

Executive Diploma in Artificial Intelligence, Clinical Data Science & Healthcare Analytics

Comprehensive Industry-Oriented Training in AI, Clinical Data Science, SAS, Biostatistics, SQL, R, CDISC & Healthcare Analytics for Pharmacy and Healthcare Students & Professionals.



Includes 4 Months Live Theory & Practical Training + 2 Months Industry Internship + Healthcare Capstone Project

Particulars	Details
Course Name	<i>Executive Diploma in Artificial Intelligence, Clinical Data Science & Healthcare Analytics</i>
Total Duration	<i>6 Months (4 Months Theory & Practical Training + 2 Months Industry Internship & Healthcare Capstone Project)</i>
Class Schedule	<i>Every Friday • 7:00 PM – 9:00 PM IST</i>
Mode	<i>100% Live Online</i>
Course Start Date	<i>July 29, 2026</i>
Last Date to Register	<i>July 15, 2026</i>
Course Fee	<i>₹5,800/- (Actual Value ₹20,000/-)</i>
Instalment Structure	<i>1st Instalment: ₹3,500/- at Registration 2nd Instalment: ₹2,300/- after Completion of 2 Months</i>
Certifications	<i>Executive Diploma Certificate + Industrial Internship Certificate + Healthcare Capstone Project Certificate + Certificate in Clinical Data Standards & Regulatory Compliance</i>
Practical Benefits	<i>Real Clinical Trial Datasets, SAS Programming, R Programming, SQL, CDISC Mapping, Dashboard Development, Healthcare Analytics Projects, AI-enabled Data Analysis</i>

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Registration Link (First Instalment):
<https://rzp.io/rzp/danjul>



About Curio Training & Research Institute (CTRI)

Curio Training & Research Institute (CTRI), a constituent unit of CliMed Research Solutions, India, is dedicated to developing industry-ready healthcare professionals through advanced skill development programs. CTRI bridges the gap between academic education and pharmaceutical industry requirements by providing practical, application-based training delivered by experienced faculty and industry experts from pharmaceutical companies, CROs, hospitals, healthcare analytics organizations, and regulatory consulting firms.

About the Program

The Executive Diploma in Clinical Data Science & Healthcare Analytics is a comprehensive, career-oriented professional diploma designed for healthcare, pharmacy, biotechnology, life science and technology learners aspiring to build successful careers in Clinical Data Management, Clinical SAS Programming, Statistical Programming, Healthcare Analytics, Regulatory Data Standards, Artificial Intelligence, and Real-World Data Analytics.

The curriculum combines live theory sessions, hands-on practical training, real clinical datasets, case studies, programming exercises, industry assignments, healthcare dashboards, and a project-based internship to prepare learners for high-demand global careers in clinical research and healthcare analytics.

Participants will gain practical experience using industry-standard tools, including SAS, R Programming, SQL, Microsoft Power BI, Tableau, CDISC Standards (SDTM & ADaM), Define.xml, and AI-enabled healthcare analytics while completing an industry-oriented Healthcare Capstone Project.

Why This Diploma?

Clinical Data Science and Healthcare Analytics have become among the fastest-growing domains in the pharmaceutical and healthcare industries, driven by digital transformation, regulatory requirements, artificial intelligence, and real-world evidence generation.

There is increasing global demand from:

- *Pharmaceutical Companies*
- *Clinical Research Organizations (CROs)*
- *Biotechnology Companies*
- *Medical Device Companies*
- *Healthcare Analytics Organizations*
- *Hospitals & Health Systems*
- *Regulatory Consulting Firms*
- *Contract Research Organizations*
- *AI-enabled Healthcare Companies*
- *Real-World Evidence Organizations*
- *Health Technology Assessment (HTA) Organisations*
- *Government & Academic Research Institutions*

This diploma prepares learners with practical industry skills required for entry-level and advanced careers in Clinical Data Science, Healthcare Analytics, Clinical Research, Regulatory Data Management, Statistical Programming, & AI-enabled healthcare solutions.

