



**Jagannath Gupta Institute
of Medical Sciences & Hospital**

ELECTIVE PROGRAM BATCH 2021-22

ELECTIVE BLOCK 1			
Name of Elective	Department	Name of Preceptor	No. of students
Preparation of museum specimen	Anatomy	Dr. Anasuya Adhya Dr. Arpita Sarkar	4
Histology: preparation of tissue for microscopic examination	Anatomy	Prof (Dr). Rajasri Chunder Dr. Sayantani Majumder	2
Learning radiological anatomy	Anatomy	Dr. Kaushik Roy	4
Morphometry of Mandible	Anatomy	Dr. Rajarshi Datta	2

Elective 1: Preparation of Museum Specimen

Name of Block	Block 1
Name of Elective	Preparation of museum specimen
Location of hospital Lab or research facility	Dept. of Anatomy, JIMSH
Name of internal preceptor(s)	Dr. Anasuya Adhya , Dr. Arpita Sarkar
Name of external preceptor (if any)	N/A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To dissect viscera from cadaver 2. To mount and label the viscera for display 3. To make museum portfolio
Number of students that can be accommodated in this elective	4
Prerequisites for elective	Basic knowledge of Human Anatomy. Universal precautions and Good laboratory practice modules to be completed
Learning Resources for students	Departmental handbook provided
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work daily with a supervisor in departmental Museum to prepare museum specimen 2. update the museum portfolio 3. Participate in departmental education activities
Portfolio entries required	
Log book entry required	Successful completion of the posting as certified in the log book with a “meets expectation ‘M’ grade
Assessment	Formative: attendance; day-to-day participation in departmental activity; performance of assigned tasks
Other comments	

Elective 2: Histology: preparation of tissue for microscopic examination

Name of Block	Block 1
Name of Elective	Histology techniques
Location of hospital Lab or research facility	Histology Lab., Dept. of Anatomy, JIMSH
Name of internal preceptor(s)	Prof. Dr. Rajasri Chunder, Dr. Sayantani Majumder
Name of external preceptor (if any)	N/A
Learning objectives of elective	<ol style="list-style-type: none"> 1. Steps of tissue processing 2. To make Paraffin block 3. To Prepare of slides for microscopic examination 4. To know the basic staining like H/E staining
Number of students that can be accommodated in this elective	2
Prerequisites for elective	Basic knowledge of Human Anatomy. Universal precautions and Good laboratory practice modules to be completed
Learning Resources for students	Book: Bancroft's Theory and Practice of Histological Techniques
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work daily with a supervisor in observing, assisting and performing tissue processing, paraffin block making, staining 2. Participate in departmental education activities
Portfolio entries required	
Log book entry required	Successful completion of the posting as certified in the log book with a "meets expectation 'M' grade
Assessment	Formative: attendance; day-to-day participation in departmental activity; performance of assigned tasks
Other comments	

Elective 3: Learning radiological anatomy

Name of Block	Block 1
Name of Elective	Radiological anatomy
Location of hospital Lab or research facility	Dept. of Anatomy, JIMSH
Name of internal preceptor(s)	Dr. Kaushik Roy
Name of external preceptor (if any)	N/A
Learning objectives of elective	<ol style="list-style-type: none">1. Recognize and identify structures on imaging studies2. Describe the anatomic configuration of the structures in relation to other nearby structures, as learned in gross anatomy
Number of students that can be accommodated in this elective	4
Prerequisites for elective	Basic knowledge of Human Anatomy and radiology
Learning Resources for students	Textbook of radiological anatomy
List of activities in which the student will participate	<ol style="list-style-type: none">1. Work daily with a supervisor in department2. Participate in departmental education activities
Portfolio entries required	
Log book entry required	Successful completion of the posting as certified in the log book with a “meets expectation ‘M’ grade
Assessment	Formative: attendance; day-to-day participation in departmental activity; performance of assigned tasks
Other comments	

Elective 4: Morphometry of Mandible

Name of Block	BLOCK 1
Name of Elective	Morphometry of Mandible
Name of internal preceptor(s)	Dr. Rajarshi Datta
Name of external preceptor (if any)	
Learning objectives of the elective	At the end of the session, the students should be able to 1. describe the anatomy of Mandible 2. Measure different parameters of it accurately using Digital Vernier Callipers and measuring tapes etc 3. Review of literature of past 5 years of research work on morphometry of Mandible
Number of students that can be accommodated in this elective	2
Prerequisites for the elective	
Learning resources for students	Departmental handbook provided
List of activities in which the student will participate	1. To measure different parameter of mandible 2. To maintain record sheets. 3. Regular research work in the departmental library regarding the review of literature. 4. Presentation of the summary of the data collected in 2 weeks
Portfolio entries required	1. Documentation of worked up cases 2. Documentation of presentation done.
Log book entry required	Completion of posting signed by preceptor with a “meets expectation ‘(M)’ grade
Assessment	Formative: attendance; day-to-day participation in departmental activity; performance of assigned tasks and presentation of worked up case in department
Other comments	

ELECTIVE BLOCK 1

Name of Elective	Department	Name of Preceptor	No. of students
Diagnosis of Multiple Myeloma and Chronic Kidney disease based on electrophoretic pattern	Biochemistry	Prof. Dr. Arun Kumar	6
Laboratory Quality Assurance	Biochemistry	Dr Maitraye Basu	8

