

**MASTER OF COMMUNITY HEALTH SCIENCES (EXECUTIVE)**  
**2011/2012 SESSION SEMESTER 2**

**FK6163-BASIC MEDICAL STATISTICS**

## **INTRODUCTION**

This is a basic course on medical statistics. This course will cover topics on descriptive statistics such as;

- Data collection,
- Data analysis,
- Data presentation and
- Summarisation of quantitative and qualitative data.

The course will also discuss on inferential statistics such as hypothesis testing and tests of significance. The use of statistical computer packages such as SPSS will also be introduced in this course.

## **COURSE OBJECTIVES**

And the end of the course the students will be able to:

1. summarised the data into graphs and tables and to know the method of summarising the quantitative and qualitative data.
2. understand the probability concept and different type of distribution and its application.
3. understand the hypothesis-testing concept
4. identify the different type of statistical testing methods based on different type of data
5. understand the application of correlation and regression technique
6. do simple statistical data analysis by using SPSS programme.

## **TEACHING METHODS**

The course will be conducted by lectures, tutorials, practical and assignments.

### **Web 2.0**

All students are required to become members of the following egroupp/forum;  
<http://groups.yahoo.com/group/ukm-fk6163-exec-2012>

Notes and exercises can be downloaded from <http://drtamil.wordpress.com> and <http://spin.pkp.ukm.my>.

## TEACHING STAFF

Course Coordinator : PM Dr. Azmi Mohd Tamil ([drtamil@gmail.com](mailto:drtamil@gmail.com))  
Lecturers : Dr Nor Fazilah Ahmad  
: Dr Azmawati Mohd Nawi

## EVALUATION

The course will be evaluated through practicals, mini test and the final examination.

Practical 1 to 4 (via SPIN) : 10%  
Mini test (7/7/2012) : 10%  
Final Examination (80%) : Essay (32%) and MCQ (48%)

## REFERENCE

1. Kirkwood B.R(1988) Essentials of Medical Statistics. Blackwell Scientific Publication. Oxford London
2. Sabin C. & Petrie A.(2005). Medical Statistics at a Glance. 2<sup>nd</sup> Ed. Blackwell Publishing USA
3. Md Idris M.N. Asas Statistik dan Penyelidikan Perubatan. Dewan Bahasa dan Pustaka. <http://161.142.92.104/ff2613/AsasStatistik&PenyelidikanPerubatan-MdIdrisMohdNor.pdf>
4. Dawson B& Trapp R.G (2004). Basic and Clinical Biostatistics. 4th Ed. Mc Graw Hill, New York.
5. Y.H. Chan, 2003-2005. Basic Statistics For Doctors Series. Singapore Medical Journal. Available from <http://drtamil.wordpress.com/2011/11/25/basicstatsfordoctors/> (yhchan)
  - 101: Data Presentation (Sept 2003)
  - 102: Quantitative Data - Parametric & Non-Parametric Tests (August 2003)
  - 103: Qualitative Data - Tests of Independence (October 2003)
  - 104: Correlational Analysis (December 2003)
  - 201: Linear Regression Analysis (Feb 2004)
  - 202: Logistic Regression Analysis (April 2004)
6. T. D. V. Swinscow, 2001. Statistics At Square One. BMJ Publishing Group; 10th edition. Freely available from <http://bmj.bmjournals.com/collections/statsbk/index.shtml>
7. Azmi MT, 1999. SPSS for Medical Statistics (online resource in Malay). <http://161.142.92.104/spss/>
8. Azmi MT, 2000. Excel for Medical Statistics (online resource in Malay). <http://161.142.92.104/excel/>

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No.	Dates & Time	Topics	Duration (Hours)	Lecturer
1	7/4/2012 9.00-11.00am	Basic Probability & Probability Distribution	2	Azmi
2	7/4/2012 11.00am-1.00pm	Index to describe Health Status	2	Azmi
3	7/4/2012 2.00-4.00pm	Introduction to Variables and Data Collection	2	Azmi
4	7/4/2012 4.00-6.00pm	Measures of Central Tendencies, Data Distribution, Explore & Summarise Data	2	Azmi
5	22/04/2012 9.00-11.00am	Discuss Practical 1	2	Norfazilah
6	22/04/2012 11.00am-1.00pm	Define Variables & Labels, Data Import & Export, Exploratory Data Analysis, Recode & Transform	2	Norfazilah
7	22/04/2012 2.00-4.00pm	Introduction to Data Analysis & Basic Hypothesis Testing	2	Norfazilah
8	22/04/2012 4.00-6.00pm	T-Test, Paired T-test, ANOVA & Proportionate Test	2	Norfazilah
9	19/05/2012 9.00-11.00am	Discuss Practical 2	2	Azmi
10	19/05/2012 11.00am-1.00pm	SPSS - Quantitative Data Analysis I – Ttest & ANOVA	2	Azmi
11	19/05/2012 2.00-4.00pm	Correlation & Linear Regression	2	Azmi
12	19/05/2012 4.00-6.00pm	SPSS - Quantitative Data Analysis II – Correlation & Regression	2	Azmi
13	10/06/2012 9.00-11.00am	Discuss Practical 3	2	Azmawati
14	10/06/2012 11.00am-1.00pm	Chi-Square, Yates Correction, Fisher's Exact Test, McNemar's test	2	Azmawati
15	10/06/2012 2.00-4.00pm	Non-Parametric test	2	Azmawati
16	10/06/2012 4.00-6.00pm	SPSS - Qualitative Data Analysis & Non-Parametric Analysis	2	Azmawati
17	07/07/2012 9.00-11.00am	Discuss Practical 4	2	Azmi
18	07/07/2012 11.00am-1.00pm	Computer-based minitest	2	Azmi