

e-mail: nttc.jipmer@gmail.com  
Website: www.jipmer.edu.in



Phone: 0413-2296000 Extn: 8582  
Fax: 0413-2272067/66 & 2272735

**JAWAHARLAL INSTITUTE OF POSTGRADUATE MEDICAL EDUCATION & RESEARCH (JIPMER)**  
(Institution of National Importance Under Ministry of Health & Family Welfare, Government of India)  
Dhanvantri Nagar, Puducherry-605 006.

---

**DEPARTMENT OF MEDICAL EDUCATION  
JIPMER, PUDUCHERRY-6**

No.JIP/DME(49)/ACRM/2023

Dated: 22.06.2023

**Circular**

The Department of Medical Education in collaboration with Research Division announces the second Advanced Course in Research Methodology, Biostatistics & Ethics (July 2023 session) for JIPMER faculty which will begin with effect from 12th July 2023. This course adopts the principle of 'flexible learning' which allows the learners customize their pace, place and mode of learning. The maximum duration for completion of the course is one year from the date of joining. The course will be organized in three phases as given in the brochure attached with this circular. Registration for the course and successful completion of all three phases of the course is mandatory for certification. Interested faculty can forward their Name, Designation, Mail Id & Mobile number through proper channel to [acrmjipmer@gmail.com](mailto:acrmjipmer@gmail.com) on or before 05.07.2023.

Thanking you,

Sd/-  
Dr. Z. Zayapragassarazan  
Prof. & Head  
Dept. of Medical Education  
JIPMER

Enclosure:  
1. Course Brochure



## Department of Medical Education JIPMER

### **Second Advanced Course in Research Methodology, Biostatistics and Ethics**

#### **Purpose Statement**

The Advanced Course in Research Methodology, Biostatistics and Ethics (ACRM) is a collaborative initiative by the Division of Research and Department of Medical Education, JIPMER, Puducherry. The mission of the course is to impart research skills to the faculty of JIPMER and improve the quality of research in JIPMER.

#### **Course Objectives**

At the end of this advanced course, the participants shall be able to:

- conceptualize a research study
- apply epidemiological considerations in designing a research study
- apply Bio-statistical considerations in designing a research study
- develop a research study
- recognize ethical issues in conducting a research study
- apply the ethical principles for conducting the research
- apply the steps of writing a research protocol
- apply the principles of scientific writing for research publication
- apply the adult learning practices in biomedical research
- demonstrate critical thinking and other soft skills required for research and development

#### **Target Audience**

Faculty working in JIPMER Puducherry and JIPMER Karaikal.

#### **Career Benefits**

Successful candidates will get recognition for:

- taking leadership roles in research-related activities in JIPMER
- conducting research related training programs for faculty and students

#### **Course Structure**

The course adopts the model of 'flexible learning' and comprises the following six learning modules transacted in three phases:

Module 1: Research Methodology

Module 2: Biostatistics

Module 3: Ethics

Module 4: Scientific writing and publication

Module 5: Adult learning and teaching

Module 6: Critical thinking, creativity and soft skills

#### Phase-I: Open online courses

These are Massive Open Online Courses (MOOCs) offered by reputed course providers that provide an affordable and flexible way to acquire new knowledge and skills. Some of these courses are offered free and some are offered on a payment basis also. Faculty are encouraged to utilize their Learning Resources Allowance (LRA) to meet the course/certification fees. All the candidates enrolled for ACRM will complete Modules 1, 2 and 3 by registering for the following three online courses and complete the same within one year:

Module	Name of the Course	Duration	Course Provider	Course Details and Registration Link
Module 1: Research Methodology	Basic Course in Biomedical Research	16 weeks	ICMR-NIE	<a href="https://nie.gov.in/icmr_sph/BCBR.html">https://nie.gov.in/icmr_sph/BCBR.html</a>
Module 2: Ethics	Ethics Review of Health Research	16 weeks	ICMR-NIE	<a href="https://nie.gov.in/icmr_sph/ERHR.html">https://nie.gov.in/icmr_sph/ERHR.html</a>
Module 3: Biostatistics	Introduction to Biostatistics	8 weeks	SWAYAM Govt of India	<a href="https://onlinecourses.nptel.ac.in/noc23_bt58/preview">https://onlinecourses.nptel.ac.in/noc23_bt58/preview</a>