**Elective 1: Diagnosis of Multiple Myeloma and
Chronic Kidney disease based on
electrophoretic pattern**

Name of Block	Block 1
Name of Elective	Diagnosis of Multiple Myeloma and Chronic Kidney disease based on electrophoretic pattern
Location of hospital Lab or research facility	Department of Biochemistry, JIMSH
Name of internal preceptor(s)	Prof. Dr. Arun Kumar
Name of external preceptor (if any)	N.A
Learning objectives of elective	<ol style="list-style-type: none"> 1. Preparation of Agarose gel 2. Buffer Preparation. 3. Application of sample on gel 4. Running of Electrophoresis 5. Interpretation of the results
Number of students that can be accommodated in this elective	6
Prerequisites for elective	Basic Knowledge on Clinical Biochemistry and Basic Laboratory Management should be completed.
Learning Resources for students	Departmental Handbook Provided
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work daily under the supervisor. 2. Participation On Departmental Activities .
Portfolio entries required	
Log book entry required	Successful Completion Of The Posting as certified in the logbook with a “Meets Expectation M grade.
Assessment	Formative test Attendance Day To Day Participation of Departmental Activities
Other comments	

Elective 2: Laboratory Quality Assurance

Name of Block	Block 2
Name of Elective	Laboratory Quality Assurance
Location of hospital Labor research facility	Central Laboratory, 4th Floor Hospital Building, JIMSH
Name of internal preceptor(s)	Dr Maitraye Basu, Assistant Professor, Biochemistry
Name of external preceptor (if any)	N.A
Learning objectives of elective	<ol style="list-style-type: none"> 1. Overview of Laboratory functioning with process flow 2. Overview on Errors; Precision and Accuracy, Control; Standard; Calibration 3. Overview on Measures of Central Tendency and its applications to Westgard rules; LJ Chart 4. Overview on EQAS, Six sigma and other QC tools 5. Application of QC tools in maintaining lab result quality 6. Daily QC monitoring
Number of students that can be Accommodated in this elective	8
Prerequisites for elective	Basic Knowledge on Clinical Biochemistry and Basic Laboratory Management should be completed.
Learning Resources for students	Slide presentation; Practical onsite exposure; Reference Text Book under supervision of Internal preceptor
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work daily under the supervisor 2. Supervised Participation in daily and ongoing QC monitoring in laboratory
Portfolio entries required	As applicable
Log book entry required	Successful Completion Of The Posting as certified in the logbook with a “Meets Expectation and grade.
Assessment	Formative test Attendance Day To Day Participation in laboratory activities
Other comments	NA

ELECTIVE BLOCK 1			
Name of Elective	Department	Name of Preceptor	No. of students
Estimation of Arneth Count	Physiology	Prof Dr Debarati Chanda, Dr Omkar Prasad Baidya, Dr Priyanka Banerjee, Dr Julfa Khatun	4
Relation Between R-R Interval And Diabetic Neuropathy	Physiology	Prof Dr Debarati Chanda, Dr Omkar Prasad Baidya, Dr Priyanka Banerjee, Dr Julfa Khatun	4
Estimation of ESR	Physiology	Prof Dr Debarati Chanda, Dr Saswati Ray, Dr Aparajita Ray, Dr Tanusree Nath	4
Study Of Hand Grip Strength And Its Association With Bmi	Physiology	Prof Dr Debarati Chanda, Dr Omkar Prasad Baidya, Dr Priyanka Banerjee, Dr Julfa Khatun	5
Estimation Of Osmotic Fragility	Physiology	Dr Saswati Ray, Dr Aparajita Ray, Dr Tanusree Nath	4
Demonstrate the visual field with the help of Perimeter	Physiology	Dr Debarati Chanda, Dr Saswati Ray, Dr Tanusree Nath, Dr Aparajita Ray	4
Estimation Of Platelet Count	Physiology	Dr Debarati Chanda, Dr Saswati Ray, Dr Aparajita Ray, Dr Tanusree Nath	4
Estimation Of Reticulocyte Count	Physiology	Dr Debarati Chanda, Dr Saswati Ray, Dr Aparajita Ray, Dr Tanusree Nath	4

Elective 1: Estimation of Arneth Count

Name of Block	BLOCK 1
Name of Elective	Estimation of Arneth Count
Location of hospital lab or research facility	Department of physiology, research lab, JIMSH Budge Budge
Name of internal preceptor(s)	Dr Debarati Chanda, Dr Omkar Prasad Baidya, Dr Priyanka Banerjee, Dr Julfa Khatun
Name of external preceptor (if any)	
Learning objectives of the elective	<ol style="list-style-type: none"> 1. To learn about mature and immature neutrophils. 2. To learn the method of estimating arneth count. 3. To learn about the importance of arneth count
Number of students that can be accommodated in this elective	4
Prerequisites for the elective	Basic knowledge about hematology
Learning resources for students	Guidelines and departmental handbook provided
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Recruit subjects 2. Perform the specified test under supervisor & independently 3. Data collection 4. Tabulating data in worksheet. 5. Interpret and assess the results 6. Drawing summary of everyday work
Portfolio entries required	Yes, <ol style="list-style-type: none"> 1. Photographs 2. Master charts
Log book entry required	Completion of posting signed by preceptor with a “meets expectation ‘(m)’ grade”
Assessment	Daily attendance Doap, viva – voce, OSPE
Other comments	

Elective 2: Relation between R-R Interval and Diabetic Neuropathy

Name of Block	BLOCK 1
Name of Elective	Relation between r-r interval and diabetic neuropathy
Location of hospital lab or research facility	Department of physiology, research lab, jimsh budge budge
Name of internal preceptor(s)	Dr Debarati Chanda, Dr Omkar Prasad Baidya, Dr Priyanka Banerjee, Dr Julfa Khatun
Name of external preceptor (if any)	
Learning objectives of the elective	<ol style="list-style-type: none"> 1. To Learn the Method of Recording Ecg. 2. To Learn About the Complications Of Diabetes Mellitus. 3. To Learn the Effect Of Respiration On Heart Rate And On Ecg. 4. To Present The Relation Between R-R Interval And Diabetic Neuropathy
Number of students that can be accommodated in this elective	4
Prerequisites for the elective	Basic knowledge about clinical physiology
Learning resources for students	Guidelines and departmental handbook provided
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Recruit subjects 2. Perform the specified test under supervisor & independently 3. Data collection 4. Tabulating data in worksheet. 5. Interpret and assess the results 6. Drawing summary of everyday work
Portfolio entries required	Yes , <ol style="list-style-type: none"> 1. Photographs 2. Master charts
Log book entry required	Completion of posting signed by preceptor with a “meets expectation ‘(m)’ grade”
Assessment	Daily Attendance Doap, Viva – Voce, OSPE
Other comments	

