

BLOCK 1

INDEX

SNo.	Code	Department	Name of the Elective	No. of students
1.	A-1	Anatomy	Histo-chemical basis and protocols of H&E staining procedure and slide preparation	6
2.	A-2	Anatomy	Morphometric study of 25 dried human skulls	7
3.	A-3	Anatomy	Specimen procurement from cadaver and mounting technique in Anatomy museum	7
4.	A-4	Blood Bank	Donor motivation, blood donation and post donation care.	7
5.	A-5	Biochemistry	Clinical sampling practices	7
6.	A-6	Biochemistry	Clinical Biochemistry	7
7.	A-7	Biochemistry	Special biochemical markers	7
8.	A-8	Community Medicine	UHTC- Community Clinic	6
9.	A-9	Community Medicine	RHTC- Material & Child Health Outreach	5
10.	A-10	Community Medicine	Health care data processing	6
11.	A-11	Community Medicine	Immunization centre	7
12.	A-12	Forensic Medicine	Antropometric measurements of human body for determination of stature	6
13.	A-13	Forensic Medicine	Medico-legal examination of case of Physical assault	7
14.	A-14	Forensic Medicine	Medico-legal examination of drunk person	7
15.	A-15	Medical Education Unit and Computer lab	Designing an e-poster	7

16.	A-16	Microbiology	Bacteriology lab experience	6
17.	A-17	Microbiology	Infection control programme	7
18.	A-18	Microbiology	Molecular lab experience	7
19.	A-19	Pathology	Chemical and microscopic examination of urine	6
20.	A-20	Pathology	Peripheral smear preparation and interpretation	7
21.	A-21	Pathology	Receiving of Samples	7
22.	A-22	Pharmacology	Dose adjustment in patients with compromised renal function	7
23.	A-23	Pharmacology	To scrutinize geriatric prescriptions and provide counseling for drugs of concern	6
24.	A-24	Pharmacology	Pharmacovigilance- To identify, report and assess the severity, causality and preventability of ADRs	7
25.	A-25	Physiology	Electrophysiology of heart (Cardiovascular system)	7
26.	A-26	Physiology	Hematology	7
27.	A-27	Physiology	Respiratory Physiology	6

Code: A1

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Histochemical basis & protocols of H & E staining procedure & slide preparation
Location of hospital lab or research facility	Research Laboratory (Department of Anatomy) Gian Sagar Medical College
Name of internal preceptor (s)	Dr. Sween Walia, Dr. Sahdeep Kaur
Name of external preceptor, if applicable	-
Learning objectives of elective	<ol style="list-style-type: none">1. To learn and demonstrate about equipments used in the process.2. To demonstrate correct method of tissue preparation3. To prepare a write up (flowcharts) of all steps followed4. To prepare well stained slides (H & E staining)
Number of students that can be accommodated in this elective	06
Prerequisites for elective	NA
List of activities of student participation	<ol style="list-style-type: none">1. Working daily in Histology Laboratory as team member2. Presentation of seminar on principles of tissue processing & staining steps3. Tissue processing4. Preparation of stains5. Slide staining (by H & E)
Learning resources	<ol style="list-style-type: none">1. Anatomy Histology text books (Carleton's histo techniques from Department library)2. Handouts on Laboratory techniques
Portfolio entries required	<ol style="list-style-type: none">1. Documentation of seminar presented2. Documentation of step by step procedure3. Documentation of two well stained slides (by H & E)
Log book entry required	Satisfactory completion of posting signed by preceptor
Assessment	<ol style="list-style-type: none">1. Attendance2. Seminar presentation3. Performance of assigned task4. Completion of handout notes on full procedure
Other comments	-

Code: A2

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Morphometric study of 25 dried human skulls
Location of hospital lab or research facility	Dissection Hall, Anatomy Department Gian Sagar Medical College
Name of internal preceptor (s)	Dr. Bhavna, Dr. Sehajdeep Kaur
Name of external preceptor, if applicable	NA
Learning objectives of elective	<ol style="list-style-type: none">1. To prepare a research protocol as per ICMR guidelines2. To demonstrate the correct use of anthropometric instruments3. To collect data, prepare and analyse on spread sheet
Number of students that can be accommodated in this elective	07
Prerequisites for elective	NA
List of activities of student participation	<ol style="list-style-type: none">6. Work with supervisor in making observations & collect data.7. Presentation of research protocol8. Demonstrate anthropometric measurement in 5 human skulls9. Analysis of data with the help of statistician10. Data sheet submission
Learning resources	<ol style="list-style-type: none">1. SAMARA, O. A.; BADRAN, D. H. et. al Morphometric analysis of the foramen magnum. Int. J. Morphol., 35(4):1270-1275, 2017.2. Anatomy books of Head & Neck
Portfolio entries required	<ol style="list-style-type: none">1. Documentation of research protocol2. Documentation of datasheet3. Analysed data sheet
Log book entry required	Satisfactory completion of posting authenticated by preceptor
Assessment	<ol style="list-style-type: none">5. Attendance6. Seminar Presentation7. Providing basic measuring equipment care8. Completion of assigned task9. Verification of portfolio
Other comments	-