Program Highlights

- ✓ *100% Live Online Learning*
- ✓ *Weekly Interactive Practical Sessions*
- ✓ *Real Clinical Trial Data Analysis*
- ✓ *Hands-on SAS Programming*
- ✓ *Hands-on R Programming*
- ✓ *SQL for Clinical Data Professionals*
- ✓ *Clinical Data Management Training*
- ✓ *Biostatistics using Industry Datasets*
- ✓ *CDISC SDTM, ADaM & Define.xml*
- ✓ *Microsoft Power BI & Tableau Dashboards*
- ✓ *AI Applications in Clinical Research*
- ✓ *Healthcare Analytics Projects*
- ✓ *Industry Case Studies*
- ✓ *Weekly Assignments & Assessments*
- ✓ *Resume Building & LinkedIn Optimization*
- ✓ *Mock Interviews & Career Guidance*
- ✓ *Session Recordings Available*
- ✓ *Healthcare Capstone Project*
- ✓ *2-Month Industry Internship*

Who Can Attend?

This program is designed for students, graduates, professionals, and technology enthusiasts interested in healthcare data, clinical research, & healthcare analytics.

- *Pharmacy Students & Graduates (D.Pharm, B.Pharm, Pharm.D, M.Pharm)*
- *Medical Students & Graduates (MBBS, BDS, MD/MS)*
- *Nursing Students & Professionals*
- *Allied Health Sciences Students & Graduates*
- *Health Sciences Students*
- *Biotechnology Students & Graduates*
- *Life Science Students & Graduates*
- *Biomedical Science & Biomedical Engineering Students*
- *Biochemistry & Microbiology Students*
- *Public Health (BPH/MPH) Students & Professionals*
- *Clinical Research Professionals*
- *Healthcare & Pharmaceutical Professionals*
- *Bioinformatics & Computational Biology Students*
- *Computer Science, Artificial Intelligence & Data Science Students interested in Healthcare*
- *Statistics & Mathematics Students interested in Healthcare Analytics*
- *Technology Enthusiasts aspiring to build a career in Healthcare Data Science*
- *Freshers seeking careers in Clinical Data Science & Healthcare Analytics*

Practical Learning Track.

- ✓ *Weekly Programming Assignments*
- ✓ *SAS Programming Exercises*
- ✓ *R Programming Exercises*
- ✓ *SQL Database Queries*
- ✓ *Clinical Dataset Review*
- ✓ *Statistical Analysis Projects*
- ✓ *Clinical Data Validation*

- ✓ *CDISC SDTM Mapping Exercises*
- ✓ *ADaM Dataset Development*
- ✓ *Healthcare Dashboard Development*
- ✓ *Microsoft Power BI Dashboards*
- ✓ *Tableau Dashboard Projects*
- ✓ *AI-assisted Clinical Data Analysis*
- ✓ *Weekly Assessments*

Course Curriculum (4 Months Theory & Practical Training).

Module 1 – Introduction to Clinical Research & Clinical Data Science

Coverage

- *Drug Discovery & Development Process*
- *Clinical Trial Phases (I–IV)*
- *Clinical Trial Stakeholders*
- *Clinical Trial Workflow*
- *Clinical Data Lifecycle*
- *Introduction to Clinical Data Science*
- *Career Opportunities in Clinical Data Science*

Module 2 – Clinical Data Management Fundamentals

Coverage

- *Clinical Data Management Workflow*
- *Source Documents*
- *CRFs & eCRFs*
- *Electronic Data Capture (EDC)*
- *Data Entry Standards*
- *Data Validation*
- *Query Management*
- *Data Cleaning*
- *Database Lock*

Practical

- *Creating eCRFs*
- *Query Resolution Exercises*



Module 3 – Clinical Database Design & Electronic Data Capture

Coverage

- *Database Design Principles*
- *Clinical Database Structure*
- *Data Dictionaries*
- *Clinical Metadata*
- *Data Quality Assurance*
- *EDC Systems*
- *Clinical Database Review*

Practical

- *Database Validation*
- *Clinical Database Exercises*

Module 4 – Biostatistics for Clinical Research

Coverage

- *Descriptive Statistics*
- *Probability*
- *Sampling Techniques*
- *Confidence Intervals*
- *Hypothesis Testing*
- *t-Test*
- *Chi-square Test*
- *ANOVA*
- *Correlation*
- *Regression*
- *Survival Analysis*

