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Topics for Elective (Block 1 (Pre-Clinical)

No:1

Name of Block	Block 1 (Pre-Clinical)
Name of Elective	**Introduction to histology: Practical and Clinical approach**
Location of the hospital lab/ research facility	Department of Anatomy
Name of Internal Preceptors	Faculty of Anatomy
Name of External Preceptors	NA
Learning objectives of electives	To teach the students about the basic steps for preparing slides of biological specimens for histological examination
No. of students that can be accommodated	3
Prerequisites	Knowledge of human anatomy and their functions
List of activities of student participation	Students will be introduced to: 1. Histology or microanatomy and its clinical application. 2. Introduction to microscope 3. Different steps involved in the tissue preservation, production of sections, staining and analysis of slides 4. Introduce to special staining (for cartilage,fat,nervous tissue)
Learning resources	➢ Learning under guidance of the faculty in-charge ➢ Handbooks will be provided for reference during/ at the end of the elective session.
Portfolio	Student will choose the tissue for special staining. Then student will collect the specimen and perform the necessary steps for preparing the histological slides of that. Finally, observe the slide under microscope.
Logbook	Complete with signature of faculty and should meet expectations.
Assessment	Formative assessment with certificate for eligibility to appear in final MBBS examination.
Comments	For early sensitisation of the students interested in histopathology.

No:2

Name of Block	Block 1 (Pre-Clinical)
Name of Elective	*Introduction to Medical genetics*
Location of the hospital lab/ research facility	Department of Anatomy
Name of Internal Preceptors	Faculty of Anatomy
Name of External Preceptors	NA
Learning objectives of electives	1. Describe the inheritance patterns seen in families with heritable disease. 2. Describe the structure of human genome, the nature of genomic variation and the normal human karyotype. 3. Demonstrate an understanding of the molecular mechanisms that are responsible for human genetic disease and laboratory techniques used for diagnosis. 4. Demonstrate an understanding of the processes required to produce and stain chromosome preparations from a variety of tissues. 5. Demonstrate an awareness of how numerical and structural chromosome abnormalities occur and the clinical syndromes which can result from these abnormalities. 6. Demonstrate an understanding of how structurally rearranged chromosomes behave during meiotic cell division and how this behaviour can result in the production of gametes with unbalanced chromosome constitutions. 7. Demonstrate an awareness of the significance of both inherited genetic abnormalities and acquired chromosome abnormalities in cancer. 8. Demonstrate an awareness of challenges involved in prenatal diagnosis of chromosomal syndromes. 9. Show awareness of common non-Mendelian disease. 10. Understand the impact of pharmacogenetics. 11. Demonstrate awareness of strategies for the treatment

	of genetic disease.
No. of students that can be accommodated	3
Prerequisites	Knowledge of human anatomy and their functions
List of activities of student participation	Students will be introduced to: 1. Perform chromosome analysis. 2. Draw pedigrees. 3. Interpret pedigree information. 4. Interpret basic abnormal cytogenetic results. 5. Interpret basic abnormal molecular genetic results. 6. Communicate genetic information to the lay person.
Learning resources	➢ Learning under guidance of the faculty in-charge ➢ Handbooks will be provided for reference during/ at the end of the elective session.
Portfolio	Student will prepare a slide of chromosome and try to interpret that.
Logbook	Complete with signature of faculty and should meet expectations.
Assessment	Formative assessment with certificate for eligibility to appear in final MBBS examination.
Comments	For early sensitisation of the students interested in histopathology.

No:3

Name of Block	Block 1 (Pre-Clinical)
Name of Elective	3D Virtual Dissection
Location of the hospital lab or research facility	Dept. of Anatomy, NEIGRIHMS
Name of Internal Preceptors	Anatomy Faculty
Name of External Preceptors	N.A
Learning objectives of elective	To impart 3D virtual dissection anatomy teaching: i) To recall and learn basic human anatomy ii) To understand complex anatomical structures which are difficult to comprehend iii) Strengthen the basic concepts of anatomy of the human body iv) Application of basic concepts to clinical anatomy
Number of students that can be accommodated	3
Prerequisites	Knowledge of basic human anatomy
List of activities of student participation	i) Student will be first demonstrated the use of the basic and advanced software of the 3D virtual dissector table for different regions of the human body ii) Student will use the 3D-VDT independently to understand or clear any doubts with relation to the spatial orientation, gross anatomy and relations of the region/organ/tissue iii) Knowledge will be applied to clinical anatomy via problem/case based learning
Learning resources	Guided learning from books, case based learning, small group discussion
Portfolio	Student has to note down his observations of a particular topic given by the teacher following 3D virtual dissection as part of his assignment
Logbook	Complete with signature of Faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission, presentation of work noted in portfolio) with certification of completion for eligibility to appear in final MBBS examination
Comments	To help the student in acquiring a better detailed understanding of the anatomy of the human body which is vital to become a good physician in the long run

No:4

Name of Block	Block 1 (Pre-Clinical)
Name of Elective	Introduction to Research Methodology (Literature Search & Reference Management)
Location of the hospital lab/ research facility	Department of Anatomy
Name of Internal Preceptors	Faculty of Anatomy
Name of External Preceptors	NA
Learning objectives ofelectives	To sensitise/ introduce the students to basic research with special emphasis on: Online literature Search & Reference Management Software's (Zotero/ Mendeley)
No. of students that can be accommodated	3
Prerequisites	Knowledge of computer, Students having personal laptops, Interest in Medical research
List of activities of student participation	Students will be introduced to basic research by: 1. Framing a research question. 2. Searching the relevant literature online in standard databases (PubMed) 3. Brief introduction methodology & data collection 4. Managing the references online using Software's (Zotero/ Mendeley)
Learning resources	• Learning under guidance of the faculty in-charge • The students can select their topic of interest to start an individual project or can be a part of ongoing faculty projects. • Handbooks will be provided for reference during/ at the end of the elective session.
Portfolio	Student will frame the research question, choose the title of their individual project/ or learn the very same as a part of faculty research project. The student will create a profile in PubMed database, where the search history for literature can be saved, methodology & data collection can be noted down with subsequent installation and learning of the Software's for reference management (Zotero/ Mendeley). The details of the above mentioned steps will be noted as a part of assignment. Online link for the same will be provided wherever needed.
Logbook	Complete with signature of faculty and should meet expectations.
Assessment	Formative assessment with certificate for eligibility to appear in final MBBS examination.
Comments	For early sensitisation of the students interested in Medical Research

Department of Biochemistry

Electives

Name of the Block	Block 1(laboratory services)
Name of the electives	Clinical chemistry -1
Location of the hospital lab or research facility	Clinical chemistry lab, First floor, NEIGRIHMS
Name of the internal preceptor(s)	Dr Alice A. Ruram
Name of the external preceptor	NA
Learning objective of the electives	• CLSI Order of draw of sample collection • Understanding the pre analytical ,analytical and post analytical variables which may affect the test value • Instruments-Understanding principles of fully automated clinical chemistry analyzers , ISE Analyzers, HbA1c analyzers , Importance of internal & external quality control • Interpretation of test results, Recognizing the panic Value
Number of students that can be accommodated	3
Prerequisites	Knowledge of universal precaution, Biomedical waste Management
List of activities of the student participation	Students will observe the phlebotomist collecting the blood samples according to CLSI guidelines and will work with residents in clinical chemistry lab and observe the Instrument set up for analysis, Sample/reagent /QC preparation, Operation of the instrument .Run the internal QC and evaluate acceptability, Construct the Levey Jenning's chart and understand the West Guard's rule, Interpretaion of HbA1c and other test results, Recognize the panic value
Learning resources	Handbook provided by the department
Portfolio	1. Students have to calculate the normal lab mean and SD for few parameters 2. Students have to construct and interpret the Levey Jenning's chart for few parameters 3. Students have to note down 2 cases with panic values in clinical chemistry lab
Log book	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative Attendance and case discussions and identifying laboratory errors Presentation in the department of the work noted in portfolio
Comments	Nil

Name of the Block	Block 1(laboratory services)
Name of the electives	Clinical chemistry -2
Location of the hospital lab or research facility	Endocrine lab, First floor, NEIGRIHMS
Name of the internal preceptor(s)	Dr Happy Chutia
Name of the external preceptor	NA
Learning objective of the electives	• Instruments-Understanding principles of fully automated Chemiluminescence and electrochemiluminescence system • Interpretation of test results, Recognizing the panic Value
Number of students that can be accommodated	3
Prerequisites	Knowledge of universal precaution, Biomedical waste Management
List of activities of the student participation	Students will work with residents in endocrine lab and observe the Instrument set up for analysis, Sample/reagent /QC preparation, Operation of the instrument .Run the internal QC and evaluate acceptability, Construct the Levey Jenning's chart and understand the West Guard's rule, Interpret the test results for various hormones ,Vitamin & tumor markers , Recognize the panic value
Learning resources	Handbook provided by the department
Portfolio	4. Students have to calculate the normal lab mean and SD for few parameters 5. Students have to construct and interpret the Levey Jenning's chart for few parameters 6. Students have to note down 2 cases with panic values in the Endocrine
Log book	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative Attendance and case discussions and identifying laboratory errors Presentation in the department of the work noted in portfolio
Comments	Nil

Elective Modules in Forensic Medicine and Toxicology

Name of block	**Block 1 (Research)**
Name of elective	Virtual Autopsy
Duration	2 weeks
Location of the hospital lab or research facility	Department of Forensic Medicine and Toxicology, NEIGRIHMS
Title of research project (Ongoing project)	Virtual autopsy vs Conventional Autopsy: A comparative cross-sectional study conducted at a tertiary care hospital of Meghalaya
Name of internal preceptor(s)	Faculty, Department of Forensic Medicine and Toxicology
Name of external preceptor(s)	NA
Learning objectives of elective/ objective of research project	1. To collect data as prescribed in the protocol 2. To document data in the electronic case record correctly 3. To demonstrate the use of statistical software to do basic research calculations 4. To write an abstract based on the collated data 5. To present abstract to a group of peers and supervisors
Number of students that can be accommodated	2
Prerequisites	Knowledge of conventional medico-legal autopsy and respect for the cadaver
List of activities of student participation	1. Work with supervisor in making observations, collect data and document as per protocol 2. Work with statistician to provide a statistical analysis of the data 3. Participate in research meetings of the department, internal and external meetings 4. Write abstract of work done 5. Present abstract in an internal meeting and if possible at an external meeting as a poster or oral presentation

Learning resources	Thali MJ: The Virtopsy Approach Handouts provided by the department
Portfolio	Master chart/Data sheet (MS Excel) Statistical work sheet Abstract created
Logbook	Complete with signature of faculty and should be graded meet expectations.
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	The student will be introduced to the basics of scientific writing

Name of block	**Block 1 (Laboratory Experience)**
Name of elective	Forensic Analytical Toxicology
Duration	2 weeks
Location of the hospital lab or research facility	Department of Forensic Medicine and Toxicology, NEIGRIHMS
Name of internal preceptor(s)	Faculty, Department of Forensic Medicine and Toxicology
Name of external preceptor(s)	NA
Learning objectives of elective/ objective of research project	1. To enumerate indications for common screening tests for poisons 2. To enumerate the testing protocol for commonly performed toxicological tests 3. To demonstrate the correct method to perform commonly available spot tests for poisons in a controlled environment 4. To discuss applications of TLC and GC-MS in forensic analytical toxicology
Number of students that can be accommodated	2
Prerequisites	Knowledge of universal precautions in the laboratory
List of activities of student participation	1. Work daily with a supervisor in observing, assisting and performing spot tests 2. Participate in departmental education activities 3. Present at least two tests done by student as a case work up
Learning resources	Handbook of Forensic Analytical Toxicology Handouts provided by the department
Portfolio	Documentation of worked up cases Documentation of presentation done
Logbook	Complete with signature of faculty and should be graded meet expectations.

