

Handbook on Electives

**For the M.B.B.S. Batch of 2020
Guyton Batch**



Medical Education Unit, B. J. Medical College, Ahmedabad

Handbook on Electives

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From the Dean's Desk

Dear Students,

The National Medical Commission has introduced the Competency Based Curriculum from the year 2019. Our Institution has adopted it and strives to fulfil the various requirements of the Curriculum and the mandates, as notified by the N.M.C, New Delhi, from time to time. Introduction of “**Electives**” is a welcome feature of the CBME Curriculum. It is a novel concept that provides flexible learning opportunities to the students. These complement the core curriculum as they provide students with the opportunity to customise their studies by selecting, directing, and organising the curricula that best meets their individual needs and/or interests. The students undergo a short-term training in a subject/specialty of their choice. It provides experiential learning beyond the rigid framework of the curriculum.

B. J. Medical College, Ahmedabad is offering a total of 71 electives, out of which 28 electives are in Block 1 and 43 electives in Block 2. All electives will be offered in-house. Making a learned choice from among the various available options can be challenging. To ease the challenge, we have prepared this ‘Handbook on Electives’. This book will work as a guide that takes the student through the various electives offered in this institution. The aims, its brief description, and the number of vacancies offered in each elective are mentioned. Each student is required to choose one elective each from Block 1 and Block 2.

I hope the students will find this guidance e-book useful.

I commend the efforts of M.E.U Coordinator and M.E.U. team. A special mention of Dr. Chetna Desai and Dr. Ravi Gadani in compiling the book.

Best Wishes and Happy Learning!



Dr. Hansa Goswami

Professor & Head, Dept. of Pathology
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Code: AN01

Department of Human Anatomy

Topic: Medical genetics

Objectives:

Genetic diagnosis of chromosomal anomalies in patients of Down's syndrome, Turner syndrome and primary amenorrhoea. Enumerate indications for common genetic tests and to demonstrate the correct method of karyotype.

Brief description:

Work daily to assist and perform genetic tests, participate in departmental education activities. Present a case for a test done

Total seats for the elective: **8**

Code: AN02

Department of Human Anatomy

Topic: Study of coronary arteries: origin, course, branching pattern and variations.

Objectives:

To demonstrate about origin, course, branching pattern and variations of coronary arteries. To show correct method of dissection and to correlate relevant clinical / applied anatomy.

Brief description:

Dissection activity as per protocol. Collecting data and statistical analysis of the data. Poster/ Oral presentation of the work done.

Total seats for the elective: **10**

Code: AN03

Department of Human Anatomy

Topic: Anatomical study of Menisci and Cruciate ligaments of the knee joint.

Objectives:

1. To demonstrate dissection of Menisci and ligaments of the knee joint
2. To demonstrate morphometric study of menisci and gross anatomy of cruciate ligaments and to correlate clinical anatomical relevance.

Brief description:

Students need to work under supervision as per protocol. Students have to collect data and statistical analysis has to be done. Presentation of work done as a poster/ oral presentation.

Total seats for the elective: **10**

Code: AN04

Department of Human Anatomy

Topic: Morphometric study of heart valves

Objectives:

To demonstrate dissection of heart valves, to demonstrate correct method of dissection and to demonstrate morphometric study of heart valves, to correlate clinical and applied anatomical relevance.

Brief description:

Dissection under supervision, collecting data, doing statistical analysis and writing abstract of work done.

Total seats for the elective: **10**

Code: PY01**Department of Physiology****Topic: Polysomnography Laboratory (Sleep Laboratory)****Objectives:**

At the end of the session student should be able to learn about,

1. Indications of Polysomnography.
2. Procedure of Polysomnography.
3. Outcome of Polysomnography (Sleep Study).

Brief description:

Student to be reported at physiology department of college where he/she will observe & help the faculty members in registration and examination of concerned patient for the procedure of Polysomnography. They will learn about the different methods of investigation, examination, different types & functioning of instruments for Polysomnograph, EEG. In each lab, students will get hands on practice about different methods that can be performed. Differential diagnosis will be made on the basis of readings observed and analyzed and method will be advised to be repeated if need be for example in pre and post-operative patients or pre and post medication.

Total seats for the elective: **3**

Code: PY02

Department of Physiology

Topic: Electrophysiology Laboratory (EMG-NCV-EP Laboratory)

Objectives:

At the end of the session student should be able to learn about,

1. Indications of EMG / NCV / EP (Electrophysiology Laboratory).
2. Procedure of EMG / NCV / EP.
3. Outcome of EMG / NCV / EP.

Brief description:

Student to be reported at physiology department of college where he/she will observe & help the faculty members in registration and examination of concerned patient for the procedure of EMG/NCV/EP. They will learn about the different methods of investigation, examination, different types & functioning of instruments for EMG/NCV/EP. In each lab, students will get hands on practice about different methods that can be performed. Differential diagnosis will be made on the basis of readings observed and analyzed and method will be advised to be repeated if need be for example in pre and post-operative patients or pre and post medication.

Total seats for the elective: **3**

Code: PY03

Department of Physiology

Topic: Pulmonary Function Test Laboratory (PFT Laboratory)

Objectives:

At the end of the session student should be able to learn about,

1. Indications of Pulmonary Function Test(PFT).
2. Procedure of PFT.
3. Outcome of PFT.

Brief description:

Student to be reported at physiology department of college where he/she will observe & help the faculty members in registration and examination of concerned patient for the procedure of PFT. They will learn about the different methods of investigation, examination, different types & functioning of instruments for PFT. In each lab, students will get hands on practice about different methods that can be performed. Differential diagnosis will be made on the basis of readings observed and analyzed and method will be advised to be repeated if need be for example in pre and post-operative patients or pre and post medication.

Total seats for the elective: **3**

Code: BI01**Department of Biochemistry****Topic: Orientation and routine clinical diagnostics in
Biochemistry laboratory****Objectives:**

At the end of posting student

1. Should know about blood collection procedures and safety precautions
2. Should be able to understand preanalytical, analytical and post analytical errors
Should understand about Quality control in laboratory
3. Should be able to know and interpret routine biochemistry parameters like Renal function tests (S.Urea and Creatinine), Liver function tests (S.Bilirubin, SGPT, SGOT, ALP, Total protein, Albumin), Electrolytes, Sodium, Potassium, Chloride), Diabetes Profile (FBS, PP2BS, RBS)

Brief description:

Preanalytical activities (Sample collection and transport activities) Analytical activities (Quality control and observe the use of colorimetric technique -Instrument functioning and maintenance) Post analytical activities (Reporting and Interpretation of routine chemistry tests like Renal function tests (S.Urea and Creatinine), Liver function tests (S.Bilirubin, SGPT, SGOT, ALP, Total protein, Albumin), Electrolytes, Sodium, Potassium, Chloride), Diabetes Profile (FBS, PP2BS, RBS)

Total seats for the elective: **10**

Code: BI02**Department of Biochemistry****Topic: Orientation and special clinical diagnostics in Biochemistry laboratory****Objectives:**

At the end of posting student

1. Should know about blood collection procedures and safety precautions
2. Should be able to understand preanalytical, analytical and post analytical errors
3. Should understand about Quality control in laboratory
4. Should be able to know and interpret special biochemistry parameters like arterial blood gas analysis, thyroid profile (free T3, free T4, TSH) anaemia profile (S.Iron, Ferritin), Tumour markers, Cardiac markers (CK-MB, hsTroponin I), Bone profile (Calcium, phosphorus, Vitamin D) etc.

