

BLOCK 1

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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,
Name of external preceptor, if applicable	-
Learning objectives of elective	To learn and demonstrate about equipments used in the process. To demonstrate correct method of tissue preparation To prepare a write up (flowcharts) of all steps followed To prepare well stained slides (H & E staining)
Number of students that can be accommodated in this elective	05
Prerequisites for elective	NA
List of activities of student participation	Working daily in Histology Laboratory as team member Presentation of seminar on principles of tissue processing & staining steps Tissue processing Preparation of stains Slide staining (by H & E)
Learning resources	Anatomy Histology text books (Carleton's histo techniques from Department library) Handouts on Laboratory techniques
Portfolio entries required	Documentation of seminar presented Documentation of step by step procedure Documentation of two well stained slides (by H & E)
Log book entry required	Satisfactory completion of posting signed by preceptor

Assessment	Attendance Seminar presentation Performance of assigned task 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
Name of external preceptor, if applicable	NA
Learning objectives of elective	To prepare a research protocol as per ICMR guidelines To demonstrate the correct use of anthropometric instruments To collect data, prepare and analyse on spread sheet
Number of students that can be accommodated in this elective	05
Prerequisites for elective	NA
List of activities of student participation	Work with supervisor in making observations & collect data. Presentation of research protocol Demonstrate anthropometric measurement in 5 human skulls Analysis of data with the help of statistician Data sheet submission

Learning resources	SAMARA, O. A.; BADRAN, D. H. et. al Morphometric analysis of the foramen magnum. Int. J. Morphol., 35(4):1270-1275, 2017. Anatomy books of Head & Neck
Portfolio entries required	Documentation of research protocol Documentation of datasheet Analysed data sheet
Log book entry required	Satisfactory completion of posting authenticated by preceptor
Assessment	Attendance Seminar Presentation Providing basic measuring equipment care Completion of assigned task Verification of portfolio
Other comments	-

Code: A3

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Voluntary Body donation program (The life after death)
Location of hospital lab or research facility	Anatomy Department , Gian Sagar Medical College & Hospital
Name of internal preceptor (s)	Dr. Shubhpreet Sodhi
Name of external preceptor, if applicable	NA
Learning objectives of elective	Define body donation, distinguish it from organ & tissue donation and recognize the importance of body donation in Medical Education Discuss the ethical, legal & procedural aspects involved in body donation Describe and document the process of registering for body donation including consent, eligibility & institutional protocols. Evaluate public attitudes & awareness about body donation & propose strategies to improve education & outreach

Number of students that can be accommodated in this elective	06
Prerequisites for elective	NA
List of activities of student participation	Preparing E-poster/slogans on body donation Presenting seminars on ethical, legal & procedural aspects of body donation. Preparation of documents for registering for body donation including consent. Designing questionnaire to evaluate public attitudes & awareness about body donation.
Learning resources	The Punjab Anatomy Act, 1963 The Bombay Anatomy Act, 1949 Dope Santoshkumar A et al. Body donation. The life after death. Medpulse- International Medical. Journal April 2015; 2(4) : 216-220.
Portfolio entries required	E-poster/slogans on body donation Documentation of seminar presentation Documentation of questionnaire for data collection .
Log book entry required	Satisfactory completion of posting signed by preceptor
Assessment	Attendance Seminar presentation Awareness camp Completion of assigned task
Other comments	-

Code: A4

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
Name of external preceptor, if applicable	NA
Learning objectives of elective	To obtain experience in preparation of wet specimens & dry specimens To learn about colour restoration & demonstrate preservation of specimens To learn special methods for preparation of models for gross anatomy & embryology
Number of students that can be accommodated in this elective	06
Prerequisites for elective	NA
List of activities of student participation	Work daily with a supervisor in observing, assisting in preparation of specimen Demonstrate the procurement of specimen Mounting the specimens in jar Preparation of museum catalogue 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	Documentation of seminar presentation Documentation of prepared specimens
Log book entry required	Satisfactory completion of posting authenticated by preceptor

Assessment	Attendance Submission of one well mounted specimen with proper labelling by each student Seminar presentation
Other comments	-