Code: A3

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Specimen procurement from cadaver & mounting techniques in Anatomy Museum
Location of hospital lab or research facility	Museum, Anatomy Department, Gian Sagar Medical College
Name of internal preceptor (s)	Dr. Maninder Kaur, Dr. Jyoti Kumari
Name of external preceptor, if applicable	NA
Learning objectives of elective	<ol style="list-style-type: none">4. To obtain experience in preparation of wet specimens & dry specimens5. To learn about colour restoration & demonstrate preservation of specimens6. To learn special methods for preparation of models for gross anatomy & embryology
Number of students that can be accommodated in this elective	07
Prerequisites for elective	NA
List of activities of student participation	<ol style="list-style-type: none">11. Work daily with a supervisor in observing, assisting in preparation of specimen12. Demonstrate the procurement of specimen13. Mounting the specimens in jar14. Preparation of museum catalogue15. Seminar on preparation & fixation of specimens
Learning resources	Research papers- Neelamjit Kaur TECHNIQUE FOR PRESERVING COLOURED WET SPECIMEN IN ANATOMY MUSEUM. Int J Anat Res 2017;5(2.2):3824-3828. DOI: 10.16965/ijar.2017.192
Portfolio entries required	<ol style="list-style-type: none">4. Documentation of seminar presentation5. Documentation of prepared specimens
Log book entry required	Satisfactory completion of posting authenticated by preceptor
Assessment	<ol style="list-style-type: none">10. Attendance11. Submission of one well mounted specimen with proper labelling by each student12. Seminar presentation
Other comments	-

Code: A4

Name of the Block	Block 1
Name of Elective	Donor motivation, blood donation and post donation care
Location	Blood centre, Gian Sagar Medical College
Name of Internal Preceptor	Dr Neha Syal
Name of External Preceptor	-
Learning objective	<ol style="list-style-type: none">1) To motivate blood donors2) To understand donor fitness criterias3) Observe blood donation4) To provide post donation care and instructions
Number of Students that can be accommodated in this elective	7
Pre requisites for elective	-
Learning resourced for students	Donor deferral guidelines. NACO website
List of activities in which students will participate	<ol style="list-style-type: none">1) Counsel and motivate donors for blood donation2) Observe donor phlebotomy3) Provide post donation information to donors4) Collect data to understand barriers to voluntary blood donation
Portfolio enteries required	Reflective writing
Log book entry required	Completion of posting signed by preceptor with a “meets expectation M” grade
Assessment	Formative- attendance; day today participation in donor motivation and performance of assigned tasks
Other comments	-

Code: A5

Name of Block	1
Name of Elective	Clinical Sampling Practices(Module 1)
Location of Elective	Sample collection area
Name of internal preceptor	Dr Sunil Kumar Mr Manish
Name of external preceptor	NA
Learning objectives	<ul style="list-style-type: none">• To study the pre-analytical variations that can be associated with blood sampling.• To enumerate the relevant history to be assessed to rule out interferences.• To demonstrate the skills of blood sampling techniques for various test parameters.• To enumerate and explain the order of draw for multiple blood specimens• To enumerate and demonstrate the sample storage and transport to the lab correctly and at right time.
Number of students that can be accommodated	7
Prerequisites of Electives	<ul style="list-style-type: none">• Knowledge about types of lancets and needles.• Knowledge about biomedical waste disposal.• Immunizations, Universal precautions.
List of activities of students participation	<ul style="list-style-type: none">• Assisting the lab technician in sample collection ,storage and transport of samples and to take necessary action to prevent errors• To work in sample collection area considering factors such as technique, communication, and safety procedures.• Share his/her learning experiences of different sampling techniques using powerpoint presentation
Learning resources	Teitz
Portfolio entries required	<ul style="list-style-type: none">• Documentation of work done• Documentation of presentations done
Logbook entry required	Completion of posting signed by preceptor
Assessment	<ul style="list-style-type: none">• Attendance• Day to day participation in given activities• Assessment of documented work done during the posting

Code: A6

Name of Block	1
Name of Elective	Diagnostic Biochemistry (Module 2)
Location of Elective	Hospital Clinical Biochemistry Lab
Name of internal preceptor	Dr Brinder Chopra Dr Priyanka Malik
Name of external preceptor	NA
Learning objectives	<ul style="list-style-type: none"> • Enlist various routine parameters being carried out in clinical biochemistry lab and their clinical correlation • To observe total testing process and its importance. • To study the laboratory operations and errors in the pre-analytical, analytical and post analytical phases. • To demonstrate the conduct of quality control for various routine biochemical tests • To be able to reduce laboratory errors in order to improve laboratory performance
Number of students that can be accommodated	7
Prerequisites of Electives	<ul style="list-style-type: none"> • Students should have the knowledge of universal precautions and safety measures to be taken while working in laboratory • Student should be immunized with HBV and COVID-19 vaccination • Student should wear apron, mask and gloves while working
List of activities of students participation	<ul style="list-style-type: none"> • Observe total testing process along with the laboratory staff. • Discuss the observations/results with the preceptors. • Take necessary action to prevent errors • Present quality control assessment in the form of LJ chart for atleast two lab tests done by student as a case workup • Share his/her learning experiences of diagnostic significance of various routine lab parameters using power point presentation
Learning resources	Teitz, department provided handout
Portfolio entries required	<ul style="list-style-type: none"> • Documentation of work done in the laboratory • Documentation of presentations done
Logbook entry required	Daily activities need to be entered in log book
Assessment	<ul style="list-style-type: none"> • Attendance • Day to day participation in given activities • Presentation of respective LJ Charts and their interpretation • Presentation of clinical case scenarios given by the preceptor

