Name of Block	Block I
Name of Elective M1	Lab diagnosis and prevention of HIV infection
Location of hospital lab/research facility	ICTC(integrated counselling and testing centre, SRL(State reference laboratory for HIV), VLTL(viral load testing laboratory)
Name of internal preceptor(s)	Dr Anu P John
Name of external preceptor(s) if applicable	NA
Learning objectives of electives	 To know about HIV virus ,Pathogenesis and diagnosis and management To observe the Psycho- social and behavioural aspect of HIV infection To have a basic knowledge on the modes of Transmission of HIV To understand and learn about the appropriate preventive measures against HIV infection
Number of students that can be accommodated in this elective	4
Prerequisites for elective	 Training in standard precautions and biosafety Knowledge about the HIV virus, pathogenesis and diagnosis Hepatitis B vaccination 2 doses completed Basic knowledge on the post exposure prophylaxis , prevention and treatment
Learning resources for students	 National guidelines on HIV testing byNACO Mandell, Douglas and Bennett , s principles and practice of infectious diseases Resource library – Centres for disease control and prevention
List of activities of student participation	 Training on standard work precautions and biosafety Participate in collection and transport of specimens Observe the pre-test and post-test counselling Observe the procedure and methods followed in ICTC

	 Observe the protocols and steps of viral load testing and interpretation for the management Collect details regarding needle stick injuries and post exposure prophylaxis Record daily observations and activities Conduct case presentations and participate in academic discussions
Portfolio entries required	 Record details of methods of specimen collection and transport Record details of pre-test and post-testcounselling maintaining confidentiality Record the various diagnostic methods in detection Record of cases of needle stick injuries Record cases of post exposure prophylaxis Record the details of follow up of positive cases
Log book entry required	 Details of Specimen collected Details of diagnostic methods , follow up of patients and post exposure prophylaxis Details of cases recorded maintaining confidentiality Case presentations Topic presentations Reflections and feedback Assessment
Assessment	 Formative specimen collection and transport- DOPS Interpretation of HIV laboratory results – charts Needle stick injury and post exposure prophylaxis - applied question Confidentiality - assessed as AETCOM question Review the records of daily activities
Other comments	

Name of block	Block 1
Name of elective M2	Newer methods for diagnosing TB
Location of hospitallab/research facility	Central lab, Molecular Lab for TB
	diagnosis, RNTCP lab
Name of internal preceptor	Dr Anjaly S
Name of external preceptor if applicable	N/A
Learning objectives of elective	 To observe and understand the principle, procedure and functioning of TrueNat To observe and understand the principle, procedure and functioning of CBNAAT To observe and understand the principle, procedure and functioning of Interferon Gamma Release Assay (IGRA) To understand the applications of each in different clinical settings To observe the various procedures in RNTCP lab including Fluorescent microscopy for TB diagnosis
Number of students that can be accommodated in this elective	4
Prerequisites for elective	Should have basic knowledge about standard precautions, biosafety Should have completed immunisation against Hepatitis B SDL – To read and understand the NTEP guidelines*
Learning Resources for students	NTEP manual Standard operating procedure manuals of TrueNAT, CBNAAT, IGRA
List of activities of student participation	 Training in standard precautions followed in diagnostic microbiology laboratory Training in collection and transport of different samples including sputum, other respiratory specimens, pus aspirates, CSF, urine for routine TB diagnosis Participate in collection and transport of samples including writing a proper request form for TrueNAT, CBNAAT Collect clinical details, investigation details management and follow up of atleast positive cases each for TrueNAT, CBNAAT, IGRA Present these cases in the Microbiology laboratory and participate in the discussions

Portfolio entries required	 Record details of sample collection and transport of cases observed Various steps involved in the procedures of TrueNAT, CBNAAT, IGRA Methods of reporting
Log book entry required	 Details of specimen collection and transport Procedures observed Case presentations Reflections and feedback Assessment
Assessment	 Formative DOAP – specimen collection, transport, proper filling of a request form for microbiology diagnostic lab Case presentations (atleast 1 each of TrueNAT, CBNAAT) Review of records of daily activities Objective test
Other comments	