Code: A5

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	To motivate blood donors To understand donor fitness criterias Observe blood donation To provide post donation care and instructions
Number of Students that can be accommodated in this elective	5
Pre requisites for elective	-
Learning resourced for students	Donor deferral guidelines. NACO website
List of activities in which students will participate	Counsel and motivate donors for blood donation Observe donor phlebotomy Provide post donation information to donors 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: A6

NAME OF BLOCK	BLOCK 1
Name of Elective	Clinical Sampling Practices(Module 1)
Location of Elective	Sample collection area
Name of internal preceptor	Dr. Sonia Chawla Dr. Ritu Devi
Name of external preceptor	NA
Learning objectives	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	(Four) 4
Prerequisites of Electives	Knowledge about types of lancets and needles. Knowledge about biomedical waste disposal. Immunizations, Universal precautions.
List of activities of students participation	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	Documentation of work done Documentation of presentations done
Logbook entry required	Completion of posting signed by preceptor
Assessment	Attendance Day to day participation in given activities Assessment of documented work done during the posting

Code: A7

NAME OF BLOCK	BLOCK 1
Name of Elective	Diagnostic Biochemistry (Module 2)
Location of Elective	Hospital Clinical Biochemistry Lab
Name of internal preceptor	Dr. Priyanka Sharma Ms.Tarundeep Kaur
Name of external preceptor	NA
Learning objectives	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	Four (4)
Prerequisites of Electives	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	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	Documentation of work done in the laboratory Documentation of presentations done
Logbook entry required	Daily activities need to be entered in log book
Assessment	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	Special Biochemical Markers (Module 3)
Location of Elective	Hospital Clinical Biochemistry Lab
Name of internal preceptor	Dr. Priyanka Sharma Dr. Ritu Devi
Name of external preceptor	NA
Learning objectives	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	Four (4)
Prerequisites of Electives	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	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	Documentation of work done in the laboratory Documentation of presentations done
Logbook entry required	Daily activities need to be entered in log book
Assessment	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: A9

NAME OF BLOCK	BLOCK 1
Name of Elective	Urban Health Training Centre
Location of Hospital lab or research facility	UHTC, Rajpura.

Name of internal preceptor (s)	Dr Kavita Dr Anshu Mittal LMO
Name of external preceptor (if any)	NA
Learning objectives of the elective	Understand the organization and functioning of an Urban Health Training Centre. Observe the delivery of primary healthcare services in an urban setting. Participate in health education and counseling activities. Understand the implementation of national health programmes at the UHTC level.
Number of students that can be accommodated in the elective	5
Prerequisites for the elective	Basic understanding of primary healthcare services and national health programmes.
Learning resources for students	Standard operating procedures and records maintained at the UHTC.
List of activities in which the student will participate	Participation in outpatient services under supervision. Observation of registration and record-keeping procedures. Participation in health education and counseling activities. Observation of programme implementation at the UHTC.
Portfolio entries required	Daily activity log and reflection on urban primary healthcare services.
Log book entry required	Completion of activities certified by the preceptor.
Assessment	Attendance. Viva voce assessment. Successful completion of learning objectives and logbook entry.
Other comments	NA

Code: A10

NAME OF BLOCK	BLOCK 1
Name of Elective	Rural Community Health Centre
Location of Hospital lab or research facility	RHTC GajjuKhera
Name of internal preceptor (s)	Dr. Parkeet Singh Dr. Rupali Verma Bagga LMO
Name of external preceptor (if any)	-
Learning objectives of the elective	1. To provide comprehensive care to the patients in the resource limited setting. 2. To participate in Health activities of RHTC. 3. To function as a member of Health Care team at RHTC.
Number of students that can be accommodated in the elective	5
Prerequisites for the elective	BLS, Basic scurning and First Aid promotive and preventives aspect of disease, medical management of disease
Learning resources for students	1. K. Park text book of Community Medicine. 2. Washinton manual Medical Therapeutics.
List of activities in which the student will participate	1. Provide curative to the patient 2. Provide preventive care to the patient as well as the family members. 3. Educating people about the disease.
Portfolio entries required	1. Daily log of patient seen and activities participated in.