#### Phase-II: Collaborative learning using JIPMER Online Research Discussion Forum

All the candidates enrolled for ACRM will become member of JIPMER Online Research Discussion Forum where discussion on selected topics will be moderated by designated faculty. Candidates can identify and choose a mentor for guiding them in their learning process. Candidates can also initiate a discussion forum and clear their doubts with regards to the subject. The following three modules will be covered during this web-based collaborative learning:

Module	Broad Topic for Online Collaborative Learning	Duration	Course Provider	Enrolment
Module 4: Scientific writing and publication	Scientific writing and publication	4 weeks	JIPMER Online Research Forum	All registered candidates for ACRM will automatically get enrolled in JIPMER Online Research Forum  ie. 2 <sup>nd</sup> Week of July onwards
Module 5: Adult learning and teaching	Adult learning and teaching	4 weeks	JIPMER Online Research Forum	
Module 6: Critical thinking, creativity and soft skills	Critical thinking, creativity and soft skills	4 weeks	JIPMER Online Research Forum	

#### Phase-III: Personal Contact Sessions and Assessment

Duration: 4 days

##### Eligibility:

- i. Successful completion of all the three modules of Phase-I and submission of completion certificates to Dean (Research) before the dates scheduled for Phase-III.
- ii. Fulfil the requirements of Phase-II via. JIPMER Online Research Discussion Forum.

The resource faculty will discuss all the six modules in detail using interactive teaching-learning methods during the first three days of the personal contact session. Attendance on all three days and for all the sessions is compulsory for certification. The fourth day is assigned for summative assessment.

### **Assessment**

*Formative:* Performance in online modules and performance in online collaborative learning (JIPMER Online Research Discussion Forum).

*Summative:* The fourth day of Phase-III personal contact session is assigned for summative assessment. The summative assessment will have two written exams:

*Paper-I:* 50 MCQs to be answered in 1.15 hours. The maximum marks awarded would be 50 marks (1 mark for each correct answer).

*Paper-II:* This will be a 2 hours written examination comprising of descriptive questions based on each of the six modules, including project writing skills. The maximum marks awarded would be 100 marks.

### **Certification**

A Course Completion Certificate will be awarded to candidates fulfilling the following course requirements:

1. Successful completion of prescribed online courses for Modules 1, 2 & 3.
2. Fulfil the requirements of JIPMER Online Research Discussion Forum
3. A minimum of 75% (Paper I and paper II combined) in the final assessment is essential for the award of the course completion certificate.

### **Course Duration**

Minimum 12 months & maximum 24 months

This course adopts the principle of 'flexible learning', allowing the learners to customize their pace, place, and mode of learning. The maximum duration for completion of the course is 24 months from the date of joining. However, a candidate can complete the course in 12 months provided they fulfil all the course requirements. Phase III, which is the concluding phase, will be conducted in July 2024. Registration for the course and phase-wise completion of the course is mandatory for certification.

### **Intake Per Session**

The total intake for each session will be 20 candidates.

### **Course Fee**

Since JIPMER offers this course to its faculty to enhance their research skills, no course fee or certification fee will be charged.

