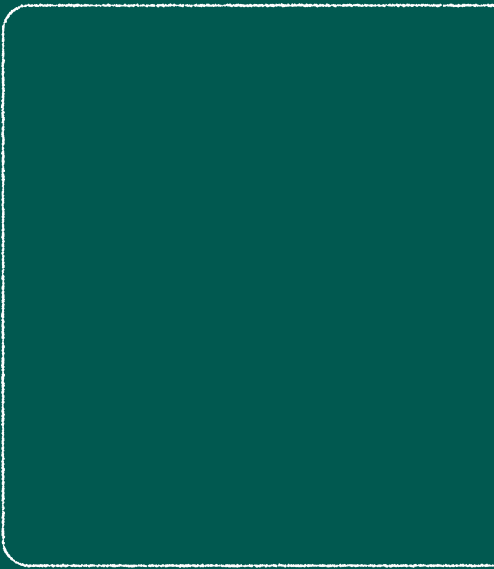




DATA ANALYSIS IN BIOMEDICAL RESEARCH

BASICS TO ADVANCED DATA SCIENCE TRAINING

**SECOND
EDITION**

All meetings will be held virtually
Mon 12 - Fri 16 May, 2025



INTRODUCTION

Quick Facts

This course has improved knowledge and skills level by 90.0% of course graduates. Experience comprehensive step by step data analyses and transition all skills to your individual and organizational level.

Learn up to 25hours and earn certificate.

Why Enrol in Data Analytics Course ?

Data analytics is among the top 10 high paying digital skills globally.

Course content

This course equip participants with intensive knowledge and skills for handling all types of biological data including observational and clinical studies as well as meta-analysis

Access to Materials and Recordings

Access to all materials and recordings even months post- training

Requirements

1. Interested participants must be ready to spend 25hrs to complete the course.
2. Interested participants should own a functioning computer and a stable internet connection.

EARN A VERIFIABLE CERTIFICATE

All certificates awarded can be verified on the institute's official website

COURSE GRADUATE SPOTLIGHT

► **Felix Ayornu** **Medical Laboratory Scientist**

I had the pleasure of attending a data analysis webinar series led by Ebenezer Senu, and I highly recommend him for anyone looking to deepen their understanding of data analysis. His passion for making sense of complex data is evident in every session, as he expertly breaks down intricate concepts into clear and understandable insights.

Throughout the series, I gained valuable skills in data cleaning, coding, analysis, and data presentation, using tools like SPSS, Graph Pad Prism, and R programming. Mr. Senu not only taught the technical aspects but also instilled a deeper appreciation for the meaning behind the data, encouraging participants to think critically and creatively.

His teaching style is engaging and thorough, and he is genuinely interested in ensuring that every participant walks away with a strong foundation in data analysis. I am grateful for the knowledge and skills I gained and would recommend him to anyone looking to advance their data analysis capabilities



Testimonies from Course Graduates (First Edition)

“The facilitator was on top of issues and would gladly join sessions organise by him”

-Wumbei -

“Good training executives should make it available every year”

-Mary-Magdalene-

“Great Work Done!! GREAT JOB!! Very Educative, Insightful and a Well-Organised Workshop”

-Micah-

“The course should continue as it proves very resourceful to individuals in the Health Sciences”

-Albert-

“The training was very impactful and I personal learnt a lot from it. Thanks a million to the organizers and the trainers.”

-Makafui-

“I have really had great experience and skills in general and now even feeling like a boss but will need to learn more so I am ready to join your next classes. Thank you.”

-Randy Kwarteng-

“Glad I took part in this training, as a beginner in research methodology this has been impactful. Gained a lot of insight and have confidence in interpreting certain results..”