	2. 5 fully worked up patients to be documented and signed by LMO and by internal preceptor.
Log book entry required	Satisfactory completion of posting signed by Institutional Perceptor.
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” 4.Viva
Other comments	N.A

Code: A11

NAME OF BLOCK	BLOCK 1
Name of Elective	National Health Programmes
Location of Hospital Lab or Research Facility	Department of Community Medicine, GSMCH.
Name of Internal Preceptor(s)	Dr P. Kaushal Dr Divya D.Sharma
Name of External Preceptor (if any)	NA
Learning Objectives of the Elective	To understand the organization and implementation of selected national health programmes. To observe the delivery of programme services at different levels of healthcare. To understand the roles of healthcare personnel involved in programme implementation. To identify the challenges associated with implementing health programmes in community settings.
Number of students that can be accommodated in this Elective	5
Prerequisites for the Elective	Basic understanding of national health programmes

Learning Resources for Students	National programme operational guidelines, programme registers, reporting formats, and educational materials available at the respective centres.
List of Activities in which the student will Participate	Observation of programme implementation at the Urban Health Training Centre. Observation of programme implementation at the Rural Health Training Centre. Participation in activities at the Immunization Centre with emphasis on the Universal Immunization Programme. Observation of activities at the Tuberculosis Clinic under the National TB Elimination Programme. Review of programme records, reporting systems, and documentation maintained at the respective centres.
Portfolio Entries Required	Daily documentation of activities performed during the posting.
Logbook Entry Required	Documentation and certification of activities completed during the posting.
Assessment	Attendance. Viva voce assessment. Successful completion of learning objectives and logbook entry.
Other Comments	NA

Code: A12

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 Nidhi Nain Dr Divya D Sharma
Name of External Preceptor (if any)	NA
Learning Objectives of the Elective	To understand the functioning of an Immunization Centre. To gain orientation to the Universal Immunization Programme (UIP) vaccination schedule. To understand the principles of cold-chain maintenance. To identify and document Adverse Events Following Immunization (AEFI).

Number of students that can be accommodated in this Elective	5
Prerequisites for the Elective	Basic knowledge of vaccine-preventable diseases. Familiarity with the National Immunization Schedule.
Learning Resources for Students	Handbook of Immunization for Medical Officers.
List of Activities in which the student will participate	Maintenance of immunization registers and vaccine records. Recording and monitoring of temperature and cold-chain maintenance. Documentation of AEFI. Observation of administration of vaccines
Portfolio Entries Required	Daily log of activities participated in. Documentation of vaccination observed
Logbook Entry Required	Successful completion of posting as certified in the logbook.
Assessment	Attendance. Viva voce assessment. Successful completion of learning objectives and logbook entry.
Other Comments	NA

Code: A-13

NAME OF BLOCK	BLOCK 1
Name of Elective	Healthcare Data Processing and Research
Location of Hospital lab or research facility	Department of Community Medicine, GSMCH
Name of internal preceptor (s)	Dr Gunjan Sharma Dr Nidhi Nain
Name of external preceptor (if any)	NA
Learning objectives of the elective	To understand the principles of healthcare data collection and management. To develop skills in data entry, coding, and data organization. To understand the basic principles of healthcare data analysis and interpretation. To understand the role of health information in research and public health decision-making.

Number of students that can be accommodated in the elective	6
Prerequisites for the elective	Basic understanding of epidemiology, biostatistics, and research methodology
List of activities in which the student will participate	Extraction of data from healthcare records and reporting formats. Data entry and coding using electronic spreadsheets. Data cleaning and organization of healthcare datasets. Preparation of simple tables and summaries from collected data. Interpretation and presentation of analyzed data under faculty supervision.
Learning resources for students	Park's Textbook of Preventive and Social Medicine, Microsoft Excel, standard data collection tools, case record forms, and reporting formats.
Portfolio entries required	Daily activity log and brief report based on the analyzed dataset.
Log book entry required	Completion of activities certified by the preceptor.
Assessment	Attendance. Viva voce assessment. Successful completion of learning objectives and logbook entry.
Other comments	NA

Code: A-14

NAME OF BLOCK	BLOCK 1
Name of Elective	Medicolegal autopsy & crimescene investigation
Location of Hospital lab or research facility	Department/ Mortuary of hospital
Name of internal preceptor (s)	Dr. Sandeep Raju
Name of external preceptor (if any)	NA
Learning objectives of the elective	To demonstrate under faculty supervision- Basic steps of medico-Legal autopsy