### Phase III Learning Modules, Contents, Weightage and Faculty

Day	Module	Broad topics	Weightage in assessment (%)	Faculty/Department
Day-1	Research Methodology	Epidemiological methods, Clinical Trials, Animal research	20	PSM, Clinical Pharmacology, Pharmacology, Biochemistry, Members of the JIPMER Scientific Advisory Committee
	Biostatistics	Basic and Advanced level	20	Biostatistics
Day-2	Ethics	Human research ethics, Animal research ethics, Fraud and misconduct, Good clinical practice, Good laboratory practice	20	Chairman and member secretary of JIPMER ethics committee, Bioethicists and other external members.
	Scientific writing and publication	Types of publications, Writing a paper, Publication process, Publication ethics, Intellectual property rights	15	Journal editors in JIPMER and well-known editors in India.
Day-3	Adult learning and teaching	Teaching and training PGs and PhD students in research methodology.	15	Medical Education
	Critical thinking, creativity and soft skills	Communication skill, analytical skills, critical thinking skills, creativity, leadership skills and resource management	10	Medical Education, Psychiatry, External faculty from Social Sciences and Management

#### Learning resources

Pre-recorded lectures, PPTs with voice over, webinars, full-text articles, e-books and e-worksheets will be shared with the candidates.

#### Program evaluation

Phase-wise feedback will be collected from the participants and the resource faculty to identify the success indicators of the program and areas for improvement. Further, the course contents and its transaction strategies will be modified based on the feedback obtained from the stakeholders.

## Work Process

Phases	Process	Time line / Duration
Phase-I MOOC Courses	Enrolment and Completion of all the three online modules (MOOC) and submit the course completion certificates to Dean (Research) before 30 <sup>th</sup> June 2024.	July 2023 to June 2024
Phase-II JIPMER Online Research Forum	Participation in the online JIPMER Research Forum and fulfil the course requirements of Modules 4,5 & 6.	August 2023 to February 2024
	Submission of Course Completion Certificates for the modules 1,2,&3 to Dean (Research) before 30 <sup>th</sup> June for July Session (Phase-III personal contact session).	
Phase-III Personal Contact Sessions & Course-end Exam	After completing all the six modules the candidate can attend the personal contact sessions and fulfil the course requirements	3 <sup>rd</sup> Week of July 2024 3 days
	Appear for course end exam (Paper-1: MCQs & Paper 2: Descriptive)	1 day
Certification	Graduation Ceremony	1 <sup>st</sup> Monday of August 2024

## Course Co-ordinating Committee

Chairman: Dean-Research

Co-ordinators: Dr Sreekumaran Nair, Dr <sup>5</sup>Sriram Krishnamurthy, Dr. Nishad Plakkal, Dr Z Zayapragassarazan

## Module Co-ordinators

Module 1: Research Methodology - Dr Sitanshu Sekhar Kar, Prof & Head of PSM

Module 2: Biostatistics - Dr Sreekumaran Nair, Prof & Head of Biostatistics

Module 3: Ethics - Dr Medha Rajappa, Prof. of Biochemistry

Module 4: Scientific writing, Grant Writing and Publication - Dr Sriram Krishnamurthy, Prof of Paediatrics

Module 5: Adult Teaching and Learning - Dr Z. Zayapragassarazan, Prof & Head of Medical Education

Module 6: Critical Thinking, Creativity and Soft Skills - Dr Subitha L, Addl. Prof of PSM

## Suggested Readings

Daniel W W. Biostatistics. A foundation for analysis in health sciences, John Wiley and Sons

Defining the role of authors and contributors [homepage on the Internet]. International Committee of Medical Journal Editors. Available from: <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>

ICMR Policy on Research Integrity and Publication Ethics (RIPE), 2019, Available from: [https://ethics.ncdirindia.org/ICMR\\_Ethical\\_Guidelines.aspx](https://ethics.ncdirindia.org/ICMR_Ethical_Guidelines.aspx)

Lwanga S K and Lemeshow S. Sample size determination in health studies: A practical manual. World Health Organization.

National Ethical Guidelines for Biomedical and Health Research involving Human Participants, 2017, Available from: [https://ethics.ncdirindia.org/ICMR\\_Ethical\\_Guidelines.aspx](https://ethics.ncdirindia.org/ICMR_Ethical_Guidelines.aspx)

National Ethical Guidelines for Biomedical Research Involving Children, 2017, Available from: Available from: [https://ethics.ncdirindia.org/ICMR\\_Ethical\\_Guidelines.aspx](https://ethics.ncdirindia.org/ICMR_Ethical_Guidelines.aspx)