Brief description:

ICMR guidelines for Good Clinical Laboratories Practices (GCLP) 2021 Tietz fundamentals of clinical chemistry and molecular diagnostics (latest edition)

Preanalytical activities (Sample collection and transport activities)

Analytical activities (Quality control and observe the use of Chemiluminescent technique -Instrument functioning and maintenance)

Post analytical activities (Reporting and Interpretation of special biochemistry tests like thyroid profile (free T3, free T4, TSH) anaemia profile (S.Iron, Ferritin), Tumour markers, Cardiac markers (CK-MB, hsTroponin I), Bone profile (Calcium,phosphorus ,Vitamin D) etc.

Total seats for the elective: **10**

Code: PH01

Department of Pharmacology

Topic: Prescription Audit and Research

Objectives:

1. Be able to critically analyse and audit prescriptions as per the WHO criteria
2. Understand prescription errors
3. Understand and apply principles of Rational therapeutics in prescribing

Brief description:

To evaluate the prescription pattern of deviations from standard treatment guidelines in the prescriptions for patients attending OPD of specified specialities at Civil Hospital Ahmedabad

Total seats for the elective: **15**

Code: PH02**Department of Pharmacology****Topic: Pharmacovigilance and ADR Reporting****Objectives:**

At the end of the session, under-graduate MBBS students should be able to

1. Detect, report and analyse adverse events occurring with drugs and medical devices
2. Act as a liaison with the clinicians for communication regarding ADRs
3. Educate Health professional and consumers about ADR reporting

Brief description:

Pharmacovigilance is the science and activities relating to the detection, assessment, understanding and prevention of adverse effects or any other drug-related problem (WHO) Department of Pharmacology is a Regional Training Centre and ADR Monitoring Centre, Pharmacovigilance Program of India. It possesses the necessary infrastructure, expertise and experience in pharmacovigilance to train students in the finer nuances of ADR reporting and analysis. This elective offers an opportunity for the learners to train to detect, report and analyse ADRs as per the WHO standards and understand the concepts of management of ADRs and medication safety in patients.

Total seats for the elective: **15**

Code: PH03

Department of Pharmacology

Topic: Biomedical Research and Scientific writing

Objectives:

At the end of this elective the student should be:

1. Familiar with the basics of biomedical research and scientific writing
2. Be able to design a protocol for a biomedical research project
3. Be able to conduct a biomedical research project

Brief description:

Advances in Medicine is a result of biomedical research carried out world-wide. This elective will familiarise the learner with the finer nuances of biomedical research. It will train the learner to write a research protocol, applying the principles of biomedical research and ethical principles of research in human beings. The student will carry out a short term research project, analyse and interpret the results to make plausible conclusions. The learner will also be trained to write a scientific paper for publication.

Total seats for the elective: **10**

Code: PA01**Department of Pathology****Topic: Lab-diagnostic Tests for Malaria Infection****Objectives:**

1. To know various investigations done in a case of pyrexia.
2. To know various investigations done in a case of malaria infections.
3. To understand Peripheral Smear Examination and other Serological tests (Rapid Card Test) for diagnosis of Malaria.
4. To understand morphology of various Malarial Parasites.

Brief description:

Location : Central Clinical Laboratory- D3, Civil Hospital, Ahmadabad.

1. To observe and assist in thick and thin Smear preparations.
2. To assist, observe and understand the principle of Rapid Card Test.
3. To Examine Malarial Parasite under microscope (minimum 10 cases).
4. To get basic information pertaining to Malaria surveillance programme undertaken by government.

Total seats for the elective: **15**

Code: PA02

Department of Pathology

Topic: Blood Sample Collection & Good Laboratory Practices

Objectives:

1. To understand the procedure of Venepuncture.
2. To understand importance of antiseptic precautions and Good Laboratory Practices.
3. To know the process flow of blood collection in various vacuettes.
4. To perform Venepuncture under supervision.

Brief description:

Location: Collection Centre- OPD building, Civil Hospital, Ahmadabad.

1. To observe all the pre-analytical processes in blood collection centre.
2. To inspect Venepuncture site and observe the Venepuncture procedure vigilantly with correct order of draw.
3. To understand different anticoagulants used for different investigations.
4. To do at least 10 Venepuncture under supervision.

Total seats for the elective: **10**

Code: PA03

Department of Pathology

Topic: Nutritional Anaemia in Paediatric Patients

Objectives:

1. To obtain knowledge about Nutritional Anaemia.
2. To obtain knowledge pertaining to various Diagnostic tests done in Nutritional Anaemia.

Brief description:

Location: Central Clinical Laboratory- D3, Civil Hospital,Ahmadabad.

1. To participate in Lab activities including Preanalytical, Analytical and Post analytical processes.
2. To participate in Academic programme of the department pertaining to Anaemia.
3. Write up the Labwork of five patients of Nutritional Anemia.
4. Present at least two cases in Departmental Academic forum.

Total seats for the elective: **15**

Code: PA04

Department of Pathology

Topic: Haemolytic Anaemia.

Objectives:

1. To obtain knowledge about Haemolytic Anaemia.
2. To obtain knowledge pertaining to various Diagnostic tests done in Haemolytic Anaemias.

Brief description:

Location: Central Clinical Laboratory- D3, Civil Hospital, Ahmadabad.

1. To participate in lab activities including Pre-analytical, Analytical and Post analytical processes.
2. To participate in academic programme of the department pertaining to Anaemia.
3. Write of the lab work up of five patients with Haemolytic Anaemia.
4. Present at least two cases in departmental academic forum.

Total seats for the elective: **10**

Code: PA05

Department of Pathology

Topic: Breast cancer: Morphology & Staging

Objectives:

1. To obtain knowledge of etiopathogenesis and diagnostic modalities of breast cancer.
2. To obtain knowledge about various morphological spectrum- gross & microscopic finding in C/O breast cancer.
3. To gain knowledge of staging system for tumors & Breast cancer.

Brief description:

Location: Room no. 5 - Histopathology Lab, Department of Pathology, B. J. Medical College, Ahmedabad.

- (1) Observe & participate in technical aspects of grossing, tissue processing & staining.
- (2) Participate in academic program of department pertaining to Malignant tumors.
- (3) Write up lab work of 1 case of Breast cancer & present the same in department academic forum.
- (4) Write staging protocol for atleast 3 cancers of internal organs.