Elective 3: Estimation of ESR

Name of Block	BLOCK 1
Name of Elective	Estimation of ESR
Location of hospital lab or research facility	Department of physiology, research lab, jimsh budge budge
Name of internal preceptor(s)	Dr Debarati Chanda, Dr Saswati Ray, Dr Aparajita Ray, Dr Tanusree Nath
Name of external preceptor (if any)	
Learning objectives of the elective	<ol style="list-style-type: none">1. To learn about factors affecting esr2. To learn the method of estimating esr .3. To learn about the importance of esr
Number of students that can be accommodated in this elective	4
Prerequisites for the elective	Basic knowledge about hematology
Learning resources for students	Guidelines and departmental handbook provided
List of activities in which the student will participate	<ol style="list-style-type: none">1. Recruit subjects2. Perform the specified test under supervisor & independently3. Data collection4. Tabulating data in worksheet.5. Interpret and assess the results6. Drawing summary of everyday work
Portfolio entries required	Yes , <ol style="list-style-type: none">1. Photographs2. Master charts
Log book entry required	Completion of posting signed by preceptor with a “meets expectation ‘(m)’ grade”
Assessment	Daily Attendance Doap, Viva – Voce, OSPE
Other Comments	

Elective 4: Study of Hand Grip Strength and Its Association with BMI

Name of Block	BLOCK - 1
Name of Elective	Study of hand grip strength and its association with BMI
Location of hospital lab or research facility	Department of physiology, research lab, jimsh
Name of internal preceptor(s)	Dr Debarati Chanda, Dr Omkar Prasad Baidya, Dr Priyanka Banerjee, Dr Julfa Khatun
Name of external preceptor (if any)	
Learning objectives of the elective	<ol style="list-style-type: none"> 1. To Learn the Method of Assessing Muscle Strength with Hand Grip Dynamometer. 2. To Learn About the Different Parts and Functioning Of Hand Grip Dynamometer. 3. To Learn the Method of Assessing Bmi. 4. To Present The Association Between Bmi And Muscle Strength.
Number of students that can be accommodated in this elective	5
Prerequisites for the elective	Basic Knowledge About Clinical Physiology
Learning resources for students	Guidelines Provided
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Recruit Subjects 2. Perform The Specified Test Under Supervisor & Independently 3. Data Collection 4. Tabulating Data In Worksheet. 5. Interpret and Assess The Results 6. Drawing Summary of Everyday Work
Portfolio entries required	Yes, <ol style="list-style-type: none"> 1. Photographs 2. Master Charts
Log book entry required	Completion Of Posting Signed By Preceptor With A “Meets Expectation ‘(M)’ Grade”
Assessment	Daily Attendance Doap, Viva – Voce, OSPE
Other Comments	

Elective 5: Estimation of Osmotic Fragility

Name of Block	BLOCK 1
Name of Elective	Estimation of osmotic fragility
Location of hospital lab or research facility	Department of physiology, research lab, jimsh budge budge
Name of internal preceptor(s)	Dr Saswati Ray, Dr Aparajita Ray, Dr Tanusree Nath
Name of external preceptor (if any)	
Learning objectives of the elective	<ol style="list-style-type: none"> 1. To learn about osmotic fragility 2. To learn the method of determining osmotic fragility. 3. To learn about the importance of osmotic fragility.
Number of students that can be accommodated in this elective	4
Prerequisites for the elective	Basic knowledge about hematology
Learning resources for students	Guidelines and departmental handbook provided
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Recruit subjects 2. Perform the specified test under supervisor & independently 3. Data collection 4. Tabulating data in worksheet. 5. Interpret and assess the results 6. Drawing summary of everyday work
Portfolio entries required	Yes , <ol style="list-style-type: none"> 1. Photographs 2. Master charts
Log book entry required	Completion of posting signed by preceptor with a “meets expectation ‘(m)’ grade”
Assessment	Daily Attendance Doap, Viva – Voce, OSPE
Other Comments	

Elective 6: Demonstrate the visual field with the help of Perimeter

Name of Block	BLOCK 1
Name of Elective	Demonstrate the visual field with the help of Perimeter
Location of hospital lab or research facility	Department of physiology, hematology lab, jimsh budge budge
Name of internal preceptor(s)	Dr Debarati Chanda, Dr Saswati Ray, Dr Tanusree Nath, Dr Aparajita Ray
Name of external preceptor (if any)	
Learning objectives of the elective	1.to learn the parts of the perimeter 2.to learn the correct mounting of the perimeter chart 3. To learn how to determine the visual field .
Number of students that can be accommodated in this elective	4
Prerequisites for the elective	Basic knowledge about perimeter
Learning resources for students	Departmental handbook provided , practical book
List of activities in which the student will participate	1. Work daily with a supervisor in observing, assisting and performing perimetry 2. Participate in departmental education activities 3. Perform perimetry at the end of the session
Portfolio entries required	1. Documentation of procedure 2. Documentation of presentation done
Log book entry required	Completion of posting signed by preceptor with a “meets expectation ‘(m)’ grade”
Assessment	Formative: Attendance Doap, Viva – Voce, OSPE
Other Comments	

