigations and treatment	-do-	-do-	-do-
Session 9 &10	Genital cancer Carcinoma Cervix, Endometrial Carcinoma	-do-	-do-	-do-
Session 11	Genital tract injuries Vesico vaginal fistula, recto vaginal fistula, third degree perineal tear, vaginal stenosis	-do-	-do-	-do-

SESSION	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Sessions 12 & 13	Fertility Control O.C.P, P.O.P, post-coital contraception , barrier and natural methods, IUCD, T.O.P/ M.R.	Counsel clients on: Fertility Control O.C.P, P.O.P., post-coital contraception, barrier and natural methods, IUCD, T.O.P./ M.R.	Demonstration by teacher Video Role play Tutorial	Role play Practise with the clients
Sessions 14 to 16	Theatre Session Pre-operative management, post-operative management To Observe common gynaecological operation	Write preoperative orders, operation notes, post operative orders	Demonstration by teacher	Write preoperative orders, operation notes, post operative orders Observe common gynaecological operations
Evening Session	Clerk patients, observe gynae ward activities and practise those had learned in the morning sessions			
Session 17	**Assessment (Oral/ Clinical/ OSCE**			
Sessions 18	Feedback			

N.B. All students must submit 5 histories and fill up the assessment card.

5TH YEAR in 4th Phase/ EMERGENCY OBSTETRIC CARE (EOC) AND LABOUR ROOM

(COMPONENT – SIX)

2 weeks – 12 sessions in the morning

SESSION	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	STUDENTS' ROLE
Session 1	Management of normal labour, partogram	Recognise the events of labour Plot the events on the partogram and interpret the graph Rationalise the use of analgesic Conduct normal labour	Arrange video show/ Demonstration on partograph Demonstration on conducting normal labour	a. Observe video show b. Observe teacher's demonstration c. Plotting on partograph by individual d. Conduction of labour under supervision
Session 2	Induction of labour	(a) Collect appropriate clinical information by history taking and examination (b) Suggest appropriate investigation (c) Interpret and correlate the investigations data with clinical findings for clinical diagnosis (d) Plan and rationalize the management	Demonstration by the teacher	Practise with problem solving exercise in tutorial
Session 3	Management of bleeding in early pregnancy	-do-	-do-	-do-
Sessions 4	Management of bleeding in late pregnancy	-do-	-do-	-do-
Session 5	Management of eclampsia	-do-	-do-	-do-
Session 6	Management of prolonged and obstructed labour/ ruptured uterus	-do-	-do-	-do-
Session 7	Management of retained plaenta & PPH	-do-	-do-	-do-
Session 8	Management of shock & sepsis	-do-	-do-	-do-
Session 9	Obstetric operations (C.S, Forceps & ventouse deliveries, craniotomy.)	Write preoperative orders, operation notes, post operative orders	Demonstration by teacher	Write preoperative orders, operation notes, postoperative orders Observe obstetric operations

SESSION	TOPIC	LEARNING OBJECTIVES	TEACHING METHOD	
			TEACHERS' ROLE	**STUDENTS' ROLE**
Sessions 10	Clinical Project work	Present a case in a small group or seminar	Allocate students the project works. At the outset of the labour room placement the students will be divided into sub groups and allotted with a common clinical problem.	They will collect data and information about etiology, diagnosis and management of the problem which will be presented by them during this session
Evening Session	Review sessions 1– 9:			
Session 11	**Assessment (Oral/ Clinical/ OSCE**			
Sessions 12	Feedback			

OBSTETRICS & GYNAECOLOGY MBBS COURSE SCHEDULE

4th YEAR M.B.B.S in 3rd Phase

Lecture 28 hours + Evaluation 2 hours =30 hours

TERM– I = 15 hours		TERM– II = 15 hours	
Lecture – 14 hours	Evaluation 1hr (MCQ, SBA, SEQ, SAQ)	Lecture – 14 hours	Evaluation 1hr (MCQ, SBA, SEQ, SAQ)
Obstetrics		Gynaecology	

