



# MBBS Course Curriculum

Department of Community Medicine, AIIMS Nagpur

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# **MBBS Course Curriculum**

## **Department of Community Medicine**

### **All India Institute of Medical Sciences, Nagpur**

#### **Vision**

The Department of Community Medicine, AIIMS Nagpur through its undergraduate medical education seeks to create a graduate with requisite knowledge, skills, attitude, values and responsiveness in the field of public health, with a holistic approach to health care, that he may serve the community as a physician of first contact.

#### **Departmental Objectives**

At the end of the course, the student should:

- i. be competent to practice preventive, promotive, curative and rehabilitative medicine in respect to the commonly encountered health problems in the community.
- ii. be competent to participate in the health team as a leader/ member at the primary care level.
- iii. be able to design, conduct and analyze community-based research and apply it in public health practice.
- iv. be able to identify community health problems and learn to work to resolve these by designing, instituting corrective steps and evaluating outcome of such measures.
- v. be able to appreciate the socio-psychological, cultural, economic and environmental factors affecting health and design appropriate interventions for individual patient and the community as a whole.
- vi. acquire the attitude for continued self-learning
- vii. be familiar with the implementation, monitoring and evaluation of the National Health Programs including the following:
  - a. Family Welfare and Maternal and Child Health (MCH);
  - b. Programs related to Communicable Diseases – RNTCP, NACP, NLEP
  - c. Programs related to Non-Communicable diseases – NPCDCS, NPHCE, NPCB, NMHP
  - d. Other programs – IDSP etc.,
- viii. acquire basic management skills in the area of human resources, materials and resource management related to health care delivery, General and hospital management, principal inventory skills and counseling.

## **Graduate attributes/ Goals for the Learner**

The graduate attributes are -

- I. Primary care Physician with a public health perspective who provides preventive, promotive, curative, palliative and holistic care with compassion.
- II. Leader and member of the health care system with capabilities to collect, analyze, synthesize and communicate health data appropriately.
- III. Communicator with patients, families, colleagues and community.
- IV. Lifelong learner committed to continuous improvement of skills and knowledge.
- V. Professional, who is committed to excellence, is ethical, responsive and accountable to patients, community and profession.

## **Principles of the teaching curriculum**

1. Adult learning principles
2. Focus on Skill-based training with assessment of competencies – The curriculum focusses on acquiring competencies/skills.
3. Focus on higher order competencies
4. Relevance of the content to the local needs
5. Integration – Intra and Inter-disciplinary integration

## **Teaching learning methods**

The department of Community Medicine is dedicated to innovation in teaching with focus on practical skill-based training. The teaching learning methods will be based on adult learning principles and Self-directed learning. Participatory learning methods like problem-based learning, team-based learning, group activity based methods will be given prominence over other methods. Lectures are planned in interactive manner. Didactic lectures are kept to a minimum.

Skill based training is planned as real-life interactions through family visits, postings in primary health care centers and other field visits. Simulated sessions are planned where real life interactions may not be feasible.

## **Teaching Program**

The teaching program of the department of Community Medicine is divided into four major parts

### **1. Theory sessions**

The teaching in theory sessions is intended to build the cognitive base required for acquiring skills. Specific learning objectives are formulated for each theory session.

### **2. Practical sessions**

The practical sessions are given equal priority as theory sessions with an attempt for temporal integration between them. These sessions are intended to improve the skills

### **3. Family Health Study Program**

A competency-based family follow-up program through field visits is planned to enable students to understand the role of family and community in health and disease and to assist in providing comprehensive health care. The students will be given hands-on experience to design, conduct, analyze and interpret epidemiological studies in the community. Each student will be allotted 3 to 5 families for follow-up. Each group will have an allotted faculty/resident supervisor. The family visits are scheduled once a month for each batch of students from 3<sup>rd</sup> to 7<sup>th</sup> Semesters

#### **4. Clinical Postings**

Clinical postings are planned for a skill training in program monitoring and evaluation skills. Implementation and monitoring of National health programs will be taught through simulated demonstrations, briefing by program personnel, problem-based discussions and review of program reports and registers. The following topics will be covered – National health programs including RNTCP, NACP, NPCDCS, IMNCI etc., and organization and functioning of health care delivery system. Field visits will be planned as needed to give hands-on training on implementation of these programs.

#### **5. Electives**

Specific subject-related skill-based topics are planned as electives. The posting is planned for a period of one month with a limited strength of 8 to 10 students per topic. Each topic will be headed by a faculty in-charge. The assessment is in the form of assignments. A certificate will be provided to the student on completion of the elective. The following topics were proposed for Electives

- i. Research Methodology
- ii. Qualitative research
- iii. Data analysis using R (including Electronic data capture)
- iv. Public Health Nutrition
- v. Evaluation of National Health Program
- vi. Health care management (Primary health care settings)
- vii. Communicable disease Surveillance (Including Outbreak investigation)
- viii. Public Health Laboratory services

### Teaching Schedule for Community Medicine AIIMS Nagpur

Semester	Topics	Theory classes (No. of hours)	Practical classes* (No. of hours)	Tutorials	SDL	Field visits (No. of hours)	Clinical Posting
1 <sup>st</sup> and 2 <sup>nd</sup> Semester	Foundation course					16	
	History of Public Health	2					
	<b>Total (First Professional MBBS)</b>	<b>2</b>					
3 <sup>rd</sup> Semester	Concept of Health and Disease	9	10	2	1 (T)		36
	Epidemiology and Biostatistics– I	12	8		2 (P)		
	Measurement of health and disease and Health Status of the country	7	10	2	2 (T)		
	Health care Delivery System – I	5	-	-	-		
	Social and Behavioural determinants of health and disease	12	4		-		
	<b>Total (3<sup>rd</sup> Semester)</b>	<b>45</b>	<b>32</b>	<b>4</b>	<b>5</b>		
4 <sup>th</sup> Semester	Behavioural change communication	10	6	2		20	
	Reproductive and Child Health – I	5	-		2 (P)		
	Nutrition	9	8	2	2 (P)		
	Environment Health	7	6		4 (P)		
	Occupational Health	5	2		4 (P)		
	Disaster Management	5	6		-		
	<b>Total (4<sup>th</sup> Semester)</b>	<b>41</b>	<b>28</b>	<b>4</b>	<b>12</b>		
6 <sup>th</sup> Semester	Mental Health	8	2		2 (P)	20	36
	Health Care of Special groups	5	6				
	Epidemiology and Biostatistics– II	9	14	2			
	Health care Delivery System – II	7	-				
	<b>Total (6<sup>th</sup> Semester)</b>	<b>29</b>	<b>22</b>	<b>2</b>	<b>2</b>		
7 <sup>th</sup> Semester	Reproductive and Child Health – II	10	8	2	-	20	
	Epidemiology of Communicable Disease	34	8	2	-		
	<b>Total (7<sup>th</sup> Semester)</b>	<b>44</b>	<b>16</b>	<b>4</b>	<b>-</b>		
8 <sup>th</sup> Semester	Epidemiology of Non-Communicable Diseases	15	8			20	36
	Epidemiology and Biostatistics– III	11	20	2	-		
	Reproductive and Child Health – III	4	12	2	-		
	<b>Total (8<sup>th</sup> Semester)</b>	<b>30</b>	<b>40</b>	<b>4</b>			
9 <sup>th</sup> Semester	Health care Delivery System – III	11	4		-	20	
	Health planning and Management	11	8	2	-		
	Revision	-	20	8	-		
	<b>Total (9<sup>th</sup> Semester)</b>	<b>22</b>	<b>32</b>	<b>10</b>			
	<b>Total</b>	<b>213</b>	<b>170</b>	<b>28</b>	<b>19</b>	<b>116</b>	<b>108</b>
	<b>Grand Total</b>						<b>654</b>

\*Each practical session is of 2 hour duration

**Module - Concept of Health and Disease (CHD)**

Semester: 3<sup>rd</sup> Semester

Iterative: No

Sl. No.	Competency based on revised MCI curriculum	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	CM 1.1. Define and describe the concept of Public Health  CM 1.2. Define health; describe the concept of holistic health including concept of spiritual health and the relativeness & determinants of health	<b>Concept of Health and its domains</b>  CHD1.1. Recall the WHO definition of health CHD1.2. Recall the Alma-Ata Declaration CHD 1.3. Describe the domains of health with an example CHD 1.4. Define public health CHD 1.5. Describe the evolution of concept of health	Classroom Student centred learning	Lecture cum discussion Problem based approach - Case scenario	Assignment in Log book	MCQs SAQ Viva
2	CM 1.1. Define and describe the concept of Public Health  CM 1.2. Define health; describe the concept of holistic health including concept of spiritual health and the relativeness & determinants of health	<b>Concept of Health and its domains (Practical)</b>  CHD 2.1. Knows how the concept of health evolved through history	Classroom	Problem based approach - Case scenario	Assignment in Log book	MCQs SAQ Viva
3	CM 1.1. Define and describe the concept of Public Health  CM 1.2. Define health; describe the concept of	<b>Spectrum of Health and Positive Health</b>  CHD 3.1. Describe the concept of spectrum of health and positive health CHD 3.2. Describe the concept of Ecology of health	Classroom	Lecture cum discussion	-	SAQ Viva

	holistic health including concept of spiritual health and the relativeness & determinants of health	CHD 3.3. Describe the theory of Salutogenesis				
4	CM 1.7. Enumerate and describe health indicators	<b>Health and Development</b> CHD 4.1. Describe the link between health and development of a country/state CHD 4.2. Describe PQLI and HDI CHD 4.3. Calculate PQLI and HDI	Classroom	Lecture cum discussion		MCQs SAQ Viva
5	CM 1.7. Enumerate and describe health indicators	<b>Health and Development (Practical)</b> CHD 5.1. Describe PQLI and HDI CHD 5.2. Calculate PQLI and HDI	Classroom	Problem based approach - Case scenario	Assignment in Log book	Viva Practical exercises
6	CM 1.3. Describe the characteristics of agent, host and environmental factors in health and disease and the multi factorial etiology of disease	<b>Theories of causation and Introduction to determinants of Health</b> CHD 6.1. Describe the theories of causation - Triangle of epidemiology, Web of causation, BEINGS theory, Epidemiological wheel theory etc., with an example CHD 6.2. Classify the determinants of health with an example CHD 6.3. Differentiate between the terms risk factors, risk group, risk approach etc.,	Classroom	Lecture cum discussion Problem based approach - Case scenario	Assignment in Log book	MCQs SAQ EQ Viva Practical exercises



7	CM 1.3. Describe the characteristics of agent, host and environmental factors in health and disease and the multi factorial etiology of disease	<b>Theories of causation and Introduction to determinants of Health – Practical</b>  CHD 7.1. Build web of causation for a disease based on the given information CHD 7.2. Critique disease causation models	Classroom	Lecture cum discussion Problem based approach - Case scenario	Assignment in Log book	MCQs SAQ EQ Viva Practical exercises
8	CM 1.3. Describe the characteristics of agent, host and environmental factors in health and disease and the multi factorial etiology of disease	<b>Epidemiological Triad and Determinants of Health</b>  CHD 8.1. Describe the epidemiological triad using an example  CHD 8.2. Classify agent, host and environment factors with an example	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva Practical exercises
9	CM 1.3. Describe the characteristics of agent, host and environmental factors in health and disease and the multi factorial etiology of disease	<b>Epidemiological Triad and Determinants of Health - Practical</b>  CHD 9.1. Identify the agent, host and environmental factors in a given scenario	Classroom	Problem based approach - Case scenario Use of flowcharts for illustration	Assignment in Log book	MCQs SAQ EQ Viva Practical exercises
10	CM 1.1. Define and describe the concept of Public Health	<b>Introduction to Health care</b>  CHD 10.1. Describe characteristics of health care with an example CHD 10.2. Differentiate between medical care and health care	Classroom	Lecture cum discussion		SAQ Viva Practical exercises

		CHD 10.3. Describe the levels of health care				
11	CM 1.4. Describe and discuss the natural history of disease	<p><b>Natural History of Disease</b></p> <p>CHD 11.1. Describe the concept of natural history of a disease with an example</p> <p>CHD 11.2. Describe iceberg phenomenon of disease with an example</p>	Classroom	Lecture cum discussion Interdisciplinary integration with pathology		MCQs SAQ EQ Viva
12	CM 1.4. Describe and discuss the natural history of disease	<p><b>Natural History of Disease (Practical)</b></p> <p>CHD 12.1. Construct the natural history of disease based on the information obtained from a patient visit</p>	Student Assignment	Inpatient visit – History taking	Report in Log book	Viva
13	CM 1.5. Describe the application of interventions at various levels of prevention	<p><b>Levels of prevention (2 hrs theory class)</b></p> <p>CHD 13.1. List the levels of prevention</p> <p>CHD 13.2. Define the terms – impairment, disability etc.,</p> <p>CHD 13.3. Define the terms – Health promotion, Specific protection, Disability limitation and Rehabilitation</p> <p>CHD 13.4. Relate the natural history of disease with the levels of prevention in a given scenario</p>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
14	CM 1.5. Describe the application of interventions at various levels of prevention	<p><b>Levels of prevention (2 Practical classes)</b></p> <p>CHD 14.1. Identify the level of prevention from a given policy/strategy</p> <p>CHD 14.2. Formulate a prevention strategy based on the natural history of</p>	Classroom	Problem based approach - Case scenario and Tutorials	Assignment in Logbook	Viva Practical exercises

		disease (or) Develop a comprehensive plan for prevention of a given disease with all levels of prevention				
15		<b>Right to Health</b> CHD 15.1. Discuss the role of state and individual's responsibility in health CHD 15.2. Discuss right to health with an example	Student centred activity	Students' presentation/Debate	Logbook	

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

**Syllabus –Concept of Health and Disease**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Concept of Health and its domains (CHD1.1 -CHD 1.5)		Concept of Health and its domains ) (CHD 2.1)	
2	Spectrum of Health and Positive Health (CHD 3.1. - CHD 3.3			
3	Health and Development (CHD 4.1 – CHD 4.3)		Health and Development (CHD 5.1 – CHD 5.2)	
4	Theories of causation and Introduction to determinants of Health		Theories of causation and Introduction to determinants of Health (CHD 7.1 – CHD 7.2)	
5	Epidemiological Triad and Determinants of Health (CHD 8.1 – CHD 8.2)		Epidemiological Triad and Determinants of Health (CHD 9.1)	
6	Introduction to Health care (CHD 10.1 – CHD 10.3)			
7	Natural History of Disease (CHD 11.1 – CHD 11.2)			
8	Levels of prevention I (CHD 13.1 – CHD 13.3)		Levels of prevention (CHD 14.1 – CHD 14.2)	
9	Levels of prevention II (CHD 13.1 – CHD 13.3)		Levels of Prevention (CHD 14.1 – CHD 14.2)	
10	Right to Health (CHD 15.1 – CHD 15.2)		-	

**Student Assignment**

1	Natural History of Disease - Patient visit/ Population level (Group assignment) - CHD 12.1
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**Module - Epidemiology and Biostatistics**

Semester: 3<sup>rd</sup>, 6<sup>th</sup> and 8<sup>th</sup> Semester

Iterative: Yes

1<sup>st</sup> Iteration – III Semester

Sl. No.	Competency based on revised MCI curriculum	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1		<p><b>Role of Epidemiology in Public Health</b>                      EB 1.1. Appreciate the role of Epidemiology in health care, community health, national policies and programs</p> <p>EB 1.2. Appreciate the contributions of the landmark studies in Epidemiology – Lung cancer (Doll and Hill) etc.,</p>	Classroom Student centred learning	Lecture discussion Assignment on landmark studies	Student presentation/Assignment in logbook	Viva-voce
2	CM7.1 Define Epidemiology and describe and enumerate the principles, concepts and uses	<p><b>Introduction to Epidemiology</b>                      EB2.1. Define Epidemiology                      EB 2.2. Briefly describe the uses of Epidemiology                      EB 2.3. Identify the application of Epidemiology in a given case scenario EB2.4. Describe the paradigms of research</p>	Classroom	Lecture discussion Case scenario – Problem based approach	Assignment in logbook	VSAQ SAQ Viva-Voce
3	CM7.3 Enumerate, describe and discuss the sources of epidemiological data	<p><b>Time, Place and Person Distribution</b>                      EB 3.1. Describe epidemiological approach with an example</p>	Classroom	Lecture discussion		MCQs SAQ EQ Viva

	CM7.3 Enumerate, describe and discuss the sources of epidemiological data	EB 3.2. Describe the applications of time, place and person distribution of health events EB 3.3. Describe different types of epidemic curve with example				
4		<b>Time, Place and Person Distribution (Practical)</b> EB 4.1. Interpret epidemic curve EB 4.2. Interpret the data on place and person distribution	Classroom	Lecture discussion Case scenario – Problem based approach	Assignment in logbook	MCQs SAQ EQ Viva Spotters
5	CM7.5 Enumerate, define, describe and discuss epidemiological study designs	<b>Overview of Study designs</b> EB 5.1. Classify study designs EB 5.2. Describe null and alternate hypothesis using an example for each study design	Classroom	Lecture discussion		MCQs SAQ Viva
6	CM7.5 Enumerate, define, describe and discuss epidemiological study designs	<b>Overview of Study designs – Practical</b> EB 6.1. Identify the study design based on a given research brief	Classroom	Case scenario – Problem based approach	Assignment in logbook	Spotters
7	CM6.4 Enumerate, discuss and demonstrate Common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion	<b>Sampling</b> EB 7.1. Define population/sampling frame/sample/representative sample/adequate sample EB 7.2. Define sampling and describe the purpose of sampling  EB 7.3. Classify and describe various types of sampling methods	Classroom	Lecture discussion		MCQs SAQ EQ Viva

8	CM6.4 Enumerate, discuss and demonstrate Common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion	<b>Sampling – Practical</b> EB 8.1. Decide on an appropriate sampling method for a given situation	Classroom	Case scenario – Problem based approach	Assignment in logbook	Viva Spotters
9	CM7.3 Enumerate, describe and discuss the sources of epidemiological data	<b>Variables and Scales of Measurement</b> EB 9.1. Classify the types of variables, scales of measurement and describe them with an example	Classroom	Lecture discussion		MCOs SAQ Viva
10	CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data	<b>Variables and Scales of Measurement - Practical</b> EB 10.1. Identify the type of variable, scale of measurement from a given dataset	Classroom	Case scenario – Problem based approach	Assignment in logbook	Viva Practical exercises
11	CM6.2 Describe and discuss the principles and	<b>Normal Distribution, Measures of Central Tendency and Dispersion</b> EB 11.1. Define Normal Distribution	Classroom	Lecture discussion	Assignment in logbook	MCOs SAQ Viva

	<p>demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data</p> <p>CM6.4 Enumerate, discuss and demonstrate Common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion</p>	<p>EB 11.2. Describe Normal Distribution and describe its applications</p>				
12	<p>CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data</p>	<p><b>Normal Distribution, Measures of Central Tendency and Dispersion - Practical</b></p> <p>EB 12.1. Calculate and represent the measures of Central Tendency and Dispersion for given data using appropriate software</p> <p>EB 12.2. Decide on an appropriate measure of central tendency and dispersion for given data</p>	<p>Classroom/ Skills Lab</p>	<p>Case scenario – Problem based approach Demonstration, observation, assistance and Practice</p>	<p>Assignment in logbook</p>	<p>Viva Practical exercises</p>
13	<p>CM6.2 Describe and discuss the</p>	<p><b>Role of Chance</b></p>	<p>Classroom</p>	<p>Lecture discussion</p>		<p>MCQs SAQ</p>



	principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data	<p>EB 13.1. Define random error and bias</p> <p>EB 13.2. Describe the role of chance in statistical interpretation</p> <p>EB 13.3. Describe Type I and Type II error using an example</p> <p>EB 13.4. Define p-value and confidence interval</p>				Viva
14	CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data	<p><b>Role of Chance – Practical</b></p> <p>EB 14.1. Interpret p-value and confidence interval of a given statistical result</p>	Classroom	Case scenario – Problem based approach	Assignment in logbook	Viva Practical Exercises

**Syllabus – Epidemiology and Biostatistics – 1<sup>st</sup> Iteration – III Semester**

<b>Sl.No.</b>	<b>Theory class</b>	<b>Faculty</b>	<b>Practical class</b>	<b>Faculty/SR</b>
1	Role of Epidemiology in Public Health			
2	Introduction to Epidemiology		Role of Epidemiology in Public Health (Student Presentation)	
3	Time, Place and Person Distribution		Time, Place and Person Distribution	
4	Overview of Study designs		Overview of Study designs	
5	Sampling		Sampling	
6	Variables and Scales of Measurement		Variables and Scales of Measurement Normal Distribution, Measures of Central Tendency and Dispersion	
7	Normal Distribution, Measures of Central Tendency and Dispersion			
8	Role of Chance		Role of Chance	

**Module - Measurement of Health and Disease & Health status of the country**

Semester: 3rd Semester

Iterative: No

Sl. No.	Competency based on revised MCI curriculum	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1		<p><b>Introduction to Measurement of Health and Disease</b></p> <ul style="list-style-type: none"> <li>• Appreciate the need for measurement of health and disease</li> <li>• Describe the concept of operationally defining a disease</li> <li>• Describe the concept and rationale for ICD-10</li> <li>• Relate natural history of disease with measurements of health and disease</li> <li>• Describe the concept of numerator and denominator</li> <li>• Differentiate between proportion, rate and ratio using an example</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
2		<b>Morbidity Indicators</b>	Classroom	Lecture cum discussion Demonstration		MCQs SAQ Viva

		<ul style="list-style-type: none"> <li>• Define Incidence density and Cumulative incidence</li> <li>• Define point and period prevalence</li> <li>• Describe the relationship between Incidence and prevalence</li> <li>• Calculate morbidity indicators (does/performs)</li> <li>• Interpret morbidity indicators like incidence and prevalence</li> </ul>				
3		<p><b>Morbidity Indicators - Practical</b></p> <ul style="list-style-type: none"> <li>• Calculate morbidity indicators (does/performs)</li> <li>• Interpret morbidity indicators like incidence and prevalence</li> </ul>	Classroom	Demonstration, Observation and Performance	Assignment in Log book	Viva Practical exercises
4		<p><b>Prognostic Indicators</b></p> <ul style="list-style-type: none"> <li>• List prognostic indicators</li> <li>• Describe the principles in defining a prognostic indicator</li> </ul>	Classroom	Lecture cum discussion Demonstration		MCQs SAQ Viva

