Course Syllabus

1.	**Program of Study**	B.B.A. (Tourism and Hospitality Management)
	Faculty/Institute/College	Mahidol University International College
2.	**Course Code**	ICTM 211
	Course Title	Statistics for the Travel Industry
3.	**Number of Credits**	4 (4-0-8) (Lecture-Lab-Self-study)
4.	**Prerequisite *(s)***	ICTM 210
5.	**Type of Course**	Required Course
6.	**Session**	Trimester 1, 2, 3 / Every academic year
7.	**Conditions**	Maximum number of students is 30

8. Course Description

Design of experiments, collection of data, presentation of data, descriptive statistics, elementary probability, normal distributions, estimation of parameters, hypothesis testing, analysis of variance, regression, and correlation, analysis of frequencies, and non-parametric methods.

9. Course Objectives

After successful completion of this course, students will be able to

9.1 Describe Data in terms of measure of dispersion, measure of location, frequency distributions and graphic presentation

9.2 Understand probability concepts and its application in the travel industry.

9.3 Understand the concept of sampling methods and distributions

9.4 Understand hypothesis, linear regression and correlation.

10. Course Outline

Week	Topics	Hours			Instructor
		Lecture	Lab	Self-Study	
1	What is Statistics? • What is Meant by Statistics? • Why Study Statistics? • Types of Statistics • Types of Variables • Levels of Measurement	4	-	8	Unsurangsie, S.
2	Describing Data: Frequency Distributions and Graphic Presentation • Constructing a Frequency Distribution • Relative Frequency Distribution • Stem-and-Leaf Displays • Graphic Presentation of a Frequency Distribution • Other Graphic Presentations of Data Describing of Data: Measurement of Location • The Population Mean • The Sample Mean • The Properties of the Arithmetic Mean • Weighted Mean • The Median • The Mode	4	-	8	
3	Describing of Data: Measurement of Location (Cont.) • The Mean, Median, and Mode of Grouped Data • Selecting an Average for Data in a Frequency Distribution	4	-	8	
4	Describing Data: Measure of Dispersion • Measure of Dispersion • Measures of Dispersion for Data Grouped into a Frequency Distribution • Relative Dispersion • Skewness • Other Measures of Dispersion	4	-	8	
5	A Survey of Probability Concepts • What is Probability? • Approaches to Probability • Some Rules of Probability • Principles of Counting	4	-	8	

Week	Topics	Hours			Instructor
		Lecture	Lab	Self-Study	
6	Discrete Probability Distributions • What is Probability Distribution? • Random Variables • The Mean, Variance, and Standard Deviation of a Probability Distribution • Binomial Probability Distribution • Hypergeometric Probability Distribution	4	-	8	Unsurangsie, S.
7	The Normal Probability Distribution • The Family of Normal Probability Distributions • The Standard Normal Probability Distribution • The Normal Approximation to the Binomial	4	-	8	
8	Sampling Methods and Samplings Distributions • Sampling the Population • Probability Sampling Methods • Sampling Distribution of the Sample Means • The Central Limit Theorem • Point Estimates and Confidence Intervals • Confidence Interval for a Population Proportion • Finite-Population Correction Factor	4	-	8	
9	Test of Hypothesis: Large Samples • What Is Hypothesis? • What Is Hypothesis Testing? • Five-Step Procedure for Testing a Hypothesis • One-Tailed and Two-Tailed Test of Significance • Testing for the Population Mean, Population Standard Deviation Known • p-Value in Hypothesis Testing • Testing for the Population Mean, Population Standard Deviation Unknown • Hypothesis Testing: Two Population Means • Test Concerning Proportions • A Test Involving the Difference between Two Population Proportions	4	-	8	

Week	Topics	Hours			Instructor
		Lecture	Lab	Self-Study	
10	Test of Hypothesis: Small Samples • A Test for the Population Mean • Comparing Two Independent Population Means • Hypothesis Testing with Dependent Samples • Comparing Dependent and Independent Samples	4	-	8	Unsurangsie, S.
11	Linear Regression and Correlation • The Coefficient of Correlation • Testing the Significance of the Correlation • Regression Analysis	4	-	8	
	Total	**44**	**0**	**88**	
Final Examination					

NB. The course is subject to change without prior notice to fit the changing tourism circumstances.

11. Teaching Method *(s)*

11.1 Lectures
11.2 Assignment

12. Teaching Media

12.1 LCD overhead projector
12.2 PowerPoint
12.3 Multimedia resources
12.4 Handouts
12.5 Text books

13. Measurement and evaluation of student achievement

Student achievement is measured and evaluated by
13.1 the ability in describing data in terms of measure of dispersion, measure of location, frequency distributions and graphic presentation
13.2 the ability in understanding probability concepts and its application in the travel industry.
13.3 the ability in understanding the concept of sampling methods and distributions
13.4 the ability in understanding hypothesis, linear regression and correlation.

Student's achievement will be graded according to the faculty and university standard using the symbols: A, B+, B, C+, C, D+, D, and F.

Students must have attended at least 80% of the total class hours of this course.

Ratio of mark

1.	Mid-term Examination	35%
2.	Quizzes	20%
3.	Homework	10%
4.	Final Examination	35%
	Total	**100%**

14. Course evaluation

14.1 Students' achievement as indicated in number 13 above.
14.2 Students' satisfaction towards teaching and learning of the course using questionnaires.

15. Reference *(s)*

Mason, R., Lind D., & Marchal, W. (2006), *Statistical Techniques in Business and Economics*. (10th ed.), USA: McGraw Hill.

Black, K. (2006) *Business Statistics: For Contemporary Decision Making*. USA: John Wiley & Sons, Inc.

16. Instructor *(s)*

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17. Course Coordinator

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