5th YEAR M.B.B.S in 4th Phase

Lectures 60 hours+ Demonstration/Practical/Tutorial 58 hours+Departmental Integrated teaching = 20 hours + Phase IV Common Integrated teaching =126 hours

TERM – 1 = 20hours		**TERM – II = 22 hours**		**TERM – III = 18 hours**		**Demonstration/Practical/Tutorial in TERM I, II & III= 58 hours**
18hours	**Evaluation 2hr**	**20 hours**	**Evaluation 2hr**	**16 hours**	**Evaluation 2hr**	
Lecture –18hours	*NB: Lectures will be followed by evaluation* (MCQ, SBA, SEQ, SAQ)s	Lecture – 20 hours	*NB: Lectures will be followed by evaluation* (MCQ, SBA, SEQ, SAQ)	Lecture – 16 hours	*NB: Lectures will be followed by evaluation* (MCQ, SBA, SEQ, SAQ)	Demonstration / Video presentation
Gynae – 8 hrs Obs – 10hrs		Gynae – 8hours Obs – 12 hours		Gynae –9 hours Obs –7 hours		Gynae & Obs

(*) A demonstration will be a practical teaching session with a small group of students. It will be based on a patient's history, specimens or instruments, graphs or models or employ a video. Student participation is expected.

***Integrated teaching : Only for 5th year**

Final Professional Examination

Assessment of Gynaecology & Obs.

Components	Marks	Total Marks
WRITTEN EXAMINATION		
Paper – I –MCQ (SBA & Multiple true-false question)	10+10 =20	
SAQ	5x10= 50	100
SEQ	10x2= 20	
Two groups,in each group 5 SAQ ,1 SEQ		
Marks from formative assessment	10	
		100
Paper - II-MCQ(SBA & Multiple true-false question)	10+10 = 20	
SAQ	5x10 = 50	
SEQ	10x2 = 20	
Two groups, in each group 5 SAQ ,1 SEQ		
Marks from formative assessment	10	
PRACTICAL EXAMINATION		
OSCE / OSPE		100
CLINICAL EXAMINATION		
Obs. Case	50	100
Gynae. Case	50	
ORAL EXAMINATION (**Structured**)		
Obs	50	100
Gynae	50	
Grand Total		**500**

➢ Pass marks 60 % in each of theoretical, oral and practical

There will be separate answer script for SBA & Multiple true-false question

Generic Topics on Medical Humanities for Internship Period

The following academic sessions will be held at the initial part of internship training period under supervision of Phase-IV coordination committee in collaboration with medical education unit (MEU). The session will be under the guidance of Director and Deputy Director of the concerned hospital, coordinated by Medicine Department and the sessions will be conducted by concerned experts. Each session will be one and half hour.

Topics:

1. White coat ceremony
2. Career planning
3. Continuing Medical Education (CME) & Continuing Professional Development (CPD)

Topics	Learning objective	List of Contents	Method	Time
White coat ceremony	• state the ethical codes of BMDC for doctors • state International code of medical ethics • state Declaration of Geneva • take Oath (Hippocratic oath)	• Ethical codes of BMDC for doctors • International code of medical ethics • Geneva declaration • Oath taking (Hippocratic oath)	Interactive Lecture Or Seminar	One and half hour
Career planning	• define carrier planning • list the carrier options for medical graduates in the country • list the carrier options for medical graduates internationally • mention the strategies to be chose best carrier for you as a doctor	• Definition of carrier planning Carrier options for medical graduates in the country • Carrier options for medical graduates internationally • Strategies to be chose best carrier for you as a doctor	Interactive Lecture Or Seminar	One and half hour
Continuing Medical Education (CME) & Continuing Professional Development (CPD	• define CME & CPD • mention importance of CME & CPD for a doctors • describe means of CME & CPD for a doctors • list the barrier of CME & CPD and ways of overcoming those barriers	• Definition of CME & CPD • Importance of CME & CPD for a doctors • Means of CME & CPD for a doctors • Barrier of CME & CPD and ways of overcoming those barriers	Interactive Lecture Or Seminar	One and half hour