-Miracle Ibekwe-

FIRST EDITION SCORECARD

Summary Statistics (Ratings out of 5)

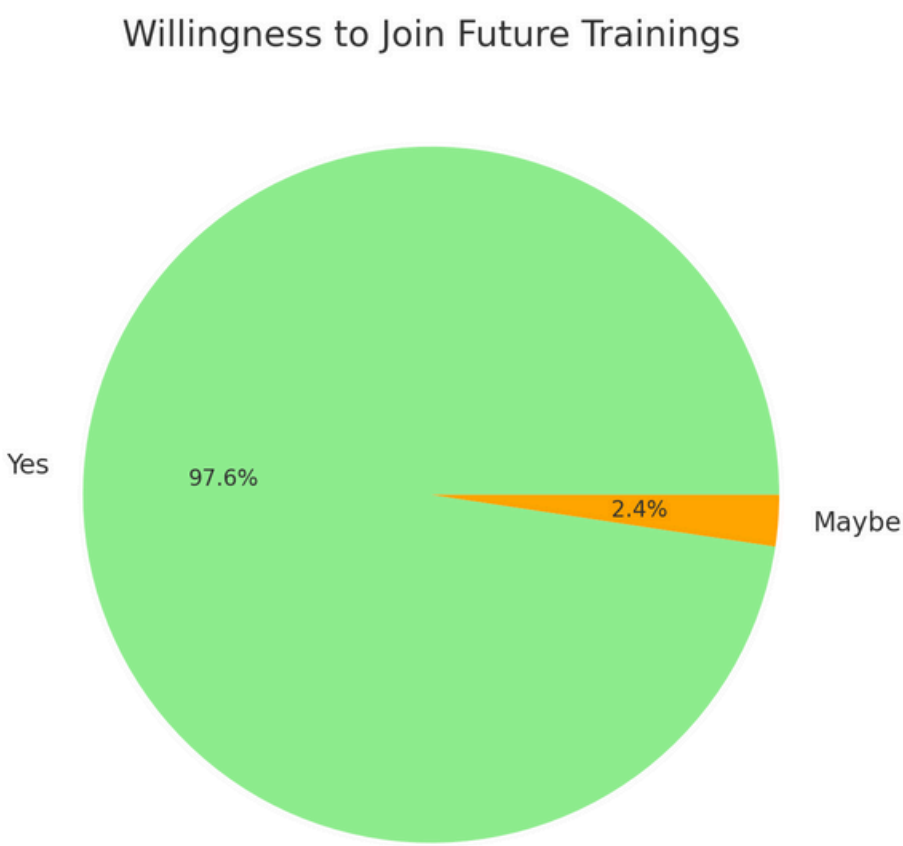
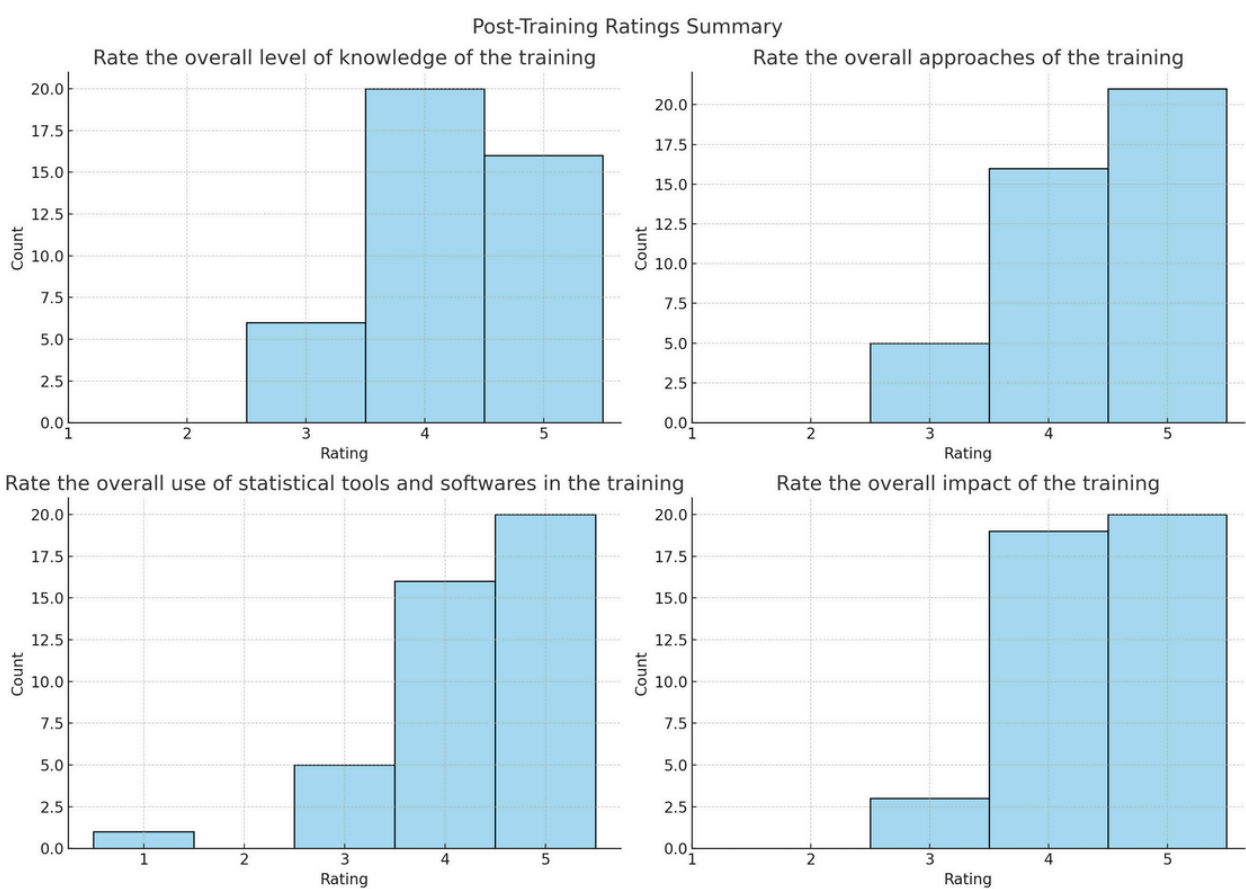
	Mean	Std Dev	Min	Max
Overall level of Knowledgeof the training	4.24	0.69	3	5
Overall approaches of the training	4.38	0.70	3	5
Overall use of statistical tools and software in the training	4.29	0.86	1	5
Overall impact of the training	4.40	0.63	3	5