Assessment	Attendance Day-to-day participation in departmental activity Performance of assigned tasks Presentation of worked up case in department
Comments	The student will have hands on experience in conducting and performing common screening tests for poisons

Electives for MBBS Curriculum (21-22 Batch)

Department of Physiology, NEIGRIHMS

Name of Block	Block I
Name of Elective	Study of Autonomic Function Tests (Cardiovascular and Vasomotor)
Location of hospital lab or research facility	Research laboratory, Department of Physiology, NEIGRIHMS
Name of internal preceptor(s)	Dr. Rituparna Barooah Professor and HOD Dr. Shakthinag S. , Senior Resident Dr. Zakiyyah Tasneem ,Senior Resident
Name of external preceptor (if any)	Dr. Ram Sharma Dr. Manish Kapoor Dr. Monaliza Lyngdoh
Learning objectives of the elective	1. To comprehend Autonomic Homeostasis 2. To be able to perform the reactivity tests of cardiac and vasomotor autonomic Function 3. To be able to interpret the findings
Number of students that can be accommodated in this elective	4 (four)
Prerequisites for the elective	1. Physiology of Autonomic nervous system 2. Physiology of Regulation of Heart Rate , Blood pressure and Respiration, 3. Effect of exercise and posture on heart rate , respiration and Blood Pressure 4. Fundamental knowledge of ECG
Learning resources for students	1. Module on Autonomic function to be obtained from the department of Physiology 2. Practical Physiology books: GK Pal
List of activities in which the student will participate	1. Perform the specified AF tests 2. Interpret & assess the results 3. Recruit relevant pathological patients from departments of neurology, Cardiology and Medicine. 4. Assist in the current projects
Portfolio entries required	Yes, 1.Photographs and 2.Master Charts
Log book entry required	Yes. 1. Record of daily activities & 2. Reflection.
Assessment	OSPE, one minute preceptor, demonstration and viva-voce.
Other comments	Encouraged to do a small project and publish scientific report/poster/assist in the current project in the department.

Electives: Department of Physiology

Name of Block	Block I
Name of Elective	Study of physiological effects of YOGA and MEDITATION in Health & Disease.
Location of hospital lab or research facility	Yoga Lab, Dept. of Physiology, NEIGRIHMS
Name of internal preceptor(s)	Dr. Rituparna Barooah Dr. Shakthinag S Dr. Zaakiya Tasneem
Name of external preceptor (if any)	Faculty Medicine , O&G
Learning objectives of the elective	To study the effect of yoga in HYPERTENSION, PCOS, DM
Number of students that can be accommodated in this elective	4
Prerequisites for the elective	Elementary knowledge of Asana & Pranayamas.
Learning resources for students	Will be provided when enrolled
List of activities in which the student will participate	Posture correction. Explanation of anatomy & physiology ,record keeping
Portfolio entries required	Yes. Photographs
Log book entry required	Yes. Record of daily activity performed
Assessment	Yes. Demonstration, viva voce
Other comments	Public awareness, encouraged to undergo certificate training

Electives: Department of Physiology

Name of Block	Block I
Name of Elective	Study of ECG in health and in Cardiac Dysfunction
Location of hospital lab or research facility	Research lab, Physiology, Cardiology
Name of internal preceptor(s)	Dr. Rituparna Barooah , Dr. Shakthinag S Dr Zakiyya Tasneem
Name of external preceptor (if any)	Dr. Amit Malviya Dr. Manish Kapoor Dr. Monaliza Lyngdoh
Learning objectives of the elective	To be able to read normal & abnormal ECG
Number of students that can be accommodated in this elective	4
Prerequisites for the elective	Physiology of ECG
Learning resources for students	ECG module
List of activities in which the student will participate	1. Record ECG 2. Interpret findings, 3.Recruit subjects
Portfolio entries required	Yes. Photographs while performing ecg,certification
Log book entry required	Yes. Record of daily activities
Assessment	OSPE,DOPS Viva
Other comments	

Electives: Department of Physiology

Name of Block	Block I
Name of Elective	Study of perimetry & visual field in health & glaucoma
Location of hospital lab or research facility	Human & Experiment lab, Dept. of Physiology
Name of internal preceptor(s)	Dr. John A. Lyngdoh , Dr. Rituparna Barooah, Dr Shakti S, Dr. Zakiyya
Name of external preceptor (if any)	Dr. Tannie Natung Dr. Benjamin
Learning objectives of the elective	1.To map the visual field 2.To delineate blind spot
Number of students that can be accommodated in this elective	3
Prerequisites for the elective	Physiology & vision & ocular movements
Learning resources for students	Module to be provided by the faculty in charge
List of activities in which the student will participate	1. To do the test 2. To recruit subjects of glaucoma 3. Maintain Records
Portfolio entries required	Yes. Photographs Master chart
Log book entry required	Yes Record of each day activity
Assessment	OSPE Viva Demonstration
Other comments	Publication is encouraged

Electives: Department of Physiology

Name of Block	Block I
Name of Elective	Study of Ergography using Mosso ‘s Ergograph in adolescent and geriatric age group
Location of hospital lab or research facility	Human Experiment lab, Dept. of Physiology
Name of internal preceptor(s)	Dr. John A. Lyngdoh Dr. Rituparna Barooah Dr. Shakti Dr Zakiyya Tasneem
Name of external preceptor (if any)	None
Learning objectives of the elective	1.To demonstrate peripheral muscular strength
Number of students that can be accommodated in this elective	3
Prerequisites for the elective	Exercise & muscle Physiology
Learning resources for students	To be provided by the faculty in charge
List of activities in which the student will participate	1.Perform the test 2.Interpret & keep records 3.Recruit subjects
Portfolio entries required	Yes. Photographs Master chart
Log book entry required	Yes Record of daily activity Reflection
Assessment	OSPE Demonstration
Other comments	Publication, poster presentation

Electives: Department of Physiology

Name of Block	Block I
Name of Elective	Study of Stethography in health and respiratory disease
Location of hospital lab or research facility	Human & Experiment lab, Dept. of Physiology
Name of internal preceptor(s)	Dr. John A. Lyngdoh Dr. Rituparna Barooah Dr. Shakti Dr. Zakiyya
Name of external preceptor (if any)	Dr. Vijay, Chest & TB medicine Dr. John, SR- Chest and TB
Learning objectives of the elective	1. To be able to perform the test 2. To note the thoracic excursions in various clinical and physiological states.
Number of students that can be accommodated in this elective	3
Prerequisites for the elective	Respiratory Physiology
Learning resources for students	Will be provided by the faculty in –charge
List of activities in which the student will participate	1. perform the test 2. keep records
Portfolio entries required	Yes
Log book entry required	Yes
Assessment	1. Demonstration 2. OSPE
Other comments	Write a project Report

Name of block	Block 1(Research related)
Name of elective	Clinical Hematology
Location of the hospital lab or research facility	Pathology Department, NEIGRIHMS
Title of research project	Analysis of Total leucocyte count (TLC) in patients of Chronic kidney Disease on Hemodialysis
Name of internal preceptor(s)	Pathology Faculty
Name of external preceptor(s)	NA
Learning objectives of elective/ objective of research project	Comparison of total leucocyte count and differential count between diagnosed cases of CKD and normal controls
Number of students that can be accommodated	1
Prerequisites Sample collection- All patients on dialysis/ diagnosed cases of CKD	To have a knowledge of CBC parameters. To demonstrate knowledge of increased and decreased counts in all the cell lines. Causes of leucopenia. Effect of Chronic Kidney disease (CKD) on hematological parameters Record book of patient details and hematological reports.
List of activities of student participation	Student will work along with hematology residents and technicians. Independently perform Leishman stain and perform total leucocyte count and differential count. Interpretation of CBC reports.
Learning resources	SOP provided by the department
Portfolio	Maintain Master chart/Data sheet
Logbook	Complete with signature of faculty and should be graded meet expectations.
Research project	Complete the project within the allotted time
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Manuscript writing and publication will be encouraged

Name of block	Block 1 (Research related)
Name of elective	Clinical Hematology
Location of the hospital lab or research facility	Pathology Department, NEIGRIHMS
Title of research project	Clinicopathological profile of anemia in geriatric population in a tertiary care institute
Name of internal preceptor(s)	Pathology Faculty
Name of external preceptor(s)	NA
Learning objectives of elective/ objective of research project	Classify the morphological types of anemia Classify the severity of anemia Perform data collection and interpretation Analyse clinico-pathological profile of anemia in geriatric population
Number of students that can be accommodated	1
Prerequisites	Knowledge of the age cut off for geriatric population Knowledge of RBC indices Knowledge of morphological classification of anemia Knowledge of the grades of anemia
List of activities of student participation	Histogram interpretation Independently perform Leishman stain Peripheral blood smear interpretation Interpretation of CBC reports Record patient details and corresponding clinical and hematological reports
Learning resources	SOP provided by the department
Portfolio	Maintain a master chart / data sheet
Logbook	Complete with signature of faculty and should be graded meet expectations.
Research project	Complete the project within the allotted time.
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Manuscript writing and publication will be encouraged.

Name of block	Block 1 (Research related)
Name of elective	Clinical Hematology
Location of the hospital lab or research facility	Pathology Department, NEIGRIHMS
Title of research project	Hematological parameters in diagnosed cases of Type II Diabetes
Name of internal preceptor(s)	Faculty
Name of external preceptor(s)	NA
Learning objectives of elective/ objective of research project	Compare the hematological parameters between patients of Type II Diabetes and controls- Hb, TLC, DLC, Platelet count and RDW Perform data collection and interpretation
Number of students that can be accommodated	1
Prerequisites	Knowledge of normal and abnormal haematological parameters and their clinical significance Knowledge of etio-pathogenesis of Type II DM and haematological changes that can occur
List of activities of student participation	Independently perform Leishman stain and perform TLC , DLC and platelet count. Interpretation of CBC reports Record patient details and corresponding clinical and hematological reports
Learning resources	SOP provided by the department
Portfolio	Maintain Master chart/Data sheet
Logbook	Complete with signature of faculty and should be graded meet expectations.
Research project	Complete the project within the allotted time.
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Manuscript writing and publication will be encouraged

Name of block	Block 1(Research related)
Name of elective	Clinical hematology
Location of the hospital lab or research facility	Pathology Department, NEIGRIHMS
Title of research project	Clinicopathological profile of eosinophilia in a tertiary care centre
Name of internal preceptor(s)	Pathology Faculty
Name of external preceptor(s)	NA
Learning objectives of elective/ objective of research project	Grading of eosinophilia To study the clinicopathological profile of patients with eosinophilia
Number of students that can be accommodated	1
Prerequisites	To have a knowledge of CBC parameters Causes of eosinophilia Calculation of Absolute Eosinophilic Count
List of activities of student participation	Student will work along with hematology residents and technicians. Independently perform Leishman stain and perform total leucocyte count, differential count and Absolute eosinophil count. Interpretation of CBC reports.
Learning resources	Handbook provided by the department
Portfolio	Maintain Master chart/Data sheet
Logbook	Complete with signature of faculty and should be graded meet expectations.
Research project	Complete the project within the allotted time.
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Manuscript writing and publication will be encouraged