Name of Block	Block I
Name of Elective M3	Molecular and serological diagnosis of viral hepatitis
Location of hospital lab/research facility	VRDL(Virus Research and Diagnostic laboratory), Serology lab (Central lab), Dept of Microbiology
Name of internal preceptor(s)	Dr. Aiswarya Mukundan
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	 To obtain experience in serological techniques (ELISA and immuchromatograhic tests) for diagnosis of Hepatitis A, B, C and E To understand the principles and observe the molecular diagnostic methods for viral hepatitis (PCR techniques for viral load testing of Hepatitis B and C)

Number of students that can be accommodated in this elective	4
Prerequisites for elective	 Knowledge on standard precautions and biosafety Hepatitis B vaccination 2 doses completed Basic knowledge about the serological markers and laboratory diagnosis of Hepatitis B
Learning resources for students	 National Viral Hepatitis Control Programme- operational guidelines, Textbook of Microbiology- Ananthanarayan and Panicker
List of activities of student participation	 Training on standard work precautions and biosafety Training in serological techniques for Viral hepatitis (ELISA and Rapid tests for Hepatitis A,B,C and E) Observe the various steps involved in PCR (Viral load testing of Hepatitis B and C) and reporting of results Collect clinical details, investigation reports and management of 2 cases each of Hepatitis B and C Record daily observations and activities Conduct case presentations and participate in academic discussions
Portfolio entries required	 Record details of various steps involved in ELISA Record details of various steps involved in molecular diagnostic methods Record Clinical case history , diagnostic work up and management of 2 cases each of Hepatitis B and C
Log book entry required	 Laboratory procedures observed Details of cases recorded Topic presentations Reflections and feedback Assessment
Assessment	 Formative 1. Presentation on molecular diagnostics 2. Presentation of clinical cases in department 3. Review the records of daily activities 4. Objective test
Other comments	

Name of Block	Block I
Name of Elective M4	Diagnostic methods in mycology
Location of hospital lab/research facility	Central lab and Dept of Microbiology
Name of internal preceptor(s)	Dr Smina K.I.
Name of external preceptor(s) if applicable	NA
Learning objectives of electives	 To understand the diagnostic methods and techniques in mycology To obtain knowledge in various fungal infections To participate in collection and transport of various specimen for fungal infections
Number of students that can be accommodated in this elective	4
Prerequisites for elective	 Training in standard precautions and biosafety Hepatitis B vaccination 2 doses Basic knowledge about different fungal infections of public health importance.
Learning resources for students	 Larone, Apurba shasthry Jagadish chandra.
List of activities of student participation	 Training on standard work precautions and biosafety Participate in collection and transport of specimens like skin scrapings,nail, hair etc for diagnosis of fungal infections,under supervision (minimum 2 cases per week) Observe the different steps involved in the processing and culture of specimen Collect clinical details, investigation details and management of cases of -fungal infections candidiasis, dermatophytes etc Record daily observations and activities Conduct case presentations and participate in academic discussions

Portfolio entries required	 Record details of methods of specimen collection and transport of 4 cases assisted Record details of various steps involved in fungal culture and identification Record Clinical case history , diagnostic work up and management of 4 different clinical cases of fungal infections
Log book entry required	 Details of Specimen collected Laboratory procedures observed Details of cases recorded Case presentations Topic presentations Reflections and feedback Assessment
Assessment	 Formative DOPS- specimen collection and transport Presentation on mycology Presentation of clinical cases (at least 2) in department Review the records of daily activities Objective test
Other comments	

Name of Block	Block I
Name of Elective M5	Microbiological profile of bacterial sepsis
Location of hospital lab/research facility	Central Lab- Microbiology
Name of internal preceptor(s)	Dr Remya P V
Name of external preceptor(s) if applicable	NA
Learning objectives of electives	 To understand the aetiological agents and causes of bacterial sepsis. To obtain knowledge in sample collection, culture of isolate causing sepsis.

