M. Sc. Epidemiology

Preamble:
Epidemiology is very valuable in all branches of Health Sciences. Knowledge of epidemiology in live sciences like Medicine, Dentistry, Nursing, Physiotherapy etc. can be imparted after basic graduation in these fields. It is anticipated that graduates will occupy positions as research administrators, program managers, analysts and evaluators in universities, health departments, governmental agencies and similar organizations.

Objectives:
1. To impart training in Epidemiology to all branches of Health Sciences to enable them to understand principles and practice of epidemiology for improvement in service and research in their respective speciality.
2. Demonstrate knowledge and understanding of theory and practice in the core epidemiology disciplines (Statistics, social sciences, health policy and health economics)
3. Demonstrate specialised knowledge and skills in other areas relevant to public Health from a wide range of options (e.g. primary health care, medial anthropology, epidemiology and control of malaria and population studies.
4. Apply these skills to identify and assess public health problems in developing countries and evaluate actions designed to improve public health.
5. Formulate public health strategies and approaches to public health problems appropriate to a given culture and environment.

Eligibility Criteria:
Recognised Bachelor’s Degree in any branch of Health sciences by respective councils.

Course Eligibility:
Applicants fulfilling the following criteria are eligible to apply for the course:
   a. MBBS degree recognized by the Medical Council of India;
   b. Current position in Public Health, preferably in State or Central service or in Medical Institutions, sponsored on deputation for two years on a full time basis to NIE;
   c. Three years experience in public health/surveillance activities after MBBS;
   d. Age below 45 years as on the date of commencement of the Course (i.e., 1 January each year). May be relaxed by five years for applicants with desirable experience.
   e. Private candidates who fulfil the above eligibility criteria

Duration of course: Two Years and one year exemption for M.B.B.S. graduates.
Selection of Candidates: Common Entrance Test of University.
Medium of Instruction: English
Attendance: 80%
Departments Required: PSM/Community Medicine; Biostatistics

Names of Faculty:

Core Faculty

1. Dr. Asha K. Pratinidhi  Director of Research, KIMSDU, Karad.
2. Dr. Prakash M. Durgawale  Professor & HOD, Dept. of Comm. Med. KIMS, Karad.
3. Dr. Mrs. Vaishali V. Raje.  Associate Professor, Dept. of Comm. Med. KIMS, Karad.
4. Dr. Mrs. Supriya S. Patil.  Assistant Professor, Dept. of Comm. Med. KIMS, Karad.
5. Dr. Satish V. Kakade Statistician, Dept. of Comm. Med. KIMS, Karad.

Visiting Faculty

Dr. Sanjay Mehendale.  Director, NIE, Chennai
Dr. Vidya Ramchandran.  Director, NIE, Chennai
Dr. Udaykumar.  Statistician
Epidemiology Syllabus

For two year course (4 semesters)

Semester I
- Basic principles of Epidemiology
  - Dynamics of disease transmission.
  - Measuring occurrence of disease – Morbidity Mortality etc.
  - Measuring validity and reliability of diagnostic and screening tests.
  - Natural History of Disease
- Epidemiologic Methods. Descriptive and analytical.
- Different types of epidemiological studies. Descriptive, observational and interventional studies.

Semester II
- Biostatistics in public Health.
- Biostatistics in Research.

Semester III
- Infectious disease Epidemiology.
- Chronic disease Epidemiology
- Epidemiology of policy, public health programme. Health services etc.
- Roles of Genetic and Environmental Factors in Disease Causation.

Semester IV
- Monitoring and evaluation of 4 services / programs.
- Writing and reviewing scientific papers.
- Study design: writing scientific papers.
  Dissertation work on relevant topic on epidemiology during first III semesters

Books

TEXT BOOKS AND OTHER REFERENCES
7. John J. Hanlon, Public Health Administration and Practice, MOSBY.
10. Mawner & Kramer, Epid: An Introductory Text, 1985 W.B. Sanuders Co.,

12. Committee reports and policy documents- medical education and health policy;
   1. Bhore Committee Report (1946) Health Survey and Development Committee, Govt. of India, Delhi.

Additional Reading:

Journals:
1. Indian Journal of Community Medicine.
3. Indian Journal of Community Health
8. Indian Journal of Medical Research
10. Indian Journal of Malariology.
12. Indian Journal of Medical Education.
14. Journal of Medicine, Paediatrics, OBG, Skin & STD, Leprosy, Tuberculosis & Chest Diseases (For Reference)

International Journals:
1. WHO Publications- All
3. Tropical Diseases Bulletin.
4. Vaccine.

Scheme of examinations
- At end of each semester one theory paper of 100 marks pertaining to syllabus completed in the same term

Question paper pattern:
Total FIVE Questions each earning equal marks (20 each) to be divided into two parts.
Total Theory = 100 x 4 = 400
Practical:

• At end of first three semesters practical examination of 50 marks each will be conducted.

• In IV Term before final exam Dissertation presentation – 50 marks and Defence of Dissertation – 100 marks.

Total (Practicals) For 3rd semesters = 50 x 3 = 150

For 4th semesters = \[
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\text{150} \\
\text{300}
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Passing criteria: As per University M. Sc. rules.