Name of block	Block 1 (Research related)
Name of elective	Clinical hematology
Location of the hospital lab or research facility	Pathology department, NEIGRIHMS
Title of research project	Platelet counts in patients with Iron deficiency anemia (IDA)
Name of internal preceptor(s)	Pathology Faculty
Name of external preceptor(s)	NA
Learning objectives of elective/ objective of research project	Correlation of platelet count with Hb value in cases of IDA
Number of students that can be accommodated	1
Prerequisites	To have a knowledge of CBC parameters(Hb counts, RBC indices and platelet counts) To demonstrate knowledge of calculation of platelet count Causes of thrombocytosis and thrombocytopenia Mechanism of thrombocytosis in IDA Record book of patient details and hematological reports.
List of activities of student participation	Student will work along with hematology residents and technicians. Independently perform Leishman stain and perform platelet count. Interpretation of CBC reports and RBC indices.
Learning resources	Handbook provided by the department
Portfolio	
Logbook	Complete with signature of faculty and should be graded meet expectations.
Research project	Complete the project within the allotted time.
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Manuscript writing and publication will be encouraged

Electives

Name of Block	Block 1
Name of Elective	Dermatopathology
Location of hospital Lab or research facility	Pathology Department, NEIGRIHMS
Name of internal preceptor(s)	Faculty name
Name of external preceptor(s)	NA
Learning objectives of elective	• To become proficient in the gross examination, description and processing of cutaneous specimens • To be able to recognize and discuss a wide variety of inflammatory and neoplastic conditions • To be conversant in the special stains and ancillary tests used in the daily practice of dermatopathology including routine histochemical stains, immunohistochemical stains and Immunofluorescence
Number of students that can be accommodate	2
Prerequisites	Knowledge of universal precautions Knowledge of common skin conditions
List of activities of student participation	The students will • Work closely with the pathology residents and faculty during sign-out • Attend weekly consensus conferences and slide seminars • Perform tissue processing under supervision • Perform the routine histochemical stain, one special stain and immunohistochemistry procedure
Learning resources	• Introductory lectures on dermatopathology by residents and faculty • Lever's Histopathology of the Skin • Weedon's Skin Pathology
Portfolio	• Student has to write down observations of all types of skin samples processed in histopathology laboratory • Student will present one case each of inflammatory and neoplastic skin conditions at the end of elective
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Research opportunities will be provided to interested students

Electives

Name of Block	Block 1 (Laboratory services)
Name of Elective	Cytopathology
Location of hospital Lab or research facility	Pathology Department, NEIGRIHMS
Name of internal preceptor(s)	Pathology Faculty
Name of external preceptor(s)	NA
Learning objectives of elective	To enumerate common samples received in Cytopathology laboratory To demonstrate understanding of the clinical significance of the tests To demonstrate knowledge of the pre-analytical, analytical and post-analytical errors which may arise
Number of students that can be accommodate	4
Prerequisites	Necessary immunization, knowledge of universal precautions
List of activities of student participation	Student will work along with the Resident posted in Cytopathology and observe, assist where necessary in FNAC room Perform 2 staining procedures for fluid cytology
Learning resources	Handbook provided from the department
Portfolio	Student has to note down 2 cases observed in FNAC and follow up the case till reporting Student has to write down observations of all types of samples processed in cytopathology
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Research opportunity will be provided to interested students

Electives

Name of Block	Block 1 (Laboratory services)
Name of Elective	**Clinical Pathology** (Analysis of urine,body fluids,semen,CSF)
Location of hospital Lab or research facility	Pathology Department, NEIGRIHMS
Name of internal preceptor(s)	Pathology Faculty
Name of external preceptor(s)	NA
Learning objectives of elective	To list different types of specimens & samples in clinical Pathology laboratory To define & comprehend the importance of each tests in relation to the disease process To demonstrate knowledge of the pre-analytical, analytical and post-analytical errors which may arise & their relevance in interpretation of the tests
Number of students that can be accommodate	4
Prerequisites	Necessary immunization, knowledge of universal precautions and biosafety procedures.
List of activities of student participation	Student will work along with the Resident posted in Clinical pathology and observe the technical aspects, assist where necessary in the laboratory
Learning resources	Handbook and special operating procedures provided from the department
Portfolio	Student has to note down 3 cases each with different scenarios observed in clinical pathology (urine,body fluid analysis , semen analysis , CSF analysis and follow up the case till reporting. Student has to write down observations of all types of samples processed in clinical pathology
Logbook	Complete with signature of faculty and should be graded to meet expectations (M)
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Research opportunities will be provided to interested students

Electives

Name of Block	Block 1 (laboratory services)
Name of Elective	Cancer screening using pap smear
Location of hospital Lab or research facility	Obs & Gynea and Pathology Department, NEIGRIHMS
Name of internal preceptor(s)	Pathology Faculty
Name of external preceptor(s)	NA
Learning objectives of elective	To collect paired samples for screening from Obs & Gynec along with the resident in Obs & Gynec for conventional and liquipap smears To demonstrate understanding of conventional vs liquipap smears To demonstrate knowledge of staining with PAP stain and Bethesda classification of the gynec pap smears
Number ofstudents that can be accommodate	4
Prerequisites	Completed postings in Obstetrics & Gyneacology
List of activities of student participation	Student will work along with the Resident posted in Obs and Gynea and Cytopathology and observe, assist where necessary Perform staining procedures for the conventional smears taken by them and observe the liquid-pap process.
Learning resources	Handbook provided from the department
Portfolio	Student has to note down the cases done by them and follow up the case till reporting Student has to write down observations of all the samples collected by them and processed in cytopathology. Make a comparison report between the conventional and liquid-pap smears.
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Research opportunities will be provided to interested students

Pathology: Role Of Anticaogulants in Hematology and related lab services

Electives

Name of block	BLOCK I (Lab services)
Name of elective	Role of anticoagulants in hematology and related lab services
Location of hospital lab or research facility	Hematology and clinical pathology lab and collection centre
Nme of internal perception (s)	Pathology faculty
Name of external preceptor(s)	NA
Learning objectives of elective	1. Collect sample for hematology investigation from OPD patients 2. To demonstrate understanding of colour coding of vials / vacutainers 3. To demonstrate knowledge of why a particular anticoagulant or absence of it is suitable for particular test. 4. Describe mode of action of various anticoagulant 5. Pre-analytical, Analytical and post analytical variables in sample collection
Number of students that can be accommodate	5
Prerequisites	Completed 1st professional studies joined initial postings in clinical departments
List of activity of student participation	Students will work with the phlebotomist at collection centre to notice the triage of specimen into various anticoagulant tubes.
Learning resources	Handbook provided from the department
Portfolio	Students will write down and describe the learning objectives above
Logbook	Complete with signature of faculty and should be graded meet expectations
Assessment	Attendance and via voce presentation in the department and work noted in portfolio
Comments	Hands on experience shall be provided in the collection centre

ELECTIVES

Name of Block	Block – 1 (LABORATORY SERVICES)
Name of Elective	Clinical Microbiology
Location of hospital Lab. or research facility	Department of Microbiology, NEIGRIHMS
Name of internal preceptor(s)	1. Dr. A.B. Khyriem, Additional Professor 2. Dr. W.V. Lyngdoh, Additional Professor 3. Dr. C.J. Lyngdoh, Associate Professor
Name of external preceptor	NA
Learning objectives of elective	1. To enumerate the samples received in Microbiology laboratory. 2. To discuss the role of microbial investigations in diagnosis of infectious diseases. 3. To interpret the microbiological test results.
Number of students that can be accommodated in this elective	3
Pre-requisites for elective	Knowledge in Universal precaution and Good laboratory practices.
List of activities of student participation	1. Participate in laboratory activities including sample processing and reporting. 2. Perform Gram stain, AFB staining and routine stool microscopy. 3. Interpret the antimicrobial susceptibility testing.
Learning resources	Handbook from the Department.
Portfolio entries required	• Daily work book entries • Staining procedures done
Log book entry	Satisfactory completion of posting with signature of faculty
Assessment	• Attendance • Formative • Successful completion of posting as certified in log book with a “meets expectation” ‘M’ grade
Comments	

Elective module (Community Medicine)

Module 1

Name of block	Block 1 (Community Medicine)
Name of elective	Research Methodology
Location of health lab or research facility	Community/ Medical College
Name of internal preceptor	Dr. Shanthosh Priyan S
Name of external preceptor	Nil
Learning objectives	1. To learn about various study designs and steps of conducting a research 2. To learn about the level of evidences in bio-medical research 3. To understand the steps of conducting systematic review and meta-analysis and reporting the findings 4. To develop a concept note and proposal for the research 5. To collect data as prescribed in the proposal, analyse the data and report writing and dissemination of information
Number of the students that can be accommodate in this elective	Two (2)
Prerequisites for elective	Basic course in epidemiology, Good clinical practice
List of activities of student participation	1. Working collaboratively with the mentor in the preparation of the research proposal, data collection and analysis of results along with the documentation/ report writing 2. Seek help from the statistician for the statistical analysis 3. Participation in the scientific and ethical committee meetings, as and when required 4. Presentation of the report in a

	conference or a meeting 5. Dissemination of information to the community and also providing service to the community based on the implications of the research
Learning Resources	Leon Gordis, Modern epidemiology, Clinical Epidemiology: The Essentials (Fletcher), Research Methods in Community Medicine (Abramson), Statistical Analysis for Public Administration (Giventer)
Portfolio entries required	Concept note, master chart, statistical analysis output file
Log book entry required	Satisfactory completion of posting with a “meets expectation ‘(M)’ grade”
Assessment	Attendance Log book entry Completion of manuscript and presentation in a conference/ meeting
Comments	Nil

Module 2

Name of Block	Block 1 (Community Medicine)
Name of Elective	Outbreak Investigation
Location of hospital Lab or research facility	Medical College/ IDSP Office
Name of internal preceptor(s)	Dr. Star Pala
Name of external preceptor	Nil
Learning objectives of elective	1. To understand the ten steps involved in outbreak investigation 2. To understand the flow of information from the peripheral level to the state level 3. To work on an IDSP data and interpret the findings
Number of students that can be accommodated in this elective	One (1)
Prerequisites for elective	Knowledge of S, P and L forms Reporting system of IDSP
List of activities of student participation	1. Surveillance of any community outbreak 2. Monitoring and Evaluation of IDSP forms from the respective districts 3. Supporting the project staffs in the day-to-day activities
Learning Resources	1. Oxford Textbook of Public Health 2. IDSP manual
Portfolio entries required	Daily log of patients seen and activities Participated signed by the Supervisor
Log book entry required	Satisfactory completion of posting with a "meets expectation '(M)' grade"
Assessment	1. Attendance&Log book entry 2. Formative and summative assessment of the learning objectives

