

## Course Syllabus

**Course Title** Applied Biostatistics in Pharmaceutical Sciences

**Code** 160703

**Credits** 2(1-3)

### Course Description

Theory and application of statistical methods of data collection, analysis and evaluation for the research in Pharmaceutical Sciences: descriptive and exploring data; estimation and hypothesis testing for one, two and more than two samples; correlation and regression; and analysis of count data. Parametric and non-parametric approaches will be covered

### Course Objectives

The objectives of this course are for students to:

1. understand how to use an appropriate statistics to draw conclusions, and
2. be able to apply statistics in the research.

### Course Evaluation

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|---------------------------------------|-----|
| 1. Written exams (Midterm and Final)  | 70% |
| 2. Class assignments                  | 20% |
| 3. Class participation and attendance | 10% |

### Grading System

80% and above	A
75-79	B+
70-74	B
65-69	C+
60-64	C
55-59	D+
50-54	D
Below 50	F

### Course coordinator

Dr. Chuenjid Kongkaew e-mail: [chuenjidk@nu.ac.th](mailto:chuenjidk@nu.ac.th)

Tel 055-961825

### References

Le, C. T., Health and numbers : a problems-based introduction to biostatistics, John Wiley, 2001.

Zolman, J.F., Biostatistics : experimental design and statistical inference, Oxford University Press, 1993.

Joseph, A.I., et al, Biostatistics in clinical medicine, McGraw-Hill, 1994.

Daniel, W.W., Biostatistics : a foundation for analysis in the health science (9<sup>th</sup> ed.), John Wiley, 1999.

McClave, J.J., et al, Statistics, Maxwell Macmillan, 1991.

Gerald, K., Brian, W., Statistics for management and economics, Duxbury Press, 1999.

Richard, I.L., David, S.R., Statistics for management, Prentice-Hall, 1998

### Class schedule

160703 Biostatistics in Pharmaceutical Sciences

Day & Time: Monday 13.00-17.00

Room: To be announced

Lecturer: Dr Katechan Jampachaisri, e-mail: [katechanj@nu.ac.th](mailto:katechanj@nu.ac.th)

(Office: SC2-317, Mathematics department, Tel 3258)

## Timetable

Date	Topic	Note
19 Aug 2013	Descriptive and exploring data I	
26 Aug 2013	Descriptive and exploring data II	
2 Sept 2013	Estimation and sample size	
9 Sept 2013	Estimation and sample size	
16 Sept 2013	Estimation and sample size	
23 Sept 2013	Hypothesis testing	
30 Sept 2013	Hypothesis testing	
5 Oct 2013*	Hypothesis testing	
7-11 Oct 2013	Midterm exam	
14 Oct 2013	Biostatistics for more than two-sample data for controlled randomized design	
21 Oct 2013	Biostatistics for more than two-sample data for randomized blocked design	
28 Oct 2013	Correlation and regression I	
4 Nov 2013	Correlation and regression II	
11 Nov 2013	Analysis of count data II	
18 Nov 2013	Nonparametric statistics	
25 Nov 2013	Nonparametric statistics	
2 Dec 2013	Final exam	

Midterm exam 7 Oct – 11 Oct 2013

Final exam 9 Dec – 20 Dec 2013

\*Saturday