Total seats for the elective: **10**

Code: MI01**Department of Microbiology****Topic: Bacterial Culture and Antimicrobial Susceptibility Test (AST) in Diagnosis & Management of infectious diseases****Objectives:**

At the end of this elective student should be able to learn

1. Commonly available Bacteriological tests in a controlled environment.
2. Collection, storage and transport of the various clinical samples for clinical bacteriology laboratory
3. Sample acceptance and rejection criteria at clinical bacteriology laboratory
4. Various stains used in clinical bacteriology laboratory.
5. Culture techniques for isolation, identification and AST for various bacteriological organisms present in different samples
6. Interpretation of Culture and Antimicrobial susceptibility tests.

Brief description:

This elective helps students to know about what is role of bacterial culture and antimicrobial susceptibility test (AST) in diagnosis & management of infectious diseases. How isolation of the bacteria and identification of it by bacterial culture helps clinician to know the exact etiology of the infectious disease and how antimicrobial susceptibility test guides clinicians in management of infectious disease by letting them know about the whether etiological agent (infecting strain), is resistant or sensitive in respect to various antimicrobial agents tested in the Microbiology laboratories.

Total seats for the elective: **10**

Code: MI02

Department of Microbiology

Topic: ELISA techniques in Diagnosis of Infectious Diseases

Objectives:

At the end of this elective student should be able to learn

1. Commonly available Serological tests in Microbiology laboratory in a controlled environment
2. Collection, storage and transport of the various clinical samples for serological tests
3. Sample acceptance and rejection criteria for serological tests
4. Various generation of ELISA test based on different principles in clinical Microbiology laboratory.
5. Result Interpretation of various ELISA tests.

Brief description:

This elective helps students to know about what is ELISA (Enzyme Linked Immuno-Sorbent Assay) technique; how it is performed, which sample is required to perform it, how it helps to identify antigen or antibody of the various infectious viral agents which is not cultivable so easily as bacteria in laboratory. It also let them aware the principle on which this technique work and different types of it. Thus, it enables students to get knowledge of role of ELISA in diagnosis of various Viral infectious diseases.

Total seats for the elective: **10**

Code: MI03

Department of Microbiology

Topic: Rapid Diagnostic techniques (RDT) in Diagnosis of Infectious Diseases

Objectives:

At the end of this elective student should be able to learn

1. Commonly available Rapid Diagnostic Test (RDT) in Microbiology laboratory in a controlled environment
2. Collection, storage and transport of the various clinical samples for rapid diagnostic tests
3. Sample acceptance and rejection criteria for RDTs
4. Various RDTs and principles of RDTs used in Microbiology laboratory.
5. Result Interpretation of various RDTs

Brief description:

This elective helps students to know about various rapid diagnostic techniques, how it is performed, which sample is required to perform it, how it helps to identify antigen or antibody of the various infectious agents. It also let them aware the principle on which RDTs work and different types of it. Thus, it enables students to get knowledge of role various RDTs in diagnosis of infectious diseases.

Total seats for the elective: **10**

Code: FM01**Department of Forensic Medicine & Toxicology****Topic: Forensic Traumatology****Objectives:**

At the end of this elective student of 3rd MBBS Part 1 should be able to:

(1) Document preliminaries, history of injury, consent and identification marks properly.

(2) Identify injuries present over the patient correctly.

(3) Describe all characteristics of injuries as required in injury certificate correctly.

(4) Decide investigations required to detect internal trauma and demonstrate procedure of collection of required evidences of medico legal importance correctly.

(5) Derive reasoned medico legal inference of each and all injuries to interpret type of weapon and nature of injury.

Brief description:

Elective on Forensic Traumatology will provide hands on training & experiential learning of identifying – describing & documenting Injuries thoroughly in all its clinical & medico legal aspects. Students will get trained to decide required investigations & evidence collection as per need relevant to injuries while also having experience of photographing & sketching them. Additionally, elective will offer in depth study of injury & injury cases to make student able to derive righteously reasoned medico legal inference sustainable in court of law. We expect that enrolled students will be competent to demonstrate “Show How” level of injury certification satisfactorily.

Total seats for the elective: **5**

Code: FM02**Department of Forensic Medicine & Toxicology****Topic: Legal aspects of Practice of Medicine****Objectives:**

At the end of this elective student of 3rd MBBS Part 1 should be able to:

- (1) Describe correctly 5 rights and 10 duties of registered medical practitioners in routine practice/ emergency/ Medico legal cases
- (2) Define correctly professional misconduct and describe 6 professional misconducts in medical practice.
- (3) Define correctly medical negligence and critically analyze 2 medical negligence cases (civil/ criminal) and enumerate relevant defenses available to doctor in such cases.
- (4) Describe correctly the need of documentation, policy of maintenance and issuance of medical records.
- (5) Describe importance of informed consent in medical practice.
- (6) Analyze and present landmark judgments on medical negligence

Brief description:

Elective on Legal aspects of Practice of Medicine will enable students to have an overview of current scenario of Medical practice. Student will not only understand rights & duties of registered medical practitioner but also will know thoroughly the demarcations of misconducts & malpraxis. Elective will offer in depth study on medical negligence cases to make them know defenses available to a medical practitioner against medical negligence while also enabling them to use defense shield of documentation properly. Additional journey of understanding & analyzing landmark judgments on medical negligence would be a treat for them to perceive fusion of law & medicine which will pave the wisdom of their successful - future medical practice. We expect that enrolled students will be well informed about principles of medical ethics & medical jurisprudence so will be confident to become an expert guide for their colleagues on legal aspects of practice of medicine.

Total seats for the elective: **5**

Code: FM03**Department of Forensic Medicine & Toxicology****Topic: Medico legal Autopsy****Objectives:**

At the end of this elective student of 3rd MBBS Part 1 should be able to:

- (1) Identify all the pre-requisites & enumerate the required documents for conducting medico legal post-mortem examination & able to record preliminary data of the case in the post-mortem report correctly.
- (2) Demonstrate examination of clothes and belongings of the deceased and infer various findings on it & record it in the post-mortem report correctly.
- (3) Demonstrate external examination of the body including any stains, identification data, temperature, rigor mortis, post-mortem lividity, facial features, skin changes & genitals and infer the findings with reference to time since death & cause of death and record them in the post-mortem report correctly.
- (4) Demonstrate examination of external injuries on the body with reference to its dimensions, severity, type of weapon that can cause the injury, time since injury inflicted, nature (ante-mortem, post-mortem) & record them in the post-mortem report correctly.
- (5) Demonstrate internal examination of cavities of head, neck, thorax, abdomen with their contents with reference to any injury/abnormality/any pathology & record them in the post-mortem report correctly.
- (6) Identify and demonstrate the proper technique in collecting, preserving and dispatching of the exhibits, relevant organs and tissues as evidence in medico legal cases correctly.
- (7) Deduce the probable cause of death from the post-mortem examination with particular (date, signature, Name, designation, seal) in the post-mortem report correctly.

Brief description:

Elective on Medico legal Autopsy will provide hands on experience of conducting Medico legal post mortem with team of Forensic experts. Students will acquire training of going through procedural requisites, observations & dissections for searching external & internal evidences of medico legal value, their collection, preservation & dispatch as per relevance with proper documentation of all in post mortem report. Real time exposure of many different medico legal cases & deriving of medico legal opinion based on available findings, reports & circumstances etc would enhance their analytical ability. We expect that enrolled students will become

confident to demonstrate “Show How” level in tackling routine medico legal case or conducting medico legal autopsy of same satisfactorily.

