



Course Description

Institute: Maritime Postgraduate Studies Institute

Program: Masters in Maritime Transport Technology

1- Course Data		
Course Code: MPI 738	Course Title: Statistical Data Analysis	Academic: 3 CHs.
Specialization: Ship Operation and Marine Safety	No. of Instructional Units: 13	Course Status: Core

2- Course Aim	<p>This course aims to prepare the candidates with the knowledge to perform basic statistical analysis. Participants can expect to gain an appreciation and understanding of many statistical ideas, particularly in the context of Maritime research.</p> <p>The course will include a combination of lectures and the statistical package hands-on tutorials. Participants can expect to be led through a series of guided exercises and to learn how to carry out and apply independent statistical analysis on their own.</p>
3- Intended Learning Outcome:	
a- Knowledge and Understanding, students will be able to:	<ol style="list-style-type: none"> 1. Define the research problem. 2. Understand the basic approaches of statistics.
b- Intellectual Skills, students will be able to:	<ol style="list-style-type: none"> 3. Practice statistical data representation: tabulation and graphical plots. 4. Calculate the common descriptive statistics. 5. Apply some statistical data analysis techniques.
c- Professional Skills, students will be able to:	<ol style="list-style-type: none"> 6. Select the appropriate statistical test according to the nature of the problem. 7. Distinguish between different data types. 8. Using a statistical package to handle the data.
d- General Skills, students will be able to:	<ol style="list-style-type: none"> 9. Perform some statistical tests. 10. Discuss the findings. 11. Write a final report. 12. Suggest some further recommendations to



	develop the research point.
4- Course Content	<p>Week No.1 Introduction to statistics Week No.2 Frequency distribution table Week No.3 Graphical data representation Week No.4 Measures of central tendency Week No.5 Measures of dispersion Week No.6 Introduction to the statistical package & use it to find the statistical measures Week No.7 Evaluation (1) + PC evaluation Week No.8 Correlation and simple regression +PC Week No.9 Standard Normal distribution + PC Week No.10 Introduction to hypothesis testing Week No.11 Testing one sample mean + PC Week No.12 Evaluation (2) + PC evaluation Week No.13 Testing two sample means + PC Week No.14 Testing several sample means + PC Week No.15 Real case study + revision Week No.16 Final Exam</p>
5- Teaching and Learning Methods	<ol style="list-style-type: none"> 1. White board. 2. PowerPoint presentations. 3. Live PC demonstration. 4. Video tutorials.
6- Teaching and Learning Methods for Students with Special Needs	A mixture of office Hours, tutorials, exercises and case studies are used to deliver various topics in this subject, some of which are covered in a problem-based format, thereby enhancing the learning objectives by using Office Hours and Additional Follow up.
7- Student Assessment:	
a- Procedures used:	<ol style="list-style-type: none"> 5. Participation 6. Assignments 7. Presentations 8. Case Study 9. Quiz 10. Written Exams 11. Workshop .
b- Schedule:	Assessment (1) 7 th Assessment (2) 12 th Assessment (3) 16 th .
c- Weighing of Assessment:	7 th Week Examination, (30 %) 12 th Week Examination, (20 %) Final-term Report Writing, Oral seminar exam,



	Practical Examination, (40 %) Semester Work, (10 %) Total 100%
8- List of References:	<ul style="list-style-type: none"> • Watkins, A.; Scheaffer, R. and Cobb, G. (2008). "Statistics in Action: Understanding a World of Data". 2nd Edition. Key Curriculum Press, USA. • Cleff, T. (2014). "Exploratory Data Analysis in Business and Economics: An Introduction Using SPSS, Stata, and Excel". Springer International Publishing, Switzerland.
a- Course Notes	<ul style="list-style-type: none"> • Mesbah, A. (2001), "Introduction to Marine Statistics". AAST, Printed notes in Arabic.
b- Required Books (Textbooks)	<ul style="list-style-type: none"> • Goodwin, E. and Kemp, J. (1979). "Marine Statistics, theory and practice". Stanford Maritime Limited, London.
c- Recommended Books	<ul style="list-style-type: none"> • Lind, D.; Marchal, W. and Wathen, S. (2007). "Basic Statistics for Business and Economics". McGraw-Hill Education, USA.
d- Periodicals, Web Sites, ..., etc.	<ul style="list-style-type: none"> • http://www.spss-tutorials.com/basics/ • http://www.excel-easy.com/ • http://biostat.mc.vanderbilt.edu/wiki/Main/DataSets?CGISESSID=10713f6d891653ddcbb7ddb dd9cffb79

Vice Dean for Educational Affairs
Name & Signature:
Date: 18/4/2015

Institute Dean
Name & Signature:
Date: 18/4/2015