**Course Syllabus**

**1. Program of Study** Master ’s Degree in Business Administration (IMBA Program)

**2. School** Graduate School of Business Administration

**3. Course Code** AB 5030

**4. Course Title** Quantitative Analysis for Business Decisions

**5. Number of Credit** 3

**6. (Semester/Academic year)**

**7. Instrutor** Arthur Dryver

**8. Prerequisite** None

**9. Status** Core Course

NIDA Business School emphasizes on the student-centered teaching methods. The school also focuses on business ethics, corporate governance and corporate social responsibility.

**10. Course Description**

Concepts and the uses of statistical and mathematical models for economic and business problems. Topics include measurement of numerical data, frequency distributions, probability, sampling distributions, confidence intervals, hypothesis testing, ANOVA, correlation, simple and multiple regression models, and selected topics in quantitative business analysis.

**11. Course Outline**

**11.1 Course Objective**

The primary goals of the course are:

* To learn statistical and quantitative managerial techniques for making business decisions.
* To be able to explain your findings to senior level management.

Note: The theoretical statistics will be covered but putting the theories to use is the main objective.

* 1. **Content**

See course description.

* 1. **Teaching Method Approximately**

❒ Lecture 30% Hour/percent

❒ Lecture and discussion 30% Hour/percent

❒ Case study analysis 10% Hour/percent

❒ Summary and/or presentation of assigned tasks 30% Hour/percent

❒ Other Hour/percent

* 1. Instructional Media

❒ OHP and

❒ PowerPoint media and

❒ Electronic media/Internet

❒ Other

* 1. Evaluation
  + Final Exam (25%)
  + Class participation (5%)
  + Online Homework (20%)

There will be an online ongoing homework assignment. There are several levels to this homework and they must all be completed according to the deadlines given for full credit. Each level must be done correctly several times to move forward.

* + Projects and minor assignments: (50%)

There will be approximately 3 major projects assigned and possibly 2-4 minor assignments. The projects/assignments will vary in difficulty and thus will vary in the amount that each will count toward the final grade.

12. Texts and Supplementary Materials

12.1 Required texts: An Introduction to Business Statistics by Arthur Dryver.

12.2 Supplementary texts: other introductory statistics texts at the student’s discretion.

12.3 Electronic Media/Internet: My websites

<http://www.LearnViaWeb.com> and <http://www.stathw.com>

13. Course coordinator [if any]: name, position, school, and contact details

14. Tentative Schedule (**and due dates for online homework**):

1. Introduction to statistics in the business field and descriptive statistics
2. More on descriptive statistics
3. Basic probability (Complete 1st assignment online)
4. Presentation of first project (Complete 2nd assignment online)
5. Expectation and covariance
6. Binomial, Hypergeometric, and Poisson random variables. (Discrete) ( 3rd assignment)
7. Exponential and Normal random variables. (Continuous) ( 4th and 5th assignment)
8. Sampling ( 6th assignment)
9. Hypothesis testing, z-tests
10. Hypothesis testing, more z-tests ( 7th assignment)
11. Continuation on hypothesis testing, t-tests ( 8th and 9th assignment)
12. Chi-square test of independence and ANOVA ( 10th - 12th assignment)
13. Simple Linear Regression ( 13th – 15th assignment)
14. Multiple Regression and introduction to time series ( 16th and 17th assignment)
15. Final Presentation and Review ( 18th and 19th assignment of online homework)