	Basic mechanism of crime scene investigation Physical & trace evidence collection & preservation Able to determine cause & manner of death as per ICD-10 through autopsy finding
Number of students that can be accommodated in the elective	6
Prerequisites for the elective	Identification of autopsy instruments & analysis of important autopsy documents. Basic steps of autopsy & trace evidence collection Basic crime scene Investigation in a simulated environment Correct method of writing Cause of death as per ICD-10.
List of activities in which the student will participate	Identification of autopsy instruments & analysis of important autopsy documents, basic steps of autopsy & trace evidence collection. Basic crime scene Investigation in a simulated environment. Correct method of writing Cause of death as per ICD-10.
Learning resources for students	Autopsy & crime scene video demonstration The essentials of Forensic Medicine and Toxicology by K S Narayan Reddy Textbook of Forensic Medicine by Dr Anil Agarwal
Portfolio entries required	Record of evidence collection from simulated crime scene Seminars
Log book entry required	Completion of posting signed by preceptors with a “meets expectation ‘(M)’ grade”
Assessment	Formative assessment- • Attendance • day-to-day participation in departmental activity • Identification of autopsy instruments(MCQ’s,OSCE) • Presentation of worked up autopsy case in department • Problem solving case scenarios
Other comments	

Code: A-15

NAME OF BLOCK	BLOCK 1
Name of Elective	Forensic Traumatology

Location of Hospital lab or research facility	Department/ Emergency of Gian Sagar
Name of internal preceptor (s)	Dr. Sandeep Raju
Name of external preceptor (if any)	Not Applicable
Learning objectives of the elective	1. To understand the role of different mechanical injuries in medico legal practice. 2. To examine the injured person in a simulated / supervised environment. 3. To provide awareness among students towards medico legal practice. 4. To have hands on training for preparing different medico legal reports. 5. To Prepare the medico legal report in a simulated / supervised environment. 6. Knowledge skill : Know the different types of injuries and their medico legal importance. 7. Procedural skill: Know the steps how to prepare different medico legal reports. 8. Identify the steps in conducting MLR and apply the steps in conducting the MLRs
Number of students that can be accommodated in the elective	6
Prerequisites for the elective	1. Volunteer/ Patient 2. Bed / Couch / Table 3. Measuring tape 4. Magnifying Glass 5. Hand-outs – Steps of Autopsy and handling of body 6. Surgical Gloves of different sizes. 7. Injury register with pictorial diagram 8. First aid box 9. Clinical waste dustbin
List of activities in which the student will participate	1. Lectures 2. Small Group discussions (SGD) 3. DOAP 4. Prepare and present at least two MLR cases in departmental academic forum 5. Student centered seminars 6. Student centered project presentations 7. Discussions and presentations on case scenarios 8. Role play

Learning resources for students	1.Textbook of Forensic Medicine andToxicology by Krishan Vij 2. The essentials of Forensic Medicine and Toxicology by K S Narayan Reddy
Portfolio entries required	1. Documentation of observed/supervised MLRs. 2. Documentation of performed MLRs. 3. Documentation of various academic activities done. 4. Work book entries on day to day basis.
Log book entry required	Satisfactory completion of posting authenticated by preceptor
Assessment	Attendance , Successful verification of required portfolio entries Successful completion of the posting as certified in the log book with a “meets expectation ‘M’ grade”
Other comments	

Code: A-16

NAME OF BLOCK	BLOCK 1
Name of Elective	Medical Jurisprudence
Location of Hospital lab or research facility	Forensic Medicine Department.
Name of internal preceptor (s)	Dr. Sanchit Narang
Name of external preceptor (if any)	NA
Learning objectives of the elective	CONSENT IN MEDICAL PRACTICE: To make the student understand the types and importance of consent & its documentation in medical practice. To make the student learn various components of a valid consent. To make the student learn Indian laws relevant to consent in different scenario. To make the student able to analyze the consent forms for various procedures from the case files. To make the student able to obtain procedure specific valid consent under supervision.