		<ul style="list-style-type: none"> <li>Choose appropriate prognostic indicator in a given scenario</li> </ul>				
5		<b>Prognostic Indicators – Practical</b> <ul style="list-style-type: none"> <li>Choose appropriate prognostic indicator in a given scenario</li> <li>Calculate prognostic indicators (does/performs)</li> <li>Interpret prognostic indicators like 5-year survival rate</li> </ul>	Classroom	Demonstration, Observation and Performance	Assignment in Log book	Viva Practical exercises
6		<b>Mortality rates</b> <ul style="list-style-type: none"> <li>Define crude death rate</li> <li>List specific death rates and define them</li> <li>List composite indicators - DALY QALY etc.,</li> <li>Describe the concept of Gini index</li> </ul>	Classroom	Lecture cum discussion Demonstration		MCQs SAQ Viva
7		<b>Mortality rates - Practical</b> <ul style="list-style-type: none"> <li>Calculate mortality indicators (does/performs)</li> </ul>	Classroom	Demonstration, Observation and Performance	Assignment in Log book	Viva Practical exercises

		<ul style="list-style-type: none"> <li>Interpret mortality indicators like Crude and specific death rates</li> </ul>				
8		<b>Standardization of rates</b> <ul style="list-style-type: none"> <li>Describe the purpose and rationale for standardization of rates with an example</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
9		<b>Standardization of rates - Practical</b> <ul style="list-style-type: none"> <li>Calculate standardized death rates (does/performs)</li> <li>Interpret standardized death rates</li> </ul>	Classroom	Demonstration, Observation and Performance	Assignment in Log book	Viva Practical exercises
10		<b>Source of Health information</b> <ul style="list-style-type: none"> <li>List the sources of health information</li> <li>Describe the uses of health information</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ
11		<b>Source of Health information</b> <ul style="list-style-type: none"> <li>Knows the sources of health information – surveys, registration system, reports etc.,</li> </ul>	Classroom/Computer lab Student centred learning	Demonstration, Observation and Practice Assignment	Assignment in Log book	OSPE Viva Practical Exercises

		<ul style="list-style-type: none"> <li>Retrieve a given health indicator from a source and evaluate it</li> </ul>				
12		<b>Health profile of India</b> <ul style="list-style-type: none"> <li>Classify the health indicators used in India's health profile</li> <li>List health indicators used in India's health profile</li> <li>List relevant National Health policy 2017 targets</li> </ul>				
13		<b>Health profile of India</b> <ul style="list-style-type: none"> <li>Prepare India's health profile with selected key indicators</li> </ul>	Student centred learning	Assignment	Log book	
14		<b>Evaluating Health Information (2 theory classes)</b> <ul style="list-style-type: none"> <li>Describe the purpose of evaluating health information</li> <li>Describe the concepts underlying evaluation of health information</li> </ul>	Classroom	Lecture cum discussion Demonstration, Observation and Performance Student centred learning (Assignment) Health centre visit – Review of reports/registers	Assignment in Log book	MCQs SAQ Viva Practical exercises

		<ul style="list-style-type: none"> <li>List the health-related SDG goals and targets</li> <li>Evaluate health indicators of a country/state</li> <li>Appraise health indicators of India in the context of SDG and National health policy 2017 targets</li> </ul>				
15		<p><b>Evaluating Health Information - field visit</b></p> <ul style="list-style-type: none"> <li>Evaluate health indicators of a country/state</li> <li>Appraise health indicators of India in the context of SDG and National health policy 2017 targets</li> <li>Appraise related indicators from UPHC and rural PHC reports</li> </ul>	Field/Classroom	Demonstration, Observation and Performance Student centred learning (Assignment) Health centre visit – Review of reports/registers	Assignment in Log book	MCQs SAQ Viva Practical exercises
16		<p><b>Verbal autopsy and Maternal Death review - Visit</b></p> <ul style="list-style-type: none"> <li>Knows how verbal autopsy is done</li> <li>Knows how maternal Death review is done</li> </ul>	Field/Classroom	Demonstration Group activity	Log book	Spotter



17		<b>Death Certificate - Visit</b> <ul style="list-style-type: none"> <li>• Knows the components of a death certificate</li> <li>• Knows how death certificate is filled in a hospital</li> </ul>	Field (Hospital visit to MRD section)	Demonstration	Log book	Spotter
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\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

**Syllabus – Measurement of Health and Disease – Health status of the country**

<b>Sl.No.</b>	<b>Theory class</b>	<b>Faculty</b>	<b>Practical class</b>	<b>Faculty/SR</b>
1	Introduction to Measurement of Health and Disease			
2	Morbidity Indicators		Morbidity Indicators	
3	Prognostic Indicators		Prognostic Indicators	
4	Mortality rates		Mortality rates	
5	Standardization of rates		Standardization of rates	
6	Source of Health information		Source of Health information	
7	Health profile of India – Briefing and assignment			
8	Evaluating Health Information I		Evaluating Health Information	
9	Evaluating Health Information II			

**Student Assignment**

1	Death Certificate – Hospital visit
2	Verbal autopsy and Maternal Death review – Clinical posting

## **Module – Health Care Delivery System**

Semester: 3<sup>rd</sup>, 6<sup>th</sup> and 9<sup>th</sup> Semester

Iterative: Yes

1<sup>st</sup> Iteration – III Semester

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Introduction to Primary Health</b></p> <ul style="list-style-type: none"> <li>• Recall the Alma-Ata declaration</li> <li>• Define health for all</li> <li>• Define Primary health care</li> <li>• List the principles of primary health care</li> <li>• Describe the principles of primary health care with an example</li> <li>• List the elements of primary health care</li> <li>• Describe the WHO health system strengthening framework</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
2	<p><b>Evolution of Health care system in India</b></p> <ul style="list-style-type: none"> <li>• List the key recommendations of various health system planning committees – Bhore committee, Kartar singh committee and Shrivastav committee</li> <li>• Relate global policies/initiatives with the evolution of public health in India</li> <li>• Describe the broad health care needs of India in terms of disease priority, health manpower, operational needs and logistics</li> </ul>	Classroom Student centred learning	Lecture cum discussion Assignment	Log book	MCQs SAQ Viva

	<ul style="list-style-type: none"> <li>Describe the key aspects of National Health policy 2017 with respect to health care delivery</li> </ul>				
3	<b>Overview of health care delivery system in India</b> <ul style="list-style-type: none"> <li>Describe the concept of levels of health care delivery</li> <li>Describe the framework of health care delivery system of India – at National, state, district and sub-district level</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
4	<b>Health care delivery system in India – Rural and Tribal Health care</b> <ul style="list-style-type: none"> <li>Recall the structure of Rural and Tribal health care system</li> <li>Recall the population norms for various levels of health care</li> <li>Describe the rationale for Indian Public Health Standards</li> <li>Describe the minimum assured/essential services at various health care levels (overview)</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
5	<b>Health care delivery system in India – Urban Health care</b> <ul style="list-style-type: none"> <li>Recall the structure of Urban health care system</li> <li>Recall the population norms for various levels of health care</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva

	<ul style="list-style-type: none"> <li>Describe the minimum assured/essential services at various health care levels (overview)</li> </ul>				
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**Syllabus – Health Care Delivery System in India – 1<sup>st</sup> Iteration – III Semester**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Introduction to Primary Health			
2	Evolution of Health care system in India			
3	Overview of health care delivery system in India			
4	Health care delivery system in India – Rural and Tribal Health care			
5	Health care delivery system in India – Urban Health care			

**Module - Social and Behavioural Determinants of Health**

Semester: 3<sup>rd</sup> Semester

Iterative: No

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Introduction to Medical Sociology</b></p> <ul style="list-style-type: none"> <li>Define sociology, medical sociology</li> <li>Describe the concept of social physiology, and anthropology</li> <li>Describe the concept of custom, culture and dynamics of social changes</li> <li>Describe the importance of various types of social organization</li> </ul>	Classroom	Lecture cum discussion		SAQ Viva
2	<p><b>Social Determinants of Health Framework</b></p> <ul style="list-style-type: none"> <li>List the components in the Social determinants of health framework</li> <li>Describe the framework of social determinants of health</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
3	<p><b>Social Determinants of Health Framework - Practical</b></p> <ul style="list-style-type: none"> <li>Relate/link social determinants of health with the natural history of disease using an example</li> </ul>	Classroom	Problem based approach - Case scenario	Assignment in Log book	
4	<p><b>Socioeconomic and Political context and Health</b></p>	Classroom	Lecture cum discussion	Assignment in Log book	SAQ EQ

	<p><b>Health care as a determinant of Health</b></p> <ul style="list-style-type: none"> <li>Describe the role of socioeconomic and political context on health</li> <li>Analyse how social determinants of health change the course of disease at a national level (Ex: HIV and other case studies)</li> <li>Describe the role of health system and health seeking behaviour on health</li> </ul>		Problem based approach - Case scenario		Viva
5	<p><b>Social Determinants of Health in specific diseases</b></p> <ul style="list-style-type: none"> <li>Describe the role of social determinants on health in selected Communicable and non-communicable diseases</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
6	<p><b>Social Determinants of Health in specific diseases - Practical</b></p> <ul style="list-style-type: none"> <li>Evaluate the role of social determinants of health in a given scenario</li> </ul>	Classroom	Problem based approach - Case scenario	Assignment in Log book	MCQs SAQ EQ Viva Practical Exercises
7	<p><b>Social Stratification, Social Capital and Health</b></p> <ul style="list-style-type: none"> <li>Define equity</li> <li>List the components of available socioeconomic classifications</li> <li>Describe the role of Social cohesion and social capital in health</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva

	<ul style="list-style-type: none"> <li>Describe the principles of socioeconomic classification of households</li> <li>Discuss the role of social stratification in health</li> </ul>				
8	<b>Social Stratification, Social Capital and Health - Visit</b> <ul style="list-style-type: none"> <li>Knows how to assess Socioeconomic status of a family</li> <li>Knows how socioeconomic status affects health</li> </ul>	Field visit	Family visit Assessment of socioeconomic status and its relation with health	Assignment in Logbook	
9	<b>Family in Health and Disease</b> <ul style="list-style-type: none"> <li>List the functions of family</li> <li>Define family and types of family</li> <li>Describe the family cycle – formation to contraction</li> <li>Describe the role of family in health and disease</li> <li>Describe the concept of broken family and problem family</li> </ul>	Classroom	Lecture cum discussion Problem based approach - Case scenario	Assignment in Log book	MCQs SAQ EQ Viva
10	<b>Family in Health and Disease - Visit</b> <ul style="list-style-type: none"> <li>Relate the functions of family with its role in health and disease</li> </ul>	Field visit	Family visit Assessment of roles of family members in health and disease	Assignment in Logbook	
11	<b>Social Support in Health</b>	Classroom	Lecture cum discussion Problem based approach - Case scenario	Assignment in Log book	MCQs SAQ Viva



	<ul style="list-style-type: none"> <li>List social security schemes in India</li> <li>Describe the role of social support measures in health</li> <li>Relate/Link social needs with social support measures in India</li> </ul>				
12	<b>Social Pathology and Social Control</b> <ul style="list-style-type: none"> <li>Define social control</li> <li>Describe the concept of custom, culture and dynamics of social changes</li> <li>Describe the concept of social pathology</li> <li>Relate/Link social pathology with legal measures</li> <li>Relate/Link social problems (for ex:- child marriage, stigma, female feticide etc.,) with social agencies/services/schemes provided in the country</li> </ul>	Classroom	Lecture cum discussion Problem based approach - Case scenario	Assignment in Log book	MCQs SAQ Viva
13	<b>Society in Stigma, Discrimination and Violence</b> <ul style="list-style-type: none"> <li>Discuss the role of society in stigma, discrimination and violence with an example</li> </ul>	Classroom	Lecture cum discussion		SAQ Viva
14	<b>Participatory Rural Appraisal</b> <ul style="list-style-type: none"> <li>List the various participatory rural appraisal techniques</li> <li>Describe the process of various participatory rural appraisal techniques</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva

	<ul style="list-style-type: none"> <li>Describe the uses of various participatory rural appraisal techniques</li> </ul>				
15	<b>Participatory Rural Appraisal</b> <ul style="list-style-type: none"> <li>Knows how to do participatory rural appraisal techniques like Transect walk, Force field analysis, FGD, Social mapping</li> </ul>	Field	Demonstration in field during clinical postings	Assignment in Log book for Clinical posting	Viva
16	<b>Assessment of Social determinants in Individual/family</b> <ul style="list-style-type: none"> <li>List the components of social history</li> <li>Describe the various components of social history and their role in health and disease</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
17	<b>Assessment of Social determinants in Individual/family - Visit</b> <ul style="list-style-type: none"> <li>To elicit social history for a given individual patient/family (Does/performs)</li> <li>Evaluate the social and behavioural factors in a family (Does/performs)</li> <li>To diagnose social problems in a family (Does/performs)</li> </ul>	Field	Lecture cum discussion Family/Patient visit during clinical postings	Assignment in Log book	OSCE Clinicosocial case
18	<b>Assessment of Socioeconomic status in family/households</b> <ul style="list-style-type: none"> <li>Describe the tools for assessment of socioeconomic status</li> </ul>	Classroom	Lecture cum discussion		MCQ SAQ Viva

	<ul style="list-style-type: none"> <li>Describe the components of wealth index and its interpretation</li> </ul>				
19	<p><b>Assessment of Socioeconomic status in family/households – Visit</b></p> <ul style="list-style-type: none"> <li>Estimate the socioeconomic status of a family (Does/performs)</li> <li>Calculate wealth index (Does/performs)</li> </ul>	Field	Family/Patient visit during clinical postings	Assignment in Log book	OSCE Clinicosocial case

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

**Syllabus – Social and Behavioural Determinants of Health**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Introduction to Medical Sociology		-	
2	Social Determinants of Health Framework		Social Determinants of Health Framework	
3	Socioeconomic and Political context and Health Health care as a determinant of Health		-	
4	Social Determinants of Health in specific diseases		Social Determinants of Health in specific diseases	
5	Social Stratification, Social Capital and Health			
6	Family in Health and Disease			
7	Social Support in Health		-	
8	Social Pathology and Social Control		-	
9	Society in Stigma, Discrimination and Violence		-	
10	Participatory Rural Appraisal			
11	Assessment of Social determinants in Individual/family			
12	Assessment of Socioeconomic status in family/households			

**Family follow up program**

1	Social Stratification, Social Capital and Health – Patient visit
2	Family in Health and Disease – Family visit
3	Assessment of Social determinants in Individual/family
4	Assessment of Socioeconomic status in family/households

**Clinical Posting**

1	Participatory Rural Appraisal (Clinical posting)
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**Module - Behavioural Change Communication**

Semester: 4<sup>th</sup> Semester

Iterative: No

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Communication Skills (2 Theory classes)*</b></p> <ul style="list-style-type: none"> <li>• Define communication</li> <li>• List the types of communication – One way/two-way, Verbal and Non-verbal</li> <li>• Describe the process of communication</li> <li>• List the components of SMCR model</li> <li>• List any two attributes of the Sender, Message, Channel and Receiver required for a good communication</li> <li>• List the methods of communication</li> <li>• List the barriers of communication</li> <li>• Describe the barriers to communication with an example</li> </ul> <p>*Covered in 1<sup>st</sup> Semester</p>	Classroom	Lecture cum discussion Roleplay		SAQ Viva
2	<p><b>Introduction to Behaviour Change Communication</b></p> <ul style="list-style-type: none"> <li>• List the stages in BCC</li> <li>• Differentiate between health education, IEC, BCC and SBCC</li> <li>• Describe the process of behaviour change with an example</li> </ul>	Classroom	Lecture cum discussion	-	SAQ Viva

	<ul style="list-style-type: none"> <li>• Differentiate between health education and propaganda</li> <li>• Describe the approaches to behaviour change communication – Regulatory, service approach and health education approach</li> </ul>				
3	<b>Theories of Behaviour change</b> <ul style="list-style-type: none"> <li>• Describe the theories of behaviour change with an example – Transtheoretical model, Salutogenesis, Health Behaviour model etc.,</li> <li>• Classify the stage of behaviour change of a person in a given case scenario</li> </ul>	Classroom	Lecture cum Discussion		MCQ SAQ Viva
4	<b>Theories of Behaviour change – Practical</b> <ul style="list-style-type: none"> <li>• Classify the stage of behaviour change of a person in a given case scenario</li> </ul>		Problem based approach – Case scenarios		Practical exercises
5	<b>Methods in Behaviour change communication</b> <ul style="list-style-type: none"> <li>• Describe the methods of behaviour change communication with an example</li> <li>• Describe the advantages and disadvantages of group approach and mass approaches to behaviour change communication</li> <li>• Choose the appropriate approach, method and visual aid for a given health communication scenario</li> </ul>	Classroom	Lecture cum Discussion Problem based approach – Case scenarios		MCQ SAQ Viva Practical exercises

6	<b>Methods in Behaviour change communication - Practical</b> <ul style="list-style-type: none"> <li>Choose the appropriate approach, method and visual aid for a given health communication scenario</li> </ul>	Classroom	Problem based approach – Case scenarios		Viva Practical exercises
7	<b>Development of BCC strategy</b> <ul style="list-style-type: none"> <li>Describe the steps in development of a behaviour change communication strategy</li> <li>Plan for behaviour change communication in a given scenario – Ex: Nutrition, Communicable diseases, RCH and NCDs</li> <li>Evaluate the positive aspects and negative aspects of behaviour change communication in a given case example – Malaria, Leprosy etc., (or) Appraise a behaviour change communication strategy</li> </ul>	Classroom	Lecture cum Discussion Problem based approach – Case scenarios	Assignment in Log book	SAQ EQ Viva Practical exercises
8	<b>Development of BCC strategy - Practical</b> <ul style="list-style-type: none"> <li>Plan for behaviour change communication in a given scenario – Ex: Nutrition, Communicable diseases, RCH and NCDs</li> <li>Evaluate the positive aspects and negative aspects of behaviour change communication in a given case example – Malaria, Leprosy etc., (or) Appraise a behaviour change communication strategy</li> </ul>	Classroom	Problem based approach – Case scenarios	Assignment in Log book	EQ Viva Practical exercises

9	<b>Audio-Visual aids in BCC</b> <ul style="list-style-type: none"> <li>Describe the advantages and disadvantages of various audio-visual aids in communication</li> </ul>	Classroom	Lecture cum Discussion Problem based approach – Case scenarios	Assignment in Log book	SAQ EQ Viva
10	<b>Audio-Visual aids in BCC - Practical</b> <ul style="list-style-type: none"> <li>To choose appropriate audio-visual aids in behaviour change communication</li> </ul>	Classroom	Problem based approach – Case scenarios	Assignment in Log book	SAQ Viva
11	<b>Evaluation of BCC materials</b> <ul style="list-style-type: none"> <li>List the tools for evaluation of BCC materials</li> <li>Classify and describe the domains for evaluation of BCC materials</li> </ul>	Classroom	Lecture cum Discussion		SAQ EQ Viva
12	<b>Evaluation of BCC materials (Practical)</b> <ul style="list-style-type: none"> <li>Critique health education materials using a standard framework – PEMAT assessment, 7Cs of communication etc.,</li> <li>Evaluation of success stories in behaviour change communication</li> </ul>	Classroom	Problem based approach – Case scenarios	Assignment in Log book – Evaluation of BCC materials using a checklist	Viva Practical Exercises
13	<b>BCC in practice – Individual Counselling</b> <ul style="list-style-type: none"> <li>Describe the steps involved in counselling</li> </ul>	Classroom	Lecture cum Discussion		SAQ EQ Viva
14	<b>BCC in practice – Individual Counselling (Practical)</b>	Classroom	Lecture cum Discussion Problem based approach – Case scenarios	Simulated exercise with peer evaluation	Viva OSCE/OSPE



	<ul style="list-style-type: none"> <li>To conduct an interview (the art of interviewing) in a simulated setting (Shows how)</li> <li>Counsel a patient in a simulated setting</li> <li>Gives counselling to a patient in an OPD setting (Does)</li> </ul>		Demonstration, Observation and Performance in simulated setting		
15	<b>BCC in practice – Mass approach</b> <ul style="list-style-type: none"> <li>Describe the steps involved in mass approach to health education</li> </ul>	Classroom	Lecture cum Discussion	Simulated exercise with peer evaluation	SAQ Viva Practical exercises
16	<b>BCC in practice – Mass approach (Practical)</b> <ul style="list-style-type: none"> <li>Give behaviour change communication in a simulated setting (Mass approach) – Shows how</li> <li>Gives health education in a community setting (Does/performs)</li> </ul>	Classroom	Problem based approach – Case scenarios Demonstration, Observation and Performance in simulated setting	Simulated exercise with peer evaluation	SAQ Viva Practical exercises

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

**Syllabus – Behavioural Change Communication**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Communication Skills – I (1st Sem)		-	
2	Communication Skills – II (1st Sem)		-	
3	Introduction to Behaviour Change Communication		-	
4	Theories of Behaviour change		Theories of Behaviour change	
5	Methods in Behaviour change communication		Methods in Behaviour change communication	
6	Development of BCC strategy		Development of BCC strategy Audio-Visual aids in BCC	
7	Audio-Visual aids in BCC			
8	Evaluation of BCC materials		Evaluation of BCC materials	
9	BCC in practice – Individual Counselling			
10	BCC in practice – Mass approach			

**Clinical Posting**

1	BCC in practice – Individual Counselling
2	BCC in practice – Mass approach

## Module – Reproductive and Child Health

Semester: 4<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> Semesters

Iterative: Yes

1<sup>st</sup> Iteration – IV Semester

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Introduction to Maternal and Child Health</b></p> <ul style="list-style-type: none"> <li>• List the important mortality indicators related to RCH and MCH.</li> <li>• List at least five most common causes of morbidity and mortality during pregnancy</li> <li>• Describe the burden of Maternal and child morbidity and mortality</li> <li>• Describe life cycle approach using an example</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
2	<p><b>Evolution of RCH program</b></p>	Student centred learning	Student Seminar with faculty moderation		MCQs Viva
3	<p><b>Health during Periconceptional period</b></p> <ul style="list-style-type: none"> <li>• List the components of periconception advice</li> <li>• Describe the health needs of married couples in the periconception period</li> <li>• Describe the rationale for various components of periconception advice</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
4	<p><b>Maternal Morbidity and prevention</b></p>	Classroom	Lecture cum discussion		MCQs SAQ