Code: A7

Name of Block	1
Name of Elective	Special Biochemical Markers (Module 3)
Location of Elective	Hospital Clinical Biochemistry Lab
Name of internal preceptor	Dr Saloni Ms. Tarundeep Kaur
Name of external preceptor	NA
Learning objectives	<ul style="list-style-type: none">• Enlist various special parameters being carried out in clinical biochemistry lab and their clinical correlation• To observe total testing process and its importance.• To study the laboratory operations and errors in the pre-analytical, analytical and post analytical phases.• To demonstrate the conduct of quality control for various special biochemical tests• To be able to reduce laboratory errors in order to improve laboratory performance
Number of students that can be accommodated	7
Prerequisites of Electives	<ul style="list-style-type: none">• Students should have the knowledge of universal precautions and safety measures to be taken while working in laboratory• Student should be immunized with HBV and COVID-19 vaccination• Student should wear apron, mask and gloves while working
List of activities of students participation	<ul style="list-style-type: none">• Observe total testing process along with the laboratory staff.• Discuss the observations/results with the preceptors.• Take necessary action to prevent errors• Present quality control assessment in the form of LJ chart for at least two lab tests done by student as a case workup• Share his/her learning experiences of diagnostic significance of various special lab parameters using power point presentation
Learning resources	Teitz, department provided handout
Portfolio entries required	<ul style="list-style-type: none">• Documentation of work done in the laboratory• Documentation of presentations done
Logbook entry required	Daily activities need to be entered in log book
Assessment	<ul style="list-style-type: none">• Attendance• Day to day participation in given activities• Presentation of respective LJ Charts and their interpretation• Presentation of clinical case scenarios given by the preceptor

Code: A8

NAME OF BLOCK	BLOCK 1
Name of Elective	Community Clinic
Location of Hospital lab or research facility	UHTC, Rajpura
Name of internal preceptor (s)	Dr. Pushapindra Kaushal, Dr. Amandeep Kaur, LMO
Name of external preceptor (if any)	N/A
Learning objectives of the elective	<ol style="list-style-type: none">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 at UHTC.3. To participate in Health activities of UHTC.
Number of students that can be accommodated in the elective	6
Prerequisites for the elective	<ol style="list-style-type: none">1. Required immunizations to be taken.2. BLS, Basic suturing and First Aid.
List of activities in which the student will participate	<ol style="list-style-type: none">1. Provide patient care under the supervision of a community clinic preceptor.2. Assist in common procedures in a community care clinic.3. Counsel patients in their own language.4. Participate in National Health Care Programs offered through UHTC.
Learning resources for students	Washington manual of the Medical Therapeutics
Portfolio entries required	<ol style="list-style-type: none">1. Daily log of patients seen and activities participated in.2. At least 04 fully worked up patients to be documented signed by Lady Medical Officer UHTC & by preceptor.
Log book entry required	Satisfactory completion of posting signed by institutional preceptor.
Assessment	<ol style="list-style-type: none">1. Attendance.2. Successful verification of required Portfolio entry.3. Successful completion of posting as certified in the log book "Meets expectation 'M' grade".
Other comments	N/A

Code: A9

NAME OF BLOCK	BLOCK 1
Name of Elective	Maternal and Child Health Outreach
Location of Hospital lab or research facility	RHTC GajjuKhera
Name of internal preceptor (s)	Dr. Divya D Sharma, Dr. Rupali Verma Bagga, LMO
Name of external preceptor (if any)	-
Learning objectives of the elective	1. To assess the functioning of MCH programme in community. 2. To assess the factors associated with early ANC Registration.
Number of students that can be accommodated in the elective	5
Prerequisites for the elective	Knowledge about MCH programme (ANC, HBNC)
List of activities in which the student will participate	Home visit of ANC women. Home visit of new born children. Assess the nutrition and immunization of women and newborn.
Learning resources for students	RMNCHA+N Guidelines by MOHFW Universal Immunization Programme
Portfolio entries required	Fully worked up cases of ANC. Fully worked up cases of Newborn.
Log book entry required	Satisfactory completion of posting authenticated by preceptor.
Assessment	1. Attendance. 2. Successful verification of required Portfolio entry. 3. Successful completion of posting as certified in the log book "Meets expectation 'M' grade".
Other comments	N.A