These average scores (above 4 out of 5) suggest that participants found the training effective across all key areas

Future Training Participation (Yes/No/Maybe)

- Yes: 41 respondents
- No: Nil
- Maybe: 1 Respondent

This shows an overwhelmingly positive interest in attending future training sessions.



About ERDSI

Elite Research and Data Science Institute (ERDSI) was established in January, 2024 (EST. 2024) by Ebenezer Senu, MLS and Solomon Akpobi MLS(ASCPi)CM. It was incorporated into the Registrar of Companies in January, 2025 in Ghana.

ERDSI currently operates virtually and globally with significant presence on LinkedIn, X, Facebook and YouTube. We focus on conducting clinical research alongside scientific writing and data science trainings and services.

ERDSI has so far conducted series of 100% free and affordable trainings including the maiden Systematic Review Meta-analyses Workshop in Ghana, Data Analysis in Biomedical Research: Basics to Advanced Data Science and many others.



COURSE FACILITATORS

Ebenezer Senu, MLS

Research and Data Scientist
R Trainer, Ghana R Users Community

Ebenezer Senu is a research and data scientist with multiple publications in top-tier journals and a reviewer. His research expertise spans the molecular, cellular, and immunology of infectious and chronic diseases, with a focus on diagnostic biomarkers. A recipient of several awards for research, leadership, and social impact. He is a member of various top scientific writing and data science organisation

Professional Experience

- Experienced in computational data analysis using R programming language, SPSS, STATA, GraphPad, etc, for observational/clinical studies and meta-analyses
- Over 2 years experience in teaching postgraduate and undergraduate students biostatistics at KNUST, Ghana.
- Over 2 years experience as facilitator for data science course.
- Over 3 years personalised data analysis leading to over 40 peer-reviewed research publications in top journals.
- R trainer and data scientist, Ghana R Users Community.