	<ul style="list-style-type: none"> <li>List the components of Essential obstetric care, Basic and Comprehensive Emergency obstetric care</li> <li>Describe the social determinants of maternal morbidity – Anaemia etc.,</li> <li>Describe the preventive strategies for common obstetric and medical complications during pregnancy – Anemia, GDM, PIH</li> </ul>				EQ Viva
<b>5</b>	<b>Postnatal Health</b> <ul style="list-style-type: none"> <li>List the most common causes of maternal morbidity and mortality during Postnatal period</li> <li>List the components of Postnatal care</li> <li>Describe the rationale for different components of Postnatal care and advice</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
<b>6</b>	<b>Introduction to Newborn and Child Health</b> <ul style="list-style-type: none"> <li>List the components of Essential Newborn care</li> <li>List the components of RMNCH+A 5x5 matrix</li> <li>Define low birth weight</li> <li>List the danger signs in an under-five child</li> <li>Describe the social determinants of child morbidity</li> <li>Describe the preventive strategies for common causes of morbidity and mortality during childhood</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva

<b>7</b>	<b>Intrapartum care and New born Care corner – Visit</b> <ul style="list-style-type: none"> <li>Knows the essential components/logistics required for conducting delivery in a PHC</li> <li>Knows the essential components/logistics of a newborn care corner</li> </ul>	Field/Clinical Posting	Visit to Labour room in PHC	Assignment in Logbook	MCQs Viva
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**Syllabus – Reproductive and Child Health – 1<sup>st</sup> Iteration – IV Semester**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Introduction to Maternal and Child Health		Evolution of RCH program (Student Seminar)	
2	Health during Periconceptional period			
3	Maternal Morbidity and prevention			
4	Postnatal Health			
5	Introduction to Newborn and Child Health			

**Clinical Posting**

1	Intrapartum care and New born Care corner – Visit
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## Module - Nutrition

Semester: 4<sup>th</sup> Semester

Iterative: No

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Introduction to Nutrition</b></p> <ul style="list-style-type: none"> <li>• Define nutrient</li> <li>• List the nutritional disorders of public health importance</li> <li>• Classify foods /nutrients into various groups</li> <li>• Recall Global and National dietary goals</li> <li>• Describe balanced nutrition</li> <li>• Describe food pyramid</li> <li>• Describe prudent diet</li> <li>• Describe the life course perspectives in nutrition</li> <li>• Describe hidden hunger</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
2	<p><b>Functions of Micro and Macro Nutrients – Quiz</b></p> <ul style="list-style-type: none"> <li>• Classify foods - Micro and Macronutrients,</li> <li>• Recall important sources and RDA for Macronutrients and Micronutrients</li> <li>• List the essential amino acids</li> <li>• Describe the functions of Macro and Micronutrients</li> </ul>	Student centred learning	Quiz		MCQs SA Viva

	<ul style="list-style-type: none"> <li>• RDA and functions of food List the manifestations of macronutrient deficiency – Protein energy malnutrition</li> <li>• List the manifestations of macronutrient diseases – Vit A deficiency, Iodine deficiency, Rickets, Beri Beri, Pellagra,</li> </ul>				
3	<p><b>Nutritional Requirements</b></p> <ul style="list-style-type: none"> <li>• Recall the calorie and protein requirement for different population sub-groups – Pregnant women, Lactating women, Elderly etc.,</li> <li>• Recall the therapeutic dose of Iron and Calcium for different population sub-groups – Pregnant women, Lactating women, Elderly etc.,</li> <li>• Describe the concept of RDA</li> <li>• Describe the concept of reference man and reference woman</li> <li>• Describe the rationale for different nutritional requirements in different age groups</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
4	<p><b>Epidemiology of Nutrition in India</b></p> <ul style="list-style-type: none"> <li>• Describe the role of social determinants in Malnutrition</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva

	<ul style="list-style-type: none"> <li>Describe the nutritional epidemiology of India – burden of macro and micronutrient diseases and interventions</li> <li>Describe infection and malnutrition cycle with an example</li> <li>Describe common pathways for nutrition related diseases – Macronutrient and Micronutrient disorders and food toxicity</li> </ul>				
5	<b>Epidemiology of Nutrition in India (Practical)</b> <ul style="list-style-type: none"> <li>Relate/Link natural history with nutrition assessment</li> <li>Analyse the determinants of malnutrition from a given case scenario</li> <li>Relate the various factors associated with nutritional problems</li> </ul>	Classroom	Problem based approach - Case scenario	Assignment in Log book	SAQ Viva
6	<b>Principles of Nutrition – Carbohydrates and Proteins</b> <ul style="list-style-type: none"> <li>Describe the concept of evaluation of protein quality</li> <li>Describe the concept of supplementary action of proteins</li> <li>Describe the role of carbohydrates in Nutritional disorders</li> <li>Describe the role of proteins in Nutritional disorders</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva  Spotters
7	<b>Control of Micronutrient deficiency</b> <ul style="list-style-type: none"> <li>Describe the concepts of fortification, enrichment and supplementation</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva



	<ul style="list-style-type: none"> <li>Describe the principles of fortification</li> <li>Describe the role of supplementary nutrition as an intervention</li> </ul>				
8	<b>Role of Diet in Non-communicable diseases</b> <ul style="list-style-type: none"> <li>Define obesity, Metabolic syndromes</li> <li>Describe the role of HFSS foods and fats in disease</li> <li>Describe the role of dietary fibre</li> <li>Describe the concept of glycemic index and its role in nutrition</li> <li>Describe the role of diet in Diabetes, CVD, Hypertension and cancer</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
9	<b>Food adulteration and its control</b> <ul style="list-style-type: none"> <li>List the common adulterants and related disorders</li> <li>Describe the epidemiology of food adulteration in India</li> <li>Describe common pathways for food toxicity disorders</li> <li>Describe the strategies for control of food adulteration</li> <li>Describe the key provisions of FSSAI act</li> <li>Describe the role of various authorities related to food safety</li> <li></li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
10	<b>Food adulteration and its control (Practical)</b>	Field	Visit to FSSAI office	Assignment in Log book	SAQ Viva Spotters

	<ul style="list-style-type: none"> <li>Describe the strategies for control of food adulteration</li> <li>Describe the key provisions of FSSAI act</li> <li>Describe the role of various authorities related to food safety</li> </ul>				
11	<b>Nutrition Programs - I</b> <ul style="list-style-type: none"> <li>Describe the key prescriptions of National nutrition policy</li> <li>Recall the objectives of ICDS scheme and other nutrition programs</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
12	<b>Nutrition Programs - II</b>  Describe the strategies for nutrition related programs – ICDS, NIPI, IDD, Vit A prophylaxis program, NRC and Mid-day meal	Classroom	Lecture cum discussion		MCQs SAQ Viva
13	<b>Nutritional assessment – Field Visit</b> <ul style="list-style-type: none"> <li>Assess nutritional status of under-five child (Field based) (or) plot the weigh/height in growth and categorize the nutritional status of a child</li> <li>Assess nutritional status of antenatal mother (Field based)</li> <li>Assess an individual/ family for nutrition related disorders</li> <li>Classify /categorize the nutritional status of a given person based on standard guidelines</li> </ul>	Field/Clinical posting	Family visit Anganwadi visit	Assignment in Log book	Spotter Viva

	<ul style="list-style-type: none"> <li>Dietary survey using 24 hr recall method</li> </ul>				
14	<b>Diet planning – Field Visit</b> <ul style="list-style-type: none"> <li>Prepare a diet plan for a given scenario – normal sedentary male/female</li> <li>Diet planning during family visit</li> </ul>	Field/Clinical posting	Family visit	Assignment in Log book	Spotter Viva
15	<b>Nutrition project for Students</b> <ul style="list-style-type: none"> <li>e-Learning modules – WCD and Poshan abhiyan Conduct community based interview with local people &amp; vendors to know customs/taboo and low cost nutrient food respectively</li> <li>local customs and taboos related to food and locally available low cost nutrient food</li> <li>Make a chart /collage/dairy with food items rich in different nutrients e.g Vit A rich foods, Iron rich foods etc</li> <li>Collect diet chart prescribed for DM/SHTN/CAD patients under treatment</li> </ul>	Student centred learning	Student assignment – Group activity	Report submission	Viva
16	<b>Nutrition Programs (Practical) - Visit</b> <ul style="list-style-type: none"> <li>Knows the process to avail benefit under various food security schemes</li> <li>Knows how Mid day meal scheme is conducted</li> </ul>	Field/Clinical posting	Visit to PDS School visit	Assignment in Logbook	Viva

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

**Syllabus – Nutrition**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR	
1	Introduction to Nutrition		Briefing on Nutrition project		Nutrition project for Students
2	Nutritional Requirements		Functions of Micro and Macro Nutrients – Quiz		
3	Epidemiology of Nutrition in India		Epidemiology of Nutrition in India (Practical)		
4	Principles of Nutrition – Carbohydrates and Proteins		Briefing on Nutrition assessment and Diet planning		
5	Control of Micronutrient deficiency		Nutrition spotters		
6	Role of Diet in Non-communicable diseases				
7	Food adulteration and its control				
8	Nutrition Programs - I		Food adulteration and its control (Practical)		
9	Nutrition Programs - II				

**Family Follow up Program**

1	Nutritional assessment - Visit
2	Diet planning – Visit

**Clinical Posting**

1	Nutrition Programs (Practical) - Visit
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**Module – Environmental Health**

Semester: 4<sup>th</sup> Semester

Iterative: No

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Drinking Water Quality Standards</b></p> <ul style="list-style-type: none"> <li>• Define potable water, safe and wholesome water</li> <li>• Recall the current data for safe drinking water</li> <li>• List water related diseases</li> <li>• Recall the acceptable limits of important chemicals like Lead, Arsenic etc.,</li> <li>• Classify water quality standards</li> <li>• Describe the steps in surveillance of drinking water quality</li> <li>• Relate control measures for water contamination with sources/causes</li> </ul>	Classroom	Lecture cum discussion		<p>MCQs</p> <p>VSAQ</p> <p>SAQ</p> <p>EQ</p> <p>Viva</p>
2	<p><b>Surveillance of Drinking Water - Visit</b></p> <ul style="list-style-type: none"> <li>• Describe the process of monitoring water safety at PHC level</li> <li>• Interpret water quality report</li> <li>• Sample water using standard procedure for laboratory testing</li> <li>• Interpret water quality report</li> </ul>	Field visit Group Assignment		Assignment – Report in the Logbook	<p>Spotter</p> <p>Viva</p>

3	<p><b>Sources and Purification of Drinking Water (Student Seminar)</b></p> <ul style="list-style-type: none"> <li>• Classify the sources of water</li> <li>• Differentiate the sources of water based on water quality standards</li> <li>• Describe the large scale and household purification methods – its advantages and disadvantages</li> <li>• Compare and contrast between different methods of purification</li> <li>• Describe the policy measures for drinking water quality</li> </ul>	Student centred learning	Student seminar with faculty moderation	Assessment of student presentation	MCQs VSAQ SAQ EQ Viva
4	<p><b>Water purification methods – Chlorination</b></p> <ul style="list-style-type: none"> <li>• List the methods of household purification of water</li> <li>• Define chlorine demand</li> <li>• Define breakpoint chlorination</li> <li>• Describe the principle of chlorination of water and Breakpoint chlorination, Chlorine demand and residual chlorine</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ VSAQ Viva
5	<p><b>Water Purification methods – Practical - Visit</b></p> <ul style="list-style-type: none"> <li>• Calculate the chlorine demand of water sample using Horrock's apparatus</li> <li>• Plan for water supply and purification in an emergency/disaster situation</li> <li>• Decide on an appropriate water treatment method in a given scenario</li> <li>• Educate the community on the steps of handwashing by means of demonstration</li> </ul>	Field based/Practical	Demonstration, Observation and Performance	Logbook	Practical Exercise Spotter Viva

6	<b>Sanitation and its impact</b> <ul style="list-style-type: none"> <li>• Describe WASH strategies and its impact</li> <li>• Describe sanitation barrier</li> <li>• Recall the current data for sanitation coverage</li> <li>• Describe the strategies of Swacch Bharat Abhiyan</li> <li>• Plan excreta disposal in emergency/disaster situation</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
7	<b>Sewage treatment methods (Student Seminar)</b> <ul style="list-style-type: none"> <li>• Describe the methods of excreta disposal and waste disposal in urban and rural areas,</li> <li>• Describe bio-toilet, Sewage treatment methods</li> <li>• Describe the impact of sewage</li> <li>• Define Biological Oxygen demand</li> <li>• Classify the methods for sewage disposal</li> <li>• Describe the process of composting, its advantages and disadvantages</li> <li>• Relate control measures for solid waste including sewage with sources/causes</li> </ul>	Student centred learning	Student seminar with faculty moderation		VSAQ SAQ Viva
8	<b>Housing, Light, Heat and Radiation (Student Seminar)</b> <ul style="list-style-type: none"> <li>• List the housing standards for urban and rural areas</li> <li>• Relate housing standards with their health impact</li> <li>• Radiation and Public health, Effect of heat and cold, Altitude related problems, Kata thermometer, Globe thermometer, Hygrometer, Sling Psychrometer</li> </ul>	Student centred learning	Student seminar with faculty moderation		Spotter VSAQ SAQ Viva
9	<b>Climate change</b>	Classroom	Lecture cum discussion		MCQs SAQ

	<ul style="list-style-type: none"> <li>Describe the process of climate change and its implications</li> </ul>				Viva
10	<b>Air pollution</b> <ul style="list-style-type: none"> <li>Describe the impact of air pollution</li> <li>Describe the standards of air quality</li> <li>Describe the monitoring measures for air pollution</li> <li>Describe the ill effects of indoor air pollution</li> <li>Relate control measures for air pollution with sources/causes</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
11	<b>Air pollution (Student Seminar)</b> <ul style="list-style-type: none"> <li>Describe the sources of air pollution</li> <li>Describe the policy/programmatic/legislative measures to reduce air pollution</li> <li>Interpret air quality monitoring report</li> </ul>	Student centred learning	Student seminar with faculty moderation		SAQ Spotter
12	<b>Environmental Assessment - Visit</b> <ul style="list-style-type: none"> <li>Evaluate the environmental situation of a residence/hostel/academic institution using a checklist</li> <li>Evaluate a household for indoor air pollution, and ventilation, lighting and overcrowding</li> </ul>	Field based	Group activity	Assignment in Logbook	



13	<b>Noise pollution</b> <ul style="list-style-type: none"> <li>• Describe the impact of noise pollution</li> <li>• Describe the standards of noise level</li> <li>• Describe the monitoring measures of noise pollution</li> <li>• Relate control measures for air pollution, water pollution, noise pollution and solid waste including sewage with sources/causes</li> </ul>	Classroom	Lecture cum discussion	-	MCQs SAQ EQ Viva
14	<b>Noise pollution (Student Seminar)</b> <ul style="list-style-type: none"> <li>• Describe the sources of noise pollution</li> <li>• Describe the policy/programmatic/legislative measures to control noise pollution</li> </ul>	Student centred learning	Student seminar with faculty moderation	Assignment in Log book	MCQs SAQ Viva

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

### Syllabus – Environmental Health

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Drinking Water Quality Standards			
2	Water purification methods – Chlorination		Sources and Purification of Drinking Water (Student Seminar)	
3	Sanitation and its impact		Water Purification methods – Practical	
4	Housing, Light, Heat and Radiation (Student Seminar)		Sewage treatment methods (Student Seminar)	
5	Climate change		Air pollution (Student Seminar)	
6	Air pollution			
7	Noise pollution		Noise pollution (Student Seminar)	

#### **Family Follow-up Program**

1	Environmental Assessment - Visit
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#### **Clinical Posting/Field visit**

1	Surveillance of Drinking Water - Visit
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**Module –Occupational Health**

Semester: 4<sup>th</sup> Semester

Iterative: No

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Introduction to Occupational Health and Safety of workers</b></p> <ul style="list-style-type: none"> <li>• Describes the aims/objectives of occupational health</li> <li>• Describe the health problems due to industrialization</li> <li>• Classify and describe the health hazards of workers in the following occupations – agricultural workers, medical profession, certain industries</li> <li>• Describe the health hazards of adolescent and women workers</li> <li>• Describe the principles of use of personal protective equipment</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
2	<p><b>Pneumoconioses</b></p> <ul style="list-style-type: none"> <li>• List the causative factors for Pneumoconioses</li> <li>• List the features of Pneumoconioses</li> <li>• Describe the causal pathways for Pneumoconiosis</li> <li>• Describe the features of common types of Pneumoconiosis</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva

	<ul style="list-style-type: none"> <li>Describe the principles of preventive measures for different types of Pneumoconiosis</li> <li>Discuss specific preventive measures for a given Pneumoconiosis</li> </ul>				
3	<p><b>Occupational Hazards – Dermatitis, Cancer and Agricultural Hazards (Student Seminar)</b></p> <ul style="list-style-type: none"> <li>List the common occupational exposures leading to cancer</li> <li>List the notifiable diseases in occupational health</li> <li>List various Occupational dermatitis and its causative agents</li> <li>List the Occupational hazards of agricultural workers,</li> </ul>	Student centred learning	Student Seminar		MCOs SAQ Viva
4	<p><b>Occupational Hazards (Practical) - Visit</b></p> <ul style="list-style-type: none"> <li>Relate occupational environment with the occupational hazards</li> <li>Prepare control measures for a given occupational health condition applying the concept of levels of prevention</li> </ul>	Classroom/Field	Problem based approach Case scenario/ Visit to worksites	Assignment in Logbook	Practical exercise EQ
5	<p><b>Health protection and promotion measures for Workers safety</b></p> <ul style="list-style-type: none"> <li>Describe the health promotion and protection measures for workers</li> <li>Describe the components of pre-placement examination and periodic health assessment</li> </ul>	Classroom	Lecture cum discussion		SAQ

6	<b>Health protection measures (Practical) Visit</b> <ul style="list-style-type: none"> <li>Knows how Pre-placement examination/ periodic screening is done</li> </ul>	Field	Visit to a Mine/Factory	Assignment in Logbook	Spotter
7	<b>Policy measures for occupational safety and welfare</b> <ul style="list-style-type: none"> <li>Recall the key laws/acts/schemes for safeguarding the health of workers</li> <li>List the schemes and programs for unorganized sector</li> <li>Define factories based on the factories act and ESI act</li> <li>Describe the legislative measures for workers safety</li> <li>Describe the institutional mechanisms for health protection and safety of workers</li> </ul>	Student centred learning	Student Seminar		MCQs SAQ Viva
8	<b>Factories Act and ESI Act (Student Seminar)</b> <ul style="list-style-type: none"> <li>Provisions of factories act,</li> <li>Benefits of ESI act</li> <li>Relate the health welfare needs of workers with benefits under ESI act</li> </ul>	Student centred learning	Student Seminar		MCQs SAQ Viva
9	<b>Ergonomics</b> <ul style="list-style-type: none"> <li>Describe the principles of Ergonomics with an example</li> <li>Describe application of ergonomics at worksites</li> </ul>	Classroom	Lecture cum discussion		SAQ
10	<b>Ergonomics (Practical) – Visit</b> <ul style="list-style-type: none"> <li>Evaluate the workstation ergonomics of a specific organization using a pre-designed checklist</li> </ul>	Field	Visit to a worksite	Assignment in Logbook	

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

### Syllabus –Occupational Health

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Introduction to Occupational Health and Safety of workers		Occupational Hazards – Dermatitis, Cancer and Agricultural Hazards (Student Seminar)	
2	Pneumoconioses		Occupational Hazards (Practical)	
3	Health protection and promotion measures for Workers safety			
4	Policy measures for occupational safety and welfare		Factories Act and ESI Act (Student Seminar)	
5	Ergonomics			

#### Field Visits

1	Occupational Hazards (Practical) and Health protection measures
2	Ergonomics

**Module - Disaster Management**

Semester: 4<sup>th</sup> Semester

Iterative: No

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<b>Introduction to Disaster Management</b> <ul style="list-style-type: none"> <li>• Define Hazard</li> <li>• Define disaster</li> <li>• List the common disasters related to India</li> <li>• List the man-made disasters</li> <li>• Describe the health hazards in different types of disasters</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
2	<b>Disaster Management Cycle</b> <ul style="list-style-type: none"> <li>• Describe the Disaster management cycle</li> <li>• Describe disaster response with an example</li> <li>• Describe the concept of triage</li> <li>• Describe disaster mitigation with an example</li> <li>• Describe at least two to three mitigation measures for each type of disasters</li> <li>• Describe disaster preparedness with an example</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
3	<b>Role of Public Health in Disaster Management</b>	Classroom	Lecture cum discussion		MCQs

	<ul style="list-style-type: none"> <li>Describe the need/role of Epidemiological surveillance and disease control in disasters</li> <li>Describe the role of public health in disaster – Vaccination, Safe water supply and sanitation etc.,</li> </ul>				SAQ EQ Viva
4	<b>Disaster Management Cycle – Practical</b> <ul style="list-style-type: none"> <li>Relate the hazards of disaster with mitigation and preparedness</li> <li>Compare the impact of similar disaster happened few decades back and happened recently. Explore the reasons which could led to prevent the losses (Case scenario)</li> <li>Evaluate the disaster response in the past disasters</li> <li>Prepare a disaster response/ disaster mitigation/ disaster preparedness plan for a given disaster scenario (floods/ Earthquake)</li> </ul>	Classroom	Problem based learning – Case scenarios based on past disasters	Assignment in Logbook	Practical Exercises
5	<b>Policy for Disaster Management</b> <ul style="list-style-type: none"> <li>List the departments/ministries in India related to disaster management (or) enumerate the resources which can be contacted to learn the disaster prevention in detail</li> <li>Describe the functions of National Disaster Management Authority</li> </ul>	Classroom	Lecture cum discussion	-	SAQ Viva