Code: A10

NAME OF BLOCK	BLOCK 1
Name of Elective	Health Care Data Processing
Location of Hospital lab or research facility	Biostatistical Unit, Dept of Community Medicine.
Name of internal preceptor (s)	Mr. Manpreet Singh, Dr. Amarjit Singh, Dr. Praizy Bhandari, Dr. Amandeep Kaur
Name of external preceptor (if any)	-
Learning objectives of the elective	1. To demonstrate use of statistical software. 2. To enter data in electronic record correctly. 3. To present data. 4. To do analysis of data. 5. To be able to interpret data.
Number of students that can be accommodated in the elective	6
Prerequisites for the elective	1. Laptop. 2. Basic Knowledge of M.S Excel/SPSS/Python.
List of activities in which the student will participate	1. Extraction of data. 2. Cleaning of data. 3. Coding of data. 4. Analysis data with software.
Learning resources for students	Research Methodology methods and techniques by CR Kothari.
Portfolio entries required	1. Daily log book entry of the activities performed. 2. At least processing of 1 Data set under supervision.
Log book entry required	Successful completion of posting as certified in the log book “Meets expectation ‘M’ grade”.
Assessment	1. Attendance. 2. Successful verification of required Portfolio entry.
Other comments	N.A

Code: A11

NAME OF BLOCK	BLOCK 1
Name of Elective	Immunization Centre
Location of Hospital lab or research facility	GSMCH Hospital
Name of internal preceptor (s)	Dr. Praizy, Dr. Amarjit Singh
Name of external preceptor (if any)	N/A
Learning objectives of the elective	1. Functioning of immunization centre. 2. Orientation to UIP vaccination Schedule. 3. Maintenance of cold chain.
Number of students that can be accommodated in the elective	7
Prerequisites for the elective	1. Necessary Immunization 2. Universal Precaution certificate.
Learning resources for students	Handbook of Immunization for Medical Officers.
List of activities in which the student will participate	1. Maintenance of registers and vaccines. 2. Recording of temp, cold chain. 3. AEFI form. 4. Administration of vaccines.
Portfolio entries required	1. Daily log of activities participated in. 2. No of vaccines administered.
Log book entry required	Successful completion of posting as certified in the log book "Meets expectation 'M' grade"
Assessment	1. Attendance. 2. Viva Voice assessment. 3. Successful completion of learning objectives and log book entry.
Other comments	N/A

Code: A12

NAME OF BLOCK	BLOCK 1
Name of the Elective	Anthropometric measurements of human body for determination of stature
Location of hospital lab or research facility	Gian Sagar Medical college & Hospital
Name of internal preceptor (s)	Dr. Shekhar Chumber, Dr. Gurjeet Singh, Dr. Abhishek
Name of external preceptor, if applicable	--None--
Learning objectives of elective	1.To know the significance of anthropometric measurements 2.To know medico-legal aspects of antropometric measurements.
Number of students that can be accommodated in this elective	06
Prerequisites for elective	None, Necessary immunization
List of activities of student participation	Examine Medico-legal cases PMR
Learning resources	Journals, Research Paper
Portfolio entries required	Activities done by them abstract, e-posters in log books
Log book entry required	Yes
Assessment	Any presentation
Other comments	

Code: A13

NAME OF BLOCK	BLOCK 1
Name of the Elective	Medico-legal examination of case of Physical assault
Location of hospital lab or research facility	Gian Sagar Medical college & Hospital
Name of internal preceptor (s)	Dr. Shekhar Chumber, Dr. Gurjeet Singh, Dr. Abhishek
Name of external preceptor, if applicable	--None--
Learning objectives of elective	1.How to take consent 2.To know various legal aspects 3. To know how to prepare injury report. 4. To know how to give subsequent opinion.
Number of students that can be accommodated in this elective	07
Prerequisites for elective	None, Necessary immunization
List of activities of student participation	Examine Medico-legal cases PMR
Learning resources	Journals, Research Paper
Portfolio entries required	Activities done by them abstract, e-posters in log books
Log book entry required	Yes
Assessment	Any presentation
Other comments	

Code: A14

NAME OF BLOCK	BLOCK 1
Name of the Elective	Medico-legal examination of drunk person
Location of hospital lab or research facility	Gian Sagar Medical college & Hospital
Name of internal preceptor (s)	Dr. Shekhar Chumber, Dr. Gurjeet Singh, Dr. Abhishek
Name of external preceptor, if applicable	--None--
Learning objectives of elective	1.To know how to take consent 2.To know various legal aspects related to examination of drunk person 3. To know how to conduct preliminary documentation. 4. To know how to conduct physical examination 5. To know how to give opinions in case of drunkenness. 6. To know how collect, preserve and dispatch various biological samples in case of drunkenness.
Number of students that can be accommodated in this elective	07
Prerequisites for elective	None, Necessary immunization
List of activities of student participation	Examine Medico-legal cases PMR
Learning resources	Journals, Research Paper
Portfolio entries required	Activities done by them abstract, e-posters in log books
Log book entry required	Yes
Assessment	Any presentation
Other comments	