Others –

Topics	Learning objective	List of Contents	Method	Time
Basic Infection control practice	• Define the healthcare – associated infection (HAI) • Describe the global burden and Bangladesh situation of HAI • Illustrate the chain of infections • Mention the root of transmission of infection • Describe different issues related to standard precautions • Describe different transmission-based Precaution • Perform different activities related to infection control practices	• healthcare –associated infection (HAI) • global burden and Bangladesh situation of HAI • chain of infections • transmission of infection • standard precautions • transmission-based Precaution • infection control practices - hand washing and rubbing - respiratory hygiene and cough etiquette - use PPE - needle stick injury - disinfection and sterilization - linen and waste management	Interactive lecture, case studies, demonstration	5 hrs

Appendix I

MBBS doctors will be competent enough to diagnose and manage the following diseases / health problems.

Medicine and Allied Subjects

Diarrhoea Common cold, upper respiratory tract infection, Pneumonia Fever (especially viral fever / flue / hyperpyrexia) Enteric fever Shigellosis, Amoebic dysentery Peptic ulcer diseases, GERD, Dyspepsia, Vomiting , Hiccough, Dysphagia & Constipation Irritable Bowel Syndrome Jaundice / Viral hepatitis Hypertension U T I Diabetes Mellitus Headache (especially migraine and tension headache) Anaemia (nutritional) Cough, Bronchial asthma, Bronchitis Arthritis & arthralgia, Rheumatoid arthritis, Osteoarthritis of knee, Gout Tetany	Tuberculosis, Leprosy, Malaria, Kala-azar, Dengue, Measles, Mumps, Chickenpox, Tetanus, Pertussis, Filariasis, Insect bite, Snake bite (nonpoisonous) Mild to moderate adverse reaction of drugs Helminthic infestation Febrile convulsion Rheumatic fever Neonatal care Infantile colic Bronchiolitis Nutritional assessment, growth monitoring & nutritional counseling Counseling for breast feeding and weaning (complementary feeding) Mild malnutrition /PEM /obesity/ underweight Deficiency disorders (Specially Vitamin-A, Iodine, Iron, Vitamin-B and protein) Physiological jaundice, Omphalitis Nocturnal enuresis, Overactive bladder / urge incontinence	Scabies Urticaria/ Allergy Atopic dermatitis / Eczema /contact dermatitis Candidiasis & Ringworm Pityriasis versicolor Syphilis & genital ulcers Gonorrhoea / Urethritis & vaginitis Herpes simplex / herpes zoster Acne Impetigo /bacterial Skin infection Aphthous ulcer Seborrheic dermatitis Uncomplicated psychiatric disorders (Anxiety neurosis, HCR) Malingering Vertigo Insomnia Bell’s palsy

Surgery and Allied Subjects

Abscess (superficial), Boil, Carbuncle, paronychia, Erysipelas, cellulitis, Minor trauma, wound, haemorrhage, burn and animal bite Lymph adenitis Corn, pyogenic granuloma, watt Sebaceous cyst, superficial tumours Epididymo-orchitis Circumcision	Frozen shoulder Back pain, Cervical pain & other musculoskeletal pain Conservative management of tonsillitis, sinusitis, acute otitis media Rhinitis (allergic, viral) Infantile dacryocystitis, Sty Conjunctivitis (allergic, viral, bacterial) Non impacted foreign body in eye, ear and nose

Obstetrics and Gynecology

Ante natal care Conduction of normal labour Intra- natal and post natal care of mother and child Birth spacing and family planning advice	Trichomoniasis, Moniliasis Menstrual disorders Pelvic inflammatory disease Post-menopausal syndrome

