GraphPad Prism for Biological Research Training Course

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

GraphPad Prism has become the industry standard for statistical analysis and data visualization in biological research, enabling scientists to transform complex datasets into actionable insights. GraphPad Prism for Biological Research Training Course is designed to equip researchers, biologists, and life science professionals with hands-on expertise in GraphPad Prism, focusing on data organization, statistical testing, and creating publication-quality graphs. Participants will gain proficiency in interpreting results, performing advanced analyses, and presenting data in compelling visual formats that meet high-impact journal standards.

In this training, we emphasize a practical, case-based approach to learning GraphPad Prism, blending interactive tutorials, real-life biological datasets, and guided exercises. Attendees will master key functionalities such as nonlinear regression, survival analysis, and dose-response curve modeling. By the end of the program, participants will not only enhance their analytical capabilities but also significantly improve the reproducibility and reliability of their experimental findings. This course is ideal for professionals looking to elevate their research workflow and data presentation skills in the life sciences domain.

Programme Curriculum

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Course Objectives

1. Master data entry and management in GraphPad Prism for biological research.
2. Perform descriptive and inferential statistical analyses with precision.
3. Create high-quality, publication-ready graphs and charts.
4. Conduct advanced nonlinear regression and curve fitting.
5. Perform dose-response and IC50/EC50 analyses effectively.
6. Execute survival and Kaplan-Meier analyses for biological studies.
7. Apply parametric and non-parametric statistical tests.
8. Interpret complex datasets for actionable research conclusions.
9. Enhance reproducibility and accuracy in experimental reporting.
10. Integrate Prism with other bioinformatics and statistical tools.
11. Troubleshoot common errors in data analysis workflows.
12. Apply case-based approaches for real-world biological research problems.
13. Develop confidence in presenting and communicating scientific data.

Target Audience

1. Biological researchers and lab scientists
2. Biomedical and pharmaceutical professionals
3. Postgraduate and PhD students in life sciences
4. Clinical researchers and trial statisticians
5. Bioinformatics specialists
6. Academic faculty in biology and medicine
7. Data analysts in biotech companies
8. Quality control and R&D professionals

Course Modules

Module 1: Introduction to GraphPad Prism

- Overview of GraphPad Prism interface and features
- Understanding different data types in biology
- Data organization and project setup
- Case study: Organizing cell viability assay datasets
- Best practices for reproducible workflows

Module 2: Data Management & Entry

- Efficient data import/export techniques
- Handling missing or inconsistent data
- Grouping and labeling biological samples
- Case study: Managing multi-timepoint enzyme assay data
- Tips for cleaning and validating datasets

Module 3: Descriptive Statistics & Visualization

- Calculating mean, median, standard deviation
- Creating bar graphs, scatter plots, and box plots
- Customizing graphs for publication
- Case study: Visualizing growth curves of bacterial cultures
- Using color and labeling effectively

Module 4: Inferential Statistics

- t-tests, ANOVA, and post-hoc analyses
- Non-parametric tests for biological data
- Understanding p-values and confidence intervals
- Case study: Comparing gene expression levels across treatments
- Reporting statistical results in manuscripts

Module 5: Nonlinear Regression & Curve Fitting

- Performing regression analyses on experimental data
- Choosing the correct model for biological phenomena
- Interpreting regression parameters
- Case study: Enzyme kinetics modeling
- Troubleshooting curve fitting errors

Module 6: Dose-Response & IC50/EC50 Analysis

- Preparing data for dose-response analysis
- Fitting sigmoidal curves and calculating IC50/EC50
- Comparing curves between experimental groups
- Case study: Drug screening in cell cultures
- Visualizing and presenting dose-response findings

Module 7: Survival Analysis & Kaplan-Meier Plots

- Understanding censored data in clinical research
- Constructing survival curves in Prism
- Log-rank tests for group comparisons
- Case study: Mouse survival analysis in oncology studies
- Annotating survival plots for publication

Module 8: Advanced Graphs & Reporting

- Combining multiple datasets in a single figure
- Annotating graphs for clarity and impact
- Exporting publication-ready figures
- Case study: Multi-panel figure for journal submission

- Tips for presenting data to scientific audiences

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price

23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com