6	<b>Disaster Preparedness – Student Activity</b> <ul style="list-style-type: none"> <li>• Prepare a poster which depicts different types of fire extinguishers and the way it needs to be operated</li> <li>• Arrange &amp; display a emergency box &amp; first aid box to be kept ready before the announcement of flood/cyclone</li> </ul>	Student centered learning	Student assignment – Group activity with presentation	Assignment in Log book	Spotter
7	<b>Disaster preparedness – Field activity</b> <ul style="list-style-type: none"> <li>• Demonstrate a role play to educate the community regarding fire safety measures</li> <li>• Operate a Type (A) fire extinguisher to put out the fire</li> </ul>	Field	Group activity in community moderated by faculty	Assignment in Log book	
8	<b>Disaster mapping – Field activity</b> <ul style="list-style-type: none"> <li>• Prepare a social map/village map for vulnerability assessment of the given village</li> <li>• Draw a time line based on the seasonal occurrences of disaster using participatory approach</li> </ul>	Field	Community based activity during Clinical postings	Assignment in Log book	SAQ Viva

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

### Syllabus - Disaster Management

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Introduction to Disaster Management			
2	Disaster Management Cycle		Disaster Management Cycle – Practical	
3	Role of Public Health in Disaster Management		Disaster Preparedness – Student Activity	
4	Policy for Disaster Management			

#### **Clinical Posting**

1	Disaster preparedness – Field activity
2	Disaster mapping – Field activity (Clinical Posting)

## Module – Mental Health

Semester: 6<sup>th</sup> Semester

Iterative: No

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Introduction to Mental Health</b></p> <ul style="list-style-type: none"> <li>• Recall the key findings of National Mental Health Survey (or) Recall the burden of common mental disorders in India</li> <li>• Describe the different dimensions of health</li> <li>• Describe the mental health burden in India</li> <li>• Describe the genetic, environmental and social determinants of mental health</li> <li>• Describe mental health disorders using web of causation model</li> <li>• Relate/Link mental health needs to the biological/social determinants of mental health</li> <li>• Relate lifestyle practices with mental health</li> </ul>	Classroom	Lecture cum discussion Problem based approach - Case scenario (for relate objectives)	Assignment in Log book	MCQs SAQ EQ Viva
2	<p><b>Epidemiology of Mental health disorders</b></p> <ul style="list-style-type: none"> <li>• Discuss the Epidemiology of Major mental disorders – Depression, Smoking and Alcohol addiction</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva

	<ul style="list-style-type: none"> <li>Describe the role of mental health in physical illness (Understanding Psychosomatic illness)</li> <li>Describe the preventive measures for mental illness using levels of prevention approach</li> <li>Discuss the changing trends in mental health morbidity across the globe</li> <li>Discuss the role of stigma in mental disorders and its control measures</li> </ul>				
3	<b>Manifestations of Mental Illness – Practical - Visit</b> <ul style="list-style-type: none"> <li>Describe the symptoms of common mental health conditions</li> <li>Know the Clinical symptoms/signs of mental illness</li> <li>Know the Clinical symptoms/signs of drug dependence</li> <li>Knows how to take history in a mental illness</li> </ul>	Field/Clinical posting	Patient visit Collaboration with Psychiatry	Assignment in Log book	MCQs SAQ Viva
4	<b>Prevention of Mental Illness</b> <ul style="list-style-type: none"> <li>Describe the principles of mind body medicine</li> <li>Describe the role of self-care in prevention of mental health disorders (Identify the way you look after your own mental health)</li> <li>Know Psychological First aid in mental health</li> </ul>	Classroom	Lecture cum discussion Group activity	Assignment in Log book	SAQ Viva
5	<b>Mental Health in Children and Adolescents</b>	Classroom	Lecture cum discussion		MCQs SAQ

	<ul style="list-style-type: none"> <li>List the most common mental health needs/ conditions of children and adolescents</li> <li>Describe the mental health needs of children and adolescents</li> <li>Describe promotional measures/interventions for mental health wellness</li> </ul>				EQ Viva
6	<b>Mental Health in Adults</b> <ul style="list-style-type: none"> <li>List the most common mental health needs/ conditions of adults including pregnant mothers</li> <li>Describe the mental health needs of adults including pregnant mothers</li> <li>Describe promotional measures/interventions for mental health wellness</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
7	<b>Mental Health in Adolescents and Adults - Visit</b> <ul style="list-style-type: none"> <li>Assess mental health status of an individual using – WHO K10 scale, PHQ9, PHQ12, and GMHAT tools</li> </ul>	Field	Group activity	Assignment in Logbook	MCQs Spotter Viva
8	<b>Mental Health in Elderly</b> <ul style="list-style-type: none"> <li>List the most common mental health needs/ conditions of elderly</li> <li>Describe the mental health needs of elderly</li> <li>Describe promotional measures/interventions for mental health wellness</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
9	<b>Mental Health in Elderly – Practical - Visit</b>	Field/ Clinical posting	Patient visit		Spotter Viva

	<ul style="list-style-type: none"> <li>Assess a patient using Mini Mental status Examination</li> </ul>				
10	<b>Substance Abuse</b> <ul style="list-style-type: none"> <li>List the habit forming substances</li> <li>List the tools for assessment of mental health conditions like Alcohol use disorder, Tobacco dependence etc.</li> <li>Define drug dependence</li> <li>Describe the epidemiology of drug addiction</li> <li>Describe promotional measures/interventions for mental health wellness</li> <li>Describe the principles of deaddiction counselling</li> </ul>	Classroom	Lecture cum discussion Video Demonstration/ Roleplay		MCQs SAQ EQ Viva
11	<b>Substance Abuse – Practical</b> <ul style="list-style-type: none"> <li>Assess a patient using CAGE/AUDIT</li> <li>Perform screening and brief intervention for alcohol/smoking</li> <li>Give counselling for tobacco/alcohol deaddiction</li> </ul>	Field/ Clinical posting	Patient visit	Assignment in Logbook	Spotter Viva
12	<b>Substance Abuse – Assignment</b> <ul style="list-style-type: none"> <li>Give a health education session on addiction for adolescents at school (Group activity)</li> <li>Prepare posters for tobacco/alcohol deaddiction</li> </ul>	Field/ Clinical posting	School health education session moderated by faculty – DOAP session	Report in Logbook	Spotter Viva
13	<b>Policy measures for Mental Health</b>	Classroom	Lecture cum discussion		MCQs

	<ul style="list-style-type: none"> <li>List the programs/policies for mental health in India</li> <li>Describe the key policy prescriptions for mental health in India</li> <li>Describe the program strategies for National Mental Health program in India</li> </ul>		Demonstration		SAQ EQ Viva
14	<b>Policy Measures for Mental Health – Practical</b> <ul style="list-style-type: none"> <li>Critically evaluate the program for Mental health in India</li> <li>Critically evaluate the policy prescription in relation to Mental Health</li> </ul>	Classroom	Group activity	Report in Logbook	EQ Viva
15	<b>National Mental Health program</b> <ul style="list-style-type: none"> <li>Knows how National mental health program is implemented at field level</li> </ul>	Field/Clinical posting	Visit to program office	Report in Logbook	SAQ Viva

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

### Syllabus – Mental Health

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Introduction to Mental Health			
2	Epidemiology of Mental health disorders			
3	Prevention of Mental Illness			
4	Mental Health in Children and Adolescents			
5	Mental Health in Adults			
6	Mental Health in Elderly			
7	Substance Abuse		Assessment scales for Mental health	
8	Policy measures for Mental Health		Policy Measures for Mental Health – Practical	

### **Clinical Posting**

1	Manifestations of Mental Illness – Practical
2	Mental Health in Adolescents and Adults – Practical
3	Mental Health in Elderly – Practical
4	Substance Abuse – Practical
5	Substance Abuse – Assignment (Clinical Posting)
6	National Mental Health program – Visit (Clinical posting)



**Module - Health care of special groups**

Semester: 6<sup>th</sup> Semester

Iterative: No

Sl. No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<b>Lifecycle approach and Demographic transition</b> <ul style="list-style-type: none"> <li>Describe the lifecycle approach and its role in adolescent health</li> <li>Describe Demographic transition and its implications</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
2	<b>Adolescent Health</b> <ul style="list-style-type: none"> <li>Recall the common health conditions among Adolescents</li> <li>Describe the nutritional needs of Adolescents</li> <li>Describe the health needs of the adolescents</li> <li>Describe the preventive measures for the health needs of the adolescents</li> <li>Describe the social, economic, health policies relevant to adolescents</li> <li>Describe the health program strategies for adolescents – ARSH and RKSK</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva
3	<b>Adolescent Health - Practical</b> <ul style="list-style-type: none"> <li>Discuss the lacunae in the health service provision for adolescents</li> <li>Relate the specific exposures/ risk factors in adolescents to the health needs/problems/conditions</li> </ul>	Classroom	Problem based approach Exercises using SWOT analysis Health planning exercises	Assignment in Logbook	SAQ Viva Practical exercises

	<ul style="list-style-type: none"> <li>• Discuss how the policies/programs relate to the health needs of adolescents</li> <li>• Prepare a health services plan for addressing health needs of adolescents</li> </ul>				
4	<b>Adolescent Health – Visit</b> <ul style="list-style-type: none"> <li>• Knows how to communicate with each population subgroup in a sensitive manner</li> <li>• Knows how peer education program for adolescents</li> <li>• Interventions in RSKS program – Rashtriya Kishor Swasthya Karyakram are implemented</li> <li>• Knows how Adolescent reproductive and Health services are implemented</li> <li>• Evaluation of Adolescent clinic</li> <li>• Give counselling to adolescent regarding menstrual hygiene</li> </ul>	Field/Clinical posting	Visit to Adolescent clinic Group assignment Individual assignment	Assignment in Logbook	OSCE Practical exercise
5	<b>Elderly health</b> <ul style="list-style-type: none"> <li>• Recall the common health conditions among elderly</li> <li>• Describe the nutritional needs of the Elderly</li> <li>• Describe the health needs of the elderly</li> <li>• Describe the concept of active ageing/ healthy ageing with an example</li> <li>• Describe the preventive measures for the health needs of the elderly</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva

	<ul style="list-style-type: none"> <li>Describe the social, economic, health policies relevant Elderly</li> <li>Describe the health program strategies for Elderly</li> <li>Describe the social security schemes for elderly</li> </ul>				
6	<b>Elderly Health – Practical</b> <ul style="list-style-type: none"> <li>Discuss the lacunae in the health service provision for elderly</li> <li>Relate the specific exposures/ risk factors in elderly to the health needs/problems/conditions</li> <li>Discuss how the policies/programs relate to the health needs of elderly</li> <li>Prepare a health services plan for addressing health needs of elderly</li> </ul>	Classroom	Problem based approach Exercises using SWOT analysis Health planning exercises	Assignment in Logbook	SAQ Viva Practical exercises
7	<b>Elderly Health – Visit</b> <ul style="list-style-type: none"> <li>Knows how NPHCE is implemented</li> <li>Knows how National Old age pension scheme is implemented</li> <li>Assess activity status of an elderly person using ADL/IADL scale</li> <li>Evaluation of Geriatric clinic during a visit</li> </ul>	Field/Clinical posting	Visit to Elderly clinic Group assignment Individual assignment	Assignment in Logbook	Viva Spotter Practical exercise
8	<b>Tribal Health</b> <ul style="list-style-type: none"> <li>Recall the common health conditions among tribal population</li> <li>Describe the nutritional needs of the tribal population</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ EQ Viva

	<ul style="list-style-type: none"> <li>Describe the health needs of the tribal population</li> <li>Describe the preventive measures for the health needs of the tribal groups</li> <li>Describe the social, economic , health policies relevant to tribal population</li> <li>Describe the health program strategies for tribal groups relevant to Maharashtra</li> </ul>				
9	<b>Tribal Health - Practical</b> <ul style="list-style-type: none"> <li>Discuss the lacunae in the health service provision for Tribal population</li> <li>Relate the specific exposures/ risk factors in Tribal population to the health needs/problems/conditions</li> <li>Discuss how the policies/programs relate to the health needs of tribal population</li> <li>Prepare a health services plan for addressing health needs of tribal population</li> </ul>	Classroom	Problem based approach Exercises using SWOT analysis Health planning exercises	Assignment in Logbook	SAQ Viva Practical exercises
10	<b>Tribal Health – Visit</b> <ul style="list-style-type: none"> <li>Knows how Tribal health services are delivered</li> </ul>	Field/Clinical posting	Visit to Tribal welfare centre Group assignment Individual assignment	Assignment in Logbook	Practical exercise
11	<b>Migrants/Refugees/Disabled</b> <ul style="list-style-type: none"> <li>Recall the common health conditions in the Migrant population</li> </ul>	Classroom	Lecture cum discussion		MCOs SAQ EQ Viva

	<ul style="list-style-type: none"> <li>• Describe the nutritional needs of the migrant population</li> <li>• Describe the health needs of the migrant population</li> <li>• Describe the preventive measures for the migrant group</li> <li>• Describe the social, economic , health policies relevant to migrant population</li> <li>• Describe the health program strategies for migrant groups</li> <li>• Describe key strategies/measures of disability act</li> </ul>				
12	<b>Migrant Health - Practical</b> <ul style="list-style-type: none"> <li>• Discuss the lacunae in the health service provision for migrants</li> <li>• Relate the specific exposures/ risk factors in migrants to the health needs/problems/conditions</li> <li>• Discuss how the policies/programs relate to the health needs of migrants</li> <li>• Prepare a health services plan for addressing health needs of the migrants</li> </ul>	Classroom	Lecture cum discussion	-	SAQ Viva
13	<b>Student Project in Health care of Special groups - Group activity</b> <ul style="list-style-type: none"> <li>• Carry out needs assessment of a population subgroup</li> <li>• Prepare a dietary plan based on the nutritional needs of the specific demographic group</li> </ul>	Student Project	Group assignment	Report Submission	

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

**Syllabus - Health care of special groups**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Lifecycle approach and Demographic transition			
2	Adolescent Health		Adolescent Health – Practical	
3	Elderly health		Elderly Health – Practical	
4	Tribal Health		Tribal Health - Practical Migrant Health - Practical	
5	Migrants/Refugees/Disabled			

**Clinical Posting**

1	Adolescent Health – Visit
2	Tribal Health – Visit
3	Elderly Health – Visit

**Module – Epidemiology and Biostatistics**

Semester: 3<sup>rd</sup>, 6<sup>th</sup> and 8<sup>th</sup> Semester

Iterative: Yes

2<sup>nd</sup> Iteration – VI Semester

Sl. No.	Competency based on revised MCI curriculum	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1		<b>Overview of Study designs – Revision</b> <ul style="list-style-type: none"> <li>Classify study designs</li> <li>Describe null and alternate hypothesis using an example for each study design</li> </ul>	Classroom	Lecture discussion		MCQs SAQ Viva
2		<b>Overview of Study Designs – Practical</b> <ul style="list-style-type: none"> <li>Decide on an appropriate study design for a given hypothesis</li> </ul>	Classroom	Case scenario – Problem based approach	Assignment in Logbook	Viva Practical Exercise
3	CM6.1 Formulate a research question for a study  CM6.3 Describe, discuss and demonstrate the application of elementary statistical	<b>Cross-sectional study – I</b> <ul style="list-style-type: none"> <li>Generate hypothesis/frame objectives for the study design from a given scenario</li> <li>Define participants for a Cross-sectional study in a given scenario</li> </ul>	Classroom	Lecture discussion		MCQs SAQ EQ Viva

	methods including test of significance in various study designs	<ul style="list-style-type: none"> <li>Define exposures and outcomes for a Cross-sectional study in a given scenario</li> <li>Calculate and interpret effect estimates for the Cross-sectional study</li> </ul>				
4	<p>CM6.1 Formulate a research question for a study</p> <p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs</p>	<p><b>Cross-sectional study – I – Practical</b></p> <ul style="list-style-type: none"> <li>Generate hypothesis/frame objectives for the study design from a given scenario</li> <li>Define participants for a Cross-sectional study in a given scenario</li> <li>Define exposures and outcomes for a Cross-sectional study in a given scenario</li> <li>Calculate and interpret effect estimates for the Cross-sectional study</li> </ul>	Classroom	Case scenario – Problem based approach with group activity	Assignment in Logbook	Viva Practical Exercise
5	<p>CM6.1 Formulate a research question for a study</p> <p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including</p>	<p><b>Case-control study- I</b></p> <ul style="list-style-type: none"> <li>Generate hypothesis/frame objectives for the study design from a given scenario</li> <li>Define cases and controls in a given scenario</li> <li>Define exposures and outcomes for the study design in a given scenario</li> </ul>	Classroom	Lecture discussion Case scenario – Problem based approach with group activity	Assignment in Logbook	<p>MCQs</p> <p>SAQ</p> <p>EQ</p> <p>Viva Practical Exercise</p>



	test of significance in various study designs	<ul style="list-style-type: none"> <li>Calculate and interpret effect estimates for a given case-control study</li> </ul>				
6	<p>CM6.1 Formulate a research question for a study</p> <p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs</p>	<p><b>Case-control study- I - Practical</b></p> <ul style="list-style-type: none"> <li>Generate hypothesis/frame objectives for the study design from a given scenario</li> <li>Define cases and controls in a given scenario</li> <li>Define exposures and outcomes for the study design in a given scenario</li> <li>Calculate and interpret effect estimates for a given case-control study</li> </ul>	Classroom	Case scenario – Problem based approach with group activity	Assignment in Logbook	Viva Practical Exercise
7	<p>CM6.1 Formulate a research question for a study</p> <p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including</p>	<p><b>Cohort study – I</b></p> <ul style="list-style-type: none"> <li>Generate hypothesis/frame objectives for the study design from a given scenario</li> <li>Define participants for Cohort study in a given scenario</li> <li>Define exposures and outcomes for Cohort study in a given scenario</li> </ul>	Classroom	Lecture discussion	Assignment in Logbook	MCQs SAQ EQ Viva

	test of significance in various study designs	<ul style="list-style-type: none"> <li>Calculate and interpret effect estimates for a given Cohort study</li> </ul>				
8	<p>CM6.1 Formulate a research question for a study</p> <p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs</p>	<p><b>Cohort study – I - Practical</b></p> <ul style="list-style-type: none"> <li>Generate hypothesis/frame objectives for the study design from a given scenario</li> <li>Define participants for Cohort study in a given scenario</li> <li>Define exposures and outcomes for Cohort study in a given scenario</li> <li>Calculate and interpret effect estimates for a given Cohort study</li> </ul>	Classroom	Case scenario – Problem based approach with group activity	Assignment in Logbook	Viva Practical Exercise
9	<p>CM6.1 Formulate a research question for a study</p> <p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including</p>	<p><b>Randomized Controlled Trial (RCT) – I</b></p> <ul style="list-style-type: none"> <li>Generate hypothesis/frame objectives for the study design from a given scenario</li> <li>Define participants for a RCT in a given scenario</li> <li>Define randomization</li> </ul>	Classroom	Lecture discussion	Assignment in Logbook	MCQs SAQ EQ Viva

	test of significance in various study designs	<ul style="list-style-type: none"> <li>Define exposures and outcomes for RCT in a given scenario</li> <li>Calculate and interpret effect estimates for a given RCT</li> </ul>				
10	<p>CM6.1 Formulate a research question for a study</p> <p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs</p>	<p><b>Randomized Controlled Trial (RCT) – I - Practical</b></p> <ul style="list-style-type: none"> <li>Generate hypothesis/frame objectives for the study design from a given scenario</li> <li>Define participants for a RCT in a given scenario</li> <li>Define randomization</li> <li>Define exposures and outcomes for RCT in a given scenario</li> <li>Calculate and interpret effect estimates for a given RCT</li> </ul>	Classroom	Case scenario – Problem based approach with group activity	Assignment in Logbook	Viva Practical Exercise
11	CM7.8 Describe the principles of association, causation and biases in epidemiological studies	<p><b>Association and Causation</b></p> <ul style="list-style-type: none"> <li>Differentiate between association and causation</li> <li>Describe the theories of causation</li> <li>Describe the criteria for causation</li> </ul>	Classroom	Lecture discussion		<p>MCOs</p> <p>SAQ</p> <p>EQ</p> <p>Viva</p>

12	CM7.8 Describe the principles of association, causation and biases in epidemiological studies	<b>Bias and Confounding</b> <ul style="list-style-type: none"> <li>Define bias,</li> <li>Classify and describe types of bias</li> <li>Describe confounding with an example</li> <li>Describe methods to control bias</li> </ul>	Classroom	Lecture discussion		MCQs SAQ EQ Viva
13	CM7.8 Describe the principles of association, causation and biases in epidemiological studies	<b>Association and Causation Bias and Confounding – Practical</b> <ul style="list-style-type: none"> <li>Identify the causal criteria from a given example</li> <li>Identify the type of bias from a given scenario</li> </ul>	Classroom	Case scenario – Problem based approach with group activity	Assignment in Logbook	Viva Practical Exercise
14	CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data  CM6.3 Describe, discuss and demonstrate the	<b>Choice of Statistical tests</b> <ul style="list-style-type: none"> <li>Classify Statistical tests</li> <li>List the conditions for each statistical test</li> </ul>	Classroom	Lecture discussion		MCQs SAQ Viva

	application of elementary statistical methods including test of significance in various study designs					
15	<p>CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data</p> <p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs</p>	<p><b>Choice of Statistical tests - Practical</b></p> <ul style="list-style-type: none"> <li>• Draw an algorithm for choosing a statistical test</li> <li>• Decide on a statistical test for a given hypothesis</li> </ul>	Classroom	Case scenario – Problem based approach with group activity	Assignment in Logbook	Viva Practical Exercise
16	<p>CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis,</p>	<p><b>Data Presentation Methods- Practical</b></p> <ul style="list-style-type: none"> <li>• Classify the data presentation methods</li> </ul>	Classroom	Lecture discussion		MCOs SAQ Viva

	interpretation and presentation of statistical data	<ul style="list-style-type: none"> <li>Describe the components of different data presentation methods</li> <li>Describe the advantages and disadvantages of various data presentation methods</li> </ul>				
17	CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data	<p><b>Data Presentation Methods - Practical</b></p> <ul style="list-style-type: none"> <li>Decide on an appropriate data presentation for results of given data</li> </ul>	Classroom	Case scenario – Problem based approach with group activity	Assignment in Logbook	Viva Spotter

