



**N.K.P. Salve Institute of Medical Sciences & Research Centre and  
Lata Mangeshkar Hospital**  
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## **IMPLEMENTATION OF ELECTIVES**

### **BLOCK 1**

**DEPARTMENT OF ANATOMY****ELECTIVE MODULE : MEDICAL GENETICS****CODE : Anat - 01****No. of Students 05**

<b>Name of Block</b>	<b>1</b>
<b>Name of Elective</b>	Medical Genetics
<b>Location of hospital lab or research facility</b>	Department of Anatomy, N.K.P. Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital
<b>Name of external preceptor (if any)</b>	N/A
<b>Learning objectives of the elective</b>	1. To demonstrate the conduct of karyotyping in controlled environment 2. To enumerate the indications for karyotyping 3. To enumerate the testing protocol for karyotyping 4. To demonstrate the correct method to perform karyotype 5. To present a genetic history and determine the nature of inheritance of a given condition
<b>Number of students that can be accommodated in this elective</b>	<b>5</b>
<b>Prerequisites for the elective</b>	Basic knowledge about genetics & Karyotyping
<b>Learning resources for students</b>	Handbook of genetic counseling Emery's Elements of Medical Genetics
<b>List of activities in which the student will participate</b>	<ul style="list-style-type: none"><li>- Work with supervisor in observing genetic test</li><li>- Assist the supervisor while performing karyotyping</li><li>- Visit hospital and find the cases from wards/medical record</li><li>- Group discussion of cases &amp; procedure of karyotyping</li><li>- Performing the protocol &amp; procedure of karyotyping</li><li>- Case presentation</li></ul>
<b>Portfolio entries required</b>	Documentation of worked up cases. Documentation of presentation done
<b>Log book entry required</b>	Completion of posting signed by preceptor with a "meets expectation (M) grade"
<b>Assessment</b>	Formative: attendance Day-to-day participation in the activities Performance of assigned task Presentation of worked up cases
<b>Other comments</b>	-

## DEPARTMENT OF PHYSIOLOGY

### ELECTIVE MODULE: LIFESTYLE MODIFICATION FOR HEALTH THROUGH YOGA

**CODE: Physio- 01**  
**Number of Students- 20**

<b>Name of The Block</b>	<b>1</b>
<b>Name of Elective</b>	Lifestyle modification for health through yoga
<b>Location of hospital lab or research facility</b>	Department of Physiology, N.K.P. Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital
<b>Name of external preceptor (if any)</b>	-
<b>Learning objectives of the elective</b>	<ul style="list-style-type: none"><li>- To Know the burden of lifestyle related diseases</li><li>- To understand importance of lifestyle modification through yoga for health</li><li>- To learn basic yogasana, pranayam and meditation methods</li><li>- To learn physiology of yoga</li></ul>
<b>Number of students that can be accommodated in this elective</b>	<b>20</b>
<b>Prerequisites for the elective</b>	Lifestyle modification Centre Hall, Instructor, Yoga mats, Notes for modules to be printed
<b>Learning resources for students</b>	Modules will be provided
<b>List of activities in which the student will participate</b>	<ul style="list-style-type: none"><li>- Lecture – cum – demonstration</li><li>- Practical's</li></ul>
<b>Portfolio entries required</b>	Yes
<b>Log book entry required</b>	Yes
<b>Assessment</b>	Cognitive domain assessment through MCQs Psychomotor domain through practical examination
<b>Other comments</b>	-

