International Business Management Program
Faculty of Business Administration
First Semester, Academic Year 2014

I. Course Code: BA 200
Course Title: BUSINESS STATISTICS
Course Type: Core Course
Number of Credits: 3(3-0-6)
Prerequisite: IIT 100 PREPARATORY MATHEMATICS or Placement Test
Class Time: M/W 8:00-9:30
Course website: https://sites.google.com/site/payapba200/

II. Course Description

Statistics for business decisions, probability analysis, application in business, statistical estimation, hypothesis testing, parameters, variance analysis, simple regression, correlation and data analysis.

III. Instructor: Mr. Chanvit Jatuprayoon
Position: Head of International Hospitality Management
Email: jchanvit@yahoo.com / chanvit_j@payap.ac.th
Telephone: 085-0354933

IV. Course Objectives
Upon completing this course, students should be able to:

To recognize business situations those require the use of statistical tools for analysis
To select and execute the appropriate statistical tool
To develop critical judgment and decision-making ability through the use of quantitative tools.

V. References
Required:
Prem SM 2013, Introductory Statistics, 8th ed., (International Student Version), John Wiley&Sons, Singapore.

Supplemental reading:
David ML, Timothy CK, Mark LB 2010, Business statistics: a first course, 5th ed., (International ed.), Pearson, Boston.
Andrew, FS 2012, Practical Business Statistics, 6th ed., Press, Oxford.
Norean RS, Richard DDV, Paul FV 2010, Business Statistics, International ed., Pearson, New York.

VI. Expectations

1. Demonstrated proficiency in the use of the English language is expected for writing assignments. Grammatical errors and writing that do not clearly express ideas will affect your grade.
2. Ability to participate in oral presentations, public debate and commentary during class periods.
3. Assigned readings are meant to be completed prior to class.
4. You will ask for help when you need it.

VII. Course Policies

1. **Academic Honesty**
   The IBM department has a zero tolerance for plagiarism. This includes downloaded material from the Internet, copied passages from a book or a fellow classmate without proper acknowledgment of the source(s). Breaches of academic integrity which includes submitting other peoples work as your own will result in an automatic grade of zero for the assignment/ exam, and may be reported to the judicial affairs officer. All students are responsible for learning the proper forms of citation required by the course instructor

2. **Handing in Assignments**
   Unless otherwise noted, all assignments are due in class, on the date specified, and typed. Late assignments suffer a 50% penalty, starting at the end of the class on the due date; no late assignments will be accepted more than 1 week after the due date.

3. **E-mail**
   I do welcome questions and will provide input to you over email. Additionally, for help on assignments, come to office hours or schedule an appointment to see me.

4. **Attendance**
   Regular attendance is expected for all students enrolled in the course. Students who arrive late or leave early will be counted as late and three will equal an absence. Every student is responsible for all material covered in class when absent. Students who miss more than 80% of the classes will not be eligible to take the final examination.

5. **Disruptions to class**
   Your participation in class discussions on material and questions is important, welcome and integral to the class. However, I do not tolerate cross talk or disruptive conversations during class. Private conversations in class are disruptive, and prevent other students from hearing and learning from the material presented. You may be asked to leave the class if you are disruptive to other students. All mobiles must be turned to silent and put away. You can only use your electronic devices (Ipads, Netbooks, etc.) if they are being used to follow the lecture PowerPoints or research relevant information to the topic being discussed.

VIII. Course Assessment Scheme

Evaluation Methods	Week	Proportion of Evaluation (%)
Class Discussion & Participation, Homework& Assignments	Throughout Semester	20 %
Class Attendance, Observation	Throughout Semester	10 %
Quiz 1	4	5 %
Quiz 2	6	5 %
Quiz 3	12	5 %
Quiz 4	15	5 %
Midterm Exam	8	20 %
Final Exam	17	30 %

IX. Course Grading & Requirements

Class grading will be based on points in the following distribution (Percent):

Class Attendance and class participation	10%
Homework and Assignments	20%
Quizzes	20%
Midterm examination	20%
Final examination	30%
Total	**100%**

X. Evaluation Criteria

1. Students are required to attend at least 80% of the classes to be eligible for the final examination.

2. This course employs the standardized grading system:

80 - 100	A
75 - 79	B+
70 - 74	B
65 - 69	C+
60 - 64	C
55 - 59	D+
50 - 54	D
0 - 49	F

3. The following grades may also be given:

'I'	Incomplete
'W'	Withdrawn
'IP'	Course work in progress

XI. Class Schedule

The details of this document may be changed during the course of the semester. Any changes will be announced in class or/and posted on the course website.