Module 3

Name of Block	Block 1 (Community Medicine)
Name of elective	Health Education
Location of the hospital lab or research facility	Urban field practice area
Name of internal preceptor(s)	Dr. Star Pala
Name of external preceptor(s)	Nil
Learning objectives of elective	At the end of the module students should be able to: 1. Demonstrate effective communication skills for health education for an individual and a group 2. Determine the appropriate health communication method for individual, group and mass approach 3. Prepare appropriate content of health education for different age-groups and disease conditions 4. Identify appropriate audio-visual aids for individual and group health education 5. Plan and conduct health education sessions for an individual and a group 6. Prepare health education material for mass media
Number of students that can be accommodated	One (1)
Pre-requisites	1. Knowledge of the population profile of the community 2. Knowledge of priority groups in the community that require health education, example, pregnant women, mothers/parents of under five children, people with communicable and non-communicable diseases
List of activities of student participation	1. Students will visit families in the field practice areas and determine their need for health education 2. Students will visit health and wellness centres during clinic days/ village health nutrition days to observe the health education activities

	provided there 3. Students will plan and conduct one individual and one group health education activity 4. Students will prepare health education materials like banners, flyers etc and one for mass media
Learning resources	Materials from the department
Portfolio	Prepare health education plans which includes content of health education and appropriate audio-visual aids
Logbook	Complete with signature of faculty and graded
Assessment	Formative assessment- Preparation of health education materials along with its delivery
Comments	Nil

Module 4

Name of Block	Block 1 (Community Medicine)
Name of Elective	School Health Programme
Location of hospital Lab or research facility	Government schools in Shillong
Name of internal preceptor(s)	Dr. Shanthosh Priyan S
Name of external preceptor if applicable	Nil
Learning objectives of elective	At the end of the module students should be able to: 1. To conduct a health screening program 2. To assess the health and nutritional status of school going children 3. To detect the diseases/deficiencies in children 4. To evaluate the programmatic functioning of RBSK
Number of students that can be accommodated in this elective	Two (2)
Prerequisites for elective	Clinical skills for health screening, immunization, nutrition and health counselling
List of activities of student participation	1. Setting up health screening camp in schools 2. Logistic and material management 3. Health screening 4. Treatment and referral 5. Nutrition and immunization counselling
Learning resources	Oxford Textbook of Public Health, Park's Textbook of Preventive and Social Medicine, GHAI Essential Pediatrics
Portfolio entries required	Demographic data of children screened, Assessment of health status, disease and immunization profile in children screened
Log book entry required	Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"
Assessment	Attendance, Participation in screening

	activity, Presentation of outcome of health screening activity, Documentation of required portfolio and log book entries
Other comments	Writing of manuscript is encouraged for documentation and research purposes

Module 5

Name of Block	Block 1 (Community Medicine)
Name of Elective	Integrated Child Development Services (ICDS)
Location of hospital Lab or research facility	Anganwadis in catchment area of Urban Health Training Centre (UHTC), Nongmensong
Name of internal preceptor(s)	Dr.Evakerlang Smenficia Lynshing Dr. Shanthosh Priyan S
Name of external preceptor if applicable	Nil
Learning objectives of elective	1. To understand the functioning of an Anganwadi 2. To understand the programmatic functioning of ICDS 3. To develop team works and leadership qualities 4. To monitor and evaluate a health programme
Number of students that can be accommodated in this elective	Two (2)
Prerequisites for elective	Knowledge on childhood malnutrition, leadership and management qualities
List of activities of student participation	1. Visiting Anganwadis 2. Evaluating components of ICDS 3. Supportive supervision of staff in anganwadi 4. Monitoring and evaluation of ICDS programme 5. Evaluating Poshan Abhiyan
Learning resources	Park's textbook of Preventive and Social Medicine, Ministry of Women and Child Development (WCD) modules
Portfolio entries required	Documentation of functioning of all components of ICDS, SWOT Analysis of ICDS Programme
Log book entry required	Satisfactory completion of posting by a

	preceptor with a “meets expectation ‘M’ grade”
Assessment	Attendance, Participation in supportive supervision, Presentation of evaluation of ICDS Programme, Documentation of required portfolio and log book entries
Other comments	Writing of manuscript is encouraged for documentation and research purposes

Module 6

Name of Block	Block 1 (Community Medicine)
Name of Elective	National Health Programme – National Tuberculosis Elimination Programme (NTEP)
Location of hospital Lab or research facility	DOTS Clinic, NEIGHRIHMS
Name of internal preceptor(s)	Dr. Gajendra Kumar Medhi Dr. EvakerlangSmenficiaLynshing
Name of external preceptor if applicable	Nil
Learning objectives of elective	1. To understand the diagnostic algorithm for TB 2. To understand the management and treatment of TB patients 3. To learn on TB Preventive Therapy 4. To understand the programmatic functioning of NTEP
Number of students that can be accommodated in this elective	2 (Two)
Prerequisites for elective	Communication skills, basic program knowledge
List of activities of student participation	1. Line listing of beneficiaries of NTEP programme in NEIGRIHMS 2. Functioning of NIKSHAY portal (crosscheck beneficiaries) 3. Functioning of DOTS Clinic 4. Treatment and referral system 5. Treatment/follow-up status of beneficiaries in NEIGRIHMS
Learning resources	NTEP Manual, India TB Report 2022, Central TB Division IEC Material, Park's Textbook of Preventive and Social Medicine, Oxford Textbook of Public Health
Portfolio entries required	Sociodemographic data of NTEP beneficiaries, Assessment of treatment profile and follow-up status in NTEP patients, SWOT Analysis of functioning of NTEP in NEIGRIHMS, Recommendations for improvement
Log book entry required	Satisfactory completion of posting by a preceptor with a "meets expectation 'M'

	grade”
Assessment	Attendance, Participation in activities in DOTS Clinic, Documentation of required portfolio and log book entries
Other comments	Writing of manuscript is encouraged for documentation and research purposes

Elective BLOCK 1 (Research related)

Name of block	Block 1 (Research related)
Name of elective	Oncology Research
Location of the hospital lab or research facility	Radiation Oncology department Oncology Section RCC (Regional Cancer Centre)
Title of research project	Study of pain score in cancer patients presenting to oncology OPD
Name of internal preceptor(s)	Oncology Faculty
Name of external preceptor(s)	NA
Learning objectives of elective/ objective of research project	List types of pain Demonstrate Knowledge of Pain scoring systems Demonstrate Knowledge of treatment of cancer pain Demonstrate knowledge of WHO pain management ladder Demonstrate knowledge of use of Opioid analgesics
Number of students that can be accommodated	2
Prerequisites	Knowledge of the Pain Knowledge of Pharmacology of pain medications Knowledge of Nerve blocks Knowledge of the Pain and Palliative approach
List of activities of student participation	Pain Assessment Pain Scoring Pain Management Analysis & interpretation of data
Learning resources	SOP provided by the department
Portfolio	Maintain a master chart / data sheet Develop protocol for pain management in cancer patients
Logbook	Complete with signature of faculty and should be graded meet expectations.
Research project	Complete the project within the allotted time.
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Manuscript writing and publication will be encouraged.

Pharmacology: Phramacovigilance

Elective BLOCK 1 (Pharmacology)

Name of the block	Block I (Pharmacology)
Name of elective	Pharmacovigilance
Location of the hospital lab or research facility	Active surveillance of adverse drug reactions (ADRs) in the department of Medicine. Filling up of ADR reporting forms and reporting to NEIGHRIMS ADR monitoring centre (AMC). Casualty, severity and preventability assessment of reported individual ADRs.
Name of internal preceptor (s)	Department of Pharmacology
Name of external preceptor (s)	NA
Learning objectives of elective/ objective of research project	To learn all the aspects of Pharmacovigilance. To learn and practice the identification of ADRs in practical clinical setup. To learn filling up of standard ADR reporting forms and process of reporting. To learn about analyzing the ADRs in terms of casualty, severity and preventability. Ultimately to gain knowledge on the safe use of drugs, patient safety and ultimately safeguarding public health.
Number of students that can be accommodated	3 students
Prerequisites	Knowledge of different terminologies of Phar,acology. Knowledge of pharmacodynamics and Pharmacokinetics. Knowledge of rational use of drugs and safety issues. Knowledge of adverse effects, ADRs, side effects, adverse events and toxic effects of drugs. Knowledge of pharmacovigilance and ADR reporting.
List of activities of students participation	Active surveillance of ADRs in the medicine ward. Selection of important ADRs and gathering of information on the given ADRs. Recording of ADRs in standard ADR forms. Analysis of ADRs in terms of Casualty, severity and preventability. Reporting of ADRs to the ADR reporting centre
Learning resources	SOP provided by the department
Portfolio	Maintain a master chart/ data sheet
Logbook	Complete with signature of faculty and will be graded meet expectations
Research project	Complete the project within the allotted time
Assessment	Formative. Attendance and viva voce. Presentation in the department of work noted in portfolio
Comments	Manuscript writing and publication will be encouraged

Name of the block	Block 1 (Pharmacology)
Name of the Elective	**Point Prevalence Survey of Antibiotics**
Location of the hospital lab or research facility	Conduct a point prevalence survey of antibiotics in male medicine ward, female medicine ward, male surgery ward and female surgery ward. Collection of data from inpatient records. Analyzing of surveyed data, including identifying patterns, trends, and any notable findings related to antibiotic usage.
Name of Internal preceptor	Department of Pharmacology
Name of external preceptor	NA
Learning Objectives	1) To learn all aspects of Point Prevalence Survey 2) To provide information on antibiotic usage and its impact on public health. 3) Describe the process of conducting a point prevalence survey, including: a) Selection of the population and sample size b) Designing survey forms to collect necessary data c) Collecting data from the sample population d) Duration and dosages of antibiotic usage Ultimately the knowledge on the consequences of inappropriate antibiotic usage and how surveys like these can contribute to improving antibiotic stewardship and reducing antibiotic resistance.
Number of students that can be accommodated	3 students
Prerequisites	Knowledge of different terminologies of Pharmacology Knowledge of Pharmacokinetics and Pharmacodynamics Knowledge on the different classes of antibiotics Knowledge on the rational use of antibiotics and safety issues
List of activities of students participation	Conducting a point prevalence survey of antibiotics in male medicine ward, female medicine ward, male Surgery ward and female surgery ward. Collection of data from inpatient records. Compilation and data entry. Analyzing of surveyed data, including identifying patterns, trends, and any notable findings related to antibiotic usage using MS Excel. Depiction of Analyzed data in the form of

	frequencies, percentages, diagrams
Learning resources	SOP provided by department
Portfolio	Maintain a master chart/data sheet
Logbook	Complete with signature of faculty and will be graded meet expectations
Research project	Complete the project within the allotted time
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Manuscript writing and publication will be encouraged.