**DEPARTMENT OF BIOCHEMISTRY****ELECTIVE MODULE: CLINICAL BIOCHEMISTRY****CODE: Biochem-01****Number of Students – 20**

<b>Name of Block</b>	<b>01</b>
<b>Name of Elective</b>	Clinical Biochemistry
<b>Location of hospital lab or research facility</b>	Department of Biochemistry, N.K.P. Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital
<b>Name of external preceptor (if any)</b>	Faculty from Medicine Department.
<b>Learning objectives of the elective</b>	At the end of 15 days, third MBBS student should be able : 1) To tell which parameters are routinely done in Laboratory. 2) To understand diagnostic significance of biochemical parameters. 3) To understand correlation between biochemical parameters and various diseases such as infectious, endocrinal & metabolic diseases.
<b>Number of students that can be accommodated in this elective</b>	<b>20</b>
<b>Prerequisites for the elective</b>	Knowledge of pathophysiology of diseases. Students should attend at least 4-5 clinical postings in ward.
<b>Learning resources for students</b>	Tietz textbook of Biochemistry, Harper, Harrison
<b>List of activities in which the student will participate</b>	1) Report reading and interpretation of lab report 2) Participation in case discussion and finding which biochemical parameter is required to diagnose given case.
<b>Portfolio entries required</b>	-
<b>Log book entry required</b>	Yes
<b>Assessment</b>	a) Attendance b) Entry of case studies and required biochemical parameters c) Successful completion of posting and logbook entries
<b>Other comments</b>	Nil
<b>Name of Block</b>	<b>1</b>
<b>Name of Elective</b>	Clinical Biochemistry
<b>Location of hospital lab or research facility</b>	Medical College & Hospital Laboratory

## DEPARTMENT OF PATHOLOGY

### ELECTIVE MODULE : CLINICAL IMPORTANCE OF FLUID CYTOLOGY

**CODE: Patho - 01**

**Number of Student - 10**

<b>Name of Block</b>	<b>1</b>
<b>Name of Elective</b>	Clinical importance of Fluid Cytology
<b>Location of hospital lab or research facility</b>	Department of Pathology, N.K.P. Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital
<b>Name of external preceptor(if any)</b>	_____
<b>Learning objectives of the elective</b>	<ol style="list-style-type: none"><li>1. To know the various body fluids which are tested routinely.</li><li>2. To enumerate indications for body fluids investigation.</li><li>3. To know how fluids are processed in the laboratory</li><li>4. To know about preparation of cytopsin smear.</li><li>5. To learn how a slide is reported and know its clinical significance.</li></ol>
<b>Number of students that can be accommodated in this elective</b>	<b>10</b>
<b>Prerequisites for the elective</b>	<ol style="list-style-type: none"><li>1. Universal precautions to handle body fluids.</li><li>2. To have basic knowledge about various body fluids.</li></ol>
<b>Learning resources for students</b>	<ol style="list-style-type: none"><li>1. Textbook of Clinical Pathology. By Dr Shirish Kawthalkar</li><li>2. Notes provided by department</li></ol>
<b>List of activities in which the student will participate</b>	<ol style="list-style-type: none"><li>1. Introduction of Topic</li><li>2. Sample receiving and sample entry, including labeling of sample</li><li>3. Sample processing</li><li>4. Cytospin procedure</li><li>5. Slide preparation and staining by various methods</li><li>6. Reporting of slide, interpretation and release of report</li></ol> <p>All the above activities will be first observed by the</p>

<b>Port folioentries required</b>	1. Documentation of daily activity done with signature of the internal preceptors.
<b>Logbook entry required</b>	YES
<b>Assessment</b>	<ol style="list-style-type: none"><li>a. The students should have the basic knowledge on body fluids &amp; effusion.</li><li>b. Preparation of slide.</li><li>c. Routine staining done /used.</li><li>d. Reporting (should be able to identify inflammatory and malignant effusions.)</li></ol>
<b>Other comments</b>	-