Total seats for the elective: **10**

Code: FM04

Department of Forensic Medicine & Toxicology

Topic: Forensic Toxicology

Objectives:

At the end of this elective student of 3rd MBBS Part 1 should be able to:

- (1) Identify common poison with classification, toxic effect, treatment, prevention and post mortem findings.
- (2) Approach properly to poisoning patients, exhibit collection and preservation of required samples.
- (3) Demonstrate correctly autopsy of deaths due to poisoning and relevant viscera preservation skills and infer proper opinion from findings and reports.

Brief description:

Elective on Forensic Toxicology is designed to train students to develop confidence & competence in their encounter with a poisoning case. Students will be trained to be clear in their clinical & medico legal duties while dealing with a poisoning case at emergency, at ward & at autopsy room by witnessing & closely following it. They will be well trained to perform appropriate evidence collection, preservation & dispatch procedures pertaining to poisoning case at hospital or at autopsy room. Additionally, they will also learn to analyze & finalize medico legal opinions based on findings of clinical examinations, reports, autopsy etc. We expect that enrolled students will demonstrate confident approach in tackling medico legal poisoning case or conducting medico legal autopsy of same satisfactorily.

Total seats for the elective: **5**

Code: FM05

Department of Forensic Medicine & Toxicology

Topic: Sexual jurisprudence

Objectives:

At the end of this elective student of 3rd MBBS Part 1 should be able to:

- (1) Enumerate documents required and correctly document preliminaries, history, consent and identification marks
- (2) Demonstrate correctly general examination and local genitals findings.
- (3) Decide required samples and demonstrate collection, preservation and dispatch procedures properly.
- (4) Derive medico- legal inference from findings and relevant reports

Brief description:

Elective on Sexual jurisprudence will provide hands on training & experiential learning of going through procedural requisites, general/local examination, collections-preservation & dispatch of relevant evidences, report writing and deducing appropriate-scientific medico legally sustainable inferences from all available findings. Additionally, in depth study & understanding of cases witnessed during elective, laws pertaining to sexual assaults & landmark court cases will make them able to derive apt medico legal answers of questions on sexual assault routinely asked by police or court. We expect that enrolled students will have involvement in at least 5 sexual assault cases (live/autopsy) to make them confident & competent in their future encounter of handling sexual assault case clinically & medico legally as well in conducting medico legal autopsy of same satisfactorily.

Total seats for the elective: **5**

Code: CM01

Department of Community Medicine

Topic: Problem Based Learning

Objectives:

1. To identify the common public health problems
2. To carry out the situational analysis of one of the identified problems
3. To identify the factors/reasons for the problems
4. To develop recommendations based on the findings

Brief description:

Under the guidance of the perceptor, students will visit the community/settings to identify any one of the public health problems. After the identification, students will try to find out the determinants of the identified problem and find out the preventive measures based on the findings. Activities will include the collection of data, analysis and report preparation.

Total seats for the elective: **15**

Code: CM02

Department of Community Medicine

Topic: Community Outreach for National Health Programmes

Objectives:

1. To understand the implementation of National Health Programmes (any one of the programmes)
2. To study the current status of the programme
3. To learn monitoring of the programme 15

Brief description:

Complete understanding of the selected National Health Programme by visiting the Community/Settings. Activities will include practical experience of the structure, functions and implementation of the programme, understanding the current status of the programme through indicators, identifying the bottlenecks of the programme. All these activities will be carried out by using the prescribed format/checklist and finally report preparation.

Total seats for the elective: **15**

Code: CM03**Department of Community Medicine****Topic: Investigation of an epidemic****Objectives:**

1. To understand the steps of investigation of an outbreak
2. To describe how to determine an outbreak from the given information
3. Learn to develop a case definition
4. To state the purpose of line listing
5. Learn to draw and interpret an epidemic curve
6. To develop biologically plausible hypothesis
7. To develop recommendations based on the findings

Brief description:

To learn how to investigate an epidemic, students will undergo modular training. Training component includes, developing the case definition, performing the descriptive analysis of actual outbreak or surveillance data, formulation of a hypothesis based on the investigations, making specific recommendations based on the findings of the outbreak investigation, report preparation and dissemination of findings.

Total seats for the elective: **15**

Code: CM04

Department of Community Medicine

Topic: Community Clinic

Objectives:

1. To provide primary care to patients in a resource limited setting under supervision
2. To function as a member of a health care team
3. To participate in health outreach activities of a health center

Brief description:

Providing primary care under supervision at health centers. Activities include providing primary care, performing common procedures, counseling, attending meetings, observing outreach activities.

Total seats for the elective: **10**

Code: IM01

Department of General Medicine

Topic: Diabetology

Objectives:

1. Nature of Disease & metabolic pattern of disease.
2. Reduce the burden of diabetes.
3. Patho-physiology & clinical correlation.
4. Micro & macrovascular complications.
5. Relationship among diet/exercise & medications with Diabetes Mellitus.
6. Diagnostic & clinical significance of Blood glucose test.
7. Dietary modifications used in the management of people with diabetes.
8. Plan for teaching insulin self-administration.

Brief description:

1. Participate in OP and IP rounds.
2. Participate in afternoon teaching sessions of the department.
3. Present at least two cases that are fully worked up in the teaching session.
4. Participate in patient education and multidisciplinary team meetings.

Total seats for the elective: **10**

Code: IM02

Department of General Medicine

Topic: Rheumatology

Objectives:

1. Clinical skill relating to data collection such as History taking & physical examination.
2. Interpretation of diagnostic & therapeutic procedures.
3. Formulation of treatment plans that are evidence based.
4. Interpersonal communication skills with patients.

Brief description:

1. Participate in OP and IP rounds.
2. Participate in afternoon teaching sessions of the department.
3. Present at least two cases that are fully worked up in the teaching session.
4. Participate in patient education and multidisciplinary team meetings.

Total seats for the elective: **10**

Code: IM03

Department of General Medicine

Topic: Geriatrics

Objectives:

1. Functional assessment of the elderly patients.
2. Mental status assessment of the elderly patients.
3. Gain experience caring for the mentally ill patients.
4. Identifying high risk patients.
5. Rehabilitation following acute events & reducing medication problems.
6. Ethical issues that are age related, euthanasia & pain management.
7. Myths & stereotypes related to older people.

Brief description:

1. Participate in OP and IP rounds.
2. Participate in afternoon teaching sessions of the department.
3. Present at least two cases that are fully worked up in the teaching session.
4. Participate in patient education and multidisciplinary team meetings.

