Learning Objectives per module

Part A: Introduction to statistics

WEEK 1

- **A1 Introduction to statistics using R, Stata & SPSS** *(prerequisites: no prior knowledge of statistics required)*
- **A2 Power & sample size calculations** *(prerequisites: module A1)*

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<tr>
<th>Module</th>
<th>Lecture Title</th>
<th>Lecture Content</th>
<th>Online Practical Tutorial Title</th>
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</table>
| A1     | Introduction to statistics using R, Stata & SPSS   | • Welcome to R, SPSS or Stata  
• Descriptive statistics  
• Statistical inference  
• Hypothesis testing I | PA1.1 Introduction to statistics                                                  |
| A2     | Power & sample size calculations                   | • The concept of power  
• Calculations of power and sample size for different study designs | PA2.1 Power & sample size calculations   |

Part B: Analysis of continuous outcomes

WEEK 2

- **B1 Linear regression** *(prerequisites: module A1)*

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| B1     | Linear regression | • Linear correlation  
• Simple linear regression  
• One-way ANOVA and overall F-tests  
• Multiple linear regression  
• F-tests for testing coefficients and comparing models | PB1. Linear regression  |

WEEK 3

- **B2 Hypothesis testing II** *(prerequisites: module A1)*
- **B3 Non-parametric measures** *(prerequisites: module A1)*

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Part C: Analysis of binary and survival data

Week 4

- **C1 Binary data and logistics regression** *(prerequisites: module A1, B1)*
- **C2 Survival data** *(prerequisites: module A1, B1, C1)*

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| C1     | Binary data and logistic regression | • Calculation of prevalence, risk, odds, rate  
• Calculation and interpretation of CI for risks, ratios and rates  
• Chi-square test; Fisher exact test  
• Logistic regression | PC1. Logistic regression |
| C2     | Survival data | • Characteristics of survival and time-to-event data  
• Kaplan-Meier method and the log-rank test  
• Poisson regression  
• Cox proportional hazards regression | PC2. Survival data |