



“Basic Course in Bio-medical Research”

Online course for Postgraduates Medical Students and Medical Teachers

National Medical Commission (NMC) mandated course

In partnership with ICMR-National Institute of Epidemiology and SWAYAM NPTEL

Introduction

In order to improve the research skills of postgraduate (MD/MS) students and medical teachers, the National Medical Commission (NMC) has recommended a uniform research methodology course across the country. The online course, “Basic Course in Bio-medical Research”, is be offered by ICMR-National Institute of Epidemiology (ICMR-NIE), Chennai. The course will explain fundamental concepts in research methodology. This course is being offered through SWAYAM programme of Ministry of Education through SWAYAM NPTEL.

Course contents

The course includes 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 on the website <https://swayam.gov.in> The above link will be made available in home pages of NMC (<https://www.nmc.org.in/>) and ICMR-NIE (<http://nie.gov.in/niecer/bcbr/index.htm>). Candidates should enroll for the course when the enrolment is open for each cycle.

Course duration

The course is self-paced, and the assignments should be completed within 16 weeks of start of enrolment (before the deadline given in the course page at <http://nie.gov.in/niecer/bcbr/index.htm>).

Course assignments

Each lecture will have online assignments consisting of 10 Multiple-Choice Questions (MCQs). A minimum of 50% in total assignment score is essential to register for the examination. The total assignment score will be released after the submission deadline.

Final proctored examination

Those found eligible ($\geq 50\%$ in aggregated assignment score) can register for the final proctored exam. The registration link for final proctored examinations will open **after the assignment submission deadline**. Eligible candidates will need to fill-up an online form and pay examination fees of **Rs. 1000** online. The list of examination centres will be made available at the time of registration for the examination.

The final proctored computer-based examination will be conducted at designated centres in selected cities across the country and will comprise of 100 MCQs.

Course Certification

Candidates will be provided an e-Certificate only if s/he scores at least 50% in the final proctored examination.

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.

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 to important dates at <http://nie.gov.in/niecer/bcbr/index.htm>*).

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 to important dates at <http://nie.gov.in/niecer/bcbr/index.htm>*).

Course Co-ordination Committee

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

COURSE SYLLABUS

1. Conceptualizing a research study	4. Planning a research study
<ul style="list-style-type: none">• Introduction to health research• Formulating research question, hypothesis & objectives• Literature review	<ul style="list-style-type: none">• 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	5. Conducting a research study
<ul style="list-style-type: none">• Measures of disease frequency• Descriptive study designs• Analytical study designs• Experimental study designs: Clinical trials• Validity of epidemiological studies• Qualitative research methods: An overview	<ul style="list-style-type: none">• Ethical framework for health research• Conducting clinical trials
3. Bio-statistical considerations in designing a research study	6. Writing a research protocol
<ul style="list-style-type: none">• Measurement of study variable• Sampling methods• Calculating sample size and power	<ul style="list-style-type: none">• Preparing a concept paper for research projects• Elements of a protocol for research studies

	• Publication ethics
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Contact information

Send queries to the course email or call 044-26136422 (10 am to 5 pm on working days).

Updated details regarding the current course cycle and important dates about latest cycle can be obtained from the website <http://nie.gov.in/niecer/bcbr/index.htm>