

CLINICAL RESEARCH TRAINING PROGRAM WITH

APPLIED ONLINE PROJECT WORK

STARTING 7TH FEBRUARY 2025



- Start Date: 7th February 2025
- Time: 7:30 8:30 PM IST (Monday to Friday)
- Duration: 30,60 & (90 Days + Project Work)



Why Enroll in the Clinical Research Training Program?

The global clinical research industry is expected to reach \$63 billion by 2025, offering countless career opportunities for skilled professionals. This comprehensive program equips you with the knowledge, skills, and practical experience to excel in the ever-growing clinical research field

- 1. Comprehensive Curriculum: Covers all facets of clinical research, from fundamentals to advanced topics like AI in clinical trials, risk-based monitoring, and decentralized clinical trials.
- 2. Hands-on Project Work: Gain practical experience with real-world project topics that prepare you for industry challenges.
- 3. Industry-Relevant Skills: Learn essential concepts like protocol design, adverse event reporting, regulatory environment analysis, and much more.
- 4. Expert-Led Training: Delivered by seasoned industry professionals with years of clinical research expertise.

Career Guidance: Includes career counseling, resume-building sessions, and open discussions to help you land your dream job in clinical research.





With over 5 years of expertise in clinical research and monitoring, Ankita brings a wealth of knowledge and practical experience to the table. Holding a Master's in Microbiology and advanced certifications in Clinical Research and Management, Ankita is a dedicated professional specializing in regulatory compliance, project management, and data analysis for oncology and non-oncology studies.

Her skill set includes proficiency in industry-standard tools such as CTMS, PDMS, and EDC, with demonstrated expertise in KRI assessments, SAE reporting, and comprehensive clinical documentation. Ankita's accolades include the prestigious Star Performer Award at IQVIA, underscoring her commitment to excellence in clinical research.

Passionate about training and mentoring, Ankita aims to bridge the gap between theoretical knowledge and real-world application, empowering students to excel in the dynamic field of clinical research



Course Curriculum

Session no

Unit No. and Topic

UNIT-1: Introduction to Clinical Research

- 1 Fundamentals of Clinical Research
- 2 History of Clinical Research
- Basic terminologies associated with clinical research
- 4 Basics on clinical trial
- 5 Unit review and Q&A

UNIT-2: Clinical Trial Phases

- 6 Introduction to clinical trial phases
- 7 Classification of clinical trial phases



- 8 Life cycle of a clinical trial
- 9 Unit review and Q&A

UNIT-3: Pharmacokinetics and Pharmacodynamics

- Basic terminologies associated with clinical research
- 11 Basics on clinical trial
- 12 Unit review and Q&A

UNIT-4: Preclinical Studies and Drug Manufacture

- 13 Definitions
- 14 Preclinical Trials (Lab test and Animal test)
- New Chemical Entity (NCE) development and Chemistry Manufacture & Control (CMC)



UNIT-4: Drug Discovery and Therapeutic Areas

- 16 Drug Discovery
- Drug Therapeutic Area and Mechanism of Action
- 18 \tag{\text{None of the content of

UNIT-5: ICH GCP

- 19 **Evolution and history of ICH**
- 20 Soals and Process of ICH
- 21 ICH standards and Bodies associated with ICH
- 22 3 13 principles of ICH GCP
- 23 ICH GCP Requirement



- 24 IRB and IEC
- Declaration of Helsinki and it's Principles
- 26 Unit review and Q&A

UNIT-6: Roles and Responsibilities

- Responsibilities of Sponsors and CRO (Contract Research Organization)
- Responsibilities of Investigators, site staff and IRB/IEC
- Responsibilities of Clinical Research Associate (CRA) and Monitors
- Remote Monitoring (A new emerging concept)
- 31 Unit review and Q&A



UNIT-7: Risk based Monitoring

- Conceptual learning of RBM (Risk Based Monitoring)
- Conceptual learning of RBQM (Risk Based)