**Syllabus – Epidemiology and Biostatistics – 2<sup>nd</sup> Iteration – VI Semester**

<b>Sl.No.</b>	<b>Theory class</b>	<b>Faculty</b>	<b>Practical class</b>	<b>Faculty/SR</b>
1	Overview of Study Designs		Overview of Study Designs	
2	Cross-sectional study - I		Cross-sectional study - I	
3	Case-control study- I		Case-control study- I	
4	Cohort study – I		Cohort study – I	
5	Randomized Controlled Trial (RCT) – I		Randomized Controlled Trial (RCT) – I	
6	Association and Causation			
7	Bias and Confounding		Association and Causation Bias and Confounding	
8	Choice of Statistical tests		Choice of Statistical tests	
9	Data Presentation Methods		Data Presentation Methods	

**Module - Health Care Delivery System in India**

Semester: 3<sup>rd</sup>, 6<sup>th</sup> and 9<sup>th</sup> Semesters

Iterative: Yes

2<sup>nd</sup> Iteration – VI Semester

Sl. No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>First Referral Unit – CHC</b>  <b>Parallel Urban counterpart will also be discussed</b></p> <ul style="list-style-type: none"> <li>Recall the functionaries at CHC</li> <li>Describe the concept of First referral unit</li> <li>Describe the role of a first referral unit/services provided at CHC</li> <li>Describe the minimum assured/essential services at CHC</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
2	<p><b>First Referral Unit – CHC - Visit</b>  <b>Parallel Urban counterpart will also be discussed</b></p> <ul style="list-style-type: none"> <li>Recall the functionaries at CHC</li> <li>Knows the manpower and material resources at Subcentre</li> </ul>	Field	Visit to CHC	Report in Logbook	Viva
3	<p><b>Primary Health Centre</b>  <b>Parallel Urban counterpart will also be discussed</b></p> <ul style="list-style-type: none"> <li>Describe the functions of a PHC</li> <li>Differentiate between Urban and rural PHCs</li> <li>Differentiate between Type A and Type B PHC</li> </ul>	Classroom	Visit to PHC		MCQs SAQ Viva



	<ul style="list-style-type: none"> <li>Recall the functionaries at the level of PHC</li> <li>Describe the minimum assured/essential services at a PHC</li> <li>Describe the roles and responsibilities of a medical officer and the field staff at various levels in a PHC</li> </ul>				
4	<b>Primary Health Centre - Visit</b> <b>Parallel Urban counterpart will also be discussed</b> <ul style="list-style-type: none"> <li>Describe the functions of a PHC</li> <li>Knows the manpower and material resources at Subcentre</li> <li>Prepare an organogram of PHC during a visit (Does/performs)</li> </ul>	Field	Visit to PHC	Report in Logbook	Viva
5	<b>Subcentre</b> <b>Parallel Urban counterpart will also be discussed</b> <ul style="list-style-type: none"> <li>Define a Health and Wellness centre</li> <li>Differentiate between Type A and Type B subcentre</li> <li>Describe the services of a Health and wellness centre</li> <li>Describe the role of a skilled birth attendant</li> </ul>	Classroom	Visit to SC		MCQs SAQ Viva
6	<b>Subcentre - Visit</b> <b>Parallel Urban counterpart will also be discussed</b> <ul style="list-style-type: none"> <li>Define a Health and Wellness centre</li> <li>Knows the manpower material resources at Subcentre</li> </ul>	Field	Visit to SC	Report in Logbook	Viva

7	<b>Village level – AWC, ASHA</b> <ul style="list-style-type: none"> <li>Recall the eligibility criteria for ASHA</li> <li>List the components of training for ASHA</li> <li>Describe the functions of ASHA</li> <li>Describe the role of AWW in health care system</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
8	<b>Village level – AWC, ASHA – Visit</b> <ul style="list-style-type: none"> <li>Knows how Anganwadi functions</li> <li>Knows the role of ASHA in health care system</li> </ul>	Field	Visit to AWC Interview with ASHA	Report in Logbook	Viva
9	<b>Community Monitoring Mechanisms</b> <ul style="list-style-type: none"> <li>Describe the community monitoring mechanisms under NRHM (or) describe the role of VHSNC, MAS and RKS (or) describe the role of PRI in health care delivery</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
10	<b>Community Monitoring Mechanisms - Practical</b> <ul style="list-style-type: none"> <li>Knows how VHSNC/RKS meetings are conducted at a Village/PHC</li> </ul>	Field/Simulated discussion	Roleplay Observation of VHSNC session	Report in Log book	Viva
11	<b>Health care models</b> <ul style="list-style-type: none"> <li>Describe the successful models/examples of health care system in various states</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva

**Syllabus – Health Care Delivery System in India – 2<sup>nd</sup> Iteration – VI Semester**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Overview of health care delivery system in India – Urban, Rural and Tribal - Revision			
2	First Referral Unit – CHC			
3	Primary Health Centre			
4	Subcentre			
5	Village level – AWC, ASHA			
6	Community Monitoring Mechanisms		Community Monitoring Mechanisms	
7	Health care models		-	

**Clinical Posting**

1	First Referral Unit – CHC
2	Primary Health Centre
3	Subcentre
4	Village level – AWC, ASHA
5	Community Monitoring Mechanisms

## Module - Reproductive and Child Health

Semester: 4<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> Semesters

Iterative: Yes

2<sup>nd</sup> Iteration – VII Semester

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Health during Periconceptional period</b></p> <ul style="list-style-type: none"> <li>• List the components of periconception advice (revision)</li> <li>• Describe the health needs of married couples in the periconception period (revision)</li> <li>• Describe the rationale for various components of periconception advice (revision)</li> <li>• Give pre/periconception advice to married couples in terms of nutrition, drugs, health check up etc.,</li> </ul> <p><b>Student centred learning</b> -Posting in IVF, adoption centre (to be decided)</p>	Classroom	Lecture cum discussion Demonstration, Observation, Assistance and Performance session		MCQs SAQ EQ Viva OSCE
2	<p><b>Maternal Morbidity and prevention</b></p> <ul style="list-style-type: none"> <li>• List the components of Essential obstetric care, Basic and Comprehensive Emergency obstetric care (revision)</li> <li>• List the components of RMNCH+A 5x5 matrix for reproductive age women and pregnant mothers</li> <li>• Describe the social determinants of maternal morbidity – Anaemia etc., (revision)</li> </ul>	Classroom	Lecture cum discussion Quiz/Tutorial		MCQs SAQ Viva

	<ul style="list-style-type: none"> <li>Describe the preventive strategies for common obstetric and medical complications during pregnancy – Anemia, GDM, PIH (revision)</li> </ul>				
<b>3</b>	<b>Antenatal Check up</b> <ul style="list-style-type: none"> <li>List the danger signs in pregnancy</li> <li>List the components of history taking and examination and investigations for antenatal check-up (Trimester wise)</li> <li>Describe the rationale for various components of antenatal health check up</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
<b>4</b>	<b>Antenatal Check up -Practical – Visit</b> <ul style="list-style-type: none"> <li>Shows How to screen for high risk conditions during pregnancy</li> </ul>	Field/Clinical Posting	Visit to Obstetrics OPD/Antenatal clinic during field posting	Report in Logbook	MCQs Viva Clinicosocial case assessment
<b>5</b>	<b>Management of Maternal Morbidity – Practical</b> <ul style="list-style-type: none"> <li>Knows how to manage common obstetric and medical conditions during pregnancy (Trimester wise)</li> <li>Knows how to manage common obstetric and medical conditions during pregnancy – Anemia, GDM, Pre-eclampsia etc., at PHC level</li> </ul>	Classroom	Demonstration on use of Standard treatment guidelines	Assignment in Logbook	MCQs Viva Clinicosocial case assessment
<b>6</b>	<b>Maternal Health Services under RCH</b> <ul style="list-style-type: none"> <li>List the interventions for reproductive women and pregnant mothers under RCH</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva

	<ul style="list-style-type: none"> <li>Describe the objectives, implementation process and outcomes of Janani Suraksha Yojana Scheme</li> <li>Describe the objectives, implementation process and outcomes of JSSK</li> <li>Describe the objectives, implementation process and outcomes of IGMSY</li> <li>Describe the objectives, implementation process and outcomes of PMSMA</li> </ul>				
7	<b>Maternal Health Services under RCH – Practical - Visit</b> <ul style="list-style-type: none"> <li>Knows how the Schemes like JSY, JSSK, IGMSY, PMSMA are implemented at PHC/SC level</li> </ul>	Field/Clinical Posting	Visit to UHTC/RHTC	Report in Logbook	MCQs Viva Clinicosocial case assessment
8	<b>Contraceptive Advice - Theory</b> <ul style="list-style-type: none"> <li>Classify the contraceptive methods</li> <li>Describe target free approach</li> <li>Describe cafeteria approach for contraceptive methods</li> <li>Describe the mechanism of action of various contraceptive methods</li> <li>Describe the advantages, disadvantages, and side effects of contraceptive methods</li> </ul>	Classroom	Lecture cum discussion <ul style="list-style-type: none"> <li></li> </ul>		MCQs SAQ Viva
9	<b>Contraceptive Advice - Practical</b> <ul style="list-style-type: none"> <li>Shows how to give instructions for use of contraceptive methods – Condom, OCP, IUCD etc.,</li> </ul>	Classroom	Problem based approach Demonstration of contraceptive methods Demonstration of counselling		

	<ul style="list-style-type: none"> <li>Decide a counselling plan for family planning in a given case scenario</li> <li>Show how to give counselling for family planning in a simulated setting</li> </ul> <p>Student centred learning – Posting in Family planning clinic</p>				
<b>10</b>	<p><b>Introduction to Newborn and Child Health (Revision)</b></p> <ul style="list-style-type: none"> <li>List the components of Essential Newborn care</li> <li>List the danger signs in an under-five child</li> <li>List the components of RMNCH+A 5x5 matrix for children</li> <li>Define low birth weight</li> <li>Describe the components of Kangaroo mother care and its advantages</li> <li>Describe the social determinants of child morbidity</li> <li>Describe the preventive strategies for common causes of morbidity and mortality during childhood</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
<b>11</b>	<p><b>Newborn services under RCH</b></p> <ul style="list-style-type: none"> <li>List the interventions for neonates and under-five children under RCH</li> <li>Describe the objectives, implementation process and outcomes of NSSK</li> <li>Describe the hierarchical structure of newborn care – NBCC, NBSU, SNCU</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva

<b>12</b>	<b>Newborn care services – Practical</b> <ul style="list-style-type: none"> <li>Knows how Neonatal resuscitation is done in a resource limited setting</li> <li>Shows how to give advice regarding breastfeeding and immunization in a simulated setting</li> <li>Shows how to give instructions for Kangaroo mother care</li> </ul>	Classroom	Simulated training Demonstration, Observation, Assistance and Performance	Report in Logbook	Spotter Viva OSCE
<b>13</b>	<b>Immunization</b> <ul style="list-style-type: none"> <li>List the components of MCP card</li> <li>Define full immunization</li> <li>Describe the National Immunization Schedule</li> <li>Shows how to prescribe vaccines for a child in a given case scenario</li> </ul>	Classroom	Lecture cum discussion Problem based approach	Assignment in Logbook	MCQs SAQ Viva Spotter Practical exercise
<b>14</b>	<b>Immunization – Visit</b> <ul style="list-style-type: none"> <li>Knows how to give vaccines prescribed under the National Immunization schedule</li> </ul>	Field/Clinical posting	Demonstration, Observation, Assistance and Performance	Report in Logbook	OSPE
<b>15</b>	<b>IMNCI</b> <ul style="list-style-type: none"> <li>List the diseases under IMNCI</li> <li>Describe the rationale for IMNCI</li> <li>Describe the IMNCI classification and management for Diarrhoea, Pneumonia and Malnutrition</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
<b>16</b>	<b>IMNCI – Practical</b> <ul style="list-style-type: none"> <li>Classify a sick child as per IMNCI in a simulated setting</li> <li>Decide a plan of treatment of a sick child in a given case scenario based on IMNCI</li> </ul>	Classroom	Demonstration, Observation, Assistance and Performance	Assignment in logbook	Practical Exercise OSCE



	<ul style="list-style-type: none"> <li>Shows how to give instructions on preparation and use of ORS</li> </ul>				
<b>17</b>	<b>Child Nutrition, Growth and Development</b> <ul style="list-style-type: none"> <li>Describe principles of infant and young child feeding practices</li> <li>Describe the uses of growth chart</li> <li>Describe the impact of stress on Antenatal, postnatal and early childhood development</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
<b>18</b>	<b>Child Nutrition, Growth and Development</b> <b>Practical</b> <ul style="list-style-type: none"> <li>Give advice on the proper way to breastfeed a child</li> <li>Give training to mother on plotting and interpreting a growth chart</li> </ul>	Field/Clinical Posting	Demonstration, Observation, Assistance and Performance	Report in Logbook	Spotter Practical Exercise OSCE

**Syllabus – Reproductive and Child Health – 2<sup>nd</sup> Iteration – VII Semester**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Health during Periconceptional period			
2	Maternal Morbidity and prevention			
3	Antenatal Check up			
4	Maternal Health Services under RCH		Management of Maternal Morbidity – Practical	
5	Contraceptive Advice – Theory			
6	Introduction to Newborn and Child Health (Revision)		Contraceptive Advice - Practical	
7	Newborn services under RCH		- Newborn care services – Practical	
8	Immunization			
9	IMNCI		IMNCI - Practical	
10	Child Nutrition, Growth and Development		Child Nutrition, Growth and Development	

**Clinical Posting**

1	Antenatal Check up -Practical
2	Maternal Health Services under RCH – Practical
3	Immunization – Visit

**Module – Epidemiology of Communicable diseases (ECD)**

**Topic: Epidemiology of Communicable Diseases**

**Semester: 7<sup>th</sup> Semester**

**Iterative: No**

<b>Sl. No.</b>	<b>Competency based on revised MCI curriculum</b>	<b>Specific Learning Objectives</b>	<b>Classroom/Field/Both</b>	<b>Teaching/learning Method</b>	<b>Verification of activity</b>	<b>Assessment</b>
1	*Describe the principles of Epidemiology and control of Communicable diseases	<b>Introduction to Infectious disease</b> ECD1.1. Define the terms – Infection, Contamination, Infestation ECD 1.2. Define the terms- Epidemic, Endemic, Sporadic, Zoonotic etc., ECD 1.3. Describe the characteristics of infectious diseases ECD 1.4. Describe Epidemic, Endemic and Sporadic with an example	Classroom	Lecture cum discussion		MCQs VSAQ SAQ Viva
2	*Describe the principles of Epidemiology and control of Communicable diseases	<b>Transmission of Infectious diseases</b> ECD2.1. Define agent, host, source and reservoir ECD2.2. Describe the chain of transmission with an example ECD2.3. Describe the modes of transmission of infection with an example	Classroom	Lecture cum discussion		MCQs VSAQ SAQ Viva
3	*Describe the principles of Epidemiology and control of Communicable diseases	<b>Natural history of Infectious disease</b> ECD3.1. Define subclinical infection and latent infection	Classroom	Lecture cum discussion		MCQs VSAQ SAQ Viva

		ECD3.2. Define incubation period, serial interval and generation time ECD3.3. Describe natural history of an infection including possible outcomes using an example				
4	*Describe the principles of Epidemiology and control of Communicable diseases	<b>Principles of Infectious disease control</b> ECD4.1. Define control, elimination, and eradication ECD4.2. Describe epidemiological basis of disease control with an example ECD4.3. Describe the characteristics/ criteria for an infectious disease that suits its elimination/eradication ECD4.4. Relate the prevention/control strategies with the modes of transmission ECD4.5. Relate prevention strategies to the chain of transmission Describe the rationale behind preventive strategies for an infection	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva
5	*Describe the principles of Epidemiology and control of Communicable diseases	<b>Mathematical Modelling of disease</b> ECD5.1. Describe the principles of mathematical modelling of disease ECD5.2. Describe the concepts of Basic and Net reproductive rate ECD5.3. Describe the concept of Herd immunity threshold	Classroom	Lecture cum discussion		MCQs VSAQ SAQ Viva

6	*Describe the principles of Epidemiology and control of Communicable diseases	<p><b>Principles of Infectious Disease Control – Practical</b></p> <p>ECD6.1. Relate the prevention/control strategies with the modes of transmission</p> <p>ECD6.2. Relate prevention strategies to the chain of transmission Describe the rationale behind preventive strategies for an infection</p> <p>ECD6.3. Calculate Median incubation period, attack rate</p> <p>ECD6.4. Calculate Herd immunity threshold</p>	Classroom	Case scenario approach Demonstration Observation, Assistance and Performance		Practical exercises Viva
7	*Describe the principles of Epidemiology and control of Communicable diseases	<p><b>Immunological basis of Vaccines</b></p> <p>ECD7.1. Describe the principles of immunization (or) immunological basis of vaccines</p> <p>ECD7.2. Classify the types of vaccine based on the composition with an example</p> <p>ECD7.3. Describe advantages and disadvantage of each type of vaccine</p>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ Viva
8	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<p><b>Respiratory Infections – General principles</b></p> <p>ECD8.1. List at least two agent, host and environmental factors for a given infection</p>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva

	CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease	ECD8.2. Describe the burden of a disease with relevance to India ECD8.3. Describe the chain of transmission using a flow diagram ECD8.4. Relate prevention strategies to the chain of transmission ECD8.5. Describe prevention and control strategies				
9	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<b>Respiratory Infections – Specific Diseases</b> <b>Chicken pox, Measles, Rubella, Mumps, Diphtheria, Whooping Cough</b> ECD9.1. List at least two agent, host and environmental factors for a given infection ECD9.2. Describe the burden of a disease with relevance to India ECD9.3. Describe the characteristics of a given infectious disease using Epidemiological triad ECD9.4. Describe the chain of transmission using a flow diagram ECD9.5. Relate prevention strategies to the chain of transmission ECD9.6. Describe prevention and control strategies	Classroom/ Student centred learning	Lecture cum discussion/Student Seminar		MCQs VSAQ SAQ Viva

10	<p>CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases</p>	<p><b>Respiratory Infections – Specific Diseases</b>  <b>Meningococcal Meningitis, SARS and Influenza</b>  ECD10.1. List at least two agent, host and environmental factors for a given infection  ECD10.2. Describe the burden of a disease with relevance to India  ECD10.3. Describe the characteristics of a given infectious disease using Epidemiological triad  ECD10.4. Describe the chain of transmission using a flow diagram  ECD10.5. Relate prevention strategies to the chain of transmission  ECD10.6. Describe prevention and control strategies</p>	Classroom/ Student centred learning	Lecture cum discussion/Student Seminar		MCQs VSAQ SAQ Viva
11	<p>CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at</p>	<p><b>Respiratory Infections – ARI</b>  ECD11.1. List at least two agent, host and environmental factors for a given infection  ECD11.2. Describe the burden of a disease with relevance to India  ECD11.3. Describe the characteristics of a given infectious disease using Epidemiological triad  ECD11.4. Describe the chain of transmission using a flow diagram</p>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ Viva

	community level bearing in mind the public health importance of the disease	ECD11.5. Relate prevention strategies to the chain of transmission ECD11.6. Describe prevention and control strategies				
12	CM 8.3. Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case  CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease	<b>IMNCI – ARI and Measles Surveillance</b> ECD12.1. Describe program strategies/ policy initiatives related to the given infection ECD12.2. Describe the prevention strategies with relevance to primary health care ECD12.3. Describe the institutional mechanism/organizational structure of the given program ECD12.4. Describe the implementation process for the given program strategies ECD12.5. Describe the surveillance strategy for a given disease	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva
13	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases  CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at	<b>Respiratory Infections – TB</b> ECD13.1. List at least two agent, host and environmental factors for a given infection ECD13.2. Describe the burden of a disease with relevance to India ECD13.3. Describe the characteristics of a given infectious disease using Epidemiological triad ECD13.4. Describe the chain of transmission using a flow diagram	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva



	community level bearing in mind the public health importance of the disease	ECD13.5. Relate prevention strategies to the chain of transmission ECD13.6. Describe prevention and control strategies				
14	CM 8.3. Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case  CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease	<b>RNTCP</b> ECD14.1. Describe program strategies/ policy initiatives related to the given infection ECD14.2. Describe the prevention strategies with relevance to primary health care ECD14.3. Describe the institutional mechanism/organizational structure of the given program ECD14.4. Describe the implementation process for the given program strategies ECD14.5. Describe the surveillance strategy for a given disease	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva
15	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<b>Respiratory Infections – TB - Practical</b> ECD15.1. Shows how to treat TB using standard treatment algorithms ECD15.2. Calculation of RNTCP indicators based on given data	Classroom	Demonstration, Observation, Assistance and Performance Problem based approach		Practical exercise Viva
16	CM 8.3. Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case	<b>RNTCP - Visit</b> ECD16.1. Know how the disease control program is implemented ECD16.2. Know how the disease control program is monitored	Field	Visit to RNTCP office	Report in Logbook	Spotter Viva

	CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease					
17	<p>CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p>	<p><b>Intestinal Infections – General Principles</b></p> <p>ECD17.1. List at least two agent, host and environmental factors for a given infection</p> <p>ECD17.2. Describe the burden of a disease with relevance to India</p> <p>ECD17.3. Describe the chain of transmission using a flow diagram</p> <p>ECD17.4. Relate prevention strategies to the chain of transmission</p> <p>ECD17.5. Describe prevention and control strategies</p>	Classroom	Lecture cum discussion		<p>MCQs</p> <p>VSAQ</p> <p>SAQ</p> <p>Viva</p>
18	<p>CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases</p>	<p><b>Intestinal Infections – Specific diseases</b></p> <p><b>Acute Diarrheal diseases, Cholera, Typhoid, Food poisoning, Amebiasis</b></p> <p>ECD18.1. List at least two agent, host and environmental factors for a given infection</p>	Classroom/ Student centred learning	Lecture cum discussion/Student Seminar		<p>MCQs</p> <p>VSAQ</p> <p>SAQ</p> <p>Viva</p>