Number of students that	 To obtain knowledge on antibiotic sensitivity pattern by Kirby bauer disk diffusion test and its interpretation To know about various sepsis markers. To correlate clinically ,SIRS, qSOFA score.
can be accommodated in this elective	
Prerequisites for elective	 Training in standard precautions and knowledge on lab etiquette. Hepatitis B vaccination 2 doses completed
Learning resources for students	 Related journals from indexed journals. Hospital infection control manual Mandell, Douglas and Bennett`s principles and practice of infectious diseases
List of activities of student participation	 Training on standard work precautions. Participate in collection and transport of specimens. Observe the sample processing, culture of isolates and antibiotic sensitivity pattern, participate in reporting. Take detailed clinical history, laboratory investigation details and antibiotic escalation and de-escalation in response to treatment of at least 3 different cases . Record daily observations and activities Conduct case presentations and participate in academic discussions
Portfolio entries required	 Record details of methods of specimen collection and transport of 3 cases assisted Record Clinical case history, diagnostic work up and management of 3 different clinical cases of sepsis – Eg urosepsis, Catheter Related Blood stream Infection (CRBSI), Hospital acquired (following SSI, VAP, CRBSI), meningitis and other causes. Microbiological profile of isolates causing bacterial sepsis and antibiogram from ICU in a fixed time period.
Log book entry required	 Details of Specimen collected Laboratory procedures observed Details of cases recorded

	 Case presentations Topic presentations Reflections and feedback Assessment
Assessment	 Formative DOPS- specimen collection and transport. Presentation of clinical cases (at least 2) in department Review the records of daily activities
Other comments	

Elective learning experience in Block I

Name of Block	Block 1
Name of Elective M6	Antibiotic sensitivity pattern of bacterial isolates from urinary tract infection
Location of hospital lab/research facility	Microbiology lab in central lab, NMCHThrissur
Name of internal preceptor(s)	Dr Anitha T R
Name of external preceptor(s) if applicable	N/A
Learning objectives of electives	 To enumerate different agents causing urinary tract infection To demonstrate the method of culture and identification bacterial pathogens from urine To identify the various methods of antibiotic sensitivity testing (invitro) of bacterial isolates To demonstrate the Kirbeybauer disc diffusion method of antibiotic sensitivity testing for bacterial isolate from urine. To demonstrate how to interpret the results of Disc diffusion testing To evaluate this results for selecting an antibiotic at clinical side.
Number of students that can be accommodated in this elective	4

Prerequisites for elective	Training on standard precautions, biosafety and immunisation				
Learning resources for students	 Hand book of clinical microbiology Sop for different methods of Antibiotic sensitivity testing from CLSI 				
List of activities of student participation	 Report to Microbiology Lab In Central lab and observe, assist and perform the plating of urine sample for obtaining the bacterial growth. Observe the antibiotic sensitivity testing for the same isolate as done in Microbiology lab Report the results for the antibiotic sensitivity testing done. Intrepret the test results under guidance. Collect clinical details and management of minimum 3 cases of urinary tract infections Conduct case presentations and participate in academic discussions 				
Portfolio entries required	 Details of procedure and testing of Isolates processed in the lab CLSI criteria for interpretation Clinical details and management of cases 				
Log book entry required	 Procedures-culture & antibiotic sensitivity testing conducted in lab Details of patient work up and management Completion of the work signed by the Internal preceptor with meets expectation (M) grade 				
Assessment	Formative 1.Attendance 2. day to day participation in activities . 3. Performance of assigned tasks and presentation of finished task in department 4. Documentation in Logbook 5. Objective test				
Other comments					

Name of Block	Block I
Name of Elective M7	Hand Hygiene audit in Intensive care units

Location of hospital lab/research facility	Medical ICU			
Name of internal preceptor(s)	Dr Lekshmi Sankar K			
Name of external preceptor(s) if applicable	NA			
Learning objectives of electives	 To understand the principle and obtain experience executing hand hygiene audit in ICUs To obtain knowledge about hand hygeine. To participate in hand hygiene audit conducted as a part of HIC surveillance 			
Number of students that can be accommodated in this elective	4			
Prerequisites for elective	 Training on standard work precautions Know the steps of hand hygiene. Know the moments of hand hygiene. Hand hygiene audit form. 			
Learning resources for students	 WHO manual for Hand hygiene practices. Hospital infection control manual. 			
List of activities of student participation	 Training on standard work precautions. Participate in observation of hand hygiene practices going on in medical ICU (minimum 20 hand hygiene moments per week) Participate in documentation of hand hygiene practices going on in medical ICU (minimum 20 hand hygiene moments per week) Participate in analysis of hand hygiene practices going on in medical ICU Record daily observations and activities Conduct hand hygiene training and participate in academic discussions 			
Portfolio entries required	 Record details of steps of hand hygiene Record details of moments of hand hygiene Record hand hygiene audit and analysis done in medical ICU over 4 weeks 			
Log book entry required	1. Details of moments observed			