Code: A15

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Designing of an e-poster
Location of hospital lab or research facility	Medical Education Unit & Library computer Lab
Name of internal preceptor (s)	Dr. Anuj Kumar, Dr. Neelanjana De
Name of external preceptor, if applicable	NA
Learning objectives of elective	<ol style="list-style-type: none">5. To study research done on a given topic and extract relevant information for inclusion in an e-poster6. Develop basic skills in manipulating images, text and layout within the chosen design software7. Summarize key points and organize content in a logical and coherent manner
Number of students that can be accommodated in this elective	05
Prerequisites for elective	<ol style="list-style-type: none">1. Familiarity with basic computer skills2. Ability to conduct basic online research to gather information on a given topic
List of activities of student participation	<ol style="list-style-type: none">16. Write an abstract in word format on the given research topic17. Design e-poster (as power point) that adhere to accessibility standards for diverse audiences18. Effectively present e-poster, engaging with the audience
Learning resources	Websites like Smashing Magazine, Creative bloq adobe illustrate and canva
Portfolio entries required	<ol style="list-style-type: none">4. Documentation of abstract5. Documentation of e-poster6. Documentation of presentation
Log book entry required	Satisfactory completion of the activities done and signed by preceptor
Assessment	<ol style="list-style-type: none">13. Attendance14. Day to day participation in given activities15. Presentation of e-poster
Other comments	-

Code: A16

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Microbiology (Bacteriology Lab Experience)
Location of hospital lab or research facility	Clinical Microbiology Lab, 4 th Floor of the Hospital.
Name of internal preceptor (s)	1. Dr. Maninder Kaur 2. Dr. Neetika Kalra
Name of external preceptor, if applicable	NA
Learning objectives of elective	1) The students will observe, assist, and perform the process of culturing of the microbiology samples. 2) The students will assist and perform the identification of the isolated bacteria and antibiotic sensitivity testing of bacterial isolates. 3) To assist in the departmental teaching programme. 4) To assist in the media preparation room in preparation of various types of media.
Number of students that can be accommodated in this elective	6
Prerequisites for elective	----
List of activities of student participation	1) The students will observe and assist in the process of the samples receiving in the lab. 2) To prepare a list of the various samples received in microbiology lab and the corresponding infections. 3) To perform the culture, identification and antibiotic sensitivity of the isolates received in the lab independently. 4) To present their findings in the case discussion- daily one student. 5) To assist and perform in preparation of Blood Agar, Chocolate Agar, and RCM. 6) To assist in use of autoclave in the laboratory. 7) Submit assignment of various types of controls used in the autoclave. 8) Interpretation of microbiology lab repots.
Learning resources	Microbiology Text Book
Portfolio enteries required	Yes
Log book entry required	Yes
Assessment	Formative
Other comments	

Code: A17

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Microbiology (Infection Control Programme)
Location of hospital lab or research facility	Clinical Microbiology Lab, 4 th Floor of the Hospital.
Name of internal preceptor (s)	3. Dr. Maninder Kaur 4. Dr. Bhavana Yadav
Name of external preceptor, if applicable	NA
Learning objectives of elective	5) The students will be sensitized to various infection control practices in the hospital. 6) To define the basic definitions used in HAI surveillances. 7) The students will observe and assist ICN in audit of hand hygiene. 8) The students will learn to track the cases of CAUTI and VAP and learn to calculate the CAUTI and VAP rates. 9) To students will audit the BMW in various clinical departments. 10)The students will undertake small hand on activity of swabbing the hands of HCW and putting up culture of hand swabs.
Number of students that can be accommodated in this elective	7
Prerequisites for elective	----
List of activities of student participation	9) To visit ICU and to enlist the patients with urinary catheter and on ventilator. 10) To prepare A4 size chart on bundle approach for prevention of CAUTI and VAP. 11) To prepare PPT on the clinical and microbiological creation for CAUTI and VAP. 12) To perform BMW auditing and prepare a report of the same and present it. 13) Activity of hand swab collection of HCW and to put culture of the same prepare the report and present it. 14) To track the total catheter days or ventilator days in ICU and calculation of CAUTI and VAP rates.
Learning resources	Microbiology Text Book
Portfolio enteries required	Yes
Log book entry required	Yes
Assessment	Formative
Other comments	

Code: A18

NAME OF THE BLOCK	BLOCK 1 / BLOCK 2
Name of the Elective	Microbiology (Molecular Lab Experience)
Location of hospital lab or research facility	Molecular Lab, 3 rd Floor of the Medical College.
Name of internal preceptor (s)	5. Dr. Neha Sharma 6. Dr.Maninder Kaur 7. Mr. Dipankar Biswas
Name of external preceptor, if applicable	NA
Learning objectives of elective	1) The student will assist and perform the sample collection for RT-PCR test for covid. 2) The students will perform the triple layer packing of RT-PCR samples for Covid. 3) The students observe the full procedure of sample decontamination, RNA extraction and master mix preparation in the molecular lab and prepare assignment of the steps of the same. 4) The students must be able to interpret the reports of RT-PCR test for COVID.
Number of students that can be accommodated in this elective	7
Prerequisites for elective	----
List of activities of student participation	1. Visit to the flu corner and sample collection area. 2. To perform the proper sample collection and packing of the sample for RT-PCR test. 3. To visit the various sections of RT-PCR lab. 4. To prepare A4 size charts on basic steps of a) PCR procedure. b) Methods of RNA extraction. c) Methods of Master mix preparation. 5. To prepare PPT on a) The structure of COVID-19 virus. b) Various diagnostic tests used for covid infection. c) Various target genes for Covid RT-PCR test. d) Types of COVID vaccines. 6. To demonstrate proper sequence of donning and doffing of PPE and proper method of donning and doffing of each PPE. 7. Hands on practice to file SRF forms. 8. Interpret the report for COVID-19 RT-PCR Test.
Learning resources	Microbiology Text Book
Portfolio entries required	Yes
Log book entry required	Yes