		<p>ECD18.2. Describe the burden of a disease with relevance to India</p> <p>ECD18.3. Describe the characteristics of a given infectious disease using Epidemiological triad</p> <p>ECD18.4. Describe the chain of transmission using a flow diagram</p> <p>ECD18.5. Relate prevention strategies to the chain of transmission</p> <p>ECD18.6. Describe prevention and control strategies</p>				
19	<p>CM 8.4. Describe the principles and enumerate the measures to control a disease epidemic</p>	<p><b>Outbreak investigation</b></p> <p>ECD19.1. List the steps in outbreak investigation</p> <p>ECD19.2. Describe the steps of outbreak investigation with an example</p> <p>ECD19.3. Discuss the principles of outbreak investigation</p> <p>ECD19.4. Discuss the basis of criteria for elimination of an infection</p>	Classroom	Lecture cum discussion		<p>MCQs</p> <p>VSAQ</p> <p>SAQ</p> <p>Viva</p>
20	<p>CM 8.4. Describe the principles and enumerate the measures to control a disease epidemic</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind</p>	<p><b>Outbreak investigation – Simulation – Preparation</b></p> <p>ECD20.1. Prepare epidemiological case sheets</p>	Classroom	Problem based learning		<p>Practical Exercises</p> <p>Viva</p>

	the public health importance of the disease					
21	<p>CM 8.4. Describe the principles and enumerate the measures to control a disease epidemic</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p>	<p><b>Outbreak investigation – Simulation – Data collection</b></p> <p>ECD21.1. To do outbreak investigation in a simulated setting</p>	Field	Simulated learning Problem based learning		Practical Exercises Viva
22	<p>CM 8.4. Describe the principles and enumerate the measures to control a disease epidemic</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p>	<p><b>Outbreak investigation – Simulation – Analysis and report writing</b></p> <p>ECD22.1. To do outbreak investigation in a simulated setting</p>	Classroom	Demonstration, Observation, Assistance and Performance		Practical Exercise Viva
23	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the	<p><b>Intestinal Infections – Specific diseases Ascaris, Hookworm and Dracunculiasis</b></p> <p>ECD23.1. List at least two agent, host and environmental factors for a given infection</p>	Classroom/ Student centred learning	Lecture cum discussion/Student Seminar		MCQs VSAQ SAQ Viva

	primary care level for communicable diseases	ECD23.2. Describe the burden of a disease with relevance to India ECD23.3. Describe the characteristics of a given infectious disease using Epidemiological triad ECD23.4. Describe the chain of transmission using a flow diagram ECD23.5. Relate prevention strategies to the chain of transmission ECD23.6. Describe prevention and control strategies				
24	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<b>Intestinal Infections - Poliomyelitis</b> ECD24.1. List at least two agent, host and environmental factors for a given infection ECD24.2. Describe the burden of a disease with relevance to India ECD24.3. Describe the chain of transmission using a flow diagram ECD24.4. Relate prevention strategies to the chain of transmission ECD24.5. Describe prevention and control strategies	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva
25	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<b>IMNCI for Diarrhea and National Polio Surveillance Project</b> ECD25.1. Describe program strategies/ policy initiatives related to the given infection	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva

	<p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p>	<p>ECD25.2. Describe the prevention strategies with relevance to primary health care</p> <p>ECD25.3. Describe the institutional mechanism/organizational structure of the given program</p> <p>ECD25.4. Describe the implementation process for the given program strategies</p> <p>ECD25.5. Describe the surveillance strategy for a given disease</p>				
26	<p>CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p>	<p><b>Vector Borne Diseases – General Principles</b></p> <p>ECD26.1. List at least two agent, host and environmental factors for a given infection</p> <p>ECD26.2. Describe the burden of a disease with relevance to India</p> <p>ECD26.3. Describe the chain of transmission using a flow diagram</p> <p>ECD26.4. Relate prevention strategies to the chain of transmission</p> <p>ECD26.5. Describe prevention and control strategies</p>	Classroom	Lecture cum discussion		<p>MCQs</p> <p>VSAQ</p> <p>SAQ</p> <p>Viva</p>

27	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<p><b>Vector Borne Diseases – Specific Diseases</b>  <b>Malaria, Filaria and Kala Azar</b>  ECD27.1. List at least two agent, host and environmental factors for a given infection  ECD27.2. Describe the burden of a disease with relevance to India  ECD27.3. Describe the chain of transmission using a flow diagram  ECD27.4. Relate prevention strategies to the chain of transmission  ECD27.5. Describe prevention and control strategies</p>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva
28	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<p><b>Vector Borne Diseases – Specific Diseases</b>  <b>Dengue, JE and Chikungunya</b>  ECD28.1. List at least two agent, host and environmental factors for a given infection  ECD28.2. Describe the burden of a disease with relevance to India  ECD28.3. Describe the characteristics of a given infectious disease using Epidemiological triad  ECD28.4. Describe the chain of transmission using a flow diagram  ECD28.5. Relate prevention strategies to the chain of transmission</p>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva

		ECD28.6. Describe prevention and control strategies				
29	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<p><b>Vector Borne Diseases – Specific Diseases</b></p> <p><b>Scrub typhus, KFD and Rickettsial diseases</b></p> <p>ECD29.1. List at least two agent, host and environmental factors for a given infection</p> <p>ECD29.2. Describe the burden of a disease with relevance to India</p> <p>ECD29.3. Describe the characteristics of a given infectious disease using Epidemiological triad</p> <p>ECD29.4. Describe the chain of transmission using a flow diagram</p> <p>ECD29.5. Relate prevention strategies to the chain of transmission</p> <p>ECD29.6. Describe prevention and control strategies</p>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ Viva
30	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the	<p><b>Integrated Vector Management</b></p> <p>ECD30.1. List the vectors of public health importance and the diseases caused by them</p>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva



	<p>primary care level for communicable diseases</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p>	<p>ECD30.2. Classify vector control methods</p> <p>ECD30.3. Describe advantages and disadvantages of different vector control methods for a given vector</p> <p>ECD30.4. Describe the habitat, breeding habits and transmissibility of a given vector</p> <p>ECD30.5. Describe the principles of Integrated Vector management</p>				
31	<p>CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p>	<p><b>Integrated Vector Management - Practical</b></p> <p>ECD31.1. Identify a vector based on the specimen (slide/mount)</p> <p>ECD31.2. Advice for a vector control strategy for a given disease and a community setting</p>	Classroom	Demonstration, Observation, Assistance and Performance Problem based approach		Spotter Practical exercise Viva
32	<p>CM 8.3. Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case</p>	<p><b>NVBDCP</b></p> <p>ECD32.1. Describe program strategies/ policy initiatives related to the given infection</p>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva

	CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease	ECD32.2. Describe the prevention strategies with relevance to primary health care ECD32.3. Describe the institutional mechanism/organizational structure of the given program ECD32.4. Describe the implementation process for the given program strategies ECD32.5. Describe the surveillance strategy for a given disease				
33	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases  CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease	<b>Vector borne diseases - Practical</b> ECD33.1. Shows how to treat common infections like Malaria/ Filaria/Dengue using standard treatment algorithms ECD33.2. Calculation of NVBDCP indicators based on given data	Classroom	Demonstration, Observation, Assistance and Performance Problem based approach		Practical exercise Viva
34	CM 8.3. Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case	<b>NVBDCP - Visit</b> ECD34.1. Know how the disease control program is implemented ECD34.2. Know how the disease control program is monitored	Field	Visit to NVBDCP office	Report in Logbook	Spotter Viva

	CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease					
35	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<b>Sexually transmitted infections – General Principles with focus on HIV</b> ECD35.1. List at least two agent, host and environmental factors for a given infection ECD35.2. Describe the burden of a disease with relevance to India ECD35.3. Describe the characteristics of a given infectious disease using Epidemiological triad ECD35.4. Describe the chain of transmission using a flow diagram ECD35.5. Relate prevention strategies to the chain of transmission ECD35.6. Describe prevention and control strategies	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva
36	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the	<b>Sexually transmitted infections – Herpes, Syphilis, Chlamydial and Trichomonal infections</b>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva

	primary care level for communicable diseases	<p>ECD36.1. List at least two agent, host and environmental factors for a given infection</p> <p>ECD36.2. Describe the burden of a disease with relevance to India</p> <p>ECD36.3. Describe the characteristics of a given infectious disease using Epidemiological triad</p> <p>ECD36.4. Describe the chain of transmission using a flow diagram</p> <p>ECD36.5. Relate prevention strategies to the chain of transmission</p> <p>ECD36.6. Describe prevention and control strategies</p> <p>ECD36.7. Describe the principles of Syndromic management in STI</p>				
37	<p>CM 8.3. Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p>	<p><b>NACP including STI/RTI control program</b></p> <p>ECD37.1. Describe program strategies/ policy initiatives related to the given infection</p> <p>ECD37.2. Describe the prevention strategies with relevance to primary health care</p> <p>ECD37.3. Describe the institutional mechanism/organizational structure of the given program</p> <p>ECD37.4. Describe the implementation process for the given program strategies</p>	Classroom	Lecture cum discussion		<p>MCQs</p> <p>VSAQ</p> <p>SAQ</p> <p>EQ</p> <p>Viva</p>

		ECD37.5. Describe the surveillance strategy for a given disease				
38	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<b>Sexually transmitted infections – Practical</b> ECD38.1. Shows how to sexually transmitted infections using principles of syndromic management ECD38.2. Shows how to give post exposure prophylaxis in HIV ECD38.3. Calculation of NACP indicators based on given data	Classroom	Demonstration, Observation, Assistance and Performance Problem based approach		Practical exercise Viva
39	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<b>Leprosy</b> ECD39.1. List at least two agent, host and environmental factors for a given infection ECD39.2. Describe the burden of a disease with relevance to India ECD39.3. Describe the characteristics of a given infectious disease using Epidemiological triad ECD39.4. Describe the chain of transmission using a flow diagram ECD39.5. Relate prevention strategies to the chain of transmission ECD39.6. Describe prevention and control strategies	Classroom	Lecture cum discussion		MCQs VSAQ SAQ EQ Viva
40	CM 8.3. Enumerate and describe disease specific National Health Programs including their	<b>NLEP</b>	Classroom	Lecture cum discussion		MCQs VSAQ SAQ

	<p>prevention and treatment of a case</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p>	<p>ECD40.1. Describe program strategies/ policy initiatives related to the given infection</p> <p>ECD40.2. Describe the prevention strategies with relevance to primary health care</p> <p>ECD40.3. Describe the institutional mechanism/organizational structure of the given program</p> <p>ECD40.4. Describe the implementation process for the given program strategies</p> <p>ECD40.5. Describe the surveillance strategy for a given disease</p>				EQ Viva
41	<p>CM 8.3. Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case</p>	<p><b>NLEP – Visit</b></p> <p>ECD41.1. Know how the disease control program is implemented</p> <p>ECD41.2. Know how the disease control program is monitored</p>	Field	Visit to NLEP office	Report in Logbook	Spotter Viva
42	<p>CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases</p>	<p><b>Nosocomial infections</b></p> <p>ECD42.1. Describe the burden of a disease with relevance to India</p> <p>ECD42.2. Describe the characteristics of a given infectious disease using Epidemiological triad</p> <p>ECD42.3. Describe the chain of transmission using a flow diagram</p> <p>ECD42.4. Relate prevention strategies to the chain of transmission</p>	Student centred learning	Student seminar with faculty moderation	Assessment of student presentation	MQs VSAQ SAQ EQ Viva

		ECD42.5. Describe prevention and control strategies				
43	CM 14.1 Define and classify hospital waste CM 14.2. Describe various methods of treatment of hospital waste CM 14.3. Describe laws related to hospital waste management	<b>Hospital Waste Management</b> ECD43.1. Classify different types of hospital waste ECD43.2. Describe the hazards of hospital waste ECD43.3. Classify and describe the treatment methods for hospital waste ECD43.4. Describe the segregation of hospital waste based on Biomedical Waste management rules	Classroom	Lecture cum discussion		MCQs SAQ VSAQ EQ Viva
44	CM 14.1 Define and classify hospital waste CM 14.2. Describe various methods of treatment of hospital waste CM 14.3. Describe laws related to hospital waste management	<b>Hospital Waste Management – Visit</b> ECD44.1. Know how hospital wastes are segregated ECD44.2. Know how hospital wastes are treated	Field	Visit to Hospital wards and Hazardous waste treatment site (Incinerator)	Report in Logbook	Spotter Viva
45	CM 8.1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	<b>Emerging Infectious diseases</b> ECD45.1. Discuss the epidemiology of emerging infectious diseases ECD45.2. Describe the characteristics of a given infectious disease using Epidemiological triad ECD45.3. Describe the chain of transmission using a flow diagram ECD45.4. Relate prevention strategies to the chain of transmission	Classroom	Lecture cum discussion		MCQs SAQ VSAQ Viva

		ECD45.5. Describe prevention and control strategies				
46	<p>CM 8.3. Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease</p> <p>CM 8.7. Describe the principles of management of information systems</p>	<p><b>IDSP</b></p> <p>ECD46.1. Describe program strategies/ policy initiatives related to the given infection</p> <p>ECD46.2. Describe the prevention strategies with relevance to primary health care</p> <p>ECD46.3. Describe the institutional mechanism/organizational structure of the given program</p> <p>ECD46.4. Describe the implementation process for the given program strategies</p>	Classroom	Lecture cum discussion		<p>MCQs</p> <p>VSAQ</p> <p>SAQ</p> <p>EQ</p> <p>Viva</p>
47	<p>CM 8.3. Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case</p> <p>CM 8.5. Describe and discuss the principles of planning, implementing and evaluating control measures for disease at</p>	<p><b>IDSP Visit</b></p> <p>ECD47.1. Know how the program is implemented</p> <p>ECD47.2. Know how the program is monitored</p>	Field	Visit to IDSP office/ PHC visit	Report in Logbook	<p>Spotter</p> <p>Viva</p>



	<p>community level bearing in mind the public health importance of the disease</p> <p>CM 8.7. Describe the principles of management of information systems</p>					
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**MCI Competencies Covered Partly/fully elsewhere**

CM 8.6. Educate and train health workers in disease surveillance, control & treatment and health education

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

**Syllabus – Epidemiology of Communicable Diseases**

<b>Sl.No.</b>	<b>Theory class</b>	<b>Faculty</b>	<b>Practical class</b>	<b>Faculty/SR</b>
1	Introduction to Infectious disease (ECD 1.1 -1.4)		Principles of Infectious Disease Control – Practical (ECD 6.1 -6.4)	
2	Transmission of Infectious diseases (ECD 2.1 -2.3)			
3	Natural history of Infectious disease (ECD 3.1 -1.3)			
4	Principles of Infectious disease control (ECD 4.1 -4.5)			
5	Mathematical Modelling of disease (ECD 5.1 -5.3)			
6	Immunological basis of Vaccines (ECD 7.1 -7.4)			
7	Respiratory Infections – General principles (ECD 8.1 -8.5)			
8	Respiratory Infections – Specific Diseases Chicken pox, Measles, Rubella, Mumps, Diphtheria, Whooping Cough (ECD 9.1 - 9.6)			
9	Respiratory Infections – Specific Diseases Meningococcal Meningitis, SARS and Influenza (ECD 10.1 -10.6)			
10	Respiratory Infections – ARI (ECD 11.1 - 11.6)			

11	IMNCI – ARI and Measles Surveillance (ECD 12.1 -12.5)			
12	Respiratory Infections – TB (ECD 13.1 - 13.6)			
13	RNTCP (ECD 14.1 -14.5)			
14	Intestinal Infections – General Principles (ECD 17.1 -17.5)		Respiratory Infections – TB – Practical (ECD 15.1 -15.2)	
15	Intestinal Infections – Specific diseases Acute Diarrheal diseases, Cholera, Typhoid, Food poisoning, Amebiasis (ECD 18.1 -18.6)			
16	Outbreak investigation (ECD 19.1 -19.4)			
17	Intestinal Infections – Specific diseases Ascaris, Hookworm and Dracunculiasis (ECD 23.1 -23.6)			
18	Intestinal Infections – Poliomyelitis (ECD 24.1 -24.5)			
19	IMNCI for Diarrhea and National Polio Surveillance Project (ECD 25.1 -25.5)			
20	Vector Borne Diseases – General Principles (ECD 26.1 -26.5)			
21	Vector Borne Diseases – Specific Diseases Malaria, Filaria and Kala Azar (ECD 27.1 - 27.5)			
22	Vector Borne Diseases – Specific Diseases Dengue, JE and Chikungunya (ECD 28.1 - 28.6)			

23	Vector Borne Diseases – Specific Diseases Scrub typhus, KFD and Rickettsial diseases (ECD 29.1 -29.6)			
24	Integrated Vector Management (ECD 30.1 -30.5)		Integrated Vector Management – Practical (ECD 31.1 -31.2)	
25	NVBDCP (ECD 32.1 -32.5)		Vector borne diseases – Practical (ECD 33.1 -33.2)	
26	Sexually transmitted infections – General Principles with focus on HIV (ECD 35.1 - 35.6)			
27	Sexually transmitted infections – Herpes, Syphilis, Chlamydial and Trichomonal infections (ECD 36.1 -36.7)			
28	NACP including STI/RTI control program (ECD 37.1 -37.5)		Sexually transmitted infections – Practical (ECD 38.1 -38.3)	
29	Leprosy (ECD 39.1 -39.6)			
30	NLEP (ECD 40.1 -40.5)			
31	Nosocomial infections (ECD 42.1 -42.5)			
32	Hospital Waste Management (ECD 43.1 - 43.4)			
33	Emerging Infectious diseases (ECD 45.1 - 45.5)			
34	IDSP (ECD 46.1 -46.4)			

**Clinical Posting**

1	RNTCP – Visit (ECD 16.1 -16.2)
2	Outbreak investigation – Simulation – Preparation (ECD 20.1)
3	Outbreak investigation – Simulation – Data collection (ECD 21.1)
4	Outbreak investigation – Simulation – Analysis and report writing (ECD 22.1)
5	NVBDCP – Visit (ECD 34.1 -34.2)
6	NLEP – Visit (ECD 41.1 -41.2)
7	IDSP – Visit (ECD 47.1 -47.2)

**Field Visit**

1	Hospital Waste Management – Visit (ECD 44.1 -44.2)
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## Module – Epidemiology of Non-Communicable Diseases

Semester: 7<sup>th</sup> Semester

Iterative: No

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Introduction to Epidemiology of Non-communicable diseases</b></p> <ul style="list-style-type: none"> <li>• List the common NCDs</li> <li>• List the global NCD targets for 2025</li> <li>• List the national NCD targets for 2025</li> <li>• List the characteristics of NCDs</li> <li>• Describe the common characteristic features of NCDs in terms of pathogenesis, clinical presentation, diagnosis and prognosis</li> <li>• Describe the need for NCD prevention and control with respect to India</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
2	<p><b>Principles of NCD control</b></p> <ul style="list-style-type: none"> <li>• Relate/Link natural history of disease the prevention strategies</li> <li>• Relate/Link risk factors with prevention strategies</li> <li>• Relate/Link epidemiological challenges with program strategies</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
3	<p><b>Settings approach to Health promotion</b></p> <ul style="list-style-type: none"> <li>• Describe risk continuum in NCDs</li> <li>• Describe settings approach to prevention of NCDs</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva

	<ul style="list-style-type: none"> <li>Describe the principles and priority action areas in the Ottawa charter for health promotion</li> </ul>				
4	<b>Diabetes Mellitus</b> <ul style="list-style-type: none"> <li>List the risk factors for a given NCD</li> <li>Describe the burden of a given NCD with respect to India</li> <li>Describe the role of each of the risk factors for a given Non-communicable disease</li> <li>Describe Barkers Hypothesis</li> <li>Describe the opportunities and challenges for the control of a given NCD</li> <li>Classify and describe the strategies for prevention of a given NCD</li> <li>Describe the methods of screening and diagnosis for a given NCD</li> <li>Describe the policy initiatives/ program strategies for a given NCD</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
5	<b>Diabetes Mellitus - Practical</b> <ul style="list-style-type: none"> <li>Treat DM based on a given patient data using standard treatment algorithms</li> <li>Knows how to perform screening for DM in a health camp/clinic set up</li> <li>Shows how to give dietary advice for a patient with DM</li> <li>Shows how to give advice for self-monitoring/self-care in DM</li> <li>Prepare a prevention plan for a given NCD using settings approach</li> <li>Plan for a screening program for DM</li> </ul>	Classroom	Demonstration Observation Assistance and Performance Problem based approach - Case scenario	Assignment in Logbook	Practical exercise Clinicosocial case presentation Viva

6	<p><b>Hypertension</b></p> <ul style="list-style-type: none"> <li>• List the risk factors for a given NCD</li> <li>• Describe the burden of a given NCD with respect to India</li> <li>• Define Normal Blood pressure and Hypertension</li> <li>• Describe the role of each of the risk factors for a given Non-communicable disease</li> <li>• Describe the opportunities and challenges for the control of a given NCD</li> <li>• Classify and describe the strategies for prevention of a given NCD</li> <li>• Describe the methods of screening and diagnosis for a given NCD</li> <li>• Describe the policy initiatives/ program strategies for a given NCD</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
7	<p><b>Hypertension - Practical</b></p> <ul style="list-style-type: none"> <li>• Knows how to perform screening for HTN in a health camp/clinic set up</li> <li>• Treat DM/HTN based on a given patient data using standard treatment algorithms</li> <li>• Shows how to give dietary advice for a patient with DM/HTN/CAD</li> <li>• Shows how to give advice for self-monitoring/self-care in HTN</li> <li>• Prepare a prevention plan for a given NCD using settings approach</li> <li>• Plan for a screening program for DM/HTN/Cancer</li> </ul>	Classroom	Demonstration Observation Assistance and Performance Problem based approach - Case scenario	Assignment in Logbook	Practical exercise Clinicosocial case presentation Viva