Appendix II

MBBS doctors will be competent enough to diagnose and refer after primary management of the following diseases /health problems

Medicine & Allied Subjects

Acute severe chest pain Diabetes with complications Complicated hypertension Valvular heart diseases Left ventricular failure Complicated pneumonia, Respiratory failure, Pleural effusion, haemothorax, pneumothorax, Meningitis, Septicemia Pancreatitis Cancers / carcinomas Snake bite (poisonous) Oedema , ascites, CCF, Chronic liver diseases	Complicated UTI, Acute renal failure, Chronic renal failure, Nephrotic syndrome, Acute glomerulonephritis (AGN) Cerebro vascular accident Parkinson's disease Urinary & fecal incontinence Loss of libido, impotency, premature ejaculation MDR and complicated Tuberculosis, Typhoid, Rabies, HIV & AIDS, Polio, Diphtheria Psoriasis, severe drug reactions / SJS, Arsenecosis Drug addiction, Complicated psychiatric disorders (schizophrenia, depressive illness, psychosomatic disorders, personality disorders etc.)	Persistent Diarrhoea, Febrile convulsion (1^{st} attack) Ascariasis crisis Severe Under-nutrition / PEM / Low birth weight, prematurity, Birth asphyxia, birth injury, neonatal septicemia, high neonatal jaundice Delayed mile stone of development (cretinism, Autism), Epilepsy Haemophilia, purpura, haemepoetic disorders, leukemia, Goiter, hypothyroidism, Thyrotoxicosis, hormonal disorders Congenital diseases and deformities

Surgery & Allied Subjects

Deep abscess Complicated trauma, wound, haemorrhage and burn (including acid injury), Appendicitis, Cholecystitis and cholelithiasis Hydrocele, hernia & testicular torsion Intestinal obstruction (including gastric outlet obstruction, intussusception, volvulus), perforation, peritonitis, paralytic ileus,	Stone in urinary tract, retention of urine, prostatic enlargement, haematuria Fracture of bone, dislocation of joints, Gangrene, deep vein thrombosis, head / spinal injury, injury to vital organs Disc prolapse, osteomyelitis Per rectal bleeding (Anal fissure, Rectal polyp, Hemorrhoids, rectal cancer) Deep tumor and cancer Peripheral vascular occlusive diseases	Cataract, pterygium, Refractive error, Glaucoma, corneal ulcer & corneal injury, Chalazion, Impacted foreign body in eye, ear & nose Perforation and injury of tympanic membrane, Deafness, epistaxis, Chronic tonsillitis, Chronic otitis media, Chronic sinusitis,

Obstetrics and Gynecology

High risk pregnancy APH, IPH, PPH Eclampsia & preeclampsia Obstructed Labour Ectopic pregnancy Abortion DUB	Pelvic tumor (fibroid uterus, ovarian tumour, hydatidiform mole, Ca cervix etc.) Sterility	Obstetrical and Gynecological cases with medical conditions with like heart, renal diseases etc.

Appendix III

MBBS doctors will be competent enough to perform the following professional task independently--