 Quality Management)
- Documents and stakeholders supporting RBM and RBQM
- 35 Case Scenarios
- 37 Unit review and Q&A



UNIT-8: Blinding and Randomization & Protocol Understanding

- 38 Blinding and it's Type
- 39 Randomization and it's type
- 40 Eligibility Criteria & Schedule of Activities
- Documents and stakeholders supporting RBM and RBQM
- 42 Other contents of protocol

UNIT-9: Informed Consent

- 43 Definition and Guidelines
- 44 Exceptional Scenarios
- 45 Unit review and Q&A



UNIT-10: Documentation

- 46 Essential Documents
- 47 TMP and SMA
- 18 Investigator's Brochure, Feasibility
 Lab and Pharmacy Manuals
- Case Report Forms (CRF) & eCRF, Interactive
 Web Response Systems and Case Study Report
- 50 PROs, ePROs, eDairies etc
- 51 | Identification of Protocol Deviation/Violation
- 52 Unit review and Q&A



UNIT-11: Adverse and Serious Adverse Events

53 Definitions

54 Reporting Timelines

55 Permitted and Prohibited Therapy

56 Concomitant Medications

UNIT-12: Audit and Inspection & Data Entry of Clinical trial

58 Definition and Differences

59 Important Terminologies



- 60 Data Entry Process
- 61 Data Entry Facilities
- 62 Life Cycle of a Data
- 63 **>** 21 CFR
- 64 Dunit review and Q&A

UNIT-13: Virtually driven Clinical trial

- 65 eCRF (Electronic Case Report Form) and it's entry process
- **Remote Data Capture**
- Source Documents and it's review and verification (SDR and SDV)



UNIT-14: Site Visits and Types

- 68 Site Initiation Visits
- 69 Site Monitoring Visits and Responsibilities
- 70 Site Closeout visits

UNIT-14: Regulatory Authorities and common Abbreviations

- 72 Worldwide Regulatory Authorities
- Regulatory Environment in India (CDSCO ICMR and others)
- 74 Functions of Regulatory Authorities
- 75 Detailed knowledge on FDA and EMA



- Regulatory Submission and Approval Process in India and worldwide
- 77 Challenges during Regulatory Approvals
- 78 Unit review and Q&A

UNIT-15: Latest Advancement in Clinical Trial

- 79 Involvement of Al in subject Recruitment
- 80 Protocol Designing and Data Analysis
- 81 **New Method Report State 1 New York State 2 New York State 2**
- Risk Assessment, Centralized Monitoring and Decentralized Clinical Trials
- 83 Unit review and Q&A



84 Career Counselling

85 Resume building

86 Final Doubt Clearing and Open Discussion







Duration: 4-6 weeks

Duration: 3-4 weeks

CLINICAL RESEARCH ONLINE PROJECT TOPICS

1. Clinical Trial Design and Protocol Presentation

Objective

Students will understand the requirement of designing a protocol, including objectives, phases, eligibility criteria, randomization, blinding, schedule of activities, and other protocol content.

Key Deliverables: Complete trial protocol document and a presentation explaining their design.

2. Adverse Event Reporting and Analysis

Objective

Analyze mock case scenarios to identify adverse events (AEs) and serious adverse events (SAEs). Prepare regulatory-compliant AE reports with appropriate timelines.

Key Deliverables: AE and SAE report submissions, including analysis of concomitant medications and therapy impacts.



3. Risk-Based Monitoring (RBM) Project

Objective

Duration: 4 weeks

Develop a risk-based monitoring plan for a mock clinical trial. Identify key risk indicators (KRIs), quality tolerance limits (QTLs), and monitoring strategies and also work on route cause analysis and mitigation plan

Key Deliverables: Comprehensive RBM/RBQM plan and risk assessment report.