8	<p><b>Obesity</b></p> <ul style="list-style-type: none"> <li>• List the risk factors for a given NCD</li> <li>• Define the criteria for obesity</li> <li>• Describe the burden of a given NCD with respect to India</li> <li>• Define Normal Blood pressure and Hypertension</li> <li>• Describe the role of each of the risk factors for a given Non-communicable disease</li> <li>• Describe the opportunities and challenges for the control of a given NCD</li> <li>• Classify and describe the strategies for prevention of a given NCD</li> <li>• Describe the methods of screening and diagnosis for a given NCD</li> <li>• Describe the policy initiatives/ program strategies for a given NCD</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
9	<p><b>Coronary Artery Disease</b></p> <ul style="list-style-type: none"> <li>• List the risk factors for a given NCD</li> <li>• Describe the burden of a given NCD with respect to India</li> <li>• Describe the role of each of the risk factors for a given Non-communicable disease</li> <li>• Describe the opportunities and challenges for the control of a given NCD</li> <li>• Classify and describe the strategies for prevention of a given NCD</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva

	<ul style="list-style-type: none"> <li>Describe the use of WHO/ISH chart for risk assessment</li> <li>Describe the methods of screening and diagnosis for a given NCD</li> <li>Describe the policy initiatives/ program strategies for a given NCD</li> </ul>				
10	<b>Coronary Artery Disease - Practical</b> <ul style="list-style-type: none"> <li>Shows how to give dietary advice for a patient with CAD</li> <li>Prepare a prevention plan for a given NCD using settings approach</li> <li>Shows how to perform risk assessment using WHO/ISH chart</li> <li></li> </ul>	Classroom	Demonstration Observation Assistance and Performance Problem based approach - Case scenario	Assignment in Logbook	Practical exercise Clinicosocial case presentation Viva
11	<b>Stroke</b> <ul style="list-style-type: none"> <li>List the risk factors for a given NCD</li> <li>Describe the burden of a given NCD with respect to India</li> <li>Describe the role of each of the risk factors for a given Non-communicable disease</li> <li>Describe the opportunities and challenges for the control of a given NCD</li> <li>Classify and describe the strategies for prevention of a given NCD</li> <li>Describe the methods of screening and diagnosis for a given NCD</li> <li>Describe the policy initiatives/ program strategies for a given NCD</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
12	<b>Cancer</b> <ul style="list-style-type: none"> <li>List the risk factors for a given NCD</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ

	<ul style="list-style-type: none"> <li>Describe the burden of a given NCD with respect to India</li> <li>Describe the role of each of the risk factors for a given Non-communicable disease</li> <li>Describe the opportunities and challenges for the control of a given NCD</li> <li>Classify and describe the strategies for prevention of a given NCD</li> <li>Describe the methods of screening and diagnosis for a given NCD</li> <li>Describe the policy initiatives/ program strategies for a given NCD</li> </ul>				SAQ EQ Viva
13	<b>Cancer – Practical</b> <ul style="list-style-type: none"> <li>Prepare a prevention plan for a given NCD using settings approach</li> <li>Plan for a screening program for DM</li> </ul>	Classroom	Problem based approach - Case scenario	Assignment in Logbook	Practical exercise Clinicosocial case presentation Viva
14	<b>NPCDCS</b> <ul style="list-style-type: none"> <li>Recall the objectives of NPCDCS</li> <li>Describe the strategies for NPCDCS</li> <li>Describe the organizational chart/implementation mechanism for NPCDCS</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
15	<b>NPCDCS - Visit</b> <ul style="list-style-type: none"> <li>Knows how a disease control program is implemented</li> <li>Knows how a disease control program is monitored</li> </ul>	Field	Visit to NPCDCS office/PHC	Report in Logbook	Spotter Viva

	<ul style="list-style-type: none"> <li>Knows how to Review registers/reports for NCD</li> </ul>				
16	<b>NPCDCS- Assignment</b> <ul style="list-style-type: none"> <li>Evaluate NPCDS program in terms of SWOT analysis</li> <li>Evaluate NPCDCS program reports at PHC using national targets</li> </ul>	Student centred learning	Individual assignment	Report in Logbook	Logbook evaluation
17	<b>Blindness</b> <ul style="list-style-type: none"> <li>List the risk factors for a given NCD</li> <li>Describe the burden of a given NCD with respect to India</li> <li>Describe the role of each of the risk factors for a given Non-communicable disease</li> <li>Describe the opportunities and challenges for the control of a given NCD</li> <li>Classify and describe the strategies for prevention of a given NCD</li> <li>Describe the methods of screening and diagnosis for a given NCD</li> <li>Describe the policy initiatives/ program strategies for a given NCD</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
18	<b>NPCB</b> <ul style="list-style-type: none"> <li>Recall the objectives of NPCB</li> <li>Describe the strategies for NPCB</li> <li>Describe the organizational chart/implementation mechanism for NPCB</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
19	<b>NPCB – Visit</b>	Field	Visit to NPCB office/CHC	Report in Logbook	Spotter Viva

	<ul style="list-style-type: none"> <li>• Knows how a disease control program is implemented</li> <li>• Knows how a disease control program is monitored</li> <li>• Knows how to Review registers/reports for NCD</li> </ul>				
20	<p><b>Road Traffic injuries</b></p> <ul style="list-style-type: none"> <li>• List the risk factors for a given NCD</li> <li>• Describe the burden of a given NCD with respect to India</li> <li>• Describe the role of each of the risk factors for a given Non-communicable disease</li> <li>• Describe the opportunities and challenges for the control of a given NCD</li> <li>• Classify and describe the strategies for prevention of a given NCD</li> <li>• Describe Haddon Matrix for prevention of Road traffic injuries</li> <li>• Describe the methods of screening and diagnosis for a given NCD</li> <li>• Describe the policy initiatives/ program strategies for a given NCD</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
21	<p><b>Rheumatic Fever</b></p> <ul style="list-style-type: none"> <li>• List the risk factors for a given NCD</li> <li>• Describe the burden of a given NCD with respect to India</li> <li>• Describe the WHO criteria to diagnose Rheumatic Fever</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva

	<ul style="list-style-type: none"> <li>Describe the role of each of the risk factors for a given Non-communicable disease</li> <li>Describe the opportunities and challenges for the control of a given NCD</li> <li>Classify and describe the strategies for prevention of a given NCD</li> <li>Describe the methods of screening and diagnosis for a given NCD</li> <li>Describe the policy initiatives/ program strategies for a given NCD</li> </ul>				
22	<b>Surveillance of NCDs</b> <ul style="list-style-type: none"> <li>Describe the surveillance for NCDs</li> <li>Describe the purpose of STEPs survey</li> <li>Describe the components and the rationale for each component of STEPs survey instrument</li> <li>Knows how to use STEPS instrument</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
	<b>NCD Screening</b> <ul style="list-style-type: none"> <li>Perform screening for DM/HTN in a health camp/clinic set up</li> </ul>	<b>Clinic/Field posting/Health camp</b>			

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

**Syllabus – Epidemiology of Non-Communicable Diseases**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Introduction to Epidemiology of Non-communicable diseases			
2	Principles of NCD control			
3	Settings approach to Health promotion			
4	Diabetes Mellitus		Diabetes Mellitus - Practical	
5	Hypertension		Hypertension - Practical	
6	Obesity			
7	Coronary Artery Disease		Coronary Artery Disease - Practical	
8	Stroke			
9	Cancer		Cancer – Practical	
10	NPCDCS			
11	Blindness			
12	NPCB			
13	Road Traffic injuries			
14	Rheumatic Fever			
15	Surveillance of NCDs			

**Clinical Posting**

1	NPCDCS – Visit  NPCDCS- Assignment
2	NPCB – Visit

**Module - Epidemiology and Biostatistics**

Semester: 3<sup>rd</sup>, 6<sup>th</sup> and 8<sup>th</sup> Semester

Iterative: Yes

3<sup>rd</sup> Iteration – 8<sup>th</sup> Semester

Sl. No.	Competency based on revised MCI curriculum	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1		<b>Sample Size calculation</b> <ul style="list-style-type: none"> <li>Calculate sample size for a given objective</li> <li>Calculate sample size using OpenEpi</li> </ul>	Classroom	Lecture discussion		MCQs SAQ Viva
2		<b>Sample Size calculation - Practical</b> <ul style="list-style-type: none"> <li>Calculate sample size for a given objective</li> <li>Calculate sample size using OpenEpi</li> </ul>	Classroom/ Skills Lab	Case scenario – Problem based approach with group activity  Demonstration, observation, assistance and Practice	Assignment in Logbook	Viva Practical Exercise
3		<b>Sampling</b> <ul style="list-style-type: none"> <li>Classify and describe various types of sampling methods</li> <li>Decide on an appropriate sampling method for a given situation</li> </ul>	Classroom Skills Lab	Lecture discussion		MCQs SAQ Viva



4		<b>Sampling - Practical</b> <ul style="list-style-type: none"> <li>Decide on an appropriate sampling method for a given situation</li> <li>Identifies and executes correct probability sampling technique</li> </ul>	Classroom Skills Lab	Case scenario – Problem based approach with group activity  Demonstration, observation, assistance and Practice	Assignment in Logbook	Viva Practical Exercise
5		<b>Cross-sectional study – II</b> <ul style="list-style-type: none"> <li>Calculate sample size for a Cross-sectional study</li> <li>Identifies and executes correct probability sampling techniques</li> <li>Describe bias in Cross-sectional study</li> </ul>	Classroom	Lecture discussion		MCQs SAQ Viva
6		<b>Cross-sectional study – II - Practical</b> <ul style="list-style-type: none"> <li>Calculate sample size for a Cross-sectional study</li> <li>Identifies and executes correct probability sampling techniques</li> </ul>	Classroom	Case scenario – Problem based approach with group activity	Assignment in Logbook	Viva Practical Exercise
7		<b>Case-control study – II</b> <ul style="list-style-type: none"> <li>Calculate sample size for a case-control study</li> <li>Identifies and executes correct probability sampling techniques</li> </ul>	Classroom	Lecture discussion Case scenario – Problem based approach with group activity	Assignment in Logbook	MCQs SAQ Viva Practical Exercise

		<ul style="list-style-type: none"> <li>Describe bias in case-control study</li> </ul>				
8		<b>Cohort study – II</b> <ul style="list-style-type: none"> <li>Calculate sample size for the given design/objective</li> <li>Identifies and executes correct probability sampling techniques</li> </ul>	Classroom	Lecture discussion		MCQs SAQ Viva
9		<b>Cohort study – II - Practical</b> <ul style="list-style-type: none"> <li>Calculate sample size for the given design/objective</li> <li>Identifies and executes correct probability sampling techniques</li> </ul>	Classroom	Case scenario – Problem based approach with group activity	Assignment in Logbook	Viva Practical Exercise
10		<b>Randomized Controlled Trial (RCT) - II</b> <ul style="list-style-type: none"> <li>Describe types of randomization and allocation concealment in RCT</li> <li>Describe blinding with an example</li> <li>Describe bias in a RCT</li> </ul>	Classroom	Lecture discussion		MCQs SAQ Viva
11		<b>Randomized Controlled Trial (RCT) – II - Practical</b> <ul style="list-style-type: none"> <li>Calculate sample size for the given design/objective</li> <li>Describe bias in a RCT</li> </ul>	Classroom	Case scenario – Problem based approach with group activity Demonstration	Assignment in Logbook	Viva Practical Exercise

		<ul style="list-style-type: none"> <li>Know how allocation concealment and blinding is done in an RCT</li> </ul>				
12	<p>CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data</p> <p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs</p>	<p><b>Choice of Statistical tests – Revision</b></p> <ul style="list-style-type: none"> <li>Classify Statistical tests</li> <li>List the conditions for each statistical test</li> <li>Draw an algorithm for choosing a statistical test</li> </ul>	Classroom	Lecture discussion		<p>MCQs</p> <p>SAQ</p> <p>Viva</p>
13	<p>CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data</p>	<p><b>Choice of Statistical tests – Practical</b></p> <ul style="list-style-type: none"> <li>Decide on a statistical test for a given hypothesis</li> <li>Perform a given statistical test using appropriate software</li> </ul>	Classroom Skills Lab	Case scenario – Problem based approach with group activity Demonstration, observation, assistance and Practice	Assignment in Logbook	<p>Viva</p> <p>Practical Exercise</p>

	<p>CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs</p> <p>CM7.9 Describe and demonstrate the application of computers in Epidemiology</p>					
14	<p>CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data</p> <p>CM7.9 Describe and demonstrate the application of computers in Epidemiology</p>	<p><b>Data Presentation Methods – Revision</b></p> <ul style="list-style-type: none"> <li>• Classify the data presentation methods</li> <li>• Describe the components of different data presentation methods</li> <li>• Describe the advantages and disadvantages of various data presentation methods</li> </ul>	Classroom	Lecture discussion		<p>MCQs SAQ Viva</p>
15	<p>CM6.2 Describe and discuss the principles and</p>	<p><b>Data Presentation Methods</b></p>	Classroom Skills Lab	Case scenario – Problem based approach with group activity	Assignment in Logbook	<p>Viva Practical Exercise</p>

	<p>demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data</p> <p>CM7.9 Describe and demonstrate the application of computers in Epidemiology</p>	<ul style="list-style-type: none"> <li>Decide on an appropriate data presentation for results of given data</li> <li>Summarize and present the given data using appropriate data presentation methods (using a software)</li> </ul>		Demonstration, observation, assistance and Practice		
16		<p><b>Critical Review – Theory</b></p> <ul style="list-style-type: none"> <li>List the aspects of review in critical review of scientific writing</li> <li>Describe the steps in critical review of an article</li> </ul>	Classroom	Lecture cum discussion		<p>MCQs</p> <p>SAQ</p> <p>Viva</p>
17		<p><b>Critical Review – Practical (2 sessions)</b></p> <ul style="list-style-type: none"> <li>Interpret results for a given research study</li> <li>Critically review the methodology, results</li> </ul>	Classroom	Demonstration, Observation, Assistance and Practice	Assignment in Logbook	<p>MCQs</p> <p>SAQ</p> <p>Viva</p> <p>Practical Exercise</p>

		and conclusion of a research study				
18	CM7.6 Enumerate and evaluate the need of screening tests	<b>Screening (2 sessions)</b> <ul style="list-style-type: none"> <li>Define Screening, describe the principles of screening</li> <li>Define Lead time in screening</li> <li>Calculate measures of validity and Reliability of screening test in a given scenario</li> </ul>	Classroom	Lecture discussion Demonstration	Assignment in Logbook	MCQs SAQ Viva
19		<b>Screening - Practical</b> <ul style="list-style-type: none"> <li>Calculate measures of validity and Reliability of screening test in a given scenario</li> <li>Evaluate a screening test based on the measures of validity</li> </ul>	Classroom/Skills Lab	Case scenario – Problem based approach with group activity Demonstration, observation, assistance and Practice	Assignment in Logbook	Viva Practical Exercise
20	CM7.9 Describe and demonstrate the application of computers in Epidemiology	<b>Epicollect</b> <ul style="list-style-type: none"> <li>Prepare a data collection form using Epicollect</li> <li>Collect data using Epicollect</li> </ul>	Clinical Posting Skills Lab	Lecture discussion Demonstration, observation, assistance and Practice	Assignment in Logbook	Viva Practical Exercise
21		<b>Short Study Assignment</b>	Clinical Posting Skills Lab	Lecture discussion Demonstration, observation,	Assignment in Logbook	Viva Practical Exercise

		<ul style="list-style-type: none"> <li>• Design a study protocol with an appropriate study design and justification</li> <li>• Carries out one short study – design, collect data, analyse and report (during clinical postings)</li> <li>• Analyse, represent and interpret results for a given study using Epi Info/EpiData Analysis</li> <li>• Interpret p –value and confidence interval of a given statistical result</li> <li>• Prepare a data collection form using Epicollect</li> <li>• Collect data using Epicollect</li> </ul>		assistance and Practice		
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**Syllabus – Epidemiology and Biostatistics – 3<sup>rd</sup> Iteration – VIII Semester**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Sample Size calculation		Sample Size calculation	
2	Sampling		Sampling	
3	Cross-sectional study – II		Cross-sectional study – II	
4	Case-control study – II		Case-control study – II	
5	Cohort study – II		Cohort study – II	
6	Randomized Controlled Trial (RCT) - II		Randomized Controlled Trial (RCT) – II	
7	Choice of Statistical tests		Choice of Statistical tests	
8	Data Presentation Methods		Data Presentation Methods	
9	Critical Review		Critical Review - I	
10	Screening I		Critical Review – II	
11	Screening II		Screening I	

**Clinical Posting**

Sl.No	Clinical posting	No. of classroom sessions	Field sessions
1	Epicollect	1	5
2	Short Study Assignment	1	5



## Module - Reproductive and Child Health

Semester: 4<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> Semesters

Iterative: Yes

3<sup>rd</sup> Iteration – VIII Semester

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>Antenatal Health care planning</b></p> <ul style="list-style-type: none"> <li>• Analyse adverse outcomes during pregnancy and childhood using life cycle approach</li> <li>• Relate health needs of mothers with RCH interventions</li> <li>• Develop a trimester wise plan for screening of antenatal mothers in a PHC</li> </ul>	Classroom	Problem based approach Clinical Scenario	Report in Logbook	Practical Exercise
2	<p><b>Management of Maternal Morbidity - Practical</b></p> <ul style="list-style-type: none"> <li>• Decide a preventive strategy for a pregnant mother for a given condition</li> </ul>	Classroom	Problem based approach Clinical Scenario using Standard treatment guidelines	Report in Logbook	Practical Exercise
3	<p><b>Intrapartum Care - Practical</b></p> <ul style="list-style-type: none"> <li>• Knows how to give advice on birth preparedness</li> <li>• Knows how to conduct delivery in a resource limited setting (PHC) – applied learning from OG</li> <li>• Shows how to Interpret partograph</li> </ul>	Classroom/Simulated discussion	Problem based approach Clinical Scenario	Report in Logbook	Spotter Practical Exercise
4	<p><b>Nutritional assessment – Evaluation - Practical</b></p> <ul style="list-style-type: none"> <li>• Develop a plan for nutritional assessment and nutritional counselling for mothers of under-five children</li> </ul>	Classroom	Problem based approach Clinical Scenario	Report in Logbook	Spotter Practical Exercise

	<ul style="list-style-type: none"> <li>Review growth chart registers and anganwadi reports on child growth assessment</li> </ul>				
5	<b>Nutritional assessment – Evaluation - Visit</b> <ul style="list-style-type: none"> <li>Evaluate the performance of NRC</li> </ul>	Field visit	Group activity using checklist	Report submission	Viva
6	<b>Regulations on Maternal Health – Student Seminar</b> <ul style="list-style-type: none"> <li>Describe the key provisions of MTP act and PCPNDT act</li> </ul>	Student centred learning	Student Seminar with moderation		MCQs SAQ Viva
7	<b>Maternal Death review</b> <ul style="list-style-type: none"> <li>Describe the objectives, process and expected outcomes of Maternal death review</li> <li>Describe the objectives, process and expected outcomes of Near Miss review</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
8	<b>Monitoring and Supervision – Maternal Health - Practical</b> <ul style="list-style-type: none"> <li>Shows how to monitor reproductive health interventions at PHC level (or) Review reports and registers maintained at PHC</li> </ul>	Classroom	Demonstration, Observation, Assistance and Performance	Report in Logbook	Practical Exercise Spotter
9	<b>Child Health review</b> <ul style="list-style-type: none"> <li>Analyse adverse outcomes during childhood using life cycle approach</li> <li>Relate health needs of neonates and under-five children with RCH intervention</li> </ul>	Classroom	Lecture cum discussion Problem based approach using clinical scenarios	Report in Logbook	MCQs SAQ Viva
10	<b>IMNCI review and Monitoring and Supervision of Child Health - Practical</b> <ul style="list-style-type: none"> <li>Decide a plan of treatment of a sick child in a given case scenario based on IMNCI</li> </ul>	Classroom	Demonstration, Observation, Assistance and Performance	Report in Logbook	Practical Exercise Spotter

	<ul style="list-style-type: none"> <li>Shows how to monitor the child health interventions – Immunization, IMNCI, ORS, Zinc etc in a PHC setting (or) Review reports and registers on child health status</li> </ul>				
11	<b>Adolescent Health under RCH (Brief overview)</b> <ul style="list-style-type: none"> <li>List the interventions for adolescent health under RCH</li> <li>Relate health needs of adolescents with RCH interventions</li> <li>Describe the objectives, implementation process and outcomes of National Iron plus Initiative</li> </ul>	Classroom	Lecture cum discussion		MCQs SAQ Viva
12	<b>RCH program - Critical Review and Evaluation - Practical</b> <ul style="list-style-type: none"> <li>List the indicators of RCH program</li> <li>Prepare SWOT analysis of RCH program interventions</li> <li>Evaluate SC/PHC/CHC/State/country based on the MCH indicators</li> </ul>	Classroom	Lecture cum discussion Problem based approach using clinical scenarios	Report in Logbook	MCQs SAQ Viva

**Syllabus – Reproductive and Child Health – 3<sup>rd</sup> Iteration – VIII Semester**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Antenatal Health care planning		Management of Maternal Morbidity - Practical	
2	Maternal Death review		Intrapartum Care - Practical	
3	Child Health review		Nutritional assessment – Evaluation - Visit	
4	Adolescent Health under RCH (Brief overview)		Regulations on Maternal Health – Student Seminar	
5			Monitoring and Supervision – Maternal Health - Practical	
6			IMNCI review and Monitoring and Supervision of Child Health - Practical	
7			RCH program - Critical Review and Evaluation - Practical	

**Field Visit**

1	Nutritional assessment – Evaluation - Practical
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**Module – Health Care Delivery System**