Total seats for the elective: **10**

Code: CT01

Department of Respiratory Medicine

Topic: Tuberculosis

Objectives:

1. Describe epidemiology of TB and its impact on work, life and economy of India
2. Diagnose Pulmonary TB and how to suspect EPTB
3. Suspect Drug resistant TB
4. Describe chemotherapy for Drug sensitive TB and Drug resistant TB
5. Describe effects of comorbidities on TB
6. Describe aims, objective and Goals of NTEP

Brief description:

1. Participate in inpatient and outpatient team rounds
2. Present atleast one case of TB
3. Describe and discuss epidemiology of TB and its impact on work, life and economy of India
4. Describe and discuss pathogenesis, clinical evolution and natural history of Pulmonary and extrapulmonary TB
5. Diagnose TB and counsel the patient about disease and treatment
6. Perform ZN staining and interpret it
7. Describe pharmacology of various antitubercular drugs and its adverse effects and management of adverse effects
8. Describe when to suspect DR(drug resistant) TB
9. Describe and discuss impact of comorbidities on TB
10. Describe and discuss complication of TB
11. Describe and discuss National TB Elimination Programme(NTEP)

Total seats for the elective: **6**

Code: CT02**Department of Respiratory Medicine****Topic: Obstructive airway disease****Objectives:**

1. Describe epidemiology, etiopathogenesis of obstructive airway disease (OAD)
2. Diagnose OAD
3. Treat OAD on OPD basis and in exacerbation
4. Describe correct Use of Inhaled devices
5. Describe role of Pulmonary rehabilitation, Oxygen therapy , Smoking cessation and vaccination

Brief description:

1. Participate in inpatient and outpatient team rounds
2. Present atleast one case of OAD
3. Describe and discuss epidemiology, risk factors and evolution of OAD
4. Describe and discuss etiopathogenesis of OAD and its exacerbation
5. Diagnose OAD on the basis of clinical history, examination, chest x ray and spirometry
6. Perform and interpret Spirometry and Peak expiratory flow rate
7. Manage case of Bronchial Asthma and COPD
8. Discuss and describe pharmatherapies for OAD
9. Demonstrate and assist patient for correct use of inhaled devices
10. Describe and discuss complication of OAD
11. Counsel the patient for smoking cessation
12. Describe and discuss pulmonary rehabilitation, oxygen therapy and vaccination in OAD

Total seats for the elective: **10**

Code: PE01**Department of Paediatrics****Topic: Neonatology****Objectives:**

To provide essential newborn care including breastfeeding, thermal control, immunization and asepsis. To function effectively as a team in neonatal resuscitation. To describe clinical characteristics, complications, and management of low birth weight babies. To discuss the etiology, clinical features, management of neonatal sepsis. To describe etiology, clinical features and management of respiratory distress in neonates.

Brief description:

This elective in neonatology will equip you with knowledge and skills for neonatal resuscitation and holistic newborn care. You will be taught about treatment of respiratory distress and sepsis in neonates in the NICU. You will gain knowledge about essential newborn care and management of low birth weight babies.

Total seats for the elective: **6**

Code: PE02**Department of Paediatrics****Topic: Nutrition, Growth and Development****Objectives:**

To describe nutritional needs of infant, children and adolescent. To discuss clinical approach to a child with SAM and MAM. To perform anthropometric measurements, document in growth charts and interpret. To describe pattern of growth and development in children. To counsel and educate mothers on breastfeeding and complementary feeding. To discuss normal developmental milestones in children and assessment of child with developmental delay.

Brief description:

You will be taught about nutritional requirements and management of malnutrition in children. You will be able to assess the growth and developmental parameters in children. You will also be taught about how to do breastfeeding and nutritional counselling.

Total seats for the elective: **6**

Code: PS01

Department of Psychiatry

Topic: Mood disorders

Objectives:

1. To learn theoretical and clinical aspects of mood disorders in terms of etiology , incidence, clinical features, differential diagnosis, course, prognosis, treatment.
2. To participate in counselling methods in mood disorders like Supportive Counselling, Cognitive behavioural therapy (CBT), family therapy
3. To learn basics of psychopharmacology of mood disorders
4. To function effectively as a team member for providing care of patients with mood disorders in supervised environment.

Brief description:

1. Participate in OPD consultation and IP rounds.
2. Participate in teaching and learning sessions of the department.
3. Present 2 cases from the history taken that are fully worked up in teaching sessions.
4. Participate in psychoeducation of patient and relatives

Total seats for the elective: **5**

Code: PS02

Department of Psychiatry

Topic: Anxiety disorders

Objectives:

1. To learn theoretical and clinical aspects of anxiety disorders like panic disorder, generalized anxiety disorder etc. in terms of etiology , incidence, clinical features, differential diagnosis, course, prognosis, treatment.
2. To participate in counselling methods in anxiety disorders like Supportive Counselling.
3. To learn basics of psychopharmacology of anxiety disorders.
4. To function effectively as a team member for providing care of patients with anxiety disorders in supervised environment.

Brief description:

1. Participate in OPD consultation and IP rounds. 2 Participate in teaching and learning sessions of the department.
2. Participate in teaching and learning sessions of the department.
3. Present 2 cases from the history taken that are fully worked up in teaching sessions.
4. Participate in psychoeducation of patient and relatives.

Total seats for the elective: **5**

Code: PS03

Department of Psychiatry

Topic: Substance Use Disorders

Objectives:

1. To learn theoretical and clinical aspects of substance use disorders like alcohol , cannabis, nicotine, opioid in terms of types ,etiology , incidence, clinical features, differential diagnosis, course, prognosis, treatment.
2. To learn other addictive disorders like shopping addiction , internet addiction , gaming addiction ,etc.
3. To learn about various scales use to measure withdrawal and dependence.
4. To learn basics of psychopharmacology used in substance use disorders.
5. To learn about Motivation Enhancement Therapy and Supportive Counselling.
6. To learn about medicolegal aspects of substance use disorders .

Brief description:

1. Participate in OPD consultation and IP rounds.
2. Participate in teaching and learning sessions of the department.
3. Present 2 cases from the history taken.
4. Participate in psychoeducation of patient and relatives

Total seats for the elective: **5**

Code: PS04

Department of Psychiatry

Topic: Psychotherapy including Stress Management

Objectives:

1. To learn various types of Psychotherapy techniques like Cognitive Behavioural Therapy (CBT).
2. To learn about stress management in day to day life and resilience.

Brief description:

1. Participate in OPD consultation and IP rounds.
2. Participate in teaching and learning sessions of the department.
3. Present 2 cases from the history that are fully worked up in teaching sessions.
4. Participate in psychoeducation of patient and relatives.

Total seats for the elective: **5**

Code: DR01

Department of Dermatology, Venereology & Leprosy

Topic: Acne vulgaris

Objectives:

Student should be able to manage acne grade wise and its complications

Brief description:

Acne vulgaris is most common adolescent disorder which has psychosocial impact. In this elective ug student will learn how to manage effectively acne and its complications like pigmentations and scars by various medical and surgical modalities carried out in the department

Total seats for the elective: **5**

Code: DR02

Department of Dermatology, Venereology & Leprosy

Topic: Leprosy

Objectives:

Student should be able to diagnose type of leprosy and lepra reactions, manage leprosy and its complications effectively.