Elective 7: Estimation of Platelet Count

Name of Block	BLOCK 1
Name of Elective	Estimation of platelet count
Location of hospital lab or research facility	Department of physiology, research lab, jimsh budge budge
Name of internal preceptor(s)	Dr Debarati Chanda, Dr Saswati Ray, Dr Aparajita Ray, Dr Tanusree Nath
Name of external preceptor (if any)	
Learning objectives of the elective	<ol style="list-style-type: none"> 1. To learn about platelets. 2. To learn the method of estimating platelet count. 3. To learn about the importance of platelet count
Number of students that can be accommodated in this elective	4
Prerequisites for the elective	Basic knowledge about hematology
Learning resources for students	Guidelines and departmental handbook provided
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Recruit subjects 2. Perform the specified test under supervisor & independently 3. Data collection 4. Tabulating data in worksheet. 5. Interpret and assess the results 6. Drawing summary of everyday work
Portfolio entries required	Yes , <ol style="list-style-type: none"> 1. Photographs 2. Master charts
Log book entry required	Completion of posting signed by preceptor with a “meets expectation ‘(m)’ grade”
Assessment	Daily Attendance Doap, Viva – Voce, OSPE
Other comments	

Elective 8: Estimation of Reticulocyte Count

Name of Block	BLOCK 1
Name of Elective	Estimation of reticulocyte count
Location of hospital lab or research facility	Department of physiology, research lab, jimsh budge budge
Name of internal preceptor(s)	Dr Debarati Chanda, Dr Saswati Ray, Dr Aparajita Ray, Dr Tanusree Nath
Name of external preceptor (if any)	
Learning objectives of the elective	<ol style="list-style-type: none"> 1. To learn about reticulocytes . 2. To learn the method of estimating reticulocyte count. 3. To learn about the importance of reticulocyte count
Number of students that can be accommodated in this elective	4
Prerequisites for the elective	Basic knowledge about hematology
Learning resources for students	Guidelines and departmental handbook provided
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Recruit subjects 2. Perform the specified test under supervisor & independently 3. Data collection 4. Tabulating data in worksheet. 5. Interpret and assess the results 6. Drawing summary of everyday work
Portfolio entries required	Yes, <ol style="list-style-type: none"> 1. Photographs 2. Master Charts
Log book entry required	Completion of posting signed by preceptor with a “meets expectation ‘(m)’ grade”
Assessment	Daily Attendance Doap, Viva – Voce, OSPE
Other comments	

ELECTIVE BLOCK 1			
Name of Elective	Department	Name of Preceptor	No. of students
Prevalence of hepatitis B virus among patients attending a tertiary care centre in Eastern India	Microbiology	Dr. Arpita Sarkar and Mr. Aditya Tiwari	5
To study the prevalence of hepatitis C virus among indoor and outdoor patients at JIMSH	Microbiology	Dr. Syamal Modi and Dr. Avranil Goswami	5
Prevalence of HIV among patients attending a tertiary care centre in Eastern India	Microbiology	Dr. Nibedita Debnath and Ms. Moutusi Dey	5
To study the prevalence of intestinal parasites in a tertiary care centre in Eastern India	Microbiology	Dr. Syamal Modi and Dr. Pritha Pramanick	5
Study of the incidence of ESBL production among the Enterobacterial infections at JIMSH	Microbiology	Dr. Nibedita Debnath and Dr. Avranil Goswami	5
Study of the incidence of MRSA infections among patients attending a tertiary care centre in Eastern India	Microbiology	Dr. Arpita Sarkar and Dr. Pritha Pramanick	5

Elective 1: Prevalence of Hepatitis B Virus Among Patients Attending a Tertiary Care Centre In Eastern India

Name of Block	Block 1
Name of Elective	Prevalence of hepatitis B virus among patients attending a tertiary care centre in Eastern India
Location of hospital lab or research facility	Department of Microbiology, JIMSH
Name of internal preceptor(s)	Dr. Arpita Sarkar and Mr. Aditya Tiwari
Name of external preceptor (if any)	N/A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To observe the methods of HBsAg detection 2. To know the other tests done for HBV diagnosis 3. Compile and analyze the HBsAg positivity during the specified period
Number of students that can be accommodated in this elective	5
Prerequisites for elective	Access to Laboratory Resources
Learning Resources for students	<ol style="list-style-type: none"> 1. Topley And Wilson’s Microbiology 2. Mackie & McCartney Practical Medical Microbiology 3. HBsAg Kit insert
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work under supervision and participate in HBsAg testing methods 2. Compilation & Analysis of data 3. Write an Abstract of the work done
Portfolio entries required	Documentation of the data collected Documentation of presentation done
Log book entry required	Satisfactory completion of posting with a “Meets Expectation (M)” grade
Assessment	Daily Attendance Day-to-day participation in departmental activity Performance of assigned tasks Presentation of the compiled and analyzed data
Other comments	Nil

Elective 2: To Study the Prevalence of Hepatitis C Virus Among Indoor and Outdoor Patients at Jimsh

Name of Block	Block 1
Name of Elective	To study the prevalence of hepatitis C virus among indoor and outdoor patients at JIMSH
Location of hospital lab or research facility	Department of Microbiology, JIMSH
Name of internal preceptor(s)	Dr. Syamal Modi and Dr. Avranil Goswami
Name of external preceptor (if any)	N/A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To observe the methods of anti-HCV detection 2. To know the other tests done for HCV diagnosis 3. Compile and analyze the HCV positivity during the specified period
Number of students that can be accommodated in this elective	5
Prerequisites for elective	Access to Laboratory Resources
Learning Resources for students	<ol style="list-style-type: none"> 1. Topley and Wilson’s Microbiology 2. Mackie & McCartney Practical Medical Microbiology 3. Anti-HCV Kit insert
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work under supervision and participate in HCV testing methods 2. Compilation & Analysis of data 3. Write an Abstract of the work done
Portfolio entries required	Documentation of the data collected Documentation of presentation done
Log book entry required	Satisfactory completion of posting with a “Meets Expectation (M)” grade
Assessment	Daily Attendance Day-to-day participation in departmental activity Performance of assigned tasks Presentation of the compiled and analyzed data
Other comments	Nil