	 Hand hygiene audit Topic presentations Reflections and feedback Assessment 			
Assessment	 Formative 1. DOPS- hand hygiene moments documentation 2. Presentation on hand hygiene 3. Presentation of hand hygiene audit 4. Review the records of daily activities 5. Objective test 			
Other comments				

Name of Block	Block I			
Name of Elective M8	Laboratory diagnosis and prophylaxis of Enteric fever			
Location of hospital lab/research facility	Central Lab- Microbiology			
Name of internal preceptor(s)	Dr Ann Mary Alex			
Name of external preceptor(s) if applicable	NA			
Learning objectives of electives	 To obtain knowledge in sample collection and processing of various samples for the diagnosis of Enteric fever To obtain knowledge on the serological diagnosis of Enteric fever To know about the antibiotic sensitivity pattern of the isolates from the cases of Enteric fever To know about the various vaccines available for Enteric fever 			
Number of students that can be accommodated in this elective	4			
Prerequisites for elective	Training in standard precautions and knowledge on lab etiquette.			

Learning resources for students	 Related journals and articles from indexed journals. Textbook of Microbiology-Ananthanarayan and Panicker 			
List of activities of student participation	 7. Training on standard work precautions. 8. Participate in collection and transport of specimens. 9. Observe the sample processing, culture of isolates and antibiotic sensitivity pattern, participate in reporting. 10. Observe and participate in performing and reporting of Widal test 11. Take detailed clinical history, laboratory investigation details and response to treatment of at least 2 cases suspected of Enteric fever 12. Record daily observations and activities 13. Conduct case presentations and participate in academic discussions ed 4. Record details of methods of specimen collection and transport of 2 cases assisted 5. Record details of processing of various samples for the diagnosis of Enteric fever 6. Record Clinical case history, diagnostic work up and management of 2 cases of Enteric fever 7. Write a note on various vaccines available for Enteric fever 			
Portfolio entries required				
Log book entry required	 8. Details of Specimen collected 9. Laboratory procedures observed 10. Details of cases recorded 11. Case presentations 12. Topic presentations 13. Reflections and feedback 14. Assessment 			
Assessment	 Formative 4. DOPS- specimen collection and transport 5. Presentation of clinical cases (at least 2) in department 6. Review the records of daily activities 			
Other comments				

LOGBOOK FOR MICROBIOLOGY ELECTIVES

KERALA UNIVERSITY OF HEALTH SCIENCES

Emblem

GOVERNMENT MEDICAL COLLEGE, THRISSUR

Name of the student :

Registration No :

Batch :

Elective (Block 1):

Period and duration:

Signature of the student:

Signature of the faculty:

Certificate

This is to certify that has

successfully / unsuccessfully completed / not completed the elective

.....

done at	
from to	
Place	Signature of the faculty
	Signature of the factory
Date	Name & designation of the
faculty	

Signature of the HOD

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SPECIMEN COLLECTION

Sl	Name of the patient	Diagnosis	Specimen	Method of collection	Signature with date	Remarks
No						

LABORATORY PROCEDURES

SlNo	Clinical Diagnosis	Name of the procedure	Date of procedure	Type of activity A/O/P	Signature with date

CASES SEEN AND FOLLOWED UP

Sl No	Name of the patient	Diagnosis	Remarks	Signature with date

ACADEMIC ACTIVITIES

SlNo	Date	Торіс	Presented/Attended	Signature

REFLECTIONS



FEEDBACK

RECORD OF ASSESSMENT

S.	Type of assessment	Score	Date	Signature
<u>No</u> 1	Attendance in percentage : (scoring - >75% -5, 60-75% - 4, 45-60% -3, 30-45% -2, 15-30% -1, <15% -0)			
2	Daily participation in activities (0-5 scoring)			
3	Topic presentation score (More than one presented satisfactorily -5, One presented satisfactorily – 3, One presented unsatisfactorily – 1, None presented -0)			
4	DOPS (using checklist-max score 5)			
5	Objective assessment (10 marks)			
	TOTAL SCORE OBTAINED			
	Maximum score	30		

Remarks of the assessor