Taking history from patient systematically	All clinical subjects,
Performing general and systemic examination of patient	
Writing and interpretation of history and examination findings of a patient for provisional diagnosis.	
Advising appropriate investigations and interpretation of the investigation findings to conform the diagnosis.	
Writing rational prescription	Pharmacology, All clinical subjects
Identifying any adverse effect of those dug and taking necessary measure to protect the patient	
Writing a discharge certificate as per ICD	All clinical subjects, Physiology & Pathology
Writing a death certificate as per ICD	
Writing a requisition form for different investigation	
Measuring blood pressure, pulse rate, body temperature	
Introducing naso gastric (N/G) tube, mouth gauge	
Introducing enema simplex, flatus tube,	
Performing tepid sponging	
Performing air-way suction	
Appling pressure bandage	
Performing CPR	
Performing P/R examination	
Tacking care of bed sores	
Tacking care of peripheral and central venous line	
Maintaining a input & output chart	
Performing pre-operative management when it is indicated	Surgery, Gynecology and Obstetrics'
Collecting sputum for AFB	Pathology, Biochemistry & Physiology
Collecting , preserving and sending of blood and urine samples for different investigations including culture	
Collecting , preserving and sending of body tissues for histopathology	Pathology & all clinical subjects
Measuring urine protein, sugar & urine analysis	Pathology, Physiology, all clinical subjects
Performing pregnancy test	Pathology, Gynecology and Obstetrics'
Measuring Hb%, ESR, TC, DC, TPC	Pathology, Physiology
Preparing blood film for malarial parasite	
Measuring blood glucose	Pathology & Biochemistry
Taking nose, throat, skin and wound swabs	Microbiology, all clinical subjects
Performing and interpreting a electrocardiograph (ECG)	Medicine, Physiology
Performing and interpreting basic respiratory function tests	
Performing lumber puncture	

Appendix III continued

Administering oxygen	All clinical subjects
Making up drugs for parenteral administration	
Administering intravenous, intramuscular, subcutaneous and intradermal injections	
Establishing peripheral intravenous access including venipuncture and setting up an infusion devices	
Establishing safe blood transfusion / fluid infusion	
Dosage and administration of insulin and use of sliding scales	
Introducing male and female urinary catheter	
Maintaining correct techniques for 'moving and handling' of sick and injured patients	
Use of personal protective equipment (gloves, gowns, masks)	
Controlling cross infection among patients in relation to procedures and infectious patients	
Ensuring safe disposal of clinical waste, needles and other 'sharps'	
Explaining the patients and attendants about the disease and its outcome	
Giving information about the procedure and treatment options to the patients and attendants	
Obtaining and recording consent from patients and attendants for invasive procedure	
Developing and maintaining medical records	
Counseling the patients and attendants about the medication and aftercare	
Giving follow-up to the patients when needed	
Instructing patients and attendants about oral, per rectal, parenteral, tropical and inhaler medications including eye and ear drops.	Pharmacology, All clinical subjects
Washing hands (including surgical 'scrubbing up' before any invasive procedure)	Surgery Gynaecology and obstetrics
Handling of sterile instruments	
Ensuring wound care and basic wound dressing	
Use of local anaesthetics	
Skin suturing	
Nutritional assessment, growth monitoring, nutritional advice	Community medicine Pediatrics Obstetrics
Birth spacing & family planning	
Immunization advice	
Breast feeding and weaning / complementary feeding advice	
Advice of hygiene and healthy lifestyles	Community medicine All clinical subjects
Participating in disaster management (cyclone, earth slide, flood, epidemic outbreak, earth quake etc.), Perform triage, Perform mass casualty management(MCM)	
Work in community setting	
Promoting community health of people and preventing communicable and non-communicable diseases at individual and community level by counseling and involving in the activities about safe drinking water, food safety, healthy life styles, sanitary disposal of wastage and refuse, environmental sanitation, occupational health, school health program etc.	Community medicine
Conduct survey to assess community health problems and using health related data to provide cost effective better health care.	
Injury/assault assessment for medico-legal purposes	
Performing autopsy for medico-legal purposes, Handling & Managing Dead body	Forensic medicine
Writing report for medico-legal purposes /writing medical certificates.	

Appendix IV

MBBS doctors will be competent enough in providing management in following emergency situation and will be able to refer the patients appropriately when necessary-

Acute chest pain / Ischemic heart diseases (Myocardial Infraction) Acute abdomen Any kind of moderate to severe pain CVA / Unconscious patients / Convulsion Pre-coma, Coma and All types of Shock Cardio Respiratory arrest Dyspnoea Cyanosis Dehydration Haemorrhage Anaphylactic reactions	Electrolyte imbalance Drowning Poisoning, Snake bite Burn including Acid injuries Haematemesis Melaena Haemoptysis Severe vomiting Pancreatitis All types of injuries , Road Traffic Accidents Mass casualty (cyclone, flood, epidemic outbreak, earth quake etc.)