Assessment	Formative
Other comments	

Code: A19

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Urine examination -Chemical examination and microscopic examination (M- Path- 02)
Location of hospital lab or research facility	Clinical path lab (Central lab)-GSMCH
Name of internal preceptor (s)	Dr. Sumit Chahal
Name of external preceptor, if applicable	
Learning objectives of elective	At the completion of the elective, third year MBBS (part II) student must know to <ul style="list-style-type: none">- Document and receive samples for urine examination.- Process the samples for urine examination.- Perform chemical examination (Sugar/Protein/Ketone) on urine samples by reagent strip.- Perform microscopic examination of urine and look for cells/ casts/ crystals- Form a report and dispatch it.
Number of students that can be accommodated in this elective	6
Prerequisites for elective	<ul style="list-style-type: none">- Familiar with universal safety precautions.- Necessary immunization.- Knowledge about the biomedical waste disposal guidelines, 2018.
List of activities of student participation	<ul style="list-style-type: none">- Orientation to the working of the clinical path lab.- Documentation and receiving of urine samples- Processing of urine samples.- Chemical and microscopic examination of urine.- Correlation with available clinical history- Preparing a urine report
Learning resources	<ul style="list-style-type: none">- Henry's clinical diagnosis and management by laboratory methods 24th e
Portfolio entries required	Yes. <ul style="list-style-type: none">- Documentation of samples received and processed.- Documentation of number of chemical and microscopic examination performed.- Number of cases reported independently.
Log book entry required	Completion of posting signed by preceptor with 'meets expectation M grade'
Assessment	Formative <ul style="list-style-type: none">- Attendance- Performance of assisted task- Presentation of the worked up cases- Log book entry
Other comments	

Code: A20

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Hematology- Peripheral smear preparation and interpretation (M-Path-01)
Location of hospital lab or research facility	Hematology lab (Central lab) - GSMCH
Name of internal preceptor (s)	Dr. Neelanjana De
Name of external preceptor, if applicable	
Learning objectives of elective	At the completion of the elective, third year MBBS (part II) student must be able to <ul style="list-style-type: none">- Receive and document the samples for peripheral smear examination.- Enumerate the indications for peripheral smear examination.- Prepare smear and stain slides for peripheral smear examination.- Perform DLC and RBC interpretation under supervision.- Differentiate the smears into various types of anaemia (based on RBC indices and smear examination), if applicable.
Number of students that can be accommodated in this elective	7
Prerequisites for elective	<ul style="list-style-type: none">- Familiar with universal safety precautions.- Necessary immunization.- Knowledge about the biomedical waste disposal guidelines, 2018.
List of activities of student participation	<ul style="list-style-type: none">- Orientation to lab environment.- Documentation and receiving of samples.- Preparation of smear for peripheral smear examination.- Staining of slides using leishman's stain- Performing DLC, platelet count and RBC morphology interpretation- Presentation: Peripheral smear preparation and staining/ Two cases of peripheral smears interpreted.
Learning resources	<ul style="list-style-type: none">- Dacie and Lewis Practical Hematology, 12th e.
Portfolio entries required	Yes. <ul style="list-style-type: none">- Documentation of number of smears prepared and stained.- Documentation of number of cases interpreted.- Presentation.
Log book entry required	Completion of posting signed by preceptor with 'meets expectation M grade'
Assessment	Formative- Attendance <ul style="list-style-type: none">- Performance of assisted task- Presentation- Log book entry
Other comments	

Code: A21

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Hematology - Receiving of samples (M-Path-03)
Location of hospital lab or research facility	Hematology lab (Central lab)- GSMCH
Name of internal preceptor (s)	Dr. Tripti jain.
Name of external preceptor, if applicable	
Learning objectives of elective	<p>At the completion of the elective, third year MBBS (part II) student must know</p> <ul style="list-style-type: none"> - To know about the various blood samples received in the hematology lab. - To know about the various anticoagulants. - To know about the rejection criteria of various samples - To know about the prerequisite documents, record keeping and BMW waste disposal of the samples
Number of students that can be accommodated in this elective	7
Prerequisites for elective	<ul style="list-style-type: none"> - Familiar with universal safety precautions. - Necessary immunization. - Knowledge about the biomedical waste disposal guidelines, 2018.
List of activities of student participation	<ul style="list-style-type: none"> - Orientation to the working of the Hematology lab. - Check the required documents (Requisition form) - Receiving blood samples in appropriate anticoagulant vial. - Accept/ reject a sample following the criteria for acceptance - Disposal of the samples following BMW guidelines. - Presentation on sample receiving prerequisites.
Learning resources	<ul style="list-style-type: none"> - Dacie and Lewis Practical Hematology, 12th e. - Henry's clinical diagnosis and management by laboratory methods 24th e
Portfolio entries required	<p>Yes.</p> <ul style="list-style-type: none"> - Documentation of sample rejection criteria - Documentation of the number of samples rejected. - Documentation of the presentations done
Log book entry required	Completion of posting signed by preceptor with 'meets expectation M grade'
Assessment	<p>Formative</p> <ul style="list-style-type: none"> - Attendance - Performance of assisted task - Log book entry
Other comments	