Practical

- *Statistical Analysis using R*

Module 5 – Introduction to SAS Programming

Coverage

- *SAS Interface*
- *Libraries*
- *DATA Step*
- *PROC PRINT*
- *PROC SORT*
- *Import & Export*
- *Variables*
- *Formats*
- *Functions*

Practical

- *Basic SAS Programming Exercises*



Module 6 – Advanced SAS Programming

Coverage

- *Database Design Principles*
- *Clinical Database Structure*
- *Data Dictionaries*
- *Clinical Metadata*
- *Data Quality Assurance*
- *EDC Systems*
- *Clinical Database Review*

Practical

- *Database Validation*
- *Clinical Database Exercises*

Module 7 – R Programming for Healthcare Analytics

Coverage

- *R Basics*
- *Data Import*
- *Data Cleaning*
- *Data Wrangling*
- *dplyr*
- *ggplot2*
- *Statistical Analysis*
- *Clinical Data Visualization*

Practical

- *Healthcare Data Analysis using R*

Module 8 – SQL for Clinical Data Professionals

Coverage

- *Database Concepts*
- *SQL Queries*
- *SELECT*
- *WHERE*
- *GROUP BY*
- *ORDER BY*
- *Aggregate Functions*
- *SQL Joins*
- *Clinical Database Queries*

Practical

- *SQL Exercises on Clinical Datasets*

Module 9 – Clinical Trial Data Analysis

Coverage

- *Demographic Data*
- *Laboratory Data*
- *Adverse Events*
- *Concomitant Medications*
- *Vital Signs*
- *Exposure Data*
- *Clinical Summaries*

Practical

- *Real Clinical Trial Dataset Analysis*

Module 10 – CDISC Standards

Coverage

- *Introduction to CDISC*
- *SDTM Domains*
- *ADaM*
- *Define.xml*
- *Controlled Terminology*
- *Submission Standards*
- *Regulatory Expectations*

Practical

- *SDTM Mapping*
- *ADaM Dataset Creation*

Module 11 – Clinical Reporting & Statistical Outputs

Coverage

- *Tables*
- *Listings*
- *Figures (TLFs)*
- *Clinical Study Reports*
- *Summary Tables*
- *Patient Narratives*
- *Graphical Outputs*

Practical

- *Creating Statistical Outputs using SAS & R*

Module 12 – Artificial Intelligence in Clinical Data Science

Coverage

- *AI Fundamentals*
- *Machine Learning Basics*
- *AI in Clinical Trials*
- *AI-assisted Data Cleaning*
- *Predictive Analytics*
- *AI-powered Healthcare Reporting*
- *Generative AI for Clinical Documentation*

Practical

- *AI-assisted Healthcare Analytics*

Module 13 – Healthcare Analytics, Dashboards & Regulatory Guidelines

Coverage

- *FDA Regulatory Requirements*
- *EMA Guidelines*
- *PMDA Overview*
- *Data Integrity (ALCOA+)*
- *Clinical Data Review*
- *Healthcare Business Intelligence*
- *Dashboard Design Principles*
- *Clinical Trial KPIs*
- *Data Visualization Best Practices*
- *Microsoft Power BI*
- *Tableau*
- *Interactive Dashboard Development*
- *Executive Reporting*
- *Real-time Clinical Trial Monitoring*

Practical

- *Build Interactive Healthcare Dashboards using Power BI/ Tableau*

Module 14 – Healthcare Analytics & Real-World Evidence

Coverage

- *Real-World Data (RWD)*
- *Real-World Evidence (RWE)*
- *Electronic Health Records*
- *Claims Databases*
- *Registries*
- *Patient Outcomes Research*
- *Healthcare Analytics Applications*
- *Health Economics Data*

Practical

- *Analysis of Real-World Healthcare Data*

Module 15 – Professional Development & Career Preparation

Coverage

- *Resume Building*
- *LinkedIn Optimization*
- *Portfolio Development*
- *Interview Preparation*
- *Communication Skills*
- *Freelancing Opportunities*
- *Career Planning*

