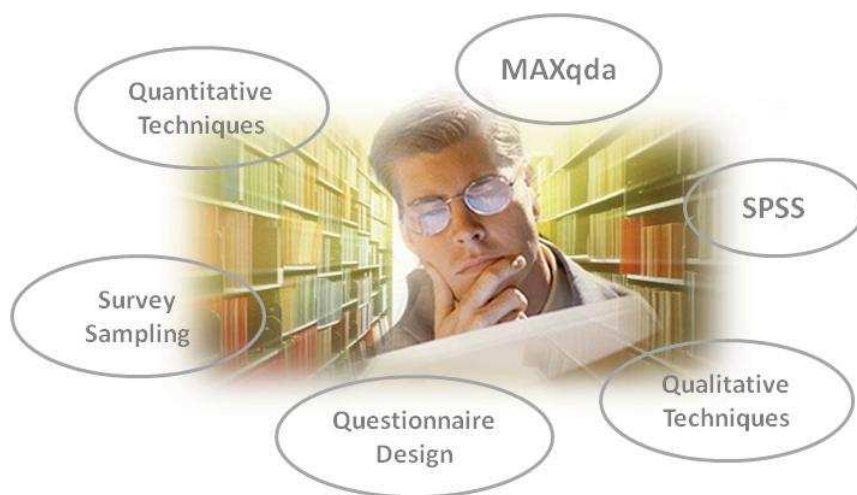




## Short Course in Research Methods

This compact course in social science research methods is ideal for business, management, marketing, pharmacy, information technology/information systems, and many other undergraduate and post-graduate students that are working on a research dissertation/project, or are compiling a research proposal. The course is carefully designed to give students an ideal blend of the theory and practical knowledge required, and of the main tools and techniques used, in order to successfully complete their research project. Quantitative methods and tools, as well as qualitative techniques, shall be actively demonstrated.



In all, 5 two-hour sessions shall cover topics such as critically reviewing the literature, devising the research question and objectives, choosing between quantitative and qualitative research, creating and launching the research instrument, analyzing and interpreting data, and closing off the research project. Practical tools and examples shall be used extensively throughout.

**Venue:** St. Martin's Institute of Information Technology, Schembri Street, Hamrun

**Dates:** Monday 4<sup>th</sup> July to Friday 8<sup>th</sup> July from 5.30pm to 7.30pm

**Fee:** €85

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### Course Presenters:

Dr. Ing. Alex Rizzo B.Elec.Eng.(Hons.), MBA, DBA, PG.Cert.Research Methods

Mr. Ronald Aquilina B.A.(Hons.) Econ, MBA, MIMIS, PG.Cert.Research Methods

Ms. Christina Zarb B.Sc. (Mathematics and Comp. Science), M.Sc. (Mathematics)

## **Session 1: Designing the Research Project (2 Hours)**

Monday 4<sup>th</sup> July, 5.30-7.30pm

This session will give students a practical understanding of the starting challenges common to social science research at both undergraduate and post-graduate levels. Practical approaches, tools and techniques shall be described, and examples shall be provided throughout. Key research methods text books shall be identified.

### **Learning Outcomes:**

- Converging onto the research topic: Identification of the wider literature on the area of interest, and locating the more focused literature directly related to your research topic. Attributes of a good research topic.
- Defining your research problem and research question/s: Choosing between research questions starting with *how*, *what* or *why*.
- Outlining the primary research objectives.
- Clarifying your knowledge claim, preferred strategy of enquiry, and corresponding research method.
- Understanding deductive versus inductive research: Choosing between a quantitative approach based upon a conceptual framework and hypotheses testing of independent – dependent variable relationships, or a qualitative approach involving a more dynamic researcher – research interaction.
- Designing your purpose statement.

## **Session 2: Applying the Chosen Research Method (2 Hours)**

Tuesday 5<sup>th</sup> July, 5.30-7.30pm

This session will give students a hands-on understanding of the basic quantitative and qualitative techniques, and their underlying assumptions.

### **Learning Outcomes:**

- Choosing between primary and/or secondary data.
- Structured, semi-structured and unstructured interviews.
- Quantitative approach: Identifying your population and sample. Types of data ranging from nominal-ordinal-interval-ratio level, and application of the Likert scale. Creating a research instrument (questionnaire) with reliability and validity criteria embedded. Pretesting and piloting your research instrument. Techniques for collecting and coding data.
- Qualitative approach: The researcher as the research instrument. Interviewing techniques. Purposeful and theoretical sampling techniques. Basic grounded theory technique of constant comparison, coding and category building. Application of other techniques such as focus groups.
- Negotiating access to research participants.
- Ethical considerations to be taken.

### **Session 3: Descriptive Data Analysis (2 Hours)**

Wednesday 6<sup>th</sup> July, 5.30-7.30pm

This is the first of two sessions on the analysis of both quantitative and qualitative primary data. Practical tools and techniques shall be applied to allow students to quickly get to grips with initial data analysis.

#### **Learning Outcomes:**

- Preparing data for analysis.
- Quantitative data analysis: Carrying out descriptive analysis on individual variables using tools such as SPSS. Analysis of central tendencies; mean, medians, mode. Analysis of data dispersion; standard deviation, variance, range, skewness, normal distribution. Useful tools such as histograms, box-plots, scatter diagrams, pie/bar charts.
- Qualitative data analysis: The positivist versus constructivist approach to researching the chosen phenomenon. Interviewing techniques. Carrying out in-vivo and open coding using MAXqda. Category building and saturation. Memo writing.
- Presenting your descriptive analysis.

### **Session 4: Exploratory Data Analysis (2 Hours)**

Thursday 7<sup>th</sup> July, 5.30-7.30pm

This is the second of two sessions on the analysis of both quantitative and qualitative data. Here, a toolbox of analytic techniques shall be demonstrated, showing students how to seek relationships within the data and give further meaning to their results.

#### **Learning Outcomes:**

- Quantitative multi-variate analysis: Establishing level of statistical significance. Parametric versus non-parametric techniques. Testing whether variables/groups are associated/related. Testing of relationships within a variable set. Testing of relationships between independent and dependent variables. Three techniques to be demonstrated; ANOVA, factor analysis, and multi-variate regression.
- Qualitative data analysis using Grounded Theory techniques: Analysis of focus group data. Use of the Conditional/Consequential Matrix to guide the data gathering and analysis. Applying grounded theory techniques to generate theory from conceptual categories. Researcher interaction with the data explored.
- Presenting your exploratory analysis.

## **Session 5: Interpreting Your Research Findings**

Friday 8<sup>th</sup> July, 5.30-7.30pm

This final session shall guide students to successfully close off their research endeavour. Interpreting the research findings and structuring the research dissertation are often two final challenges underestimated by students.

- Interpreting and concluding upon your analyzed data.
- Answering the research question and meeting the research objectives.
- Structuring your dissertation or project report.
- Getting started with the writing.
- Referencing your work.
- Plagiarism issues and use of Turnitin plagiarism check.
- Ensuring quality research.
- Defining limitations and future research thrusts.
- Publishing your work.

### **Overview of the 5-Stage Research Process Being Applied**

