



# تحليل بيانات وإحصاءات وبيولوجية متقدمة في الوبائيات

**Duration:** 5 Days

**Language:** ar

**Course Code:** IND5 - 153

## Objective

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

- Understand key statistical concepts and methods used in epidemiology.
  - Develop advanced skills in data management and statistical analysis.
  - Learn to apply statistical software tools for epidemiological research.
    - Interpret and communicate statistical findings effectively.
  - Enhance their ability to design and analyse epidemiological studies.

## Audience

:This course is intended for

- Epidemiologists
- Public health professionals
- Medical researchers
- Data analysts in health sciences
- Graduate students in public health and epidemiology

## Training Methodology

The course employs a blend of instructional methods, including

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

## Summary

This advanced course delves into applying statistical methods in epidemiology, providing participants with the skills necessary to analyse and interpret epidemiological data effectively. Combining theoretical knowledge with practical training, the course covers advanced statistical techniques, data management strategies, and the interpretation of complex datasets, preparing participants to enhance their research and public health initiatives.

## Course Content & Outline

### Section 1: Foundations of Epidemiological Statistics

- Overview of key statistical concepts in epidemiology
  - Types of epidemiological studies and data
- Introduction to statistical software for epidemiological analysis

### Section 2: Data Management and Preparation

- Data collection methods and data quality

- Cleaning and preparing epidemiological data
- Handling missing data and data transformation techniques

### **Section 3: Advanced Statistical Methods**

- Descriptive statistics and measures of association
- Regression analysis: linear, logistic, and Cox proportional hazards models
- Advanced techniques: multilevel modelling and time-series analysis

### **Section 4: Interpretation and Communication of Results**

- Interpreting statistical outputs and results
- Data visualisation techniques for epidemiological data
- Communicating findings to different audiences

### **Section 5: Practical Applications and Case Studies**

- Hands-on data analysis with real-world epidemiological datasets
  - Developing research questions and analysis plans
  - Case studies and collaborative problem-solving
  - Course review and expert Q&A

### **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.

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

لهذه الدورة من خلال شهادتنا، وستظهر هذه النقاط على شهادة إتمام (CPD) يتم منح نقاط التطوير المهني المستمر واحدة عن كل ساعة CPD يتم منح نقطة، CPD ووفقاً لمعايير خدمة اعتماد Holistique Training التدريب من لأي دورة واحدة نقدمها حالياً CPD حضور في الدورة. ويمكن المطالبة بحد أقصى قدره 50 نقطة.

الاستشارات والخدمات, الصحة والسلامة والبيئة, الرعاية الصحية والصيدلانية

## Related Articles

### **Epidemiology vs. Public Health: Careers, Roles, and Key Differences**

Epidemiology and public health are interconnected fields that work toward improving community well-being. While epidemiology focuses on studying disease patterns and causes, public health implements preventive measures and health policies. This article examines their differences, career paths, and how they collaborate to protect populations from health threats.