Code: A22

Name of Block	BLOCK 1 (A 21)
Name of Electives	Clinical Pharmacology - Dose adjustment in patients with compromised renal function
Location of Hospital lab or research facility	Department of Pharmacology
Name of Internal Preceptor (s)	Dr Prem Parkash Khosla, Dr Satish Sachdeva, Dr Shanu Raina, Dr. Balbir Kaur, Dr. Sonia Arora
Name of External Preceptor (if any)	None
Learning objective of the elective	<ol style="list-style-type: none">1. To list the therapeutic dose of commonly used drugs as in National Formulary of India2. To list drugs whose dose needs to be adjusted in compromised renal function3. To list different formula / Nomograms for dose adjustment4. To adjust dose in patients with compromised renal function
Number of students that can be accommodated in this elective	7
Prerequisites for the electives	Basic knowledge of Pharmacology
Learning resources for students	<ol style="list-style-type: none">1. National Formulary of India2. Tools for calculation of dose adjustment in patients with compromised renal function
List of activities in which the students will participate	<ol style="list-style-type: none">1. Ward rounds (Patients with decreased renal function)2. Identification of drugs in the treatment chart that need to be adjusted with decreased Creatinine Clearance3. Training to calculate adjusted dose using Nomograms / Excel programme for dose adjustments4. Training on casebased problems requiring dose adjustment5. Feedback to the consultant
Portfolio entries required	
Log Book entry required	Satisfactory completion of posting undersigned by preceptor with a 'Meets expectation' grade
Assessment	Attendance Formative assessment Record of activities in log book
Other comments	

Code: A23

Name of Block	BLOCK 1 (A22)
Name of Electives	Clinical Pharmacology - To scrutinize geriatric prescriptions and provide counseling for drugs of concern
Location of Hospital lab or research facility	Department of Pharmacology
Name of Internal Preceptor (s)	Dr Prem Parkash Khosla, Dr Satish Sachdeva, Dr Shanu Raina, Dr.Balbir Kaur, Dr.Sonia Arora
Name of External Preceptor(if any)	None
Learning objective of the elective	<ol style="list-style-type: none">1. To measure the anticholinergic and sedation burden2. To understand the importance of reducing anticholinergic burden3. To identify drugs causing postural fall, retention urine, CNS and cardiac emergency4. To identify the risk of abrupt stoppage of medications5. To identify drugs whose non-compliance causes metabolic, cardiac, or neurological emergency6. To identify habitforming drugs7. To provide counselling to the patients
Number of students that can be accommodated in this elective	6
Prerequisites for the electives	Basic Knowledge of Pharmacology
Learning resources for students	<ol style="list-style-type: none">1.General Pharmacology Concerns2.Tools for sedation score Tools for Anticholinergic burden <ol style="list-style-type: none">3.Basic and Clinical Pharmacology by Katzung4. National Formulary of India
List of activities in which the students will participate	<ol style="list-style-type: none">1.Screening of prescriptions for<ul style="list-style-type: none">• Anticholinergic burden, Sedation score• Metabolic,cardiac, or neurological emergency due to non-compliance• Habit forming drugs2. Providing counselling to the patients3. Feedback to the consultant4. Case Presentations
Portfolio entries required	
Log Book entry required	Satisfactory completion of posting undersigned by preceptor with a 'Meets expectation' grade
Assessment	Attendance Formative assessment Record of activities in log book
Other comments	

Code: A24

Name of Block	BLOCK 1 (A 23)
Name of Electives	Pharmacovigilance - To identify, report and assess the severity, causality and preventability of ADRs
Location of Hospital lab or research facility	Department of Pharmacology, GSMCH
Name of Internal Preceptor (s)	Dr Prem Parkash Khosla, Dr Shanu Raina , Dr.Balbir Kaur ,Dr.Sonia Arora, Dr.Satwinder Singh
Name of External Preceptor(if any)	None
Learning objective of the elective	<ol style="list-style-type: none">1. To understand the principles of Pharmacovigilance2. To take complete drug history3. To identify an ADR and report the same using appropriate ADR reporting form4. To assess the severity, causality, and preventability of ADRs5. To identify drug-drug and drug -food interactions
Number of students that can be accommodated in this elective	7
Prerequisites for the electives	Basic knowledge of Pharmacology
Learning resources for students	<ol style="list-style-type: none">1.Pharmacovigilance Programme of India2.Tools for assessment<ul style="list-style-type: none">• WHO Causality Assessment Scale• Hartwig Severity Scale• Schumock and Thornton Preventability Scale3.Basic and Clinical Pharmacology by Katzung
List of activities in which the students will participate	<ol style="list-style-type: none">1. Collection of ADRs2. Filling up of the ADR reporting form3. Assessing the causality, severity, and preventability of the ADR4. Case presentation
Portfolio entries required	
Log Book entry required	Satisfactory completion of posting undersigned by preceptor with a 'Meets expectation' grade
Assessment	Attendance Formative assessment Record of activities in log book
Other comments	