**Elective 3: Prevalence of HIV among Patients Attending A Tertiary
Care Centre In Eastern India**

Name of Block	Block 1
Name of Elective	Prevalence of HIV among patients attending a tertiary care centre in Eastern India
Location of hospital lab or research facility	Department of Microbiology, JIMSH
Name of internal preceptor(s)	Dr. Nibedita Debnath and Ms. Moutusi Dey
Name of external preceptor (if any)	N/A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To observe the methods of anti-HIV detection 2. To know the other tests done for HIV diagnosis 3. Compile and analyze the HIV positivity during the specified period
Number of students that can be accommodated in this elective	5
Prerequisites for elective	Access to Laboratory Resources
Learning Resources for students	<ol style="list-style-type: none"> 1. Topley and Wilson’s Microbiology 2. Mackie & McCartney Practical Medical Microbiology 3. Anti-HIV Kit insert
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work under supervision and participate in HIV testing methods 2. Compilation & Analysis of data 3. Write an Abstract of the work done
Portfolio entries required	Documentation of the data collected Documentation of presentation done
Log book entry required	Satisfactory completion of posting with a “Meets Expectation (M)” grade
Assessment	Daily Attendance Day-to-day participation in departmental activity Performance of assigned tasks Presentation of the compiled and analyzed data
Other comments	Nil

**Elective 4: To Study the Prevalence of Intestinal Parasites in A
Tertiary Care Centre in Eastern India**

Name of Block	Block 1
Name of Elective	To study the prevalence of intestinal parasites in a tertiary care centre in Eastern India
Location of hospital lab or research facility	Department of Microbiology, JIMSH
Name of internal preceptor(s)	Dr. Syamal Modi and Dr. Pritha Pramanick
Name of external preceptor (if any)	N/A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To know about collection of stool sample 2. To prepare and examine normal saline and iodine wet mounts from the given samples 3. To observe and record the findings 4. Compile and analyze the data during the specified period
Number of students that can be accommodated in this elective	5
Prerequisites for elective	Access to Laboratory Resources
Learning Resources for students	<ol style="list-style-type: none"> 1. Topley and Wilson's Microbiology 2. Mackie & McCartney Practical Medical Microbiology 3. K.D. Chatterjee's Parasitology
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work under supervision and participate in stool R/E testing 2. Compilation & Analysis of data 3. Write an Abstract of the work done
Portfolio entries required	Documentation of the data collected Documentation of presentation done
Log book entry required	Satisfactory completion of posting with a "Meets Expectation (M)" grade
Assessment	Daily Attendance Day-to-day participation in departmental activity Performance of assigned tasks Presentation of the compiled and analyzed data
Other comments	Nil

Elective 5: Study Of The Incidence Of ESBL Production Among The Enterobacterial Infections At Jimsh

Name of Block	Block 1
Name of Elective	Study of the incidence of ESBL production among the Enterobacterial infections at JIMSH
Location of hospital lab or research facility	Department of Microbiology, JIMSH
Name of internal preceptor(s)	Dr. Nibedita Debnath and Dr. Avranil Goswami
Name of external preceptor (if any)	N/A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To observe and perform bacterial culture of various samples 2. To observe and participate in identification of isolates 3. To observe antimicrobial susceptibility testing and ESBL screening methods 4. Compile and analyze the data during the specified period
Number of students that can be accommodated in this elective	5
Prerequisites for elective	Access to Laboratory Resources
Learning Resources for students	<ol style="list-style-type: none"> 1. Topley And Wilson’s Microbiology 2. Mackie & McCartney Practical Medical Microbiology 3. Koneman’s textbook of Diagnostic Microbiology
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work under supervision and participate in routine culture and AST along with ESBL screening 2. Compilation & Analysis of data 3. Write an Abstract of the work done
Portfolio entries required	Documentation of the data collected Documentation of presentation done
Log book entry required	Satisfactory completion of posting with a “Meets Expectation (M)” grade
Assessment	Daily Attendance Day-to-day participation in departmental activity Performance of assigned tasks Presentation of the compiled and analyzed data
Other comments	Nil

**Elective 6: Study of The Incidence of MRSA Infections Among Patients
Attending a Tertiary Care Centre in Eastern India**

Name of Block	Block 1
Name of Elective	Study of the incidence of MRSA infections among patients attending a tertiary care centre in Eastern India
Location of hospital lab or research facility	Department of Microbiology, JIMSH
Name of internal preceptor(s)	Dr. Arpita Sarkar and Dr. Pritha Pramanick
Name of external preceptor (if any)	N/A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To observe and perform bacterial culture of various samples 2. To observe and participate in identification of <i>Staphylococcus aureus</i> 3. To observe antimicrobial susceptibility testing and MRSA screening methods 4. Compile and analyze the data during the specified period
Number of students that can be accommodated in this elective	5
Prerequisites for elective	Access to Laboratory Resources
Learning Resources for students	<ol style="list-style-type: none"> 1. Topley And Wilson's Microbiology 2. Mackie & McCartney Practical Medical Microbiology 3. Koneman's textbook of Diagnostic Microbiology
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work under supervision and participate in routine culture and AST along with MRSA screening 2. Compilation & Analysis of data 3. Write an Abstract of the work done
Portfolio entries required	Documentation of the data collected Documentation of presentation done
Log book entry required	Satisfactory completion of posting with a "Meets Expectation (M)" grade
Assessment	Daily Attendance Day-to-day participation in departmental activity Performance of assigned tasks Presentation of the compiled and analyzed data
Other comments	Nil