Brief description:

National leprosy elimination program is facing challenges of resistance to multidrug therapy and hence there is rise in leprosy cases and lepra reactions. As a medical graduate it's important to be able to diagnose and manage leprosy effectively.

Total seats for the elective: **5**

Code: DR03

Department of Dermatology, Venereology & Leprosy

Topic: Sexually transmitted Infections

Objectives:

Student should be able to examine clinical features and investigate a case of Sexually Transmitted Infections (STI) to diagnose a case and manage it effectively.

Brief description:

As a medical graduate it's important to know syndromic approach in STI as its national program.

Total seats for the elective: **5**

Code: SU01**Department of General Surgery****Topic: Basics of surgical suturing****Objectives:**

At the end of this elective, the student will be able to

- Identify different suture material
- Enumerate common properties of suture materials
- Describe appropriate indications for suture material
- Describe various suturing techniques (continuous, interrupted etc.)

Brief description:

This elective will introduce the student to various suture materials and suturing techniques. The student will attend the OPD and IPD along with the unit. And thus obtain basic knowledge of surgical suturing. The practical aspect of the skill will be demonstrated and imparted during actual ward work and operations. The student will be provided with opportunity to practice in a skill lab. The student will get to get scrubbed during an actual surgery and be able to take skin sutures.

Total seats for the elective: **10**

Code: SU02

Department of General Surgery

Topic: Ward procedures

Objectives:

At the end of this elective, the student will be able to

- Describe indications of insertion of IV line, naso-gastric tube and per urethral catheterisation
- Demonstrate removal of sutures in patients under observation
- Perform dressing of clean sutured wound Perform dressing of clean ulcers

Brief description:

This elective is about various ward procedures performed on surgical wards. It includes but is not limited to nasogastric tube insertion, per urethral catheter placement, taking an IV line, instituting IV fluid therapy, bandaging and dressing, suture removal etc. The student will be participating in the OPD and IPD rounds, and will be learning by observation. The student will be provided with necessary material to learn the theory and will have the opportunity to perform the tasks under observation.

Total seats for the elective: **10**

Code: OP01**Department of Ophthalmology****Topic: Surgical care, Ophthalmic emergencies, Eye banking and Refraction****Objectives:**

At the end of 4 weeks, the students should be able to:

1. Assist in complete ophthalmic workup.
2. Participate in the preoperative evaluation of patients undergoing different surgeries in Ophthalmology.
3. Describe all Operation Theatre etiquettes.
4. Advise post-operative care to patient/relative after different ophthalmic surgeries.
5. Describe the correct method of subjective correction.
6. Describe the correct method of retinoscopy.
7. Describe all components of eye banking.
8. Address the fears and queries raised by family members during eye donation.
9. Instruct accurately the caregivers of the deceased regarding preparations prior to enucleation in hospital / home.
10. Enlist all contra indications of eye donation.
11. Describe accurately the procedure of eye ball retrieval, storage and transfer.
12. Describe the medico legal aspects of informed consent process before different surgeries in Ophthalmology.
13. Obtain proper written informed consent before ophthalmic procedures and surgeries.
14. Participate as an effective team member in the ophthalmic emergency team.
15. Provide primary care to a patient presenting as an ophthalmic emergency.
16. Describe all the indications of referral to higher center in case of ocular trauma.

Brief description:

Each student having the 4 weeks elective posting will have a 2 weeks rotation giving an exposure on the elective through any 2 units. Prerequisites for this elective would be basic knowledge about history taking and clinical examination in Ophthalmology and Theoretical knowledge about refraction, eye donation and ocular emergencies.

During the elective, the student should:

1. Participate in OPD consultation.
2. Participate in teaching and learning sessions of the department.
3. Present 2 clinical cases.
4. Participate in the informed consent process before any ophthalmic procedure and surgery.

5. Participate in preoperative assessment and post-operative care of a patient.
6. Participate in the primary management of an ocular emergency.
7. Participate as a team member during eyeball retrieval.
8. Participate in eye donation awareness activities.
9. Participate in the process of refractive error correction and retinoscopy.

Total seats for the elective: **18**

Code: EN01

Department of Otorhinolaryngology

Topic: Diagnostic endoscopies in ENT

Objectives:

1. To understand the purpose of endoscopies in diagnosis of ENT conditions
2. To get anatomical overview of common ENT conditions endoscopically (nose and laryngopharynx)
3. To correlate pathophysiology and clinical presentations with application of endoscopy
4. To understand instruments used for endoscopic procedures

Brief description:

Observation of diagnostic nasal endoscopy and 70 degree hopkin's examination of larynx in OP diagnostic center, Participation in patient education and counselling as a team member

Total seats for the elective: **5**

Code: EN02

Department of Otorhinolaryngology

Topic: Otology clinics and Hearing Assessment

Objectives:

1. To get exposure to common ear pathologies in IP and OP setting
2. To understand its clinical and hearing assessment (Tuning fork tests and audiogram) by observation and assistance
3. Pathophysiologic correlation of observed ear conditions

Brief description:

OP and IP rounds participation and patient evaluation, afternoon sessions and didactic lectures and videos on common ear pathologies, patient education and counselling, observation of ear cases and assisting in microscopic suction and evaluation of ear findings, performing tuning fork tests and observing and interpretation of audiogram

Total seats for the elective: **5**

Code: OG01

Department of Obstetrics & Gynaecology

Topic: Assistant Student Physician in Midwife Led Care Unit

Objectives:

1. To receive patients in triage in respectful manner
2. To understand admission criteria and identify high risk/low risk cases
3. To be able to do initial assessment using established criteria
4. To identify high risk cases using birth checklist and initiating early treatment
5. To interpret labour process using Partograph and identify delay
6. To assist Midwives in labour using alternate birth positions
7. To be able to counsel and assist in early initiation of breast feeding
8. To be able to explain Kangaroo Care to patient & family
9. To understand contraindications for insertion of PPIUCD
10. To obtain consent for PPIUCD insertion
11. To observe the process of insertion of PPIUCD
12. To assist PPIUCD insertion

Brief description:

ACTIVITIES:

1. To attend labour triage and learn admission criteria for MLCU
2. Examine cases & Enter initial assessment and birth checklist data in medical record
3. Assist Midwives in Natural Birth and ANC Care/Exercise
4. Monitor admitted cases using Partograph
5. Promote Early initiation of Breast Feeding
6. Teach Kangaroo Care to women and family
7. Counsel and Assist in post-partum contraception PPIUCD

Total seats for the elective: **5**

Code: OG02**Department of Obstetrics & Gynaecology****Topic: Assistant Student Physician in Obstetric ICU****Objectives:**

1. Understand admission criteria and Discharge criteria of OBICU
2. Able to perform Rapid Initial Assessment
3. To be able to monitor cases and learn NIBP
4. Learn Drug Protocols
5. To be able to give drug treatment of Eclampsia
6. To be able to do urethral catheterization
7. To be able to diagnose VAP as per criteria
8. Should monitor VAP Prevention Bundle in patients on ventilator
9. Assist in Peripheral IV Cannulation & Central Line Cannulation
10. Assist in General Ventilatory Care
11. Learn Settings of Infusion Pump/Syringe pump as per Drug Protocol