Elective BLOCK 1 (Research related)

Name of block	Block 1 (Research related)
Name of elective	**Primer in Cancer Research**
Location of the hospital lab or research facility	Department of Surgical Oncology, NEIGRIHMS
Title of research project	Audit of Surgical Oncology Database
Name of internal preceptor(s)	Faculty in Surgical Oncology
Name of external preceptor(s)	NA
Learning objectives of elective/ objective of research project	Identify the common study designs used in cancer research List out the various outcome measures used in cancer research Describe the various methodologies involved in cancer research Recognize the various steps involved in informed consent process. Perform data collection for ongoing studies in the department. Perform literature search for a given research question. Analyse the database of surgical oncology patients maintained in the department. Employ the learnings in writing draft manuscript for ongoing studies. Demonstrate using reference management software. Critically analyse a given research article and present in a journal club
Number of students that can be accommodated	2
Prerequisites	Knowledge of the basics of research methodology (Preferable) Laptop for performing research work.
List of activities of student participation	Perform data collection for ongoing studies in the department. Perform literature search for a given research question. Analyse the database of surgical oncology patients maintained in the department. Write draft manuscript for ongoing studies(subject to availability of data) Demonstrate using reference management software. Present a paper in a journal club.
Learning resources	Online resources/material from BCBR

Portfolio	Maintain a master chart / data sheet
Logbook	Complete with signature of faculty and should be graded to meet expectations.
Research project	Complete the project within the allotted time.
Assessment	Formative Attendance and viva voce Presentation in the department of work noted in portfolio
Comments	Manuscript writing and publication will be encouraged.

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	**Primer in Surgical Oncology**
Location of hospital Lab or research facility	Department of Surgical Oncology-OPD, wards and Operation Theatre
Name of internal preceptor(s)	Faculty in Surgical Oncology
Name of external preceptor(s)	NA
Learning objectives of elective	At the end of the elective the student would be able to: 1. Evaluate the patients presenting with common cancers 2. Describe the appropriate staging system for common cancers 3. Choose the various investigations needed for diagnosis and staging of common cancers 4. Interpret the imaging and pathology reports of common cancers 5. Describe the surgical principles involved in resection of common cancers 6. Initiate the process of communicating grave diagnoses with patients 7. Recognize the various adjuvant and neoadjuvant treatments offered for the common cancers 8. Recall the various causes for the common cancers
Number of students that can be accommodated	2
Prerequisites	Basic information pertaining to common cancers in NEIGRIHMS, Necessary vaccination
List of activities of student participation	History taking, Clinical and Laboratory evaluation, Observation of procedures(surgical/diagnostic), patient counselling, participation in Multidisciplinary Meetings,
Learning resources	Guided learning from books, case based learning, DOAP for outpatient procedures, observing procedures in Operation Theatre
Portfolio	Student has to note down history and clinical findings and advise appropriate investigations for 3 cases observed in the OPD. Student has to write down and analyze pathology reports of 1 operated patient
Logbook	Complete with signature of faculty and should be graded to meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are expected to understand empathy and develop their communication skills

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Medicine Critical Care Unit
Location of hospital Lab or research facility	2nd Floor Main hospital building
Name of internal preceptor(s)	Dr IadarilangTiewsoh
Name of external preceptor(s)	NA
Learning objectives of elective	Student should understand the important medical interventions carried out for patients in the intensive care unit To demonstrate and elicit the steps for ACLS Respiratory supporting system used in the intensive care unit Management of common medical emergency cases in the intensive care unit
Number of students that can be accommodated	5
Prerequisites	What is the purpose of Intensive care medicine What type of medical and surgical cases does the intensive care unit caters to
List of activities of student participation	Study the cases admitted to ICU Basic monitoring requirements for seriously ill patients Reading of ABG Management of Shock (septic /hypovolemic /cardiogenic) Management of Respiratory failure Management of Status epilepticus Participating in counseling relatives of dying patients
Learning resources	Guided learning from books, case based learning, observing procedures in icu
Portfolio	Student has to note down clinical findings of 2 cases observed in intensive care unit Student has to write down and analyze ABG in two critically ill patient
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are expected to understand empathy and develop their communication skills

Elective Block (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Haemodialysis
Location of hospital Lab or research facility	Dialysis Unit, Department of Medicine
Name of internal preceptor(s)	
Name of external preceptor(s)	NA
Learning objectives of elective	Describe the indications of haemodialysis Describe the contraindications of haemodialysis Perform ABG interpretation Communicate treatment plan and follow up
Number of students that can be accommodated	3
Prerequisites	Definition, types and causes of kidney disease and investigations required
List of activities of student participation	History taking, Clinical and Laboratory evaluation, Patient counseling
Learning resources	Guided learning from books, case based learning, DOAP for ABG interpretation, peripheral intravenous catheter
Portfolio	Student has to note down history and clinical findings of 2 cases Student has to write down and analyze investigations of the CKD Patients
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are expected to understand empathy and develop their communication skills

Elective Block (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	DOTS
Location of hospital Lab or research facility	DOTS Centre, Department of Medicine
Name of internal preceptor(s)	
Name of external preceptor(s)	NA
Learning objectives of elective	Describe the various ATT regimes Describe the ADRs of ATT Perform sputum tests interpretatiom Communicate treatment plan and follow up
Number of students that can be accommodated	3
Prerequisites	Knowledge of Tuberculosis and Extrapulmonary tuberculosis
List of activities of student participation	History taking, Clinical and Laboratory evaluation, Patient counselling, NTEP guidelines
Learning resources	Guided learning from books, case based learning, DOAP for prescribing appropriate regimen, montoux test, AFB staining
Portfolio	Student has to note down history and clinical findings of 2 cases Student has to write down and analyze investigations of the TB Patients
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are expected to understand empathy and develop their communication skills

Department of Ophthalmology

Name of Block	Block 2 (Clinical)
Name of Elective	Optical Coherence Tomography (OCT)
Location of hospital Lab or research facility	Dept. of Ophthalmology, NEIGRIHMS
Name of internal preceptor(s)	Prof. (Dr.) Tanie Natung, HOD
Name of external preceptor(s)	Nil
Learning objectives of elective	i) Evaluation of central macular thickness of Retina of common retinal conditions causing macular edema/other macular changes by OCT. ii) Evaluation of optic nerve head in cases of various Glaucomas by OCT. iii) To counsel patients with retinal or glaucoma diseases.
Number of students that can be accommodated	2 (Two)
Prerequisites	Must have the basic knowledge of the Anatomy and Physiology of Retina, Optical Coherence Tomography, common retinal conditions and Glaucomas.
List of activities of student participation	i) To observe optical coherence tomography being carried out by optometrists. ii) Discuss common retinal and glaucoma cases with resident doctors and Faculty members. iii) Present at least 3 fully worked up cases during the departmental seminar with minimal basic statistics with conclusion.
Learning resources	i) Kanski's Clinical Ophthalmology ii) Retinal Imaging – Pradeep Venkatesh iii) Atlas of Ocular Tomography – Vishali Gupta
Portfolio	**Assignments provided** Three worked up case records that have been presented. Documentation of self-directed learning as summary and reflection.
Logbook	Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade".
Assessment	Attendance **Formative:** Participation in OPD and team activities, Presentation of worked up cases, Documentation of attendance and required portfolio and log book entries.
Comments	

Department of Ophthalmology

Name of Block	Block 2 (Clinical)
Name of Elective	Ocular Biometry
Location of hospital Lab or research facility	Dept. of Ophthalmology, NEIGRIHMS
Name of internal preceptor(s)	Prof. (Dr.) Tanie Natung, HOD
Name of external preceptor(s)	Nil
Learning objectives of elective	i) To observe biometry being done by the optometrists. ii) To calculate the correct IOL formulae for patients undergoing cataract surgeries. iii) To learn the various formulae for IOL power calculation. iv) To learn various techniques for IOL power measurement.
Number of students that can be accommodated	2 (Two)
Prerequisites	Must have the basic knowledge of anatomy of eye, A-scan, Keratometer, Immersion Biometer and Optical Biometry
List of activities of student participation	i) Participate in OPD rounds. ii) Participate in patient counseling and education. iii) Calculate the correct IOL formulae for the patients undergoing cataract surgery. iv) Learn syringing and Schiotz Tonometry. v) Present at least 3 fully worked up cases during the departmental seminar with minimal basic statistics with conclusion.
Learning resources	i) Kanski's Clinical Ophthalmology
Portfolio	**Assignments provided** Three worked up case records that have been presented. Documentation of self-directed learning as summary and reflection.
Logbook	Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade".
Assessment	Attendance **Formative:** Participation in OPD and team activities, Presentation of worked up cases, Documentation of attendance and required portfolio and log book entries.
Comments	

Department of Ophthalmology

Name of Block	Block 2 (Clinical)
Name of Elective	Refraction
Location of hospital Lab or research facility	Dept. of Ophthalmology, NEIGRIHMS
Name of internal preceptor(s)	Dr. Lanalyn Thangkhiew, Associate Professor
Name of external preceptor(s)	Nil
Learning objectives of elective	i) To know the refractive errors of patients presenting with diminished vision. ii) To observe refraction being carried out by optometrists. iii) To learn automated refraction and observe manual retinoscopy. iv) To learn about different types of refractive errors.
Number of students that can be accommodated	2 (Two)
Prerequisites	Must have the basic knowledge of properties of refraction, automated refraction and retinoscopy.
List of activities of student participation	i) Participate in OPD rounds. ii) Observe optometrists doing retinoscopy, automated refraction. iii) Note down different types of refractions. iv) Present at least 5 cases of fully worked up refraction during the departmental seminars with minimal basic statistics with conclusion.
Learning resources	i) Duke Elder's Refraction. ii) AAO BCSC's Clinical Optics, Section III.
Portfolio	**Assignments provided** Three worked up case records that have been presented. Documentation of self-directed learning as summary and reflection.
Logbook	Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade".
Assessment	Attendance **Formative:** Participation in OPD and team activities, Presentation of worked up cases, Documentation of attendance and required portfolio and log book entries.
Comments	

Department of Ophthalmology

Name of Block	Block 2 (Clinical)
Name of Elective	Automated Static Perimetry (Humphrey Visual Field Analysis)
Location of hospital Lab or research facility	Dept. of Ophthalmology, NEIGRIHMS
Name of internal preceptor(s)	Dr. Benjamin Nongrum, Associate Professor
Name of external preceptor(s)	Nil
Learning objectives of elective	i) To learn about the automated static perimetry. ii) To observe optometrists carrying out the automated perimetry. iii) To interpret the normal HFA charts. iv) To interpret various abnormal HFA charts. v) To present at least 3 HFA charts.
Number of students that can be accommodated	2 (Two)
Prerequisites	Must have the basic knowledge of visual pathways, visual fields and common abnormal visual field defects.
List of activities of student participation	i) Participate in the visual field charting with optometrists. ii) Present at least 5 abnormal HFA chartings in the departmental seminars with minimal basic statistics with conclusion.
Learning resources	i) Kanski's Clinical Ophthalmology ii) Practical Guide to Interpret Visual Fields – Reddy
Portfolio	**Assignments provided** Three worked up case records that have been presented. Documentation of self-directed learning as summary and reflection.
Logbook	Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade".
Assessment	Attendance **Formative:** Participation in OPD and team activities, Presentation of worked up cases, Documentation of attendance and required portfolio and log book entries.
Comments	

