# **Statistics Workshop for Emergency Physicians 2024**

#### Aims

- 1. To review basic statistics and probability theory.
- To learn intermediate statistics, including analysis of variance (ANOVA), simple / multiple linear and logistic regression modelling, categorical data analysis.
- 3. To study advanced statistical techniques, such as survival analysis and time series analysis.

#### **Objectives**

- 1. To apply statistical principles on analysis of various datasets by using various statistical softwares, including Microsoft® Excel®, IBM® SPSS® and RStudio®.
- 2. To complete and present a mini-project of analysis of real-life data by the end of the workshop.

#### **Target Participants**

- 1. A&E trainee doctors who are working on data from their own clinical research projects.
- 2. Emergency medicine specialists who like to sharpen their knowledge on statistics.

## Organizers

Research Subcommittee of the Hong Kong College of Emergency Medicine

## **Number of Participants**

Maximum 10 per class

## Format of instruction

Face-to-face teaching; Small group classroom, mini-lectures followed by practicums

#### **Pre-requisites**

- 1. Basic knowledge of mathematics at the level of HKCEE/HKDSE;
- 2. Basic computer operation/IT skills;
- 3. Bring your own laptop computer with the required softwares already installed;
- 4. Knowledge on calculus, linear algebra and computer programming is <u>not</u> required.

## Venue

2/F, Hong Kong Academy of Medicine Jockey Club Building.

#### Fees

HK\$ 4,000.00

## Learning plans

- 1. 5 half-day sessions on 13 and 27 March, 11 and 23 April, and 8 May 2024.
- 2. Each class is scheduled on weekdays from 9 am to 1 pm (Total 20 teaching and learning hours).
- 3. Each session has two parts: lectures on statistics concepts and theories, and hands-on practicums on data analysis using statistical programmes installed on the participants' laptop computers.
- 4. Homework will be assigned after the first three sessions.
- 5. In the last session, all participants have to present a mini-project of statistical analysis either on their own research data, or on datasets provided to them.
- 6. Certificate of attendance will be issued to participants who:
  - i. attend at least 4 classes;
  - ii. score at least 70% on each of the 3 submitted homework assignments; and
  - iii. obtain at least grade C on the presentation of mini-projects.

The Research Subcommittee has the right on the final decision of the issue of certificates of attendance to the participants of the workshop.

## **CME and Training Points**

CME and TP Fellow : 3.5 PP points per session (Passive Cat 1), max 12 for whole course

Accreditation: Trainee : Cat A 3.5 points per session, max 10 for whole course