Brief description:**ACTIVITIES:**

1. Attend OBICU and learn admission criteria for OBICU
2. Participate in rounds
3. Monitor patients admitted in OBICU
4. Monitor Vitals and Response to Medications and other therapy
5. Enter data in ICU Sheet
6. Attend counseling session with regard to disease, prognosis & treatment plan with family
7. Help in maintaining ICU statistics & Registers
8. Assist Procedures like- Rapid Initial Assessment in Triage before admission, IV Cannulation, Treatment of Eclampsia, Catheterization, NIBP Monitoring, Practice VAP bundle for patients on Ventilator, Ventilator Care, Assist in Central Venous Line access and Care, Learn Drug Protocols, Learn Syringe Pump/Infusion Pump Drug Delivery

Total seats for the elective: **5**

Code: OG03

Department of Obstetrics & Gynaecology

Topic: Assistant Student Physician in Perioperative Obstetrics & Gynecology

Objectives:

1. History taking and Examination in Surgical Cases in ObGy
2. Understand assessment, differential diagnosis and Surgical Plan
3. Communicate Surgical Plan to Family/Patient and give information
4. Participation in informed consent process
5. Identify Risks prior to the Surgery
6. Assisting in Pre-operative preparation of patient
7. Assist in Procedures like; urethral catheterization, iv cannulation, chromopertubation, hysterosalpingo-graphy, physiotherapy, nebulization, cross-consultations with radiology, physicians, laboratory, PAC, Surgical Assistantship, Equipment Preparation
8. Post Operative Care

Brief description:

ACTIVITIES:

1. To attend all surgical patients in OBG admitted in allotted unit
2. To Learn Diagnosis and Surgical Plan in common ailments of OBG patients
3. To Communicate/participate in communication with family with regard to treatment plan.
4. To assist in preoperative assessment & evaluation
5. To assist in preoperative preparation using ordering list e.g. bowel preparation, operative site preparation etc. including PAC; WHO Surgical Safety Checklist
6. To learn Infection Prevention Practices (IPC) and Peri-operative Antibiotic Prophylaxis
7. To assist Minor Procedures in Operation Theatres
8. To Monitor Operated Cases in Recovery & Post Operative Ward
9. To learn steps of commonly performed surgery and write operation notes/summary
10. Help in Post Operative Care including feedback at the time of Discharge

Total seats for the elective: **18**

Code: OR01

Department of Orthopaedics

Topic: Spine

Objectives:

To learn theoretical and clinical aspects of spinal disorders

Brief description:

Clinical and theoretical aspects of cases of traumatic spine injury, degenerative changes of spine, myelopathy and deformity correction in spine.

Total seats for the elective: **5**

Code: OR02

Department of Orthopaedics

Topic: Arthroplasty

Objectives:

To learn theoretical and clinical aspects of arthroplasty

Brief description:

Clinical and theoretical aspects of arthroplasty in cases of joint replacements in hip and knee, and deformity corrective osteotomy and bipolar prosthesis.

Total seats for the elective: **5**

Code: OR03

Department of Orthopaedics

Topic: Arthroscopy

Objectives:

To learn theoretical and clinical aspects of arthroscopy

Brief description:

Clinical and theoretical aspects of management of osteoarthritis of hip and knee joint and avascular necrosis of hip.

Total seats for the elective: **5**

Code: OR04

Department of Orthopaedics

Topic: Trauma

Objectives:

To learn clinical and theoretical management of trauma management

Brief description:

Clinical and theoretical aspects of management of open and closed fractures, splint application, cast application, traction application and soft tissue injury management with basic life support and stabilization of polytrauma patients.

Total seats for the elective: **5**

Code: AS01

Department of Anaesthesiology

Topic: Basics of resuscitation

Objectives:

At the end of this elective, the student will be able to learn

- Definition
- Importance of Anatomy & Physiology of Cardio pulmonary Resuscitation
- Indications of Cardio pulmonary Resuscitation (various scenarios)
- Equipment knowledge
- Crash cart (Drugs and fluids), Monitoring devices, maintenance of mannequin, oxygen delivery devices
- How to perform resuscitation
- Various conditions (demonstration)
- Perform Resuscitation on Mannequin (adult, paediatric, infant, pregnancy & other emergency situations).

Brief description:

Basic introduction to resuscitation

Total seats for the elective: **3**

Code: AS02

Department of Anaesthesiology

Topic: Regional Anaesthesia (Central & Peripheral Nerve Blocks)

Objectives:

At the end of this elective, the student will be able to learn

- Definition
- Anatomy & Physiology of nervous system
- Indications of regional anaesthesia
- Equipment used & knowledge of pharmacology of local anaesthetics used
- Describe various techniques of different regional anaesthesia
- Demonstration of various procedures in patients in operation theatre
- Perform various procedures on Mannequin & models
- Monitoring devices and monitoring of patients for regional anaesthesia
- Documentation importance

Brief description:

Introduction to regional anaesthesia

Total seats for the elective: **3**

Code: AS03

Department of Anaesthesiology

Topic: Oxygen Therapy

Objectives:

At the end of this elective, the student will be able to learn

- Anatomy & Physiology of respiration
- Indications of oxygen therapy
- Equipment knowledge
- Resources of oxygen (onsite visit), Monitoring devices, oxygen delivery devices
- How to use oxygen delivery devices
- Various conditions (demonstration)
- Perform use of oxygen delivery devices on Mannequin (adult, paediatric, infant, pregnancy & other emergency situations)
- To learn rational use of oxygen.

Brief description:

Introduction to oxygen therapy

Total seats for the elective: **3**

Code: AS04

Department of Anaesthesiology

Topic: Vascular access

Objectives:

At the end of this elective, the student will be able to

- Anatomy & Physiology of Circulation
- Different Vascular access
- Venous & Arterial
- Indications & different sites of Vascular access
- Equipment knowledge
- Identification of different size and types of cannulas
- Vascular access
- Various conditions (demonstration on mannequins and patients)

Brief description:

Introduction to vascular access

Total seats for the elective: **3**

Code: AS05

Department of Anaesthesiology

Topic: Pain Management

Objectives:

At the end of 4 weeks, the student will be able to

- Anatomy & Physiology of pain
- Knowledge of different types of pain
- Different methods of pain assessment & management
- Pharmacology of drugs used for pain management
- Indications & contraindications of various modalities of pain management
- Participate in OPD
- Selection of patients for interventional pain procedures
- Equipment knowledge
- Used for interventional pain management
- Post procedure care and advices for prevention and rehabilitation-(demonstration on patients)
- Overall Pain management awareness for primary care in various conditions as a team member

Brief description:

Introduction to pain management

Total seats for the elective: **3**

Code: RD01

Department of Radiodiagnosis

Topic: Role of Radiology in Emergencies

Objectives:

To be able to describe indications of radiological investigations in emergencies , radiological findings , cliniradiological correlation and therapeutic role of radiologists in emergencies

Brief description:

Observation and study of X-rays , CT scan , MRI and various procedures in routine and emergency hours with two way interactive session discussing role of radiologists in emergency

Total seats for the elective: **4**

Code: RD02

Department of Radiodiagnosis

Topic: Radiological Anatomy

Objectives:

To identify normal anatomical structures in various radiological modalities, anatomical variants, criteria of adequacy of a normal radiological film and identifying various artifacts.