Doctor should refer a case when there is any complication in the course of treatment / management.

The areas of the competencies listed in the above table have shown to be obtained from one or more disciplines arbitrarily. In reality, to obtain one single competency multiple disciplines (possibly all) have to contribute.

This list provided to find out the minimum competencies that all doctors must be obtained from MBBS course and internship training. A MBBS doctor may show more competencies in certain areas beyond the list.
List of competencies are also provided in the concerned subject.

Appendix –V

Outline of a Prescription

Registration No:….....

Name of Doctor
Degree(s), (Specialty)
Address of Chamber
Telephone No:

Name of Patient: ……...

Age : ……..... Sex : …….....

Address of Patient : …….....

Chief complaints :

-
-
-

Examination findings :

- Pulse…./min
-
-

Investigation :

-
-
-

Provisional diagnosis :
……
Diagnosis :
……

Advise :

-
-
-

℞

1.
2.
3.

Signature of Doctor
Date : …….
Reg. No.: ……..

Appendix –VI

Outline of Medical & Fitness Certificate

Signature of the applicant ……

After careful examination of the case hereby I certify that Mr./Ms. …… whose signature is given above, is suffering form …….. . I consider that a period of absence from duty / study / job for ……days with effect from ……. to …… is absolutely necessary for the restoration of his / her health.

Place :
Date :

(Signature of Doctor)
Name of the Doctor
Registration No:

CERTIFICATE OF MEDICAL FITNESS

Signature of Applicant : …….

After careful examination of the case hereby I certify that Mr./Ms. ……..……whose signature is given above is now fit to resume duty / study / job from ……... . I also certify that before arriving at my decision I have examined the original medical certificate(s) and statement(s) of the case (or the certified copies thereof) on which leave was granted or extending, and have taken these in consideration in arriving at my decision.

Place :
Date :

(Signature of Doctor)
Name of the Doctor
Registration No:

