



# ICMR School of Public Health

ICMR SPH PhD Program PG Program Online Courses Short-term programs

## BASIC COURSE IN BIOMEDICAL RESEARCH

An Online Course for Medical Postgraduates and Teachers in Medical Institutions in India

As mandated by the National Medical Commission

### For Whom?

Medical Postgraduates (MD, MS, MCH, DM) admitted from Academic Year 2019-2020 onwards.

Teachers in medical institutions

### Course duration

### Learning mode

### Course certificate

### About the course

In order to improve the research skills of Indian medical postgraduates (PG) and teachers in medical institutions, the National Medical Commission (NMC, erstwhile Medical Council of India) has mandated a uniform research methodology course. This online course, "Basic Course in Biomedical Research", will be offered by ICMR-National Institute of Epidemiology (ICMR-NIE), Chennai.

The course will explain the fundamental concepts of research methodology in health. It will be delivered through video lectures and reading materials. Certification will be done based on lecture wise assignments and a final proctored exam.



### NMC notifications

- Clarification regarding eligibility of final year PG students without completing the 'Online course in research methods' for appearing in final medical PG exam 2023 (31 May 2023)
- Medical teachers (12 Feb 2020)
- Medical postgraduates (11 Dec 2019)
- Medical postgraduates (09 July 2019)

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e - Certificate

in the next available date

## Course Syllabus

### Conceptualizing a research study

- Introduction to health research
- Formulating research question, hypothesis and objectives
- Literature review

### Epidemiological considerations in designing a research study

- Measures of disease frequency
- Descriptive study designs
- Analytical study designs
- Experimental study designs
- Validity of Epidemiological studies
- Qualitative research methods: An overview

### Biostatistical considerations in designing a research study

- Measures of study variable
- Sampling methods
- Calculating sample size and power

### Planning a research study

- Selection and study population
- Study plan and project management
- Designing data collection tools
- Principles of data collection tools
- Data management
- Overview of data analysis

### Ethical issues in a research study

- Ethical framework for health research
- Conducting clinical trials

### Writing a research protocol

- Preparing a concept paper for research projects
- Elements of a protocol for research studies
- Publication ethics
- Manuscript writing
- Grant proposal writing

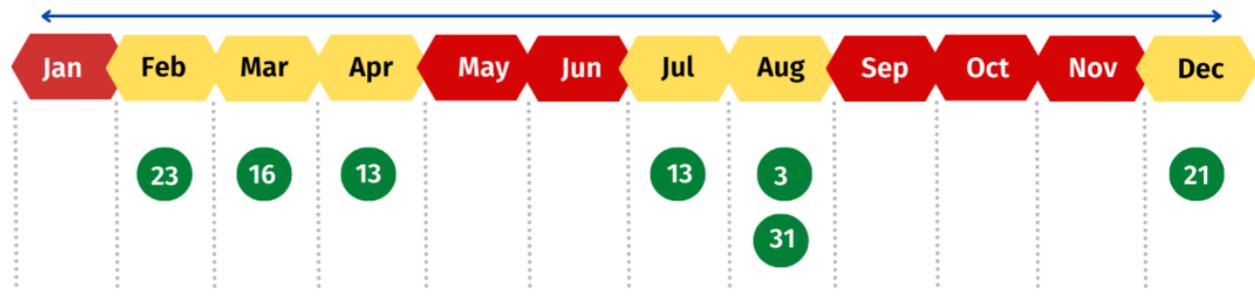


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## BCBR Proctored Exam Dates

2025



- **Available Exam Dates**  
Registration links of the exams will be provided in the course announcement page  
Check the BCBR course announcement page regularly for exam registration link and further updates  
**There are No Exams in the months of January, May, June, September, October and November 2025**  
For any queries, please feel free to write us- [noc22-md01@nptel.iitm.ac.in](mailto:noc22-md01@nptel.iitm.ac.in)

### 3 Frequently Asked Questions