4. Data Analysis and Al Application in Clinical Trials

Duration: 6 weeks

Objective

Use the provided datasets to analyze clinical trial data using basic statistical tools. Demonstrate how data analysis can optimize trial outcomes.

Key Deliverables: Data analysis report, including visualizations and statistical insights.



5. Preclinical to Clinical Transition Project

Objective

Duration: 4 weeks

Identification of preclinical data from mock abstracts/publications and posters and providing the model used, cell line. CMC etc.

Key Deliverables: Transition roadmap and presentation.

6.Regulatory Environment Analysis

Duration: 3 weeks

Objective

Compare regulatory environments in India, the US, and Europe. Highlight similarities, differences, and challenges in gaining approval for clinical trials

Key Deliverables: Comparative regulatory analysis document



7. Real-Time Problem Solving in Clinical Trials

Objective

Duration: 3 weeks

Work on case studies involving protocol deviations/violations, patient recruitment challenges, or quality management issues. Provide solutions based on ICH GCP principles.

Key Deliverables: Detailed case analysis and recommended solutions.

Suggested Timeline for Projects

Short projects (3–4 weeks) can be assigned as individual modules.

Longer projects (4–6 weeks) can be capstone projects or combined into a comprehensive 3-month project with overlapping elements.

By focusing on these projects, students can still gain robust, practical experience in clinical research without relying on virtual simulations.



Career Opportunities Post-Training

- Clinical Research Associate (CRA)
- Clinical Data Manager
- Regulatory Affairs Specialist
- Medical Writer
- Pharmacovigilance Specialist
- Quality Control/Quality
 Assurance Officer
- Site Monitoring Officer
- Clinical Project Manager

DID YOU > KNOW

The clinical research industry is booming, with job demand expected to grow by over 13% by 2028, especially for roles like CRAs and Clinical Project Managers.



Key Learning Outcomes

By the end of this training program, you will:

- Master clinical trial processes from Phase I to Phase IV.
- Understand regulatory guidelines such as ICH-GCP, FDA, EMA, and CDSCO.
- Learn pharmacovigilance concepts, including AE and SAE reporting.
- Gain hands-on experience through applied project work.



This course is ideal for

- Life Science/Pharmacy/Medical Graduates
- Working Professionals Looking to Transition into Clinical Research
- Students Seeking Hands-On Industry Exposure
- Individuals Interested in a Career in CROs, Pharmaceuticals, or Biotech Companies

Tools& Software You'll Learn:

- CTMS (Clinical Trial Management Systems)
- EDC (Electronic Data Capture)
- eCRF (Electronic Case Report Forms)
- Al Tools for Clinical Research





FAQs (Frequently Asked Questions)



Q1: Is this course suitable for beginners?

A: Yes! This program is designed to start from the basics and gradually cover advanced concepts.

Q2: Will I get a certificate after completing the course?

A: Yes, participants will receive a course & Project work completion certificate.

Q3: What kind of project work will be provided?

A: You'll work on real-world clinical trial scenarios like protocol design, risk-based monitoring, and adverse event reporting to gain hands-on experience.

Q4: Can I get job placement assistance after completing the program?

A: Yes, we provide career counseling, resume-building sessions, and access to Biotecnika's job portal to help you land a job in the clinical research industry.



- High Demand: Clinical research professionals are in high demand worldwide.
- Attractive Salary: Entry-level roles offer salaries starting from ₹4-6 LPA, with rapid growth potential.
- Global Opportunities: Work with pharma giants, CROs, and regulatory agencies worldwide.
- Impactful Work: Contribute to life-saving drug discoveries and help improve global healthcare.



About Biotecnika

Biotecnika is a leading name in life sciences education, providing industry-relevant training programs for students and professionals. With 18+ years of experience in the biotech education space, we've trained 10,000+ professionals till date in various BIO-IT & allied courses who are now working in top pharma and CRO companies worldwide.

Join our mission to bridge the gap between academia and industry and prepare yourself for a bright future in clinical research!

Join us today