Appendix –VII

List of the Contributors in the year 2020

Name, Designation and Institute (not according to warrant of precedence)
Prof. Dr A.H. M. Enayet Hussain, DG, DGME
Prof. Dr Mohammad Shahidullah, President, Bangladesh Medical & Dental Council (BM&DC), Dhaka
Prof. Dr.A B M Muksudul Islam, Vice President, Bangladesh Medical & Dental Council (BM&DC), Dhaka
Dr Rokeya Sultana, Treasurer, Bangladesh Medical & Dental Council (BM&DC), Dhaka
Prof Dr Md Ismail Khan, Vice Chancellor & Dean, Faculty of Medicine, Chottogram Medical University, Chottogram
Prof. Dr Masum Habib, Vice Chancellor, Rajshahi Medical University, Rajshahi
Prof. Dr Morshed Ahmed Chowdhury, Vice Chancellor, Sylhet Medical University, Sylhet
Prof Dr Abu Yusuf Kakir, Addl Director General (Education), DGME, Dhaka
Prof Dr Nasima Sultana, Addl Director General (Admin), DGHS, Dhaka
Prof Dr A K M Amirul Morshed, Addl Director General (Admin), DGME, Dhaka
Prof Dr Abul Hashem Khan, Ex-Addl Director General (Amin.), DGME, Dhaka
Prof. Dr Shahryar Nabi, Dean, Faculty of Medicine, University of Dhaka
Prof. Dr. Nowshad Ali, Principal, Rajshahi Medical College and Dean, Faculty of Medicine, Rajshahi University
Prof. Dr. Md. Moynul Haque, Dean, Faculty of Medicine, SUST and Sylhet Medical University
Prof. Dr Selim Jahangir, Dean, Faculty of Medicine, University of Chottogram
Prof Dr Parveen Sultana, on behalf of Dean (Faculty of Medicine), Rajshahi Medical University, Rajshahi
Brig Gen Sheikh Salahuddin, Dean, Faculty of Medicine, Bangladesh University of Professionals, Dhaka
Brig Gen Mohammed Mizanur Rahman, Ex- Dean, Faculty of Medicine, Bangladesh University of Professionals, Dhaka
Prof Dr Md Ali Khan, Director, Centre for Medical Education, Dhaka
Prof Dr A K M Ahsan Habib, Director, Medical Education, DGME, Dhaka
Prof Dr Md Nazmul Islam, Line Director, Medical Education & HMPD, DGME, Dhaka
Dr Mostafa Khaled Ahmed, Director (Admin), DGME, Dhaka
Prof Dr Afzalur Rahman, Director (Planning & Development), DGME, Dhaka
Dr Md Amir Hossain, Director (HRM), DGME, Dhaka
Dr A K M Tarik, Director (Financial Management), DGME, Dhaka
Dr A F M Shahabuddin Khan, Asst Director, DGME, Dhaka
Prof. Dr. Khan Abul Kalam Azad, Principal, Dhaka Medical College, Dhaka
Prof Dr Titu Miah, Principal & Professor (Medicine), Mugda Medical College, Dhaka
Prof. Dr Md Shahadat Hossain, Vice Principal, Shaheed Suhrawardy Medical College, Dhaka
Prof. Dr Uttam Kumar Pal, Principal, Sir Salimullah Medical College
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Prof Dr Liakat Ali, Ex-Vice Chancellor, BUHS, Dhaka
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Prof. Dr. Md. Humayun Kabir Talukder, Professor (Curriculum Development & Evaluation) CME, Dhaka & Working Co-ordinator, MBBS curriculum reviewing & updating committee

1st Phase (Core Focal Persons)
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Prof. Dr. Dilruba Begum, Professor of Physiology, Dhaka Medical College, Dhaka.
Dr. Shaheen Nargish, Assistant Professor of Physiology, Eastern Medical College, Cumilla
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Prof. Dr. Shamim Ara, Professor of Anatomy, Holy Family Red Crescent Medical College, Dhaka.
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Prof. Dr. Rejaul Karim Dewan, Professor & Head of the Department of Pathology, Dhaka Medical College, Dhaka
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Prof. (Brig Gen) Md Rahimgir, Ex Professor & Head of the Department of Microbiology, Armed Forces Medical College, Dhaka
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Prof. Dr. Moktel Hossain, Professor & Head of the Department of Community Medicine, Dhaka Medical College, Dhaka
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4th Phase (Core Focal Persons)
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Prof. Dr. Rashed Mohammad Khan, Professor & Head of the Department of Dermatology, Dhaka Medical College, Dhaka.
Brig Gen Dr. Kumrul Hasan, Adviser, Specialist in Psychiatry, CMH Dhaka Cantonment, Dhaka.
Dr. Mohammad Ali, Associate Professor of Medicine, Cumilla Medical College, Cumilla.
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Prof. Dr. Shah Alam, Professor & Head of the Department of Orthopaedic Surgery, Dhaka Medical College, Dhaka.
Prof. Dr. M A Matin, Professor & Head of the Department of ENT, Shaheed Suhrawardy Medical College, Dhaka.
Prof. Dr. Chandra Shekhar Majumder, Professor & Head of the Department of Ophthalmology, Sir Salimullah Medical College, Dhaka.
Dr. Md. Ruhul Quddus, Associate Professor of Surgery, Satkhira Medical College, Satkhira.
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N:B:
Members of the academic councils, teachers of different subjects, interns doctors, students of nearly all the govt. & non govt. medical colleges contributed during the need assessment study for reviewing & updating MBBS curriculum.

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