ELECTIVE BLOCK 1			
Name of Elective	Department	Name of Preceptor	No. of students
Interpretation of CBC report to determine different types of anemia	Pathology	Dr. Ayesha Abid	6
Histopathological Technique	Pathology	Dr. Sanchita Biswas	6
Different types of histopathology and cytopathology staining- H/E stain, PAS, PAP, Leishman, Giemsa	Pathology	Dr. Shreya Kar,	6
CPC (Clinico-pathological correlation) - Its importance for better approach to patients.	Pathology	Dr. Smita Priyam	6
Exposure to cytological Lab - FNAC & Exfoliative cytology	Pathology	Dr Soumick Sarkar	6

Elective 1: Biopsy specimen handling in Pathology Lab

Name of Block	Block 1
Name of Elective	Different types of histopathology and cytopathology staining- H/E stain, PAS, PAP, Leishman, Giemsa
Location of hospital Lab or research facility	Central Lab, JIMSH
Name of internal preceptor(s)	Dr. Shreya Kar, Pathology Dept.
Name of external preceptor (if any)	Nil
Learning objectives of elective	<ol style="list-style-type: none"> 1. Participate in teaching session to get the basic understanding of use of different types of histopathology & cytopathology staining and their techniques. 2. Present and perform all the above mentioned stains in given cases individually.
Number of students that can be accommodated in this elective	6 students.
Prerequisites for elective	Immunization against Hepatitis B virus.
Learning Resources for students	Bancroft's theory and practice of histological techniques (8th Edition)
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. To describe the importance of histopathology and cytopathology stains for proper diagnosis of cases. 2. To judge the requirement for special stains for particular cases as they apply to definitive diagnosis. 3. To learn the staining procedure.
Portfolio entries required	<p>Assignment provided.</p> <p>Documentation of self-directed learning as summary and reflection</p>
Log book entry required	Completion of posting to be signed by Preceptor with a “meet expectation” (M) grade.
Assessment	<p>Formative – daily attendance.</p> <p>Day-to-day participation in departmental activities.</p> <p>Performance of assigned tasks and presentation of worked up case in the department.</p>
Other comments	

Elective 2: Collection & handling of blood sample

Name of Block	Block 1
Name of Elective	Interpretation of CBC report to determine different types of anemia
Location of hospital Lab or research facility	Central Lab, JIMSH
Name of internal preceptor(s)	Dr. Ayesha Abid, Pathology Dept.
Name of external preceptor (if any)	Nil
Learning objectives of elective	<ol style="list-style-type: none"> 1. 1. Know the sample required for the testing of anemia 2. 2. Know the procedure of blood smear preparation and staining 3. 3. Know the normal values of hemoglobin and red cell indices to help in assessment of patient samples.
Number of students that can be accommodated in this elective	6 students.
Prerequisites for elective	Apron, gloves, immunisation against Hep B.
Learning Resources for students	Guidance from trained technicians/ seniors/ Preceptor. Practical text book.
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work daily in the Hematology lab 2. Observe the requisition forms coming from ward/ OPD 3. Observe the processing of blood samples in Hematology analyzer 4. Prepare the blood smears of patient sample and stain 5. Read the values of patient's haemoglobin and red cell indices (as given by analyzer machine) to classify anemia morphologically 6. See the stained blood smears to determine morphology of RBC
Portfolio entries required	<ol style="list-style-type: none"> 1. Documentation of cases analysed by the student. 2. Documentation of self-directed learning as summary and reflection.
Log book entry required	Completion of posting to be signed by Preceptor with a "meet expectation" (M) grade.
Assessment	Formative – daily attendance. Day-to-day participation in the laboratory Presentation of cases observed and analysed Documentation of attendance and required portfolio and log book entries
Other comments	

Elective 3: Histopathological technique

Name of Block	Block 1
Name of Elective	Histopathological technique
Location of hospital Lab or research facility	Central Lab, JIMSH
Name of internal preceptor(s)	Dr. Sanchita Biswas, Pathology Dept.
Name of external preceptor (if any)	Nil
Learning objectives of elective	<p>Students should of know followings after completion of the session:</p> <ol style="list-style-type: none"> 1. Should know the importance of maintaining correct documents of the sample received and how to efficiently work as a part of a team. 2. Should acquire obvious comprehensive knowledge regarding different steps in tissue processing and significance of various steps.
Number of students that can be accommodated in this elective	6 students.
Prerequisites for elective	Vaccination against Hepatitis B virus.
Learning Resources for students	<p>Guidance from seniors/ Preceptor.</p> <p>Practical text book.</p>
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work daily in the tissue reception area. 2. To observe, assist & perform the tissue processing done in lab. 3. To observe & perform block preparation, section cutting. 4. To ask seniors/ preceptor about further correction.
Portfolio entries required	<p>Documentation of cases which were handled by the student.</p> <p>Documentation of presentation done.</p>
Log book entry required	Completion of posting to be signed by Preceptor with a “meet expectation” (M) grade.
Assessment	<p>Formative – daily attendance.</p> <p>Day-to-day participation in departmental activities.</p> <p>Performance of assigned tasks and presentation of worked up case in the department.</p>
Other comments	

