



Course Description

Institute: Maritime Postgraduate Studies Institute

Program: Doctorate of Maritime Transport Technology

1- Course Data		
Course Code: MPI 802	Course Title: Statistical Data Analysis (2)	Academic : 3Hrs.
Specialization: Common	No. of Instructional Units:13	

2- Course Aim	The course aims to prepare the candidates with the knowledge to perform statistical analysis. Participants can expect to gain an understanding of many statistical ideas, particularly in the context of marines' research. Topics covered include descriptive statistics and hypothesis tests, with a heavy emphasis on learning how to carry out statistical analysis independently using SPSS.
3- Intended Learning Outcome:	
a- Knowledge and Understanding, students will be able to:	<ul style="list-style-type: none"> - Explore and prepare data for analysis. - Practice statistical data representation. - Distinguish between parametric and nonparametric tests.
b- Intellectual Skills, students will be able to:	<ul style="list-style-type: none"> - Graduates are scientifically competent in solving problems logically, analytically and creatively based on sound facts and ideas.
c- Professional Skills, students will be able to:	<ul style="list-style-type: none"> - Fit a regression line and use it to predict some future values. - Practice the formulation of the data in SPSS. Choose the appropriate statistical test according to the nature of the data. - Perform many tests of hypotheses. - Perform the correlation analysis.
d- General Skills, students will be able to:	<ul style="list-style-type: none"> - Run different statistical tests on SPSS. - Read the SPSS results and comment on it. - Write a final report and discuss the findings.
4- Course Content	<p>Week No.1 Introduction- Introduction to data analysis</p> <p>Week No.2 Data preparation in SPSS</p>



	<p>Week No.3 One sample t-test (with application to SPSS)</p> <p>Week No.4 Paired samples t-test (with application to SPSS)</p> <p>Week No.5 Two samples t-test (with application to SPSS)</p> <p>Week No.6 Chi-square goodness of fit test (with application to SPSS)</p> <p>Week No.7 7th Week Evaluation</p> <p>Week No.8 Chi-square independence test (with application to SPSS)</p> <p>Week No.9 Real case study analysis</p> <p>Week No.10 Regression analysis (with application to SPSS)</p> <p>Week No.11 Correlation test (with application to SPSS)</p> <p>Week No.12 12th Week Evaluation</p> <p>Week No.13 Mann-Whitney test (with application to SPSS)</p> <p>Week No.14 Kruskal-Wallis test (with application to SPSS)</p> <p>- Wilcoxon test (with application to SPSS)</p> <p>Week No.15 Final Evaluation</p>
5- Teaching and Learning Methods	A mixture of lectures, tutorials, exercises, and case studies are used to deliver the various topics in this subject, some of which are covered in a problem-based format, thereby enhancing the learning objectives. Others are covered through directed study in order to enhance the students' ability of "learning to learn."
6- Teaching and Learning Methods for Students with Special Needs	A mixture of lectures, tutorials, exercises, and case studies are used to deliver the 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"> 1. Participation 2. Assignments



	<ol style="list-style-type: none"> 3. Presentations 4. Case Study 5. Quiz 6. Written Exams 7. Workshop
b- Schedule:	Assessment (1) Mid Assessment (2) 12 th Assessment (3) 15 th .
c- Weighing of Assessment:	7 th Week Examination , 12 th Week Examination , Final-term Report Writing , Oral seminar exam , Practical Examination , Semester Work , Total 100%
8- List of References:	
a- Course Notes	<ul style="list-style-type: none"> • Power point slides of lectures • Documents such as reports, case studies
b- Required Books (Textbooks)	De Smith M J (2015) STATSREF: Statistical Analysis Handbook - a web-based statistics resource. The Winchelsea Press, Winchelsea, UK last viewed on the following web address: http://statsref.com/StatsRefSample.pdf
c- Recommended Books	Glen Cowan, (2015), "Statistical Data Analysis" (Oxford Science Publications) 1st Edition, last viewed on the following web address: http://www.amazon.com/Glen- Cowan/e/B001HCU9Y2/ref=dp_byline_cont_boo k_1
d- Periodicals, Web Sites, ..., etc.	

Vice Dean for Educational Affairs
Affairs Name & Signature:
Date:20/1/2015

College/Institute Dean
Name & Signature:
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