Valentine Tamakloe, MLS

Research and Data Scientist

Valentine is a licensed Medical Laboratory Scientist who graduated from the Medical Laboratory Technology Program at KNUST as the Best Student in the Faculty of Allied Health Science in 2021. He is a Data Scientist with close to half a decade of research experience and over 10 research publications in top tier journals.

He is currently volunteering as a research assistant in the Kukuia Lab at the University of Ghana, which focuses on the neuroscience of learning, depression, and Alzheimer's disease.

He is proficient in using SPSS, XLSTAT, GraphPad, and R for biomedical data analysis. He is passionate about communicating research findings and teaching. Valentine also serves the role of Coordinator, ERDSI Fellowship.



11:00AM - 3:30PM GMT DAILY COURSE OUTLINE

Day One (1) - First Session **(11AM - 1:00PM GMT)**

1. Introduction to biostatistics, and statistical software.
2. Selecting an appropriate statistical test (Chi-square/Fischer exact test, linear regression, T-test, ANOVA, Bonferroni, Mann-Whitney U-test, Krystal Wallis H-test, etc)

Day One (1) - Second Session **(1:30PM - 3:30PM GMT)**

1. Data cleaning, coding, and recoding

Day Three (3) - First Session **(11AM - 1:00PM GMT)**

1. Categorical Inferential Statistics analyses and reporting (Practical)
 - Chi-Square/Fischer exact
 - Logistic regression models

Day Three (3) - Second Session **(1:30PM - 3:30PM GMT)**

1. Continuous Inferential Statistics analyses and reporting (Practical)
 - Parametric (Correlations, Linear regression models, T-tests, ANOVA, Binferroni etc)

Day Two (2) - First Session **(11AM - 1:00PM GMT)**

1. Normality tests (Kolmogorov Smirnov, Shapiro Wilk etc)
2. Hypothesis testing (One-tail, two-tail, Confidence interval, p-value, type I error, type II error, etc)

Day Two (2) - Second Session **(1:30PM - 3:30PM GMT)**

1. Descriptive Statistics
 - Categorical
 - Continuous (Parametric, Non-parametric)

Day Four (4) - First Session **(11AM - 1:00PM GMT)**

1. Continuous Inferential Statistics analyses and reporting (Practical)
 - Non-Parametric (Mann-Whitney U-test, Wilcoxon Signed-rank test, Kruskal Wallis H test, ANOVA, Dunnett's C test)

Day Four (4) - Second Session **(1:30PM - 3:30PM GMT)**

1. Specialised tests
 - Diagnostic/Prognostic tests.
 - Survival Analyses

11:00AM - 3:30PM GMT DAILY

COURSE OUTLINE

Day Five (5) - First Session (11AM - 1:00PM)

1. Figures and graphical visualisation and reporting in GraphPad Prism

- Chi-Square/Fisher exact
- Logistic regression models

2. Introduction to STATA NEW

- Introduction to STATA Interface & Navigation
- Importing and Exploring Data
- Simple Data Manipulation

Day Five (5) - Second Session (1:30PM - 3:30PM)

1. Figures and graphical visualisation and reporting in R programming Language (Practicals)

2. Introduction to Python NEW

- Setting Up Python for Data Analysis
- Loading and Inspecting Data
- Basic Data Operations



Course Enrolment Fee

This course offers affordable one-time payment enrollment fee of Gh¢350.00 for Ghanaians and 30.00USD for non-Ghanaians.

Post Training Benefits include:

- Discount data analyses for project work.
- Discount assistance to research publications

Register via:

<https://erdsi.org/2025/03/22/dabrtraining/>

Enquiries:

erdsi.org@gmail.com

Registration Deadline:

Friday 9th May, 2025

For registration and payment assistance:

Paul: +233559872031

International applicants should
contact Paul for payment
assistance



ERDSI MEDIA AND PUBLICATIONS 2025

Check our website & media handles

Website: <https://erdsi.org/>

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X: @ErdsiOrg