Semester: 3<sup>rd</sup>, 6<sup>th</sup> and 9<sup>th</sup> Semester

Iterative: Yes

3<sup>rd</sup> Iteration – IX Semester

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<p><b>First Referral Unit – CHC</b>  <b>Parallel Urban counterpart will also be discussed</b></p> <ul style="list-style-type: none"> <li>• Illustrate the application of principles of Primary health care in a given scenario</li> <li>• Relate the elements of primary health care with functions of the CHC</li> <li>• Describe the components in evaluation of a CHC</li> </ul>	Classroom	Lecture cum discussion Problem based approach – Case scenario	Log book	SAQ EQ Viva
2	<p><b>Primary Health centre and Subcentre</b>  <b>Parallel Urban counterpart will also be discussed</b></p> <ul style="list-style-type: none"> <li>• Relate the elements of primary health care with functions of the PHC/SC</li> <li>• Describe the components in evaluation of a PHC</li> </ul>	Classroom	Lecture cum discussion Problem based approach – Case scenario	Log book	SAQ EQ Viva
3	<p><b>Evaluation of a health facility – CHC - Visit</b></p> <ul style="list-style-type: none"> <li>• Evaluate the health situation of a CHC based on the information given</li> <li>• Critically evaluate CHC/PHC/SC/Anganwadi using IPHS and NQAS checklist (Does/performs)</li> </ul>	Field	Health centre visit (Group assignment for evaluation using checklist)	Log book	Viva Spotter Practical exercises

4	<b>Evaluation of a health facility – PHC - Visit</b> <ul style="list-style-type: none"> <li>Evaluate the health situation of a PHC based on the information given</li> <li>Critically evaluate PHC using IPHS and NQAS checklist (Does/performs)</li> </ul>	Field	Health centre visit (Group assignment for evaluation using checklist)	Log book	Viva Spotter Practical exercises
5	<b>Monitoring and Supervision – I Records and Registers</b> <ul style="list-style-type: none"> <li>Describe the principles in evaluating a report/record/register maintained at the peripheral health care system</li> <li>Knows the list of registers maintained at PHC</li> <li>Knows the list of reports prepared at PHC</li> <li>Critique the reports for various national health programs generated at PHC</li> </ul>	Both	Lecture cum discussion Demonstration at Health centre Problem based approach – Review of reports	Log book	SAQ EQ Viva Practical exercises
6	<b>Monitoring and Supervision – II Health manpower</b> <ul style="list-style-type: none"> <li>Prepare a monitoring and supervision plan for ASHAs</li> <li>Prepare a monitoring and supervision plan for Anganwadis</li> </ul>	Classroom	Lecture cum discussion Problem based approach – Case scenario		SAQ EQ Practical Exercises
7	<b>Monitoring and Supervision – I to III (2 – 3 practical sessions) Records and Registers National Health programs</b>	Field	Demonstration at Health centre Problem based approach Panel discussion	Report in Logbook	Practical exercises

	<ul style="list-style-type: none"> <li>Knows how National health programs are monitored at PHC level – RNTCP, NACP, NPCDCS, RCH etc.,</li> <li>Knows how reports are generated for various national health programs at PHC</li> </ul>		Coordination with Program offices		
8	<b>Community Needs Assessment</b> <ul style="list-style-type: none"> <li>Prepare a plan for community needs assessment</li> <li>Shows how to calculate the requirements of vaccine/drugs in a given hypothetical scenario</li> </ul>	Classroom	Lecture cum discussion Demonstration	Log book	SAQ EQ Practical exercises
9	<b>Community Needs Assessment – Practical/Visit</b> <ul style="list-style-type: none"> <li>Shows how to calculate the requirements of vaccine/drugs in a given hypothetical scenario</li> </ul>	Field/Simulated discussion	Demonstration, observation and performance at Health centre	Log book	SAQ EQ Practical exercises
10	<b>Continuum of care in Primary Health - Visit</b> <ul style="list-style-type: none"> <li>Knows how Continuum of care is maintained for ANC, TB and NCD patients at PHC</li> </ul>	Field	Demonstration at Health centre	Log book	
11	<b>Inventory Control - Visit</b> <ul style="list-style-type: none"> <li>Knows how the drug consumption is monitored at PHC</li> </ul>	Field	Lecture cum discussion Demonstration at Health centre Problem based approach	Log book	Practical exercises

	<ul style="list-style-type: none"> <li>• Knows how the drug requirement is estimated at PHC</li> <li>• Knows how to do ABC/VED analysis for drugs maintained at PHC</li> </ul>				
12	<b>Health financing mechanism in India</b> <ul style="list-style-type: none"> <li>• Describe the health financing mechanisms in India</li> <li>• Classify various sources, providers, levels of health care based on health system financing</li> </ul>	Classroom	Lecture cum discussion		MCQ SAQ Viva
13	<b>Comparison of Health care delivery systems</b> <ul style="list-style-type: none"> <li>• Compare and contrast health care delivery systems of various countries</li> <li>• Compare and contrast health care delivery systems of states</li> </ul>	Classroom Student centred learning	Lecture cum discussion Facilitated presentation Roleplay	Log book	EQ Viva
14	<b>Evaluation of Health care system</b> <ul style="list-style-type: none"> <li>• Prepare SWOT analysis of different aspects of the current state health system</li> </ul>	Classroom Student centred learning	Lecture cum discussion Group Assignment	Log book	EQ Viva
15	<b>Health insurance in Health care financing</b> <ul style="list-style-type: none"> <li>• Define health insurance</li> <li>• Define risk pooling</li> <li>• Describe the role of health insurance in health care financing</li> </ul>	Classroom	Lecture cum discussion Problem based approach	Log book	MCQ SAQ EQ Viva



	<ul style="list-style-type: none"><li>• Classify the various health insurance mechanisms in India</li><li>• Describe the health insurance models/programs in India</li><li>• Evaluate the (Critical appraisal of) effectiveness of health insurance and health assistance schemes in India</li></ul>				
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**Syllabus – Health Care Delivery System in India – 3<sup>rd</sup> Iteration – IX Semester**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Overview of health care delivery system in India – Urban, Rural and Tribal			
2	First Referral Unit – CHC			
3	Primary Health centre and Subcentre			
4	Monitoring and Supervision – I			
5	Monitoring and Supervision – II		Monitoring and Supervision – II	
6	Community Needs Assessment			
7	Inventory Control		Community Needs Assessment	
8	Health financing mechanism in India			
9	Comparison of Health care delivery systems			
10	Evaluation of Health care system			
11	Health insurance in Health care financing			

**Clinical Posting**

1	Evaluation of a health facility – CHC
2	Evaluation of a health facility – PHC
3	Monitoring and Supervision – I
4	Monitoring and Supervision – III
5	Continuum of care in Primary Health
6	Inventory Control

**Module – Health Planning and Management**

Semester: 9<sup>th</sup> Semester

Iterative: No

Sl.No.	Specific Learning Objectives	Classroom/Field/Both	Teaching/learning Method	Verification of activity	Assessment
1	<b>Introduction to Health planning and Management</b> <ul style="list-style-type: none"> <li>• Define management</li> <li>• List the steps in planning</li> <li>• Define – Goals, Objectives, targets, Mission, policy, program and strategy</li> <li>• Describe the objectives of health planning</li> <li>• Describe the key principles in health management</li> <li>• Describe the steps in planning process with an example</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ Viva
2	<b>Human resource management – Leadership</b> <ul style="list-style-type: none"> <li>• Describe leadership theories with an example – Iowa leadership studies, Blake and Moulton managerial grid, Hersey and Blanchard situational leadership theory</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
3	<b>Human resource management – Motivation and Conflict Management</b> <ul style="list-style-type: none"> <li>• Describe Maslow’s theory of motivation theory with an example</li> <li>• Describe Johari window and its application in human resource management</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ Viva

	<ul style="list-style-type: none"> <li>Describe in brief the Thomas Kilman model of conflict management</li> </ul>				
4	<b>Monitoring and Supervision</b> <ul style="list-style-type: none"> <li>Define monitoring and supervision</li> <li>Differentiate between monitoring and supervision</li> <li>Describe the steps involved in monitoring</li> <li>Describe steps in supportive supervision with an example</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
5	<b>Human resource management – Practical</b> <ul style="list-style-type: none"> <li>Know how leadership theories are implemented in health system</li> </ul>	Classroom	Problem based approach	Assignment in Logbook	Practical exercise
6	<b>Human resource management – Practical 2</b> <ul style="list-style-type: none"> <li>Knows how to conduct monthly meetings</li> <li>Knows how to write minutes of the meeting</li> <li>Knows how to prepare annual appraisal of health workers</li> </ul>	Classroom	Roleplay Problem based approach	Report in Logbook	Viva
7	<b>Materials management</b> <ul style="list-style-type: none"> <li>Describe the concept of buffer stock and its calculation</li> <li>Describe steps in procurement cycle</li> <li>Describe the concept of reorder level and its calculation</li> <li>Describe the concept of FIFO and EEFO</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
8	<b>Inventory control</b> <ul style="list-style-type: none"> <li>Expand – ABC, VED, FSNO, SDE, GOLF methods of inventory control analysis</li> <li>Describe the process of ABC and VED analysis</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva

9	<b>Materials Management - Practical</b> <ul style="list-style-type: none"> <li>Shows how to calculate stock requirement for drugs/ORS/vaccines in a PHC</li> <li>To calculate Economic order quantity</li> <li>Shows how ABC analysis is done on given data</li> </ul>	Classroom	Problem based approach	Assignment in Logbook	Practical exercise
10	<b>Budgeting</b> <ul style="list-style-type: none"> <li>Classify different approaches to budgeting</li> <li>Describe incremental, performance and zero-based budgeting with an example</li> <li>Differentiate between incremental, performance and zero-based budgeting</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
11	<b>Budgeting - Practical</b> <ul style="list-style-type: none"> <li>Shows how to prepare a budget for untied funds/RKS funds</li> <li></li> </ul>	Classroom	Problem based approach	Assignment in Logbook	Practical exercise
12	<b>Modern management techniques</b> <ul style="list-style-type: none"> <li>Describe PERT and CPM with an example</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ Viva
13	<b>Systems approach to management</b> <ul style="list-style-type: none"> <li>Describe the components of systems approach</li> </ul> Prepare a list of evaluation indicators for a given program strategy using a systems model	Classroom	Lecture cum discussion		MCQ VSAQ SAQ EQ Viva
14	<b>Project management Practical</b> <ul style="list-style-type: none"> <li>Shows how to plan for a health camp</li> </ul>	Classroom	Problem based approach	Assignment in Logbook	Practical exercise

	<ul style="list-style-type: none"> <li>Prepare a Gantt chart for a given project</li> </ul>				
15	<b>Total Quality management</b> <ul style="list-style-type: none"> <li>Define total quality management</li> <li>Describe the key indicators of quality assessment and their role in health care</li> <li>Knows various agencies for accreditation of hospitals and labs</li> <li>Knows various tools for quality assessment</li> </ul>	Classroom	Lecture cum discussion Demonstration		MCQ VSAQ SAQ Viva
16	<b>Health Economics</b> <ul style="list-style-type: none"> <li>Describe the characteristics of operations research</li> <li>Classify the costs experienced in health care</li> <li>Classify different types of studies in health economics</li> <li>Describe different types of studies in health economics - Cost effectiveness, Cost-benefit and Cost-utility analysis with an example</li> <li>Describe the principles of quality management</li> </ul>	Classroom	Lecture cum discussion		MCQ VSAQ SAQ Viva
17	<b>HMIS - Visit</b> <ul style="list-style-type: none"> <li>Knows how HMIS is used and maintained at a PHC</li> </ul>	Field/Clinical posting	Field visit Demonstration of HMIS		Spotter

\*MCQ – Multiple Choice Questions; SAQ – Short answer Questions; EQ – Essay Question

**Syllabus – Health Planning and Management**

Sl.No.	Theory class	Faculty	Practical class	Faculty/SR
1	Introduction to Health planning and Management			
2	Human resource management – Leadership			
3	Human resource management – Motivation and Conflict Management		Human resource management – Practical	
4	Monitoring and Supervision		Human resource management – Practical 2	
5	Materials management			
6	Inventory control		Materials Management - Practical	
7	Budgeting		Budgeting - Practical	
8	Modern management techniques			
9	Systems approach to management		Project management Practical	
10	Total Quality management			
11	Health Economics			

**Clinical Posting**

1	HMIS - Visit
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## **Family Health Study Program**

### **1. Objectives**

At the end of the program the student should be able to

- I. appreciate the role of family in promoting health and preventing disease
- II. assess the socio-behavioral determinants among the family members using a pretested proforma and other qualitative interview techniques
- III. assist in providing continuum of care for the members of the family
- IV. assess nutritional, social, behavioral and environmental needs of the household and provide appropriate interventions
- V. provide behavioral change communication to members of the family on relevant health issues.
- VI. provide screening, early diagnosis and referral services under supportive supervision
- VII. demonstrate the functioning of various National Health programs at grassroot level

### **2. Process – Involvement of other departments**

- a. **Recruitment of households for family follow-up** – A village or a part of a village will be selected to ensure adequate households for this purpose. Permission will be obtained from the local gram panchayat for the same.
- b. **Family allotment and Group formation** –Each student will be allotted 3 to 5 families for follow-up. Each group will have an allotted faculty/resident supervisor.
- c. **Procedure for field visits** - The family visits are scheduled once a month for each batch of students from 3<sup>rd</sup> to 7<sup>th</sup> Semesters. Hence three to four visits per month would be required each month for all batches. A scheduled task is given to the students to be filled up in a record during each visit. During each visit, the student is given briefing regarding the task to be performed and its relevance. The task is performed under the supervision of faculty/resident/health staff. After the completion of the task, the students are debriefed and the understanding is reinforced.
- d. **Curriculum plan** – A detailed curriculum plan preparation is underway. The curriculum will be skill based, community oriented and is expected to benefit the student and the family.

### **3. Expected outcomes**

The expected outcomes of this program are listed as under:

- i. **Impact of Social determinants in health and disease** - The social determinants of health model states that the causation of a disease depends on the social, behavioral and cultural milieu of the individual. The assessment of the family and



household environment helps the student to understand the impact of the social determinants affecting health.

- ii. **Provision of Holistic care** - Community and family visits allow observing not only patients but also apparently healthy individuals. This provides the opportunity for the students to practice preventive and promotive care for the apparently healthy. Skills such as health education can be imparted through real time interactions with the community.
- iii. **Health care delivery** - The health care provided at primary care level varies significantly from that of tertiary care. The family follow up program provides students to observe health care provided in relatively resource limited primary care level.
- iv. **Continuum of care** - The follow up of a patient in many diseases is often long-term. The student needs to observe the patient over a period of time in order to understand the progress of the disease and its impact on the family.

**Assessment Plan for MBBS Course**  
**Department of Community Medicine**  
**AIIMS Nagpur**

**I. Formative Assessment for Feedback:**

1. Assessment at the end of each session (theory/practical class) by the faculty-in-charge as deemed fit.
2. End-of-Module assessment at the end of each module
  - a. One practical class (2-hour session) will be allotted for end-of -module test
  - b. The pattern of examination will be flexible as decided by the faculty in-charge of the module
  - c. Written and/or practical examination can be conducted based on the requirement
  - d. The marks will not be used for internal assessment but serve as feedback
3. A feedback will be taken from the students on various aspects of the module and the module will be revised as per the suggestions

**II. Internal Assessment:**

1. A total of 4 Internal assessment examinations will be conducted.
2. The internal assessments will be held each at the end of IV, VII, VIII respectively and a pre-final examination will be held at the end of IX Semester
3. The allotment of marks will be as follows

		<b>1<sup>st</sup> Internal Assessment</b>	<b>2<sup>nd</sup> Internal Assessment</b>	<b>3<sup>rd</sup> Internal Assessment</b>	<b>Preliminary examination</b>	<b>Total</b>
<b>Schedule</b>		<b>End of IV Semester</b>	<b>End of VII Semester</b>	<b>End of VIII Semester</b>	<b>End of IX Semester</b>	
<b>Theory (Marks)</b>		50	50	50	150	300
<b>Practical (Marks)</b>	<b>Practical Examination</b>	25	25	25	150	300
	<b>Journals and Practical work*</b>	25	25	25		
<b>Total</b>		100	100	100	300	600

4. Each theory question paper for internal assessment will have all types of questions including MCQs, Very short answer, Short answer and Essay questions including all levels of cognitive domain
5. The Very Short answer type, Short answer type and Essay questions will be framed in an objective manner to test relatively higher levels of cognitive domain like Applying, Analyzing, Evaluating and Creating. The division of marks for each question is indicated below.

### 6. Theory paper pattern for Internal Assessment – 50 marks

Type of Question	Level of Assessment	No. of Questions	Marks for each question	Total Marks
MCQs	Remembering Understanding	10	0.5	5
	Applying Analyzing Evaluating	10	0.5	5
Very Short Answer	Remembering Understanding	4	2.5	10
Short Answer Question	Applying Analyzing Evaluating	4	5	20
Essay question	Applying Analyzing Evaluating Creating	1	10	10
<b>Total</b>				<b>50</b>

### 7. Practical Examination for Internal Assessment

#### Internal Assessment – Pattern I\*

Type of Question	Level of Assessment	No. of Questions	Marks for each question	Total Marks
Problem Solving Exercises	Shows How Does/Performs	1	10	10
OSPE/OSCE	Shows How Does/Performs	1	10	10
Spotters	Knows Knows How	5	1	5
<b>Total</b>				<b>25</b>

#### Internal Assessment – Pattern II\*

Type of Question	Level of Assessment	No. of Questions	Marks for each question	Total Marks
Problem Solving Exercises	Shows How Does/Performs	1	5	5
Clinicosocial case* (During Clinical Posting)	Does/Performs	1	15	15
Spotters	Knows Knows How	5	1	5
<b>Total</b>				<b>25</b>

\*Depending upon the topics covered and the objective of clinical posting, either Pattern I or II may be chosen

**8. Journals and Practical Work**

Topic of Assessment	Level of Assessment	Total Marks
Journal record	Shows How Does/Performs	10
Individual Assignment/Project Work	Creating (Cognitive) Shows How Does/Performs	15
<b>Total</b>		<b>25</b>

**9. Theory Paper pattern for Preliminary Examination (2 papers for 75 marks each)**

	Type of Question	Level of Assessment	No. of Questions	Marks for each question	Total Marks
<b>Section A</b>	MCQs	Remembering Understanding	10	0.5	5
		Applying Analyzing Evaluating	10	0.5	5
<b>Section B</b>	Very Short Answer Question	Remembering Understanding	6	2.5	15
	Short Answer Question*	Applying Analyzing Evaluating	6	5	30
	Essay question*	Applying Analyzing Evaluating Creating	2	10	20
<b>Total</b>					<b>75 marks</b>

**10. Division of topics for Preliminary Examination – Theory**

- a. **Paper I** – Epidemiology and Biostatistics, Concept of Health and Disease, Measurement of Health and Disease, Social and Behavioral determinants of Health and Disease, Behavioral change communication, Mental Health, Health Care of Special groups, Environmental and Occupational Health, Disaster Management
- b. **Paper II** – Epidemiology of Communicable diseases, Epidemiology of Non-communicable diseases, Health Care Delivery System, Health Planning and Management, Reproductive and Child Health, Nutrition,

### 11. Practical Examination for Preliminary Examination

Type of Question	Level of Assessment	No. of Questions	Marks for each question	Total Marks
Clinicosocial case* (Or multiple short cases)	Does/Performs	1	60	60
Problem Solving Exercises	Shows How Does/Performs	2	10	20
OSPE/OSCE	Shows How Does/Performs	2	15	30
Spotters	Knows Knows How	10	2	20
Viva	Knows Knows How	-	-	20
<b>Total Practical Marks</b>				<b>150</b>

#### \*Break up of Marks – Clinicosocial Case

Skill/Assessment component	Marks
History taking	15
Clinical Examination and Summary	15
Management	10
Case viva	20
<b>Total</b>	<b>60</b>

### 12. University Examination-

The assessment of the subject is estimated with 50% weightage from Internal Assessment (Including Preliminary Examination) and 50% from Final University Examination. The pattern of University theory and practical examination will be same as preliminary examination.

a. The pattern for University Examination is follows

Theory Paper I	Theory Paper II	Total Theory	Practical Examination
75	75	150	150

- b. The break-up of final marks with weightage of internal assessment and final examination is as follows

	1 <sup>st</sup> IA	2 <sup>nd</sup> IA	3 <sup>rd</sup> IA	Prelim.	Total IA	Internal Assessment (50% weightage)	University Examination	Total
<b>Theory (Written)</b>	50	50	50	150	300	150	150	300
<b>Practical Examination including Viva</b>	25	25	25	150	300	150	150	300
<b>Journals and Practical work*</b>	25	25	25					
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>300</b>	<b>600</b>	<b>300</b>	<b>300</b>	<b>600</b>

IA – Internal Assessment

- c. The Minimum marks for summative assessment are given below:

#### Internal Assessment

	Internal Assessment - Marks	Final Scoring for Internal Assessment (50% weightage) -	Minimum achievement for appearing in University examination
<b>Theory Marks (Written)</b>	300	150	75
<b>Practical Marks Examination including Viva</b>	300	150	75

The student should achieve minimum 75 marks in theory and 75 marks in practical separately for appearing in final University examination.

#### University Examination

	Total	Minimum marks for passing
<b>Theory Marks (Written)</b>	150	75
<b>Practical Examination including Viva</b>	150	75

#### Criteria for passing the Subject

	Internal Assessment	University Examination	Total	Minimum marks for passing
<b>Theory</b>	150	150	300	150
<b>Practical</b>	150	150	300	150

**I. Recommended Textbooks**

1. Rajvir Bhalwar, Textbook of Community Medicine, 3<sup>rd</sup> Edition
2. A P Kulkarni, Textbook of Community Medicine, 4<sup>th</sup> Edition
3. Park's Textbook of Preventive & Social Medicine, 20<sup>th</sup> Edition.
4. R Beaglehole, Basic Epidemiology
5. Sundelal, Textbook of Community Medicine, 2 Edition.
6. J V Dixit, Principles and Practice of Biostatistics, 7<sup>th</sup> Edition

**II. Recommended Reference Books**

1. Oxford Textbook of Global Public Health, 6<sup>th</sup> Edition.
2. Maxcy-Rosenau-Last Textbook of Public Health & Preventive Medicine, 16<sup>th</sup> Edition.
3. AFMC textbook of Community Medicine
4. Leon Gordis, Textbook of Epidemiology, 5<sup>th</sup> Edition.
5. J. H. Abramson, Research Methods in Community Medicine, 6<sup>th</sup> Edition
6. Hunter's Disease of Occupation
7. Manson's Tropical Disease, 23<sup>rd</sup> Edition