Elective 4: Exposure to cytological Lab –FNAC & Exfoliative cytology

Name of Block	Block 1
Name of Elective	Exposure to cytological Lab –FNAC & Exfoliative cytology
Location of hospital Lab or research facility	Central Lab, JIMSH
Name of internal preceptor(s)	Dr. Soumick Sarkar, Pathology Dept.
Name of external preceptor (if any)	Nil
Learning objectives of elective	<ol style="list-style-type: none"> 1. To know the different types of sample required for cytological study. 2. To know different tests that are performed in cytology sample. 3. To know the significance of various tests that are done in cytology sample. . 4. Participate in tests performed in the lab.
Number of students that can be accommodated in this elective	6 students.
Prerequisites for elective	Vaccination against Hepatitis B virus.
Learning Resources for students	Guidance from seniors/ Preceptor. Practical text book.
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work daily in the sample reception area. 2. To observe, assist & perform the tests in the supplied sample. 3. To ask Seniors/ Preceptor about further information wherever required.
Portfolio entries required	<p>Documentation of cases which were handled by him/ her.</p> <p>Documentation of presentation done.</p>
Log book entry required	Completion of posting to be signed by Preceptor with a “meet expectation” (M) grade.
Assessment	<p>Formative – daily attendance.</p> <p>Day-to-day participation in departmental activities.</p> <p>Performance of assigned tasks and presentation of worked up case in the department.</p>
Other comments	

Elective 5: CPC (Clinico-pathological correlation) – its importance for better approach to patients

Name of Block	Block 1
Name of Elective	CPC (Clinico-pathological correlation) – its importance for better approach to patients
Location of hospital Lab or research facility	Central Lab, JIMSH
Name of internal preceptor(s)	Dr. Smita Priyam, Pathology Dept.
Name of external preceptor (if any)	Nil
Learning objectives of elective	<ol style="list-style-type: none"> 1. To know basis/ significance of CPC 2. To know details of tests and patients' Clinical findings 3. Participate in CPC in the lab along with patient's history
Number of students that can be accommodated in this elective	6 students.
Prerequisites for elective	Must have received necessary immunisations.
Learning Resources for students	Essentials of Clinical Pathology- Kawthalkar Henry's Clinical Diagnosis and Management by Laboratory Methods.
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work daily in the lab & note different tests 2. To observe & participate in CPC held during his/her tenure.
Portfolio entries required	<ol style="list-style-type: none"> 1. Documentation of cases where participated in CPC. 2. Documentation of presentation done.
Log book entry required	Completion of posting to be signed by Preceptor with a "meet expectation" (M) grade.
Assessment	<p>Formative – daily attendance.</p> <p>Day-to-day participation in departmental activities.</p> <p>Performance of assigned tasks and presentation of worked up case in the department.</p>
Other comments	

ELECTIVE BLOCK 1			
Name of Elective	Department	Name of Preceptor	No. of students
Pharmacovigilance (Project) Identifying, Recording And Reporting ADRs In A Tertiary Care Setup And Uploading The Collected Data To IPC Database By Vigiflow Software.	Pharmacology	Dr. Paramita Pal, Dr. Sughandha Garg, Dr. Pradipta Das, Dr. Jaideep Bhaduri.	5
Research (Prescription audit) Prescription audit of a teaching hospital in Eastern India using World Health Organization core prescribing indicators – A cross-sectional retrospective study	Pharmacology	Dr. Pradipta Das, Dr. Payodhi Dhar, Dr. Sughandha Garg, Dr. Paramita Pal.	5
Research (Medication Errors) Analysis of medication errors in a teaching hospital in Eastern India – A cross-sectional retrospective study	Pharmacology	Dr. Sughandha Garg, Dr. Pradipta Das Dr. Payodhi Dhar, Dr. Paramita Pal.	5
Research (Antibiotic Stewardship) The use of antibiotics in the intensive care unit in a teaching hospital in eastern India – A cross sectional observational study	Pharmacology	Dr. Jaideep Bhaduri, Dr. Pradipta Das, Dr. Paramita Pal, Dr. Sughandha Garg, Dr. Payodhi Dhar.	5

Elective 1: Pharmacovigilance (project) Identifying, Recording and reporting ADRs in a tertiary care setup and uploading the collected data to IPC database by Vigiflow software.

Name of Block	Block 1
Name of Elective	Pharmacovigilance (project) Identifying, Recording and reporting ADRs in a tertiary care setup and uploading the collected data to IPC database by Vigiflow software.
Location of hospital Lab or research facility	Department of Pharmacology (AMC), Medical College Hospital, JIMSH, Budge Budge
Name of internal preceptor(s)	Dr. Paramita Pal, Dr. Sughandha Garg, Dr. Pradipta Das, Dr. Jaideep Bhaduri
Name of external preceptor (if any)	N.A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To identify Adverse Drug reactions 2. To collect the data from patients and patient's clinical notes and laboratory reports. 3. To report the ADRs to AMC by ADR reporting form provided by IPC. 4. Uploading the data in Vigiflow software.
Number of students that can be accommodated in this elective	5 (Five)
Prerequisites for elective	Reading about ADR materials and management from provided material
Learning Resources for students	CDSCO website, Pharmacovigilance programme of India (PvPI)
List of activities in which the student will participate	<ul style="list-style-type: none"> • Identify ADRs with AMC team in hospital • Fill ADR forms • Enter data into vigiflow software • Apply causality scales • Write case report on ADR
Portfolio entries required	At the end of the module description of ADR reports added, the process to identify and report ADRs, reflections on the learning
Log book entry required	<ul style="list-style-type: none"> • Number of ADR reported • Number of ADR entered into vigiflow independently • Documentation of case report generated
Assessment	<ol style="list-style-type: none"> 1. Attendance 2. Successful verification of required portfolio entries 3. Successful completion of posting as certified in log book with a “meet expectation” M grade. 4. Power point presentation of the entire project.
Other comments	N.A

Elective 2: Research (preceptor initiated) - Prescription audit of teaching hospital in Eastern India using World Health Organization core prescribing indicators – A cross-sectional retrospective study