Module 16 – Healthcare Capstone Project Planning

Coverage

- *Project Selection*
- *Dataset Preparation*
- *Data Cleaning*
- *Statistical Analysis*
- *Dashboard Development*
- *Final Report Writing*
- *Presentation Skills*

Deliverables

- *Healthcare Analytics Report*
- *Interactive Dashboard*
- *Statistical Outputs*
- *Project Presentation*
- *Professional Portfolio*

Special Certification Program

Clinical Data Standards & Regulatory Compliance

Coverage

- *CDISC SDTM*
- *CDISC ADaM*
- *Define.xml*
- *Controlled Terminology*
- *FDA Submission Standards*
- *EMA Regulatory Requirements*
- *Data Integrity (ALCOA+)*
- *Clinical Documentation Standards*
- *AI in Clinical Data Management*

 *Separate Certificate in Clinical Data Standards & Regulatory Compliance*

Industry Internship (2 Months)

Project-Based Industry Internship

Internship Domains

- *Clinical Data Management*
- *Clinical SAS Programming*
- *Statistical Programming*
- *Clinical Database Validation*
- *Data Analysis*
- *Healthcare Analytics*
- *Dashboard Development*
- *CDISC Implementation*
- *AI-enabled Healthcare Analytics*
- *Healthcare Capstone Project*

Internship Features

- *100% Online Internship*
- *Weekly Mentor Reviews*
- *Assignment-Based Learning*
- *Practical Industry Datasets*
- *Industry Case Discussions*
- *Clinical Data Portfolio Development*
- *Dashboard Development Projects*
- *Individual Performance Evaluation*
- *Internship Completion Certificate*

Assessment & Evaluation

Participants will be evaluated through:

- ➔ *Weekly Assignments*
- ➔ *SAS Programming Exercises*
- ➔ *R Programming Practical Exercises*
- ➔ *SQL Exercises*
- ➔ *Clinical Data Analysis Projects*
- ➔ *Dashboard Development Projects*
- ➔ *Case Studies*
- ➔ *Clinical Dataset Reviews*
- ➔ *Internship Performance*
- ➔ *Healthcare Capstone Project*
- ➔ *Final Assessment*

Certifications Awarded

-  *Executive Diploma in Clinical Data Science & Healthcare Analytics*
-  *Industrial Internship Completion Certificate*
-  *Healthcare Capstone Project Certificate*
-  *Certificate in Clinical Data Standards & Regulatory Compliance*

Career Opportunities

Graduates can pursue careers as:

- *Clinical Data Associate*
- *Clinical Data Coordinator*
- *Clinical Data Manager*
- *Clinical SAS Programmer*
- *Statistical Programmer*
- *Clinical Database Programmer*
- *Clinical Data Validation Specialist*
- *Biostatistics Associate*
- *Healthcare Data Analyst*
- *Healthcare Business Intelligence Analyst*
- *Clinical Trial Analyst*
- *Regulatory Data Specialist*
- *CDISC Programmer*
- *Real-World Data (RWD) Analyst*
- *Healthcare Analytics Associate*
- *Medical AI Analyst*
- *Clinical Research Associate*
- *Clinical Operations Associate*
- *Data Visualization Analyst*
- *Power BI Developer (Healthcare)*
- *Tableau Developer (Healthcare)*
- *Clinical Research Data Analyst*
- *Regulatory Submission Associate*

Registration Details:



Course Starts:

July 29, 2026



Full Course Fee:

₹5,800/-

~~₹20,000/-~~



Last date to register:

July 15, 2026

Instalment Structure

- **1st Instalment:** ₹3,500/- *at the time of registration*
- **2nd Instalment:** ₹2,300/- *after completion of 2 months of theory & practical training*

This special introductory fee is offered as part of a limited-period professional skill development initiative to make industry-oriented Clinical Data Science & Healthcare Analytics training accessible to students, graduates, and healthcare professionals.

Program Convener



Dr. Ajit Singh

Founder & CEO,
CliMed Research Solutions
Curio Training & Research
Institute (CTRI)



Registration Link (First Instalment)

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