Electives

Name of Block	Block 2 (Clinical)
Name of Elective	Airway
Location of hospital lab or research facility	Pre- Operative Area & OT
Name of Internal preceptor (s)	1. Dr. Nari M Lyngdoh 2. Dr. Rajani Thabah 3. Dr. Priyanka Dev 4. Dr. Neha Rawat 5. Dr. Sunny Agarwal 6. Dr. Laltanpuii Sailo
Name of external preceptor (s)	NA
Learning objectives of elective	Airway Assessment
Number of student that can be accommodate	2
Pre- requisites	1. Definition of Airway 2. Airway assessment methods for difficult mask ventilation 3. Airway assessment methods for difficult intubation 4. Routine airway management 5. Anticipated difficult airway management 6. Unanticipated difficult airway management 7. Extubation of airway
List of activities of student participation	1. History taking 2. Clinical examination 3. Airway Examination 4. Airway management methods
Learning resources	Guided learning from books, case based learning, DOAP for airway assessment and management in patient simulation.
Portfolio	1. Student has to write down history for four cases observing in Pre- Operative area 2. Student will co- relate preoperative airway assessment with intra – operative finding and note it down.
Logbook	1. Complete with signature of faculty and should be graded meet expectations (M)
Assessment	1. Attendance 2. Daily activities 3. Logbook submission & certification of completion for eligibility to appear in Final MBBS examination

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Developmental Disorders
Location of hospital Lab or research facility	Department of Psychiatry, NEIGRIHMS
Name of internal preceptor(s)	Dr. Arvind Nongpiur; Ms. Kimberly Syiem
Name of external preceptor(s)	NA
Learning objectives of elective	Identification of developmental disorders Assessment tools required for developmental disorders Identifying the modalities of treatment available
Number of students that can be accommodated	3
Prerequisites	Definition, types of developmental disorders
List of activities of student participation	History taking, Clinical and Laboratory evaluation, Psychological evaluation
Learning resources	Guided learning from books, case base learning, DOAP
Portfolio	Student has to take detailed history and clinical findings of 2 cases Student has to write down treatment plan, investigations of the developmental disorder and observe psychological tests and Interventions
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are expected to understand empathy and develop their communication skills

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Substance Use Disorders
Location of hospital Lab or research facility	Department of Psychiatry, NEIGRIHMS
Name of internal preceptor(s)	Dr. Subhash Das
Name of external preceptor(s)	NA
Learning objectives of elective	Identification of types of substance use disorder Assessment of withdrawal symptoms Identifying the modalities of treatment available
Number of students that can be accommodated	3
Prerequisites	Definition, types of substance use disorders
List of activities of student participation	History taking, Clinical and Laboratory evaluation, Psychological evaluation
Learning resources	Guided learning from books, case base learning, DOAP
Portfolio	Student has to take detailed history and clinical findings of 2 cases Student has to write down treatment plan, investigations and observe Non-Pharmacological Management and interventions
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are expected to understand empathy and develop their communication skills

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Sleep Disorders
Location of hospital Lab or research facility	Department of Psychiatry, NEIGRIHMS
Name of internal preceptor(s)	Dr. Subhash Das
Name of external preceptor(s)	NA
Learning objectives of elective	Identification of sleep disorders Understanding relationship of sleep disorders with co morbid Mental and Physical Illness.
Number of students that can be accommodated	3
Prerequisites	Definition, physiology of Sleep
List of activities of student participation	History taking, Clinical and Laboratory evaluation, Psychological evaluation
Learning resources	Guided learning from books, Case based learning, ,DOAP
Portfolio	Student has to take detailed history and clinical findings of 2 cases Student has to write down treatment plan, investigations of the Sleep disorders, observe evaluations and interventions. To provide sleep hygiene measures & Psychoeducate for 5 cases.
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibilityto appear in final MBBS examination
Comments	Students are expected to understand empathy and develop their communication skills

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Consultation Liaison Psychiatry
Location of hospital Lab or research facility	Department of Psychiatry, NEIGRIHMS
Name of internal preceptor(s)	Dr. Arvind Nongpiur
Name of external preceptor(s)	NA
Learning objectives of elective	1.To identify and understand the psychiatric aspects associated with physical co-morbidities 2.To have an understanding about the management approach of the psychiatric co-morbidities associated with physical illness
Number of students that can be accommodated	2
Prerequisites	Some basic understanding of features of psychiatric disorders in hospital setting
List of activities of student participation	History taking, Clinical and Laboratory evaluation, Psychological evaluation
Learning resources	Guided learning from books, case base learning, DOAP
Portfolio	Student has to take detailed history and clinical findings of 2 cases Student has to write down treatment plan, investigations of the developmental disorder and observe psychological tests and interventions
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are expected to understand empathy , develop their communication skills and be able to identify the various psychiatric co-morbidities associated with physical illness

Department of ENT, NEIGRIHMS.

Elective Block 2 (Clinical)	
Name of the Block	Block – 2 (Clinical)
Name of Elective	Endoscopies in ENT (Otoendoscopy, nasalendoscopy, laryngoscopy/ hypopharyngoscopy , tracheoscopy, esophaguscopy, bronchoscopy, thoracoscopy, mediastinoscopy, etc.) both rigid and fibreoptic.
Location of hospital Lab or Research facility	Department of ENT/ Pulmonary Medicine/ Surgical Oncology/ General Surgery
Name of internal preceptor(s)	Dr. Suvamoy Chakraborty, Dr. Abhijeet Bhatia, Dr. Vijay Nongpiur, Dr. Arup Jyoti Baruah
Name of external preceptor(s)	NA
Learning objectives of elective	All types of endoscopies
Number of students that can be accommodate	3 – 4
Prerequisites	Definition, Pre and Post-Operative care, Procedure, Identification of Instruments, care, complications and documentation.
List of activities of student participation	History taking Clinical and Laboratory evaluation, Radiological evaluation.
Learning resources	Guided learning from books, case based learning.
Portfolio	Student has to note down history and clinical findings of 5 cases observed in the respective departments.
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in Final MBBS Examination.
Comments	Students are expected to understand empathy and develop their communication skills.

Elective Block 2 (Clinical)	
Name of the Block	Block – 2 (Clinical)
Name of Elective	ENT emergency and its management
Location of hospital Lab or Research facility	Department of ENT
Name of internal preceptor(s)	Dr. Suvamoy Chakraborty, Dr. Abhijeet Bhatia, Dr. Zareen Lynrah
Name of external preceptor(s)	NA
Learning objectives of elective	All types of emergencies in ENT
Number of students that can be accommodate	3 – 4
Prerequisites	Definition, Different emergencies and its management
List of activities of student participation	History taking Clinical and Laboratory evaluation, Radiological evaluation and management
Learning resources	Guided learning from books, case based learning.
Portfolio	Student has to note down history and clinical findings of 5 cases observed in the department.
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in Final MBBS Examination.
Comments	Students are expected to understand empathy and develop their communication skills.

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Basic neonatal care and Lactation support
Location of hospital Lab or research facility	Infertility clinic , Department of OBGYN , Intra Uterine Insemination (IUI) lab, Assisted Reproductive Technology (ART) lab
Name of internal preceptor(s)	Dr Rosina
Name of external preceptor(s)	NA
Learning objectives of elective	Describe basic care of the newborn in the hospital and at home Describe common problems of lactation Describe steps to support lactation and troubleshoot problems
Number of students that can be accommodated	2
Prerequisites	Basic neonatal care and physiology of lactation
List of activities of student participation	History taking, attends rounds, follow up mother baby duo, identify and trouble shoot lactation problem working with the faculty and postnatal war nurse. Educate mothers on appropriate care of the baby and Do's and Don'ts in for lactation success
Learning resources	Guided learning from books and e resources , case based learning
Portfolio	Student has to note down history and 2 cases during the period. Will write a reflection
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Patient are expected to understand the importance of basic neonatal care and exclusive breast feeding in neonatal care.

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Pediatric Nephrology
Location of hospital Lab or research facility	Pediatric General Ward , First floor, main hospital building
Name of internal preceptor(s)	Himesh Barman
Name of external preceptor(s)	NA
Learning objectives of elective	Describe various kidney diseases in children Discuss the management and prognosis of these conditions Counsel parents about the conditions and list indication of referral
Number of students that can be accommodated	2
Prerequisites	Knowledge of names and clinical presentation of common glomerular and tubular disorders in children
List of activities of student participation	History taking, Clinical and Laboratory evaluation, attend round and participate in counseling sessions with faculty
Learning resources	Guided learning from books e resources, case based learning, small group discussions
Portfolio	Student has to note down history and clinical findings of 5 cases followed during their posting
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are expected to learn about children in kidney diseases and learn counseling skills and learn to demonstrate empathy.

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Point of care Quality inprovement (POCQI) in child health
Location of hospital Lab or research facility	Pediatric OPD
Name of internal preceptor(s)	Dr Himesh Barman
Name of external preceptor(s)	NA
Learning objectives of elective	Describe steps of POCQI methodology Collaborate with child health team to identify problem Apply POCQI methodology in a project to improve a process
Number of students that can be accommodated	3
Prerequisites	-
List of activities of student participation	Student under guidance of the faculty will identify a process related to patient care that needs improvement. Will form a team of health care workers and will collaborate with them to apply POCQI methodology Collect and analyze data of the indicators of the process. Document in logbook/portfolio as case study.
Learning resources	Guided learning from books and e resources, case based learning, Project based learning
Portfolio	Student has document the process as a case study and write reflection on the experience
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Student are expected to understand need for continuous quality improve in health care setting and improve ability to cork in team and develop leadership skills

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Neonatal intensive care
Location of hospital Lab or research facility	NICU, 4 th floor (near Labor room), Main hospital building
Name of internal preceptor(s)	Dr Rosina Ksoo
Name of external preceptor(s)	NA
Learning objectives of elective	Name common neonatal conditions needing intensive Describe common intervention and procedures done in a NICU Describe the utility of NICU equipments like Bubble CPAP, Phototherapy Unit and Neonatal Ventilators
Number of students that can be accommodated	2
Prerequisites	Basic knowledge about causes of neonatal mortality and morbidity in India.
List of activities of student participation	Attend rounds, observe and follow up progress of the cases and participate in counseling sessions.
Learning resources	Guided learning from books, case based learning, group discussion
Portfolio	Student has to note down history and clinical findings, cource and outcome of 5 cases
Logbook	Complete with signature of faculty and should be graded meet expectations (M)
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are likely to get an idea about causes of neonatal morbidity and mortality and develop empathy

Sl. No	Name of Block	Block 2 (Clinical)
1	Name of Elective	Hematuria
2	Location of hospital Lab or research facility	Urology OPD & Ward
3	Name of internal preceptor (s)	Dr. S. L. Sailo
4	Name of external preceptor (s)	NA
5	Learning objectives of elective	1. Evaluation of heamaturia 2. Treatment of heamaturia
6	Number of students that can be accommodated	2
7	Prerequisites	Nil
8	List of activities of student participation	1. History taking & clinical examination 2. Basic investigations 3. Radiological investigations 4. Cystoscopy examination 5. Participation in ward rounds & OPD 6. Present two cases in department of urology
9	Learning resources	Smith: Handbook of Urology
10	Portfolio	Case records of two patients till discharge
11	Logbook	Complete with signature of faculty and should be graded meet expectations (M)
12	Assessment	1. Attendance 2. Successful modification of received portfolios entries 3. Successful completion of the positive as certified in the logbook with a “meets expectations (M) grade”.
13	Comments	Students are expected to understand empathy and develop their communication skills

