

Course unit title:	<b>RESEARCH METHODS</b>		
Course unit code:	ITSM506		
Type of course unit:	Required		
Level of course unit:	Masters _MSc International Trade and Shipping Management Masters_ MA/LLM Maritime Law and Shipping Business		
Number of ECTS credits allocated:	8		
Name of Lecturer(s):	Dr Elena Ketteni, Dr Maria Avtzaki		
Learning Outcomes of the course unit:	<p>By the end of the course, the students should be able to:</p> <ul style="list-style-type: none"> <li>• Develop specific project ideas and comment about the current research activity and methodological approaches in international economics, international trade, and the shipping industry.</li> <li>• Raise research questions and be able to draw from the educational research principles in order to develop research designs and methodologies suitable for investigating economic and policy issues.</li> <li>• Identify the elements that highlight the quality of a research through certain research examples.</li> <li>• Participate in Frederick University’s research activities that are related to the domain.</li> <li>• Identify local and international institutional bodies and foundations that support and fund research and be informed about the funding programmes and initiatives available in the area of the MSc Programme.</li> <li>• Understand the processes followed and acquire the skills needed for writing a research proposal, through their practical involvement in the process.</li> <li>• Develop their own, research questions and methodological designs which will lead finally to the elaboration of their Masters Thesis.</li> <li>• Implement a small scale research project related to their Masters Thesis.</li> <li>• Implement the mechanisms they can use for the effective communication of their research and academic results to the end users and the dissemination of the results to all interested parties, academic or not.</li> </ul>		
Mode of Delivery:	Face-to-face		
Prerequisites:	NONE	Co-requisites	NONE
Recommended optional program components:	NONE		

Course Contents:

**Nature of Business Research – Research Topic**

- Understand and define the features of business research.
- Obtain a clear understanding of the different characteristics of research.
- Identify and evaluate the different attributes of a good research topic.
- Analyze and apply the different techniques of generating research ideas
- Demonstrate how research ideas can be refined.
- Consider different ways of writing a research question or a hypothesis.
- Comprehend the importance of theory in writing research questions and hypothesis. Understand the nature of data.

**Critically reviewing the literature:**

- Demonstrate awareness of current state of knowledge and identify how research fits in the wider context.
- Evaluate research done by other authors in a subject area.
- Develop research questions and objectives finding research opportunities not done until now.
- Discover and consider research approaches, strategies and techniques appropriate.
- Highlight the issues where work will provide new insights demonstrating linkage to your research question and objectives.
- Consider all different types of sources available.
- Understand how literature needs to be properly referenced.

**Research strategy and design**

- Understand the different strategies of doing research (quantitative and qualitative).
- Identifying when each strategy would be appropriate to use and how to choose a method.
- Explain the process that has to be followed when doing research using a specific method.
- Evaluate the strategies considering related benefits, difficulties, and issues the researcher should take into consideration when using each method.
- Understand the concept of sampling and be able to use the appropriate sampling approach.

**Data collection using interviews**

- Assess the various problems a researcher is likely to face associated with gaining access to the source.
- Design strategies to gain access.
- Understand how to overcome organizational concerns about the granting of access.
- Identify and evaluate the different types of interviews used to collect data.
- Design and conduct an interview.

### **Analyzing qualitative data**

- Identify the activities involved when analyzing qualitative data.
- Evaluate the usefulness of each activity.
- Understand all steps leading to a complete data analysis process.

### **Introduction to Quantitative research**

- Understand the concept of quantitative research and be able to separate it from qualitative research.
- Learn about the major methods used for quantitative research, and be able to explain and compare them (advantages and disadvantages for each method).
- Become aware of the major elements of quantitative research such as variables, unit of analysis and sampling.
- Understand how to report quantitative data and findings.

### **Collection of quantitative data**

- Develop skills on how to use online databases from various organizations in order to obtain data for an analysis.
- Become familiar with the questionnaire techniques available and when it is appropriate to use a questionnaire.
- Understand the use of the questionnaire.
- Develop skills on how to design a questionnaire for a research analysis.
- Learn important information needed when one wants to use a questionnaire for a quantitative research analysis.

### **Analysis of quantitative data**

- Learn how to import data in the excel package to create correct spreadsheets for the analysis of any data.
- Analysis of questionnaire data.
- Describe various variables using graphs – graphical analysis.
- Summarize data using basic statistics – descriptive analysis.
- Examine relationships between two variables using graphs and statistics.
- Understand the concept of significance.

### **Simple Regression Analysis for quantitative data**

- Introduced to the concept of using a statistical method.
- Learn about Simple Regression analysis.
- Obtain the results from the application of the analysis.
- Explain the results from regression estimation analysis.
- Apply the method in excel using real actual data.

### **Multiple Regression Analysis for quantitative data**

- Understand the multiple regression analysis framework.
- Estimate the multiple regression analysis model and obtain the results.

	<ul style="list-style-type: none"> <li>• Explain the results from the model with respect to significance and coefficients.</li> <li>• Calculate various effects from one variable (or more) to another.</li> <li>• Construct predictions of the dependent variables.</li> <li>• Introduced to the concept of hypothesis testing.</li> </ul> <p><b>Multiple Regression Analysis: Extensions</b></p> <ul style="list-style-type: none"> <li>• Find effects and explain when the unit of measurement of one or more variables change.</li> <li>• Estimate and explain multiple regression relationships in the form of logarithms and growth rates.</li> <li>• Understand and apply the concept of nonlinearity.</li> <li>• Estimate in excel nonlinear models and explain their results.</li> <li>• Become familiar with the dummy variables properties.</li> <li>• Use dummy variables in regressions and evaluate the results.</li> </ul>
<p>Recommended and/or required reading:</p>	
<p>Textbooks:</p>	<ul style="list-style-type: none"> <li>• Charmaz, K (2006). Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis. Thousand Oaks, CA: Sage Publications.</li> <li>• Cohen, L. and Manion, L. (1996). Research Methods in Education. London: Routledge.</li> <li>• Creswell, J.W. (2007). Qualitative Inquiry &amp; Research Design: Choosing Among Five Approaches. Thousand Oaks, CA: Sage Publications.</li> <li>• Opie, C. (2005). Doing Education Research: a guide to first – time researchers. London: Sage Publications.</li> <li>• Powney, J. and Watts, M. (1987). Interviewing in Educational Research. Routledge and Kogan.</li> <li>• Radnor, H.A. (Ed.). (1994). Qualitative Interpretive Research. Collecting and Analysing Interview Data. University of Exeter, Monograph, UK.</li> </ul>
<p>References:</p>	<ul style="list-style-type: none"> <li>• Journals: Educational Research and Evaluation, Educational Researcher, Educational Measurement, Issues and Practice</li> </ul>
<p>Planned learning activities and teaching methods:</p>	<p>The Module will be offered through lectures, discussion and practical activities. Qualitative and quantitative data analysis methods will be presented to the students, presentation of scientific research and critical approaches to scientific articles concerning research methods in education for the environment and sustainable development. Students will be able to use the computer labs and will have access to statistical analysis packages so as to become familiar with quantitative data processing.</p>
<p>Assessment methods and criteria:</p>	<p>Written Assignment 40%</p> <p>Final Exam 60%</p>

Language of instruction:	English
Work placement(s):	Not applicable