	MEDICAL NEGLIGENCE: To make the student learn various components of medical negligence. To make the student study the judgements given by Consumer Disputes Redressal Commissions in medical negligence cases. To make the student learn to opine in cases of medical negligence.
Number of students that can be accommodated in the elective	6
Prerequisites for the elective	Basic Knowledge of Consent and Medical negligence.
List of activities in which the student will participate	Morning Hours:(At the MRD) 1. Study the case sheets and consent forms from the case files at Medical Record Department selected by the Faculty of Forensic Medicine Department under supervision. Study various components of a valid consent in the consent forms & validity of the consent forms as per Indian laws. Design/formulate at least 5 procedure specific consent forms. Observe & participate with the clinician in obtaining the consent for various procedures (at least once in a week by visiting the wards as per instructions from the faculty of Forensic Medicine). AFTERNOON HOURS: (At Forensic Medicine department) Study at least 5 cases of Medical negligence from the literature made available by the department of Forensic Medicine. Spend 2 days for studying the facts of the case and 1day for case presentation & discussion per case. (2cases perweek) Active participation in case discussion.
Learning resources for students	Textbooks of Forensic Medicine, Case files in the Medical Record Department, Compendium of CPA Medical Judgements

Portfolio entries required	. Documentation of examined case files and consent forms. . At least 2 procedure specific consent forms. . Documentation of studied cases of medical negligence.
Log book entry required	Completion of posting signed by preceptor & Head of the department with a “Meets the expectations ‘ (M) ’ grade”
Assessment	Formative: Attendance Day-to-day participation in case files & consent forms. Performance of assigned tasks with relation to obtaining the consent. Active participation in case discussions of medical negligence.
Other comments	Student Must complete the assigned learning List of activities.

Code: A17

NAME OF BLOCK	BLOCK 1
Name of 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. Nayana Pathak , Dr. Neha syal
Name of external preceptor (if any)	NA
Learning objectives of the elective	To study research done on a given topic and extract relevant information for inclusion in an e-poster Develop basic skills in manipulating images, text and layout within the chosen design software Summarize key points and organize content in a logical and coherent manner
Number of students that can be accommodated in this elective	06
Prerequisites for the elective	Familiarity with basic computer skills Ability to conduct basic online research to gather information on a given topic
Learning resources for students	Websites like Smashing Magazine, Creative blog adobe illustrate and canva

List of activities in which the student will participate	Write an abstract in word format on the given research topic Design e-poster (as power point) that adhere to accessibility standards for diverse audiences Effectively present e-poster, engaging with the audience
Portfolio entries required	Documentation of abstract Documentation of e-poster Documentation of presentation
Log book entry required	Satisfactory completion of the activities done and signed by preceptor
Assessment	Attendance Day to day participation in given activities Presentation of e-poster
Other Comments	-

Code: A18

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)	Dr. Maninder Kaur Dr. Neetika Kalra
Name of external preceptor, if applicable	NA
Learning objectives of elective	The students will observe, assist, and perform the process of culturing of the microbiology samples. The students will assist and perform the identification of the isolated bacteria and antibiotic sensitivity testing of bacterial isolates.

	To assist in the departmental teaching programme. To assist in the media preparation room in preparation of various types of media.
Number of students that can be accommodated in this elective	5
Prerequisites for elective	----
List of activities of student participation	The students will observe and assist in the process of the samples receiving in the lab. To prepare a list of the various samples received in microbiology lab and the corresponding infections. To perform the culture, identification and antibiotic sensitivity of the isolates received in the lab independently. To present their findings in the case discussion- daily one student. To assist and perform in preparation of Blood Agar, Chocolate Agar, and RCM. To assist in use of autoclave in the laboratory. Submit assignment of various types of controls used in the autoclave. Interpretation of microbiology lab reports.
Learning resources	Microbiology Text Book
Portfolio enteries required	Attendance Performance of assigned tasks Active participation
Log book entry required	Satisfactory completion of the activities done and signed by preceptor
Assessment	Formative
Other comments	

Code: A19

NAME OF THE BLOCK	BLOCK 1
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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)	Dr. Maninder Kaur Dr. Bhavana Yadav
Name of external preceptor, if applicable	NA
Learning objectives of elective	The students will be sensitized to various infection control practices in the hospital. To define the basic definitions used in HAI surveillances. The students will observe and assist ICN in audit of hand hygiene. The students will learn to track the cases of CAUTI and VAP and learn to calculate the CAUTI and VAP rates. To students will audit the BMW in various clinical departments. 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	5
Prerequisites for elective	----
List of activities of student participation	To visit ICU and to enlist the patients with urinary catheter and on ventilator. To prepare A4 size chart on bundle approach for prevention of CAUTI and VAP. To prepare PPT on the clinical and microbiological creation for CAUTI and VAP. To perform BMW auditing and prepare a report of the same and present it.