Sl. No	Name of Block	Block 2 (Clinical)
1	Name of Elective	Renal Stone disease
2	Location of hospital Lab or research facility	Urology OPD & Ward
3	Name of internal preceptor (s)	Dr. V. C. Wann
4	Name of external preceptor (s)	NA
5	Learning objectives of elective	1. Evaluation of renal stone disease 2. Treatment of renal stone disease
6	Number of students that can be accommodated	2
7	Prerequisites	Nil
8	List of activities of student participation	1. History taking & clinical examination 2. Basic investigations 3. Radiological investigations 4. Cystoscopy examination 5. Participation in ward rounds & OPD 6. Present two cases in department of urology
9	Learning resources	Smith: Handbook of Urology
10	Portfolio	Case records of two patients till discharge
11	Logbook	Complete with signature of faculty and should be graded meet expectations (M)
12	Assessment	1. Attendance. 2. Successful modification of received portfolios entries. 3. Successful completion of the positive as certified in the logbook with a “meets expectations (M) grade”.
13	Comments	Students are expected to understand empathy and develop their communication skills

Transfusion Medicine & Blood Centre: Immunohematology Laboratory

Elective for the Department of Transfusion Medicine & Blood Centre, NEIGRIHMS

Name of Block	Blood Centre
Name of Elective	Immunohematology laboratory
Location of hospital lab or research lab	Department of Transfusion Medicine & Blood Centre, NEIGRIHMS
Name of internal preceptor(s)	Dr Kh Memtombi Devi, Assistant Professor
Name of external preceptor(s)	Nil
Learning objectives of elective	1. To understand: i. ABO, Rh and minor blood group system. ii. Compatibility testing. iii. Antibody screening. 2. To demonstrate understanding of the clinical significance of the tests.
Number of students that can be accumulated	3 nos.
Prerequisites	Necessary immunization ,knowledge of universal precautions
List of activities of student participation	Student will work with the faculty posted in immunohematology lab and perform Pre transfusion testing- ABO, Rh system & minor blood grouping, coombs' test, antibody screening, cross matching.
Learning resources	Handbook will be provided by the department.
Portfolio	Student has to perform compatibility testing for two blood samples provided.
Logbook	Complete signature of the faculty and will be graded.
Assessment	Formative Attendance and viva voce Presentation in the department of the work noted in portfolio.
Comments	--

Elective Block 2 (Clinical)	
Name of Block	Elective Block 2 (Clinical)
Name of Elective	Basic Rehabilitation of amputees
Location of Hospital Lab or Research Facility	Artificial Limb Centre and Orthopaedic OPD
Name of Internal Receptor (s)	1. Prof. (Dr.) Bhaskar Borgohain 2. Dr. Tashi G. Khonglah
Name of External Receptor (s)	N.A.
Learning Objectives of elective	i) Understand various topics of amputation ii) Understand common problems of amputations iii) Describe rehabilitations of amputation iv) Describe fabrication of Artificial Limb custom made for each amputee.
No. of Students that can be accommodated	3 (three)
Prerequisites	i) Understanding of anatomy of the limbs
List of activities of student participation	(i) Understanding of principles of rehabilitation of amputee. (ii) Clinical evaluation of amputee (iii) Vascular assessment of the limb. (iv) Assessment of quality of amputation stump (ideal stump)
Learning resources	P & O Technician, books and e-resources case based learning.
Portfolio	Assignment on a case to be submitted by the student.
Log Book	Concept with signature of faculty and P & O technician
Assessment	Formative assessment, attendance, log book and completion certificate.
Comments	Students are expected to understand the importance of rehabilitation of amputees and technologies behind Rehabilitation.

Department of Radiation Oncology

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Radiation Oncology
Location of hospital Lab or research facility	Radiation Oncology OPD/ Oncology Ward/Day care chemotherapy/ Radiotherapy center (Equipments)
Name of internal preceptor(s)	Radiation Oncology Faculty
Name of external preceptor(s)	NA
Learning objectives of elective	Evaluation/staging and work up of Oncology cases Management of common cancer Overview of Radiation therapy (RT) Overview of Chemotherapy Management of treatment side effects of RT/Chemotherapy
Number of students that can be accommodated	2
Prerequisites	Knowledge of the Staging System (AJCC) Knowledge of Cancer Spread Knowledge of Basic Radiology/CT scan/MRI/USG/Xray Knowledge of Basic Tumor Pathology/IHC/Tumor Markers
List of activities of student participation	History taking, Clinical and Laboratory evaluation, overview of Radiation and Chemotherapy treatment, Follow up protocols, Multidisciplinary Tumor (MDT) Board Management
Learning resources	Guided learning from books, case based learning, Radiotherapy simulation & planning/Chemotherapy planning and administration
Portfolio	Student has to note down history and clinical findings of at least 4 common cancers in North East India presetting at NEIGRIHMS Student has to write down and analyze staging investigations for common cancers investigations for respective case Students has to suggest appropriate treatment algorithm as per respective case and respective stage
Logbook	Complete with signature of faculty and **should be graded meet expectations (M)**
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Students are expected to understand Cancer diagnosis/work up/ treatment and follow up methods. Students has to learn communication skill

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Ultrasonography
Location of hospital Lab or research facility	Department of radiodiagnosis, NEIGRIHMS, Shillong.
Name of internal preceptor(s)	Dr C. Daniala, Dr Pranjal Phukan, Dr Donboklang Lynser,
Name of external preceptor(s)	NA
Learning objectives of elective	How to prepare for ultrasound whole abdomen How to know that patient is optimally prepared for the ultrasound eg. Fasting, taking water for stomach fluid distension and optimal bladder distension.
Number of students that can be accommodated	5
Prerequisites	Knowledge of indications and preparation for ultrasound examination Awareness on PC- PNDT
List of activities of student participation	History taking, observe Ultrasound examination, awareness on PC-PNDT
Learning resources	Guided learning from books, case based learning,
Portfolio	Student has to note down history and indication To note down optimal bladder and bowel preparatioin To note down ultrasound examination results
Logbook	Complete with signature of faculty and should be graded and meet Expectations
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion
Comments	Students are expected to understand empathy and develop their communication skills

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Radiography
Location of hospital Lab or research facility	Department of radiodiagnosis, NEIGRIHMS, Shillong.
Name of internal preceptor(s)	Dr C. Daniala, Dr Pranjal Phukan, Dr Donboklang Lynser,
Name of external preceptor(s)	NA
Learning objectives of elective	How to prepare for xray, abdomen, lumbar spine, IVU To describe radiation safety measures in the radiology department
Number of students that can be accommodated	5
Prerequisites	Knowledge of indications for x rays
List of activities of student participation	History taking, observe x ray examination, awareness on interaction of x rays.
Learning resources	Guided learning from books, case based learning,
Portfolio	Student has to note down history and indication for x rays
Logbook	Complete with signature of faculty and should be graded and meet Expectations
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion
Comments	Students are expected to understand empathy and develop their communication skills

1. Example of a learning experience in block 1

Table 1: Example of a block 1 learning experience (Contraception)

Name of Block	Block 2 (Clinical)
Name of Elective	Contraception
Location of hospital Lab or researchfacility	Department of Obstetrics & Gynaecology
Name of internal preceptor(s)	Dr. Wansalan Karu Shullai
Name of external preceptor (if applicable)	NA
Learning objectives of elective	• To be able to counsel couples for temporary and permanent methods of contraception. • To be able to provide emergency contraception care.
Number of students that can be accommodated in this elective	2 - 4
Prerequisites for elective	• Good clinical practice • Knowledge of various methods of contraception.
Learning resources for students	• WHO Medical eligibility criteria for contraceptive use,2025
List of activities of student participation	• Describe and discuss the temporary and permanent methods of contraception,indications,technique and complications;selection of patients, side effects and failure rate including Ocs, male contraception, emergency contraception and IUCD. • Describe discuss PPIUCD programme
Portfolio entries required	• Daily log of a patients seen and activities participated • At least 04 fully worked up patients to be documented

Log book entry required	• Satisfactory completion of posting signed by institutional preceptor
Assessment	• Attendance • Successful verification of required portfolio entries. • Written / Viva voce/ skill assessment.
Other comments	

2. Example of a learning experience in block 2

Table 2: Example of a block 2 learning experience (Antenatal Care)

Name of Block	Block 2 (Clinical)
Name of Elective	Antenatal Care
Location of hospital Lab or researchfacility	Department of Obstetrics & Gynaecology
Name of internal preceptor(s)	Prof. (Dr) Manika Agarwal
Name of external preceptor if applicable	NA
Learning objectives of elective	• To provide basic antenatal care • Screening for high risk factors • To be able to interpret normal & abnormal ANC investigation. • To learn routine antenatal follow up.
Number of students that can be accommodated in this elective	2 – 4
Prerequisites for elective	• To be able to perform general physical examination • To be able to perform basic obstetrics examination • Good clinical practice
List of activities of student participation	• Enumerate, describe and discuss the objectives of antenatal care, assessment of period of gestation; screening for high-risk factors. • Elicit document and present an obstetric history including menstrual history, last menstrual period, previous obstetric history, comorbid conditions, past medical history and surgical history
Learning Resources	• Bedside clinics in obstetrics. A practical approach to theoretical discussion - Arup Kumar Majhi, 4th edition

Portfolio entries required	• Daily log of a patients seen and activities participated • At least 04 fully worked up patients to be documented
Log book entry required	Satisfactory completion of posting signed by institutional preceptor
Assessment	Attendance Successful verification of required portfolio entries. Written / Viva voce/ skill assessment.
Other comments	

3. Example of a research rotation in block 2

Table 3: Example of a research learning experience in block 2 (Vaginal discharge)

Name of Block	Block 2 (Clinical)
Name of Elective	Vaginal discharge
Location of hospital Lab or researchfacility	Department of Obstetrics & Gynaecology
Name of internal preceptor(s)	Prof. (Dr) Manika Agarwal
Name of external preceptor	NA
Learning objectives of elective	• To be able to differentiate between physiological and pathological vaginal discharge. • To provide management of common causes and the syndromic management.
Number of students that can be accommodated in this elective	2 – 4
Prerequisites for elective	• Able to elicit history • Able to do per spuculum and prevaginal examination • Good clinical practice
List of activities of student participation	• Describe the clinical characteristics of physiological vaginal discharge. • Describe and discuss the etiology (with special emphasis on Candida, T. vaginalis, bacterial vaginosis), characteristics, clinical diagnosis,investigations,genitalhy giene,management of common causes and the syndromic management
Learning Resources	• NACO-STI/RTI syndromic case management.

