"Basic Course in Bio-medical Research"
Online course for post-graduate medical students and faculty

Course approved by Board of Governors - in supersession of Medical Council of India
In partnership with ICMR-National Institute of Epidemiology and SWAYAM NPTEL

Introduction

In order to improve the research skills of post-graduate (PG) students and faculty, the Board of Governors (BoG) has recommended a uniform research methodology course across the country. The online course, "Basic Course in Bio-medical Research", will be offered by ICMR-National Institute of Epidemiology (ICMR-NIE), Chennai (www.nie.gov.in). The course will explain fundamental concepts in research methodology. This course is being offered through SWAYAM programme of Ministry of Human Resource Development through SWAYAM NPTEL (https://swayam.gov.in/nc_details/NPTEL)

Course contents

The course includes **23 topics** covering conceptualization of a research study, epidemiological and bio-statistical considerations in designing a research study, planning and conducting a research study, writing a research protocol and publication ethics (*Course syllabus given below*). The learning materials will include video lectures, presentation slides, reading materials and assignments.

Enrolment for the course

The course will be available at: https://swayam.gov.in/nd1_noc19_ge33/preview. The above link will be made available from home pages of MCI (https://www.mciindia.org/) and ICMR-NIE and will be accessible from 1 August 2019. The candidates can **enrol for the course from 1 August 2019.** Candidates should have enrolled for the course at least **one month prior to the opening of the registration for examination.** Re-enrolment is possible for those who are found ineligible on the basis of total assignment score (*Refer important dates given below*).

Course duration

The course will have learning materials for 23 topics and the candidates may require minimum an hour to complete the course materials per topic. The assignments have to be completed prior to the registration for examination.

Course assignments

Each of the 23 topics will have online assignments consisting of 10 Multiple-Choice Questions (MCQs) each. Thus, 'total assignment score' sums to a maximum of 230. **A minimum of 50% in total assignment score is essential to register for the examination.**

Registration for examination

The registration for examinations will open **3 months before the scheduled examination date** (*Refer important dates given below*). To register for examination, the enrolled candidates will (1) fill-up an online form (2) pay examination **fee of Rs. 1000** online. The list of examination centres will be made available at the time of registration for the examination. Candidates will have 3 options of exam cities to choose from.

Method of examination

Proctored examination of 3 hours duration will be conducted at designated centres in selected cities across the country. The examination will comprise of 100 MCQs.

Examination dates

Examination will take place in 6 sessions spread through March (Sunday; morning and evening sessions) and April (Saturday and Sunday: morning and evening sessions) at examination centres in **more than 100 cities** across the country. Each session will have limited number of seats. These sessions will be available on a **first come, first served basis**.

Certification

A candidate will be considered eligible for an e-Certificate only if s/he scores **at least 50% in total assignment score** and proctored examination score independently. The total assignment score will be known at the time of opening of registration for the proctored examination.

The successful candidates will get an **e-Certificate** with the name, photograph and the scores obtained. The e-Certificate will depict the **'Final score'** comprising the total assignment score (**25% weightage**) and the proctored examination score (**75% weightage**). It will be e-verifiable at a designated web address. No hard copies will be issued.

The candidates will be considered '***Ineligible***' to register for the proctored examination if they score < 50% in total assignment score. They will have an option of re-enrolment for the course in the next cycle (*Refer important dates given below*).

The candidates who score <50% in the proctored examination (but have scored > 50% in total assignment score) have to **re-register** for the proctored examination in the next cycle (*Refer important dates given below*).

Course co-ordinating Committee

Dr. Siddarth Ramji (*Chairman*, MAMC, New Delhi); Dr. Shally Awasthi (*Director*, KGMC, Lucknow), Dr. M. Jeeva Sankar (*Member*, AIIMS, New Delhi) and Dr. Manoj V Murhekar (*Member*, Director, ICMR-NIE, Chennai)

Contact information

Please write to niecourse@nieicmr.org.in or contact 044-26136422 (10 am to 5 pm on working days) for any query regarding the course.

Course syllabus

1. Conceptualizing a research study • Introduction to health research • Formulating research question, hypothesis & objectives • Literature review	**4. Planning a research study** • Selection of study population • Study plan and project management • Designing data collection tools • Principles of data collection • Data management • Overview of data analysis
2. Epidemiological considerations in designing a research study • Measures of disease frequency • Descriptive study designs • Analytical study designs • Experimental study designs: Clinical trials • Validity of epidemiological studies • Qualitative research methods: An overview	**5. Conducting a research study** • Ethical framework for health research • Conducting clinical trials
3. Bio-statistical considerations in designing a research study • Measurement of study variable • Sampling methods • Calculating sample size and power	**6. Writing a research protocol** • Preparing a concept paper for research projects • Elements of a protocol for research studies • Publication ethics

Important dates