	Activity of hand swab collection of HCW and to put culture of the same prepare the report and present it. 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	Attendance Performance of assigned tasks Active participation
Log book entry required	Satisfactory completion of the activities done and signed by preceptor
Assessment	Formative
Other comments	

Code: A20

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Molecular Lab Experience
Location of hospital lab or research facility	Molecular Lab, 3 rd Floor of the Medical College.
Name of internal preceptor (s)	Dr. Neha Sharma Dr.Maninder Kaur
Name of external preceptor, if applicable	NA
Learning objectives of elective	- The student will assist and perform the sample collection for RT-PCR test for covid. - The students will perform the triple layer packing of RT-PCR samples for Covid. - The students observethe full procedure of sample decontamination, RNAextraction and master mix preparation in the molecular lab and prepare assignment of the steps of the same.

	The students must be able interpret the reports of RT-PCR test for COVID.
Number of students that can be accommodated in this elective	5
Prerequisites for elective	----
List of activities of student participation	Visit to the flu corner and sample collection area. To perform the proper sample collection and packing of the sample for RT-PCR test. To visit the various sections of RT-PCR lab. To prepare A4 size charts on basic steps of PCR procedure. Methods of RNA extraction. Methods of Master mix preparation. To prepare PPT on the structure COVID-19 virus. Various diagnostics tests used for covid infection. Various target genes for Covis RT-PCR test. Types of COVID vaccines. To demonstrate proper sequence of donning and doffing of PPE and proper method of donning and doffing of each PPE. Hands on practice to file SRF forms. Interpret the report for COVID-19 RT-PCR Test.
Learning resources	Microbiology Text Book
Portfolio entries required	Attendance Performance of assigned tasks Active participation
Log book entry required	Satisfactory completion of the activities done and signed by preceptor
Assessment	Formative
Other comments	

Code: A21

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Urine examination -Chemical examination and microscopic examination
Location of hospital lab or research facility	Clinical path lab (Central lab)-GSMCH
Name of internal preceptor (s)	Dr. Vanisha Dhaka Dr. Tamanna
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 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	Familiar with universal safety precautions. Necessary immunization. Knowledge about the biomedical waste disposal guidelines, 2018.
List of activities of student participation	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	Henry's clinical diagnosis and management by laboratory methods 24 th e
Portfolio enteries required	Yes. 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 Attendance Performance of assisted task Presentation of the worked up cases Log book entry
Other comments	

Code: A22

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Hematology- Peripheral smear preparation and interpretation
Location of hospital lab or research facility	Hematology lab (Central lab) - GSMCH
Name of internal preceptor (s)	Dr. Gurpreet Kaur Dr. Harmanpreet Kaur
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 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	6
Prerequisites for elective	Familiar with universal safety precautions. Necessary immunization.

	Knowledge about the biomedical waste disposal guidelines, 2018.
List of activities of student participation	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	Dacie and Lewis Practical Hematology, 12 th e.
Portfolio entries required	Yes. 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 - Performance of assisted task - Presentation - Log book entry
Other comments	

Code: A23

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Hematology - Receiving of samples
Location of hospital lab or research facility	Hematology lab (Central lab)- GSMCH
Name of internal preceptor (s)	Dr. Richa Anand Dr. Neeru Chawla

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 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	6
Prerequisites for elective	Familiar with universal safety precautions. Necessary immunization. Knowledge about the biomedical waste disposal guidelines, 2018.
List of activities of student participation	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	Dacie and Lewis Practical Hematology, 12th e. Henry's clinical diagnosis and management by laboratory methods 24th e
Portfolio entries required	Yes. 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	Formative Attendance Performance of assisted task Log book entry
Other comments	