## DEPARTMENT OF PHARMACOLOGY

### ELECTIVE MODULE : PRESCRIPTION WRITING

**Code: Pharmac – 01**

**Number of Students - 15**

<b>Name of Block</b>	<b>1</b>
<b>Name of Elective</b>	Prescription writing
<b>Location of hospital Lab or research facility</b>	Department of Pharmacology, N.K.P. Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital
<b>Name of external preceptor (if applicable)</b>	N/A
<b>Learning objectives of elective</b>	<ol style="list-style-type: none"><li>1. To write a complete, rational and correct prescription for a given condition</li><li>2. To write the points to be communicated to a volunteer about disease and prescription</li><li>3. To communicate a given prescription to a volunteer.</li><li>4. To enumerate parameters analyzed in prescription auditing</li><li>5. To describe WHO core drug use indicators</li><li>6. To perform critical appraisal of a given prescription.</li></ol>
<b>Number of students that can be accommodated in this elective</b>	<b>15</b>
<b>Prerequisites for elective</b>	Necessary precaution while writing a prescription, benefits of prescribing generic drug name, stationery, printed log book
<b>Learning resources for students</b>	The departmental handbook provided, Articles
<b>List of activities of student participation</b>	<ol style="list-style-type: none"><li>1. Work daily with a supervisor in observing how to write a prescription</li><li>2. Participate in departmental education activities</li><li>3. Present at least two case scenarios done by the student as a case workup</li><li>4. Present at least two cases in a departmental academic forum</li></ol>
<b>Portfolio entries required</b>	Assignments provided <ol style="list-style-type: none"><li>1. Documentation of two case that have been presented</li><li>2. Documentation of presentation (OSPE/SGD)done</li><li>3. Documentation of learning as summary &amp;self-reflection</li></ol>
<b>Log book entry required</b>	Completion of posting signed by preceptor with a “Meets expectation ‘(M)’ grade”
<b>Assessment</b>	Formative: attendance: day-to-day participation in the departmental activity; performance of assigned tasks and presentation of worked-upcase in department
<b>Other comments</b>	-

**DEPARTMENT OF MICROBIOLOGY**

ELECTIVE MODULE : DIAGNOSTIC MODALITIES IN NEWER VIRAL INFECTION

**CODE: Micro – 01****Number of Students – 20**

<b>Name of Block</b>	<b>1</b>
<b>Name of Elective</b>	Diagnostic Modalities in newer viral Infection
<b>Location of hospital lab or research facility</b>	Department of Microbiology, N.K.P. Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital
<b>Name of external preceptor (if any)</b>	None
<b>Learning objectives of the elective</b>	<ol style="list-style-type: none"><li>1. Student should be able to enumerate newer viral infection.</li><li>2. Student should know methods of sample collection.</li><li>3. Student should be able to analysis &amp; interpret results.</li><li>4. Student should be able to communicate report to clinician.</li><li>5. Student should be able to do counselling of patient&amp; maintain the confidentiality of report</li></ol>
<b>Number of students that can be accommodated in this elective</b>	<b>20</b>
<b>Prerequisites for the elective</b>	RNA extraction Kit , PCR Kit
<b>Learning resources for students</b>	Books , E-Books , Kit literature , Journals
<b>List of activities in which the student will participate</b>	<ol style="list-style-type: none"><li>1. To know about newer viral infection.</li><li>2. Student should know which test to be perform for various infections.</li><li>3. Pre test counselling of patients.</li><li>4. Filling of requisition forms</li><li>5. Collection of sample.</li><li>6. Transport &amp; Storage of sample.</li><li>7. Processing of sample.</li><li>8. Analysis &amp; interpretation of reports</li><li>9. Communication of reports to clinician</li><li>10. Post test counselling.</li></ol>
<b>Portfolio entries required</b>	--
<b>Log book entry required</b>	Yes
<b>Assessment</b>	Attendance, Observation, MCQ
<b>Other comments</b>	-



## DEPARTMENT OF COMMUNITY MEDICINE

ELECTIVE MODULE : BASIC DATA ANALYSIS BY USING STATISTICAL SOFTWARE TEMPLATE

**CODE: CM – 01**

**Number of Students- 30**

<b>Name of Block</b>	<b>1</b>
<b>Name of Elective</b>	Basic Data Analysis by using Statistical Software
<b>Location of hospital labor research facility</b>	Department of Community Medicine, N.K.P. Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital
<b>Name of external preceptor (if any)</b>	NA
<b>Learning objective so the elective</b>	<ol style="list-style-type: none"><li>1. To per form data entry in MS Excel</li><li>2. To learn data cleaning and use of filter in MS excel</li><li>3. To acquire skills in basic data analysis using MS Excel and Epi Info software</li></ol>
<b>Number of students that can be accommodated in this elective</b>	<b>30</b>
<b>Prerequisites for the elective</b>	Basic knowledge of computer handling, Laptops
<b>Learning resources for students</b>	Handbook, CDC manual for Epi info software
<b>List of activities in which the student will participate</b>	Data entry Data analysis Interpretation of statistical test
<b>Portfolio entries required</b>	NA
<b>Logbook entry required</b>	NA
<b>Assessment</b>	Attendance Summative assessment
<b>Other comments</b>	-

