

COURSE INFORMATION SHEET

DATE OF ISSUE: November 2024



MALTA UNIVERSITY CONSULTING

STANDARD STATISTICAL MODELLING TECHNIQUES (USING R SOFTWARE)

Days/Dates	<i>Optional</i> Introductory Session: Tuesday 11 th February 2025 - February 2025: Tuesday 18 th , Friday 21 st , Tuesday 25 th , Wednesday 26 th March 2025: Tuesday 4 th and Friday 7 th
Time	3-hr <i>Optional</i> Introductory Session: 17.00 – 20.00 - Standard Sessions: 17.30 – 20.00
NOTE:	<i>For those who are not familiar with R software, an introductory 3-hr session to R software will be provided prior to this course at an additional cost of €40/€35 UM students. This session will be held on Tuesday 11th February from 5.00p.m. – 08.00p.m.</i>
Number of Hours	3-hr Introductory session 15-hour course
On-site or Online	Online via Zoom
Registration Fee	15-hr course: €179 Standard Fee / UM students €159 3-hour optional Introductory session: €40 Standard Fee / €35 UM students
Deadline	Friday 4 th February 2025
Aims/ Objectives	The aim of this course is to introduce statistical modelling by looking into some of the most popular modelling techniques in this field. In this course we shall also see how such models can be fitted using R software. Familiarity with the use of R software and with correlation analysis and hypothesis testing is assumed.
Who should attend	This course is targeted towards individuals who are familiar with basic statistical concepts or individuals who have attended some basic course in Statistics and would like to learn some more advanced techniques.
Course outline	In this course, we start by exploring the fundamentals of linear modelling. We present and explain the model used to describe the relationships between variables. The same model can also be used to predict unknown values of the response variable of interest. We also discuss tests which can be used to verify that the data being analysed satisfies the assumptions made by the model. A number of goodness of fit measures for such models are also covered. Finally, we shall see how R software can be used to fit these models. Topics covered are: (1) Regression Analysis; (2) Generalized Linear Models (3) Time Series Analysis
Course Outcomes	After following this course one becomes more knowledgeable about: <ul style="list-style-type: none">• The analytical potential of statistical modelling• How to choose the most adequate model for your data. Interpreting and assessing the adequacy of the models fitted. Skills learnt: <ul style="list-style-type: none">• Explore a given dataset using R software• Determine which statistical model is the most suitable in accordance with the aims of the analysis• Check the relevant statistical assumptions underlying the fitting of a particular model• Interpret the results obtained once a model is fitted to the data using R software and assess the Resulting fit

For further information kindly contact Malta University Consulting Ltd, Campus Hub, Block 'O' Level 7, University of Malta, Msida.

Tel: 21240746; Website: www.maltaconsulting.mt ; email: trainingservices@muhc.com.mt

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Trainers' Bio

Dr Monique Borg Inguanez, Dr Fiona Sammut and Dr David Suda are all lecturers with the Department of Statistics & O.R. at the University of Malta, and have a long-standing experience, of more than 15 years, in teaching Statistics to students at different levels. Furthermore, they have also provided their statistical expertise to people in various sectors such as government authorities, medicine, market research, economics and various scientific fields. The three lecturers obtained a BSc (Hons) in Maths & Statistics & O.R. from the University of Malta followed by an MSc in Statistics also from the University of Malta. Further studies were then pursued in renowned universities in the UK. Dr Monique Borg Inguanez obtained a PhD in Statistics from the University of Leeds, where she conducted research on partial least squares and related methods. Dr Fiona Sammut obtained a PhD in Statistics from the University of Warwick, where she conducted research on compositional data analysis. Dr David Suda obtained a PhD in Statistics from the University of Lancaster, where he conducted research on statistical inference of diffusion processes.

Certification

Upon successfully completing the course with 80% attendance, attendees will receive a Certificate of Attendance from Malta University Consulting Ltd.

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