Name of Block	Block 1
Name of Elective	Research (Prescription audit) Prescription audit of a teaching hospital in Eastern India using World Health Organization core prescribing indicators – A cross-sectional retrospective study
Location of hospital Lab or research facility	Department of Pharmacology, Medical record Department - Medical College Hospital, JIMSH, Budge Budge
Name of internal preceptor(s)	Dr. Pradipta Das, Dr. Payodhi Dhar, Dr. Sughandha Garg, Dr. Paramita Pal
Name of external preceptor (if any)	N.A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To collect data as prescribed in study 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 collected data. 5. To present abstract to a group of peers and supervisors.
Number of students that can be accommodated in this elective	5 (Five)
Prerequisites for elective	Reading about prescription audit, pharmacovigilance from the provided materials.
Learning Resources for students	<ul style="list-style-type: none"> • National health system resource center website. • WHO Prescription audit guidelines. • Indian Journal of Pharmacology. • Related published articles on prescription audit from PubMed. • Related materials provided by department.
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work with faculties allocated for planning of study protocol, observations and to collect data from medical record section documents as per protocol. 2. Work with statistician to provide the statistical analysis of the data. 3. Write abstract of work done. 4. Participate in research meetings of department, internal and external meetings. 5. Present abstract in an internal meeting and if possible at an external meeting as a poster or oral presentation.
Portfolio entries required	At the end of the module description of the research work in brief, the process of planning the study protocol, data collection, abstract writing and reflections on the learning.

Log book entry required	<ul style="list-style-type: none">• Study Protocol• Pictures of data collection from Medical record section• Summary of collected data• Brief Statistical analysis
Assessment	<ol style="list-style-type: none">1. Attendance2. Successful verification of required portfolio entries3. Successful completion of posting as certified in log book with a “meet expectation” M grade.4. Power point presentation of the research project.
Other comments	N.A

**Elective 3: Research (preceptor initiated)
Analysis of medication errors in a teaching
hospital in Eastern India – A cross-sectional
retrospective study**

Name of Block	Block 1
Name of Elective	Research (Medication Errors) Analysis of medication errors in a teaching hospital in Eastern India – A cross-sectional retrospective study.
Location of hospital Lab or research facility	Department of Pharmacology, Department of Pharmacy, Medical record Department - Medical College Hospital, JIMSH, Budge Budge
Name of internal preceptor(s)	Dr. Sughandha Garg, Dr. Pradipta Das Dr. Payodhi Dhar, Dr. Paramita Pal.
Name of external preceptor (if any)	N.A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To collect data as prescribed in study 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 collected data. 5. To present abstract to a group of peers and supervisors.
Number of students that can be accommodated in this elective	5 (Five)
Prerequisites for elective	Reading medication errors, prescription audit and pharmacovigilance from the provided material by the department.
Learning Resources for students	<ul style="list-style-type: none"> • National health system resource center website. • CDSCO website. • Indian Journal of Pharmacology. • Medication error related published articles from PubMed. • Related articles provided by department
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work with faculties allocated for planning of study protocol, observations and to collect data from hospital pharmacy and medical record section documents as per protocol. 2. Work with statistician to provide the statistical analysis of the data. 3. Write abstract of work done. 4. Participate in research meetings of department, internal and external meetings. 5. Present abstract in an internal, meeting and if possible at an external meeting as a poster or oral presentation.
Portfolio entries required	At the end of the module description of the research work in brief, the process of planning the study protocol, data collection, abstract writing and reflections on the learning.

Log book entry required	<ul style="list-style-type: none"> • Study Protocol • Pictures of data collection from pharmacy and medical record section • Summary of collected data • Brief Statistical analysis
Assessment	<ol style="list-style-type: none"> 1. Attendance 2. Successful entries of required portfolio entries 3. Successful completion of posting as certified in log book with a “meet expectation” M grade. 4. Power point presentation of the entire research project.
Other comments	N.A

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Elective 4: Research (preceptor initiated)
The use of antibiotics in the intensive care unit
in a teaching hospital in Eastern India – A
cross-sectional retrospective study

Name of Block	Block 1
Name of Elective	Research (Antibiotic Stewardship) The use of antibiotics in the intensive care unit in a teaching hospital in eastern India – A cross sectional observational study
Location of hospital Lab or research facility	Department of Pharmacology, Department of Medicine, Medical record Department - Medical College Hospital, JIMSH, Budge Budge
Name of internal preceptor(s)	Dr. Jaideep Bhaduri, Dr. Pradipta Das, Dr. Paramita Pal, Dr. Sughandha Garg, Dr. Payodhi Dhar.
Name of external preceptor (if any)	N.A
Learning objectives of elective	<ol style="list-style-type: none"> 1. To collect data as prescribed in study 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 collected data. 5. To present abstract to a group of peers and supervisors.
Number of students that can be accommodated in this elective	5 (Five)
Prerequisites for elective	Reading antibiotic stewardship, prescription audit, medication errors, pharmacovigilance from the materials provided by the department.
Learning Resources for students	<ul style="list-style-type: none"> • National health system resource center website. • CDSCO website. • Indian Journal of Pharmacology. • Antibiotic Stewardship related published articles from PubMed • Related materials provided by department
List of activities in which the student will participate	<ol style="list-style-type: none"> 1. Work with faculties allocated for planning of study protocol, observations and to collect data from medical record section documents and from intensive care unit as per protocol. 2. Work with statistician to provide the statistical analysis of the data. 3. Write abstract of work done. 4. Participate in research meetings of department, internal and external meetings. 5. Present abstract in an internal, meeting and if possible at an external meeting as a poster or oral presentation

Portfolio entries required	At the end of the module description of the research work in brief, the process of planning the study protocol, data collection, abstract writing and reflections on the learning.
Log book entry required	<ul style="list-style-type: none"> • Study Protocol. • Pictures of data collection from Medical record section. • Summary of collected data. • Brief Statistical analysis.
Assessment	<ol style="list-style-type: none"> 1. Attendance 2. Successful entries of required portfolio entries 3. Successful completion of posting as certified in log book with a “meet expectation” M grade. 4. Power point presentation of the entire project
Other comments	N.A