تحليل البيانات الحيوية المتقدم في الطب الحيوي

Duration: 5 Days

Language: ar

Course Code: PI1 - 129

Objective

:Upon completion of this course, participants will be able to

- Master advanced statistical methods for biomedical data analysis.
- Develop skills in data visualisation and interpretation.
- Apply machine learning techniques to biomedical datasets.
- Gain practical experience with data analysis tools and software.
- Enhance their ability to conduct and publish high-quality biomedical research.

Audience

:This course is intended for Biomedical researchers

- Medical professionals
- Data scientists and analysts
- Graduate students in biomedical and life sciences
- Healthcare professionals interested in data analysis

Training Methodology

:The course employs a blend of instructional methods, including

- Interactive lectures
- Hands-on data analysis sessions
- Group discussions and case studies
- Expert-led Q&A sessions
- Comprehensive course materials and resources

Summary

This intensive course is designed to provide a deep understanding and practical experience in biomedical data analysis. Participants will explore advanced statistical methods, data visualisation techniques, and machine learning applications tailored for biomedical research. The course combines theoretical knowledge with hands-on sessions, enabling participants to analyse complex biomedical datasets effectively and make data-driven decisions in their research and practice.

Course Content & Outline

Section 1: Foundations of Biomedical Data Analysis

- Types of biomedical data: clinical, genomic, imaging, etc.
- Data collection and preprocessing techniques
- Descriptive and inferential statistics
- Data cleaning and preparation

Section 2: Advanced Statistical Methods

- Linear and logistic regression
- Survival analysis and mixed-effects models
- Bayesian statistics and applications
- Multivariate analysis techniques

Section 3: Data Visualization and Interpretation

- Principles of effective data visualisation
- Tools for data visualisation: R, Python, specialised software
- Creating plots, charts, and dashboards
- Communicating findings to diverse audiences

Section 4: Machine Learning in Biomedical Research

- Overview of machine learning concepts
- Supervised learning: decision trees, random forests, neural networks
- Unsupervised learning: clustering, dimensionality reduction
- Practical applications of machine learning in biomedical research

Section 5: Practical Applications and Case Studies

- Hands-on data analysis with real biomedical datasets
- Applying statistical and machine learning techniques
- Real-world case studies from biomedical research
- Course review, Q&A session, and certification ceremony

Certificate Description

عند إتمام هذه الدورة التدريبية بنجاح، سيحصل المشاركون على شهادة إتمام التدريب من Holistique Training. وبالنسبة للذين يحضرون ويكملون الدورة التدريبية عبر الإنترنت، سيتم تزويدهم بشهادة إلكترونية (e-Certificate) من Holistique Training.

شهادات Holistique Training معتمدة من المجلس البريطاني للتقييم وخدمة اعتماد التطوير المهني (BAC) كما أنها معتمدة وفق معايير (CPD)، المستمر ISO 9001او 21001 ISOو 29993.

لهذه الدورة من خلال شهاداتنا، وستظهر هذه النقاط على شهادة إتمام (CPD) يتم منح نقاط التطوير المهني المستمر واحدة عن كل ساعة CPD يتم منح نقطة CPD، ووفقًا لمعايير خدمة اعتماد Holistique Training. التدريب من

لأي دورة واحدة نقدمها حاليًا CPD حضور في الدورة. ويمكن المطالبة بحد أقصى قدره 50 نقطة.

Categories

الصحة والسلامة والبيئة, الرعاية الصحية والصيدلانية, تطبيقات تكنولوجيا المعلومات والكمبيوتر

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