Brief description:

The students will be given broad idea of role of different imaging modalities, demonstration and comparison of radiological anatomy in various modalities, self exercise in identifying various anatomical structures in different modalities.

Total seats for the elective: **4**

Code: EM01**Department of Emergency Medicine****Topic: Oxygen Therapy (mode of oxygen delivery)****Objectives:**

At the end of this elective, student will be able

1. To define oxygen therapy
2. To identify various devices used for oxygen therapy
3. To identify patients requiring oxygen treatment.
4. To take a decision and apply mode of oxygen delivery to the patients.
5. To function effectively as a team member in multidisciplinary approach to manage patients requiring oxygen therapy in emergency room.

Brief description:

Oxygen is necessary for basic metabolic demand in the body and it is an important part of resuscitation in many acute illnesses, as well as maintenance of chronic hypoxemic diseases. This elective will highlight non-invasive and invasive airway management equipments, airway maintenance techniques, problem recognition and objective signs of respiratory distress, definitive airway and providing supplemental oxygen. This elective will consist of didactic lectures, case presentations, seminar, hands on training on mannequin and practical experience on real patients under supervision of departmental faculties.

Total seats for the elective: **10**

Code: IH01

Department of Immunohaematology & Blood Transfusion

Topic: Role of HPLC in diagnosis of Hemoglobinopathy

Objectives:

1. Diagnosis of various Hemoglobinopathies
2. To examine the hemoglobinopathies as disorders of hemoglobin structure- alpha and beta globin gene expression

Brief description:

HPLC (High Performance Liquid Chromatography) helps in diagnosis of hemoglobinopathies like Thalassemia and Sickle Cell Disorders. It is useful for antenatal screening to prevent such hemoglobinopathies.

Total seats for the elective: **4**

Code: IH02**Department of Immunohaematology & Blood Transfusion****Topic: Therapeutic Plasma Exchange (TPE)****Objectives:**

1. Importance of TPE in various clinical conditions
2. Diagnose and understand the principles in the management of various diseases
3. Management of complications occurs during TPE
4. Calculating plasma volume which can be removed from the patients

Brief description:

TPE (Total Plasma Exchange) is the removal of plasma with return of all cellular component to the patients. The purpose of TPE is to remove the agent in the plasma, such as antibody, toxins and abnormal protein that causing clinical symptoms. It is indicated in treatment of neurological condition like Guillain-Barré syndrome, Myasthenia gravis, Chronic inflammatory demyelinating polyneuropathy, Hemolytic uremic syndrome and many other clinical conditions.

Total seats for the elective: **3**

Code: NS01

Department of Neurosurgery

Topic: Evaluation of glassgow coma scale in neurosurgery patients

Objectives:

At the end of this elective the student will be able to independently assess the glassgow coma scale and identify its importance in daily emergenciesimportance

Brief description:

Students will first go through a basic introductory lecture then will be given a demonstration of how to evaluate gcs and then students will do it practically

Total seats for the elective: **5**

Code: PD01**Department of Paediatric Surgery**

Topic: A hands-on approach to surgical emergencies in newborn and infants

Objectives:

By the end of this elective, the student should be able to:

- 1) enumerate the common surgical emergencies in neonates and infants
- 2) show basic awareness of the how neonates are handled in the surgical NICU
- 3) show basic awareness of preliminary management of the emergencies
- 4) have knowledge of the surgical procedure performed
- 5) show basic awareness of postoperat care
- 6) aware of common outcomes of surgery

Brief description:

Pediatric surgery is a unique and challenging super specialty which deals with congenital and acquired surgical anomalies in children, from newborn to adolescence. This elective has been specifically designed to give the students a hands on experience in understanding and dealing with the common surgical emergencies in newborn and infants. We will begin with an orientation and introductory lecture about the common emergencies and how to approach them. The students will be participating in rounds in the neonatal icu and the paediatric surgical icu where they can observe the primary resuscitation and preoperative preparation. They will get a chance to observe and learn about the specific surgical procedures in the OR. Each student will be following cases from the time of admission to the final outcome and will be involved actively in the management including counselling the parents. There will be case presentations and discussions towards the end based on what they have learned. It will be a unique opportunity for the students to see how dealing with children and their problems is totally different from the adult experience. It will also be an interesting experience for us to get an insight into the students perspective with their feedback on the elective.

Total seats for the elective: **5**

Code: PL01**Department of Plastic Surgery****Topic: Cosmetic (Aesthetic) & Reconstructive day care procedures in Plastic Surgery****Objectives:**

At the end of this elective the students should be able to

- Delineate normal anatomical landmarks over face for eyes, nose and lips
- Have knowledge of different skin layers and components of skin
- Various suture materials used in suturing
- At least 3 suturing techniques like simple, subcuticular and vertical mattress
- Different types of dressing materials used in different wounds
- Post operative care of patients
- Techniques to give better aesthetic and functional result

Brief description:

This elective gives the basic aesthetic knowledge of facial landmarks, different dressings and techniques of better functional and aesthetic results in suturing to students

Total seats for the elective: **5**

Code: PL02

Department of Plastic Surgery

Topic: Acute Management of Burns

Objectives:

At the end of this elective the students should be able to

- Do different types of dressings in different types of Burns
- Have knowledge of various degrees of Burns and percentage of Burns chartings
- Do primary care of Burns patients including resuscitation and dressings
- Know various procedures for securing proper intravenous lines like in femoral, subclavian, Internal jugular veins
- Different types of debridement procedures
- Give proper counselling to the patient attendants regarding prognosis of the patient
- Prescribe appropriate splintage to the patient
- Advice regarding physiotherapy and nutrition to the patients

Brief description:

This elective gives the basic knowledge of resuscitation of different types of Burns, how to do charting, dressings, resuscitation, give proper splintage, advice regarding nutrition and physiotherapy to the patients

Total seats for the elective: **5**

Code: UR01

Department of Urology

Topic: UROLOGY ELECTIVE I- UROLITHIASIS

Objectives:

Getting oriented to urolithiasis diseases related epidemiology, clinical presentation, evaluation and management. History taking, preoperative and post operative approach to patients, basic urological radiology, urological instruments.

Brief description:

In this elective we will teach history taking, ward rounds, preparing patients for surgery, imaging used and post operative followups from urological perspective.

Total seats for the elective: **5**

Code: UR02

Department of Urology

Topic: Urological elective II: BPH

Objectives:

Getting oriented to BPH related epidemiology, clinical presentation, evaluation and management. History taking, preoperative and post operative approach to patients, basic urological radiology, urological instruments.

Brief description:

We will teach history taking, ward rounds, preparing patients for surgery, imaging used and post-operative follow ups.

Total seats for the elective: **5**