Code: A24

NAME OF BLOCK	BLOCK 1
Name of Electives	To identify, report and assess the severity, causality and preventability of ADRs
Location of Hospital lab or research facility	Department of Pharmacology, Gian Sagar Medical college and Hospital
Name of Internal Preceptor (s)	Dr. Sonia Arora, Dr. Satwinder Singh
Name of External Preceptor(if any)	None
Learning objective of the elective	To understand the principles of Pharmacovigilance To take complete drug history To identify an ADR and report the same using appropriate ADR reporting form To assess the severity, causality, and preventability of ADRs To identify drug-drug and drug -food interactions
Number of students that can be accommodated in this elective	6
Prerequisites for the electives	Basic knowledge of Pharmacology (MBBS Phase 3 - part 1 and Part 2 students)
Learning resources for students	1.Pharmacovigilance Programme of India 2.Tools for assessment WHO Causality Assessment Scale Hartwig Severity Scale Schumock and Thornton Preventability Scale 3.Basic and Clinical Pharmacology by Katzung

List of activities in which the students will participate	Collection of ADRs Filling up of the ADR reporting form Assessing the causality, severity, and preventability of the ADR Case presentation
Portfolio entries required	Yes
Log Book entry required	Satisfactory completion of posting undersigned by preceptor with a 'Meets expectation' grade
Assessment	Attendance, Formative Assessment
Other comments	Useful for MBBS Phase –III (part I & II) Batch and for Clinical Practice

Code: A25

NAME OF BLOCK	BLOCK 1
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, Gian Sagar Medical college and Hospital
Name of Internal Preceptor (s)	Dr Shanu Raina, Dr (Maj). Ruchit Khanna
Name of External Preceptor(if any)	None
Learning objective of the elective	To measure the anticholinergic and sedation burden To understand the importance of reducing anticholinergic burden To identify drugs causing postural fall, retention urine, CNS and cardiac emergency To identify the risk of abrupt stoppage of medications To identify drugs whose non-compliance causes metabolic, cardiac, or neurological emergency To identify habitforming drugs 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	1.General Pharmacology Concerns 2.Tools for sedation score Tools for Anticholinergic burden 3.Basic and Clinical Pharmacology by Katzung 4. National Formulary of India
List of activities in which the students will participate	1.Screening of prescriptions for Anticholinergic burden, Sedation score Metabolic,cardiac, or neurological emergency due to non-compliance Habit forming drugs 2. Providing counselling to the patients 3. Feedback to the consultant 4. Case Presentations
Portfolio entries required	
Log Book entry required	Satisfactory completion of posting undersigned by preceptor with a 'Meets expectation' grade
Assessment	Attendance, Formative record of activities in log book
Other comments	

Code: A26

NAME OF BLOCK	BLOCK 1
Name of Electives	Clinical Pharmacology (Dose adjustment in patients with compromised renal function)
Location of Hospital lab or research facility	Department of Pharmacology, Gian Sagar Medical college and Hospital
Name of Internal Preceptor (s)	Dr. Aanchal Mahajan, Dr. Shobhit
Name of External Preceptor(if any)	None

Learning objective of the elective	To list the therapeutic dose of commonly used drugs as in National Formulary of India To list drugs whose dose needs to be adjusted in compromised renal function To list different formula /Nomograms for dose adjustment To adjust dose in patients with compromised renal functions
Number of students that can be accommodated in this elective	6
Prerequisites for the electives	Basic knowledge of Pharmacology (MBBS Phase 3 - part 1 and Part 2 students)
Learning resources for students	National Formulary of India Tools for calculation of dose adjustment in patients with compromised renal function.
List of activities in which the students will participate	Ward rounds (patients with decreased renal functions) Identification of drugs in the treatment chart need to be adjusted with decreased Creatinine Clearance. Training to calculate adjusted dose using Nomograms /Excel programme for dose adjustments. Training on case based problems requiring dose adjustment Feedback to the consultants
Portfolio entries required	Yes
Log Book entry required	Satisfactory completion of posting undersigned by preceptor with a 'Meets expectation' grade
Assessment	Attendance, Formative Assessment
Other comments	Useful for MBBS Phase –III (part I & II) Batch and for Clinical Practice

Code: A27

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	Hematology : Role of blood indices as diagnostic tool in Anemia