Portfolio entries required	• Daily log of a patients seen and activities participated • At least 04 fully worked up patients to be documented
Log book entry required	• Satisfactory completion of posting signed by institutional preceptor
Assessment	• Attendance • Successful verification of required portfolio entries. • Written / Viva voce/ skill assessment.
Other comments	

4. Example of an external rotation in block 2

Table 4: Example of a community clinic rotation in block 2 (Labour)

Name of Block	Block 2 (Clinical)
Name of Elective	Labour
Location of hospital Lab or researchfacility	Labour Room, Department of Obstetrics & Gynaecology
Name of internal preceptor(s)	Faculty of Obstetrics & Gynaecology
Name of external preceptor if applicable	NA
Learning objectives of elective	• To be able to demonstrate the stages of normal labour in a simulated environment/ mannequin • To observe and assist the conduct of a normal vaginal delivery
Number of students that can be accommodated in this elective	2 – 4
Prerequisites for elective	• Able to perform pervaginal examination • Able to perform basic obstetrics examination. • Good clinical practice
List of activities of student participation	• Enumerate and discuss the physiology of normal labor, mechanism of labor in occipito-anterior presentation; monitoring of labor including partogram; conduct of labor, pain relief; principles of induction and acceleration of labor; management of third stage of labor. • Define, describe the causes, pathophysiology, diagnosis, investigations and management of pretermlabor,PROM and postdated pregnancy • Observe/assistin the performance of anartificialrupture of membranes • Demonstrate the stages of normal aborinasimulated environment /mannequinand counsel on methods of safe abortion • Observeandassisttheconductofanormalv

	aginal delivery
Learning Resources	• Beside clinics in obstetrics- a practical approach to theoretical discussion – Arup Kumar Majhi- 4th Edition
Portfolio entries required	• Daily log of a patients seen and activities participated • At least 04 fully worked up patients to be documented
Log book entry required	• Satisfactory completion of posting signed by institutional preceptor
Assessment	• Attendance • Successful verification of required portfolio entries. • Written / Viva voce/ skill assessment.
Other comments	

Example of an external rotation in block 2

Table 5: Example of a community clinic rotation in block 2 (Basic Infertility Work up & Management)

Name of Block	Block 2 (Clinical)
Name of Elective	Basic Infertility Work up and Management
Location of hospital Lab or researchfacility	Department of Obstetrics & Gynaecology
Name of internal preceptor(s)	Dr. Ananya Das
Name of external preceptor if applicable	
Learning objectives of elective	• Basic infertility assessment for male and female infertility • Basic of OI, TVS folliculometry and IVI
Number of students that can be accommodated in this elective	5 – 6
Prerequisites for elective	• Basic knowledge of physiology of menstruation and ovulation and male reproductive system. Basics of reproduction.
List of activities of student participation	• History taking and clinical examination. • Biochemical markers of male and female infertility • HSG, HAS • Demonstration of ovulation (TVS) • Folliculometry • OI • Ovulation trigger and IUI
Learning Resources	• Speroff text book of Gynae ESHRE guidelines.
Portfolio entries required	• Log Book entry of patients seen
Log book entry required	YES
Assessment	• Written, Viva, Skills assessment.
Other comments	

Example of a learning experience in block 2

Table 6: Example of a block 2 learning experience (USG in first and third trimester)

Name of Block	Block 2 (Clinical)
Name of Elective	Obstetrics USG in first and third trimester
Location of hospital Lab or researchfacility	Department of Obstetrics & Gynaecology
Name of internal preceptor(s)	Faculty Obstetrics & Gynaecology
Name of external preceptor if applicable	
Learning objectives of elective	• To learn early pregnancy scan • To assess fetal well being growth and maturity.
Number of students that can be accommodated in this elective	4 – 5
Prerequisites for elective	• Basic knowledge about physiology of fetal growth and development
List of activities of student participation	• Early pregnancy scan with demonstration of gestational sec, CRL measurement, cardiac activity demonstration pregnancy site determination. • Third trimester scan with fetal growth parameters (biometry) with AFI, Placental localization and Doppler
Learning Resources	• Donald's school text book of USG in Obstetrics & Gynaecology/ ISUOG guidelines.
Portfolio entries required	• Daily log of a patients seen and activities participated
Log book entry required	• Satisfactory completion of posting signed by institutional preceptor
Assessment	• Attendance • Successful verification of required portfolio entries. • Written / Viva voce/ skill assessment. • Direct observation of procedural skills (DOPS).

Other comments	

Department of Neurosurgery

Elective Block 2 (Clinical)	
Name of the Block	Block – 2 (Clinical)
Name of the Elective	Traumatic Brain Injury and its Initial Management
Location of Hospital Lab or Research facility	Department of Neurosurgery
Name of internal Perceptor(s)	Dr Tamajyoti Ghosh
Name of external preceptor (s)	NA
Learning objectives of elective	All Traumatic Brain injury cases attending Emergency Department
Number of students that can be accommodate	4 (four)
Prerequisites	
List of activities of student participation	History taking Clinical and Laboratory evaluation, Radiological evaluation and initial management
Learning resources	Guided learning from books, case based learning.
Portfolio	Student has to note down history and clinical findings of 15 cases observed in the department.
Logbook	Complete with signature of faculty and should be graded meet expectations
Assessment	Formative assessment (attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in Final MBBS Examination
Comments	Students are expected to understand empathy and develop their communication skills

Name of Block	Block 2 (Dermatology)
Name of Elective	Cutaneous Adverse Reactions (CADR)
Location of hospital lab or research facility	Dermatology OPD- 3rd Floor NEIGRIHMS
Name of internal preceptor(s)	Dr. Shikha Thakur Dr. Anita Marak
Name of external preceptor (if any)	N/A
Learning objectives of the elective	1. To classify and identify different type of cutaneous adverse drug reactions 2. To describe the clinico dermatological manifestations of each type of cutaneous adverse drug reactions 3. To understand the pathophysiology of cutaneous adverse drug reaction. 4. To identify the prognostic factors associated with cutaneous adverse drug reactions 5. To outline most common cause of CADR 6. To describe the investigations and monitoring of patients with CADR 7. To describe the management of various CADR
Number of students that can be accommodated in this elective	2
Prerequisites for the elective	1. Knowledge about pharmacokinetics and pharmacodynamics of drugs 2. Knowledge about basic skin lesions
Learning resources for students	Books and journals of Dermatology present in the departmental Library
List of activities in which the student will participate	1. Students will observe cases of CADR under guidance and learn to take history and perform relevant clinical examination. 2. Student will learn to differentiate CADR from common mimickers in dermatology 3. Student will have to interpret the relevant investigation and prognosticate patients with CADR. 4. for atients who will be admitted students will follow up in rounds regarding management 5. For patients who do not require admission, students will learn to treat them on OPD basis and follow up. 6. R/v the importance of the interprofessional team working together to find the underlying explanation for a cutaneous adverse drug reaction to improve outcomes.
Portfolio entries required	1. Maintain a dairy for data (Demographical Clinical) and investigations and treatment given. 2. Classify the CADR 3. Present 2 case on severe and one mild CADR
Log book entry required	Yes
Assessment	1. Formative 2. Grand rounds 3. Viva voce

	4. One Seminar
Other comments	

Name of Block	Dentistry
Name of Elective	Dental Caries and Non Caries Lesion
Location of hospital Lab or research facility	Dental OPD-3rd Floor NEIGRIHMS
Name of internal preceptor(s)	Dr. S. Vijay Singh Dr. Lomtu Ronrang
Name of external preceptor (if any)	N/A
Learning objectives of the elective	1. Definition 2. Classification of Dental Caries & Non Caries Lesion of teeth 3. Pathophysiology of Dental Caries & Non Caries Lesion 4. Prevention 5. Prognosis 6. Management
Number of students that can be accommodated in this elective	2
Prerequisites for the elective	1. Knowledge about basic tools structure and tooth nomenclature 2. Oral microbiology
Learning resources for students	Books present in the Department, Library and Central Library
List of activities in which the students will participate	1. Students will observe case under the guidance and learn to take history and perform relevant clinical examination. 2. Learn about various restorative material used for tooth restoration 3. Learn Radiographic interpretation
Portfolio entries required	1. Maintain a dairy for data (Dental Clinical) and investigations and treatment given 2. Present 2 case on Dental Caries & Non Caries Lesion
Log book entry required	Yes
Assessment	1. Formative 2. Grand rounds 3. Viva voce 4. One Seminar
Other comments	

Elective Posting Neurology learning experience

Name of Block	**Block 2**
Name of Elective	**CLINICAL LOCALISATION IN NEUROLOGY**
Location of hospital Lab or research facility	NEIGRIHMS, Neurology Ward Neurology OPD
Name of internal preceptor(s)	Dr. S R SHARMA Dr. BAIA SYNMON Dr. MAHENDRA THAKRE
Name of external preceptor if applicable	NA
Learning objectives of elective	1. To learn systematic approach to clinical evaluation of neurological disorders. 2. Neurological examination and localisation 3. To function effectively as a teammember in a multidisciplinary teammanaging neurological disorder 4. To counsel patients about disease prognosis and goals of care appropriately
Number of students that can be accommodated in this elective	3
Prerequisites for elective	baseline knowledge of neuroanatomy.
List of activities of student participation	1. History taking skills 2. Clinical neurological examinations 3. Participate in IPD Care, rounds and grand rounds 4. Observe diagnostic procedure in wards CSF tapping, Biopsy etc. 5. Participate in teaching sessions of the department 6. Case presentation 7. Participate in patient education, counselling and multidisciplinary team meeting 8. Participate in Workshop/seminar/journal club meetings
Learning Resources	Hutchinson clinical methods Dejong's The Neurologic Examination. by Campbell Harrison Neurology Section Clinical videos Research articles
Portfolio entries required	Assignments provided one case presentation Documentation of self-directed learning as summary and reflection
Log book entry required	Log book entry required
Assessment	Attendance Case presentation Viva voice OSCE Logbook assessment

Department of Cardiology

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Introduction to Interventional Cardiology
Location of hospital Lab or research facility	Cath Lab (First floor), Near Echo Lab, Opposite OPD blood sample collection center
Name of internal preceptor(s)	Faculty of Cardiology
Name of external preceptor(s)	NA
Learning objectives of elective	Introduction to Cardiac catheterization Diagnosis of Coronary artery disease using Cardiac Cathererisation Introduction to various interventional procedures in cardiology Introduction to coronary stenting
Number of students that can be accommodated	2
Prerequisites	Knowledge of Cardiac Anatomy and Physiology Knowledge of Coronary heart disease Knowledge about Congenital heart diseases
List of activities of student participation	History taking, Clinical and Laboratory evaluation, overview ofInterventional cardiology procedures, Post interventional management
Learning resources	Guided learning from books, case based learning
Portfolio	Student has to note down history and clinical findings of all Cardiac conditions for which they have witnessed interventional procedure including their post interventional course and outcome. The would undertake reflective writing about impact of such intervention in management of those disease conditions
Logbook	Completewithsignatureoffacultyand**should begraded not less than'meetexpectations'(M)**
Assessment	Formative assessment(attendance, daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Will give students sneek-peek into cutting edge advanced cardiac intervention procedures

Department of Cardiology

Elective Block 2 (Clinical)	
Name of Block	BLOCK-2 (Clinical)
Name of Elective	Echo cardiography and Cardiac imaging
Location of hospital Lab or research facility	Echo Lab, Opposite OPD blood sample collection centre
Name of internal preceptor(s)	Faculty of Cardiology
Name of external preceptor(s)	NA
Learning objectives of elective	Introduction to Cardiac Imaging Role of cardiac imaging and echo in diagnosis
Number of students that can be accommodated	3
Prerequisites	Knowledge of Cardiac Anatomy and Physiology Knowledge of Hemodynamics in Heath and disease
List of activities of student participation	History taking, Clinical and Laboratory evaluation, overview ofEchocardiography and cardiac imaging.
Learningresources	Guided learning from books, case-based learning
Portfolio	Student has to note down history and clinical findings of all Cardiac conditions for which they have witnessed Echocardiography and cardiac imaging. The would undertake reflective writing about impact of such imaging in diagnosis and management of those disease conditions
Logbook	Complete with signature of faculty and **should be graded not less than 'meetexpectations'(M)**
Assessment	Formative assessment (attendance,daily activities, logbook submission) and certification of completion for eligibility to appear in final MBBS examination
Comments	Will give students sneek-peek into cutting edge advanced cardiac intervention procedures