Code: A25

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	(Electrophysiology of Heart) CVS (Cardiovascular System)
Location of hospital lab or research facility	Department of Physiology GSMCH, Rajpura Dist. Patiala
Name of internal preceptor (s)	Dr. Manpreet Singh, Dr. Poonam G. Kohli
Name of external preceptor, if applicable	NIL
Learning objectives of elective	<ul style="list-style-type: none">• At the end of the module students should be able to properly handle & use the electro cardiogram machine• Must develop the skill about the usage & application of all the attached electrodes of the machine• Must accurately follow safety precautions while doing ECG.• About the proper disposal of used cotton following the biomedical waste disposal rule.• Know about how to interpret the ECG
Number of students that can be accommodated in this elective	07
Prerequisites for elective	Candidates find ways have prior knowledge of functional anatomy & electrophysiological properties of heart
List of activities of student participation	<ul style="list-style-type: none">• Participate & assist in clinical lab performing ECG test.• Single channel electrocardiogram machine
Learning resources	<ul style="list-style-type: none">• The ECG made easy John Hampton practical guide to ECG• Golwalla's electrocardiography for medical students and general practitioners
Portfolio enteries required	<ul style="list-style-type: none">• No. of ECGs recorded independently• Clinical corelation of the findings of ECGs Recorded .
Log book entry required	Meet expectation/doesn't meet expectation
Assessment	<ul style="list-style-type: none">• Seminar presentation/PPT.• Assessment by independent performance and interpretation of the test results
Other comments	_____

Code: A26

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Haematology
Location of hospital lab or research facility	Department of Physiology, GSMCH, Rajpura Dist. Patiala
Name of internal preceptor (s)	Dr. Babita Bansal, Dr. Jaspreet Takkar
Name of external preceptor, if applicable	NIL
Learning objectives of elective	At the end of the module the student shall be able to develop skill about the proper handling and usage of laboratory equipment with safe and disposal methods for biomedical waste generated in haematology lab. <ul style="list-style-type: none">• Develop adequate skill for collecting blood samples as per standard lab protocol.• Develop adequate skill for performing essential haematology procedures relevant to common disorders (Clinical)• Develop essential skill to interpret the result of the essential haematological procedures.
Number of students that can be accommodated in this elective	07
Prerequisites for elective	Candidate should have prior knowledge of universal precautions and safe lab practices
List of activities of student participation	Participate and assist in routine haematology practical demonstrations.
Learning resources	Wintrobe's clinical haematology bt John. P. Sreer.
Portfolio entries required	<ul style="list-style-type: none">• Number of blood samples collected• No. of haematology tests done.• Clinical corelation of the findings of haematology tests done.
Log book entry required	Meets expectation/doesn't meet expectation
Assessment	<ul style="list-style-type: none">• Seminar presentation about common haematology disorders.• Assessment by independent performance and interpretation of the test results
Other comments	_____

Code: A26

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Respiratory Physiology
Location of hospital lab or research facility	Department of Physiology GSMCH, Rajpura Dist. Patiala
Name of internal preceptor (s)	Dr. Poonam G. Kohli , Dr. Manpreet Singh
Name of external preceptor, if applicable	NIL
Learning objectives of elective	<ul style="list-style-type: none">• At the end of the module student should be able to the handle & operate computerised Spiro excel, instruments & software.• Student should be able to properly dispose used mouth pieces.• Should be able to properly dispose off biomedical waste generated.• Develop adequate skill for performing computerised spirometry on subjects.• Develop technical knowledge & skill to interpret the results of the spirometry .• Develop understanding to correlate the results with relevant clinical scenario.
Number of students that can be accommodated in this elective	06
Prerequisites for elective	<ul style="list-style-type: none">• Participate & assist in clinical labs for spirometry functions.• Basic knowledge of pulmonary function tests.
List of activities of student participation	Participate & assist in clinical lab for spirometric functions Computerised spirometer
Learning resources	Spirometry by Dr. Behera McGraw Hill's Pocket Guide to Spirometry
Portfolio enteries required	<ul style="list-style-type: none">• No. of computerized spirometry done independently.• Clinical corelation of the findings of computerized spirometry tests.
Log book entry required	Meets expectation/doesn't meet expectation
Assessment	<ul style="list-style-type: none">• Seminar presentation/PPT.• Assessment by independent performance and interpretation of the test results
Other comments	_____