Location of hospital lab or research facility	Hematology Lab, Department of Physiology GSMCH, Rajpura Dist. Patiala
Name of internal preceptor (s)	Dr. Manjinder Singh
Name of external preceptor, if applicable	NIL
Learning objectives of elective	At the end of the posting the students should be able to: Properly handle & use the Hematology Lab equipment. Know about the safe disposal methods for biomedical waste generated in Hematology Lab. Develop required skill for collection of blood samples as per the standard laboratory protocol. Develop & enhance adequate skill for performing common essential Hematology procedures in relation to anemia.
Number of students that can be accommodated in this elective	06 (Six)
Prerequisites for elective	Pre-requisites: The student should possess a prior knowledge of safe Laboratory practices & universal precautions.
List of activities of student participation	Assist & Participate in the Hematology Practical Demonstrations. As decided by preceptors, participate in the other Academic activities of department related to the module.
Learning resources	Wintrobe's clinical Hematology by John P. Greer. Guyton and Hall Textbook of Medical Physiology,

	International edition 14th edition. Ganong's review of Medical Physiology, 26th Edition.
Portfolio entries required	A regular record has to be maintained by the student regarding: 1. All the Hematology procedures performed/assisted. 2. Other academic activities related to module.
Log book entry required	Yes With a "Meets Expectation (M) grade".
Assessment	Day to day performance & participation in assigned activities. Successful performance of at least one Hematology procedure independently (as decided by preceptor)
Other comments	_____

Code: A28

NAME OF THE BLOCK	BLOCK 1
Name of the Elective	CVS : Yoga and Blood Pressure
Location of hospital lab or research facility	Clinical Lab, Department of Physiology GSMCH, Rajpura Dist. Patiala
Name of internal preceptor (s)	Dr. Manjinder Singh
Name of external preceptor, if applicable	NIL
Learning objectives of elective	At the end of the posting the students should be able to: Measure Blood Pressure. Interpret the systolic & diastolic BP. Should be able to interpret the effect of Yoga on BP.
Number of students that can be accommodated in this elective	06 (Six)
Prerequisites for the elective	The students should have basic understanding of the concept of Cardiovascular System regulation.

Learning resources for students	Guyton and Hall Textbook of Medical Physiology, International edition 14th edition. Ganong's Review of Medical Physiology, 26th Edition.
List of activities in which the student participate	Attend session on measurement of BP. using Sphygmomanometer Correlate the association between Yoga & BP. Learning to use, Sphygmomanometer measure and interpret the findings & comment on them.
Portfolio entries required	Yes Daily log of BP measured before & After Yoga should be made & same must be signed by the faculty. Presentation done.
Log book entry required	Yes Satisfactory completion of posting with a "Meets Expectation (M) grade".
Assessment	Presentation Successful completion of research objectives assessed by testing interpretation of the Blood Pressure. Log book entry
Other comments	_____

Code: A29

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. Sanju Goel
Name of external preceptor, if applicable	NIL
Learning objectives of elective	At the end of the module students should be able to properly hand & 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	06
Prerequisites for elective	Candidates find ways have prior knowledge of functional anatomy & electrophysiological properties of heart
List of activities of student participation	Participate & assist in clinical lab performing ECG test. Single channel electrocardiogram machine
Learning resources	The ECG made easy John Hampton practical guide to ECG Golwalla's electrocardiography for medical students and general practitioners
Portfolio enteries required	No. of ECGs recorded independently Clinical corelation of the findings of ECGs Recorded .
Log book entry required	Meet expectation/doesn't meet expectation

Assessment	Seminar presentation/PPT. Assessment by independent performance and interpretation of the test results
Other comments	_____

Code: A30

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. Manjinder Singh, Dr. Sanju Goel
Name of external preceptor, if applicable	NIL
Learning objectives of elective	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	Participate & assist in clinical labs for spirometry functions. Basic knowledge of pulmonary function tests.
Learning resources for students	Spirometry by Dr. Behera McGraw Hill's Pocket Guide to Spirometry
List of activities in which the students will participate	Participate & assist in clinical lab for spirometric functions Computerised spirometer
Portfolio enteries required	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	Seminar presentation/PPT. Assessment by independent performance and interpretation of the test results
Other comments	_____