Week	Chapter	Topics	Lecture Hours	Remarks
1	Ch1. Introduction and Data Collection	1. How statistics is used in business 2. The sources and types of data used in business	3	Lecture, Discussion
2	Ch2. Presenting Data in Tables and Charts	1. To develop tables and charts for categorical and numerical data 2. The principles of properly presenting graphs	3	Lecture, Discussion
3	Ch3. Numerical Descriptive Measures	1. To describe the properties of central tendency, variation, and shape in numerical data 2. To compute descriptive summary measures for a population 3. To construct and interpret a boxplot 4. To describe the covariance and the coefficient of correlation	3	Lecture, Discussion
4	Ch4. Basic Probability	1. Basic probability concepts 2. Conditional probability 3. To use Bayes' theorem to revise probabilities	3	Lecture, Discussion, Quiz1
5	Ch5. Some Important Discrete Probability Distributions	1. The properties of a probability distribution 2. To compute the expected value and variance of a probability distribution 3. To compute probabilities from the binomial and Poisson distribution 4. How to use the binomial and Poisson distributions to solve business problems	3	Lecture, Discussion
6	Ch6. The Normal Distribution and Other Continuous Distributions	1. To compute probabilities from the normal distribution 2. How to use the normal distribution to solve business problems 3. To use the normal probability plot to determine whether a set of data is approximately normally distributed	3	Lecture, Discussion, Quiz2
7	Ch7. Sampling and Sampling Distributions	1. To distinguish between different sampling methods 2. The concept of the sampling distribution 3. To compute probabilities related to the sample mean and the sample proportion 4. The importance of the Central Limit Theorem	3	Lecture, Discussion
8	Ch8. Confidence Interval Estimation	1. To construct and interpret confidence interval estimates for the mean and the proportion 2. How to determine the sample size necessary to develop a confidence interval for the mean or population	3	Lecture, Discussion
9	Midterm Exam		2	
10	Ch9. Fundamentals of Hypothesis Testing	1. The basic principles of hypothesis testing 2. How to use hypothesis testing to test a mean or proportion	3	Lecture, Discussion

Week	Chapter	Topics	Lecture Hours	Remarks
		3. The assumptions of each hypothesis-testing procedure, how to evaluate them, and the consequence if they are seriously violated 4. How to avoid the pitfalls involved in hypothesis testing 5. Ethical issues involved in hypothesis testing		
11	Ch10. Two Sample Tests and One-Way Anova	1. The means of two independent and two related populations 2. The proportions of two independent populations 3. the variances of two independent populations 4. The means of more than two populations	3	Lecture, Discussion
12	Ch11. Chi-Square Tests	1. How and when to use the chi-square test for contingency tables	3	Lecture, Discussion, Quiz3
13	Ch12.Simple Linear Regression	1. To use regression analysis to predict the value of a dependent variable based on an independent variable 2. The meaning of the regression coefficients b_0 and b_1 3. To evaluate the assumptions of regression analysis and know what to do if the assumptions are violated 4. To make inferences about the slope and correlation coefficient 5. To estimate mean values and predict individual values	3	Lecture, Discussion
14	Ch13. Multiple Regression	1. How to develop a multiple regression model 2. How to interpret the regression coefficients 3. How to determine which independent variables to include in the regression model 4. How to use categorical independent variables in a regression model	3	Lecture, Discussion
15	Ch14. Statistical Applications in Quality Management	1. How to construct various control charts 2. Which control chart to use for a particular type of data 3. The basic themes of total quality management and Deming's 14 points	3	Lecture, Discussion, Quiz4
16	Revision		3	
17	Final Examination		3	