## DEPARTMENT OF FORENSIC MEDICINE & TOXICOLOGY

### ELECTIVE MODULE : WRITING MEDICAL CERTIFICATE OF CAUSE OF DEATH

**CODE: FMT-01**

**Number of Students – 05**

<b>Name of Block</b>	<b>1</b>
<b>Name of Elective</b>	Writing Medical Certificate of cause of death
<b>Location of hospital lab or research facility</b>	Department of Forensic Medicine & Toxicology, N.K.P. Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital
<b>Name of external preceptor (if any)</b>	Not any
<b>Learning objectives of the elective</b>	<ol style="list-style-type: none"><li>1. Prerequisite investigations for certification of death.</li><li>2. Preparation of check list for certification of death.</li><li>3. Preparation of Medical certificate of cause of death.</li><li>4. Medicolegal significance of MCCD.</li><li>5. Maintenance and preservation of proper records of MCCD.</li></ol>
<b>Number of students that can be accommodated in this elective</b>	<b>05</b>
<b>Prerequisites for the elective</b>	Must be well versed with form no.4 & 4A for MCCD, knowledge of basic investigations before declaring death, pathophysiology of various diseases.
<b>Learning resources for students</b>	<ol style="list-style-type: none"><li>1. Modi's Medical Jurisprudence &amp; Toxicology :B.V. Subrahmanyam</li><li>2. The essentials of Forensic Medicine &amp; Toxicology :- Dr. K. S. Narayan Reddy</li></ol>
<b>List of activities in which the student will participate</b>	<ol style="list-style-type: none"><li>1. Will learn prerequisites before certifying death of the patient.</li><li>2. Will develop standardised checklist for MCCD preparation.</li><li>3. Will fill the MCCD form no. 4 and 4A following a standardised checklist.</li><li>4. Will preserve the records of MCCD prepared.</li><li>5. Will understand precautions while handing over MCCD.</li><li>6. Will understand the medicolegal significance of preparing correct MCCD.</li></ol>
<b>Portfolio entries required</b>	Daily logs of MCCD prepared with activities participated Case records of at least 10 patients with MCCD preparation
<b>Log book entry required</b>	Satisfactory completion of posting by a preceptor with "Meets expectation grade" "M grade"
<b>Assessment</b>	Attendance Successful completion of required portfolio entries Successful completion of log book with "M grade"
<b>Other comments</b>	NIL

**DEPARTMENT OF FORENSIC MEDICINE & TOXICOLOGY****ELECTIVE MODULE: SICKNESS & FITNESS CERTIFICATE****CODE: FMT- 02****Number of Student - 05**

<b>Name of Block</b>	<b>1</b>
<b>Name of Elective</b>	Sickness & Fitness certificate
<b>Location of hospital lab or research facility</b>	Department of Forensic Medicine & Toxicology, N.K.P. Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital
<b>Name of external preceptor (if any)</b>	None
<b>Learning objectives of the elective</b>	1. What is Sickness & Fitness 2. Difference between Medical Fitness & Physical Fitness 3. Prepare Sickness Certificate 4. Prepare Medical Fitness & Physical Fitness
<b>Number of students that can be accommodated in this elective</b>	<b>05</b>
<b>Prerequisites for the elective</b>	Data regarding Sickness
<b>Learning resources for students</b>	1. Modi's Medical Jurisprudence & Toxicology : B.V. Subrahmanyam 2. The essentials of Forensic Medicine & Toxicology :- Dr. K. S. Narayan Reddy
<b>List of activities in which the student will participate</b>	1. Visit to wards 2. Examine patients' record from files 3. Prepare sickness & Fitness certificate
<b>Portfolio entries required</b>	1. Assignments provided 2. Five case that have been attended 3. Documentation of learning as summary and self reflection
<b>Log book entry required</b>	Satisfactory completion of posting by a preceptor with a "meets expectation 'M' grade"
<b>Assessment</b>	Attendance Formative: Participation in rounds and team activities, Presentation of cases, Documentation of attendance and log book entries
<b>Other comments</b>	None