Syllabus

TSTD 6251 Quantitative Applications in Tourism and Hospitality Management - Fall 2015
Funger Hall 222
Wednesday 7:10-9:40 pm

Instructor: Larry Yu, Professor of Management and Tourism Studies
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Office hours: Wednesday 3 – 6 pm & Thursday 4 – 6 pm or by appointment

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Required Readings

Recommended
- Journal of Travel Research - a research journal focuses primarily on quantitative analysis of tourism development and hospitality management
- Journal of Hospitality and Tourism Research - a research journal focuses on quantitative analysis of management issues in tourism and hospitality operation.

Web Related
http://www.statsoft.com/Textbook - This electronic statistic textbook offers an introduction to basic statistic concepts and analysis. It can be used as a good reference book for this course.
http://faculty.chass.ncsu.edu/garson/PA765/statnote.htm - This is a comprehensive statistical text for undergraduate and graduate studies. It is a very good reference book for your studies.

Course Description

This course introduces students to the applications of quantitative methods in tourism and hospitality management. It studies the procedures and methodology for collecting
data, summarizing and analyzing data, interpreting data, drawing conclusions and making decisions based on the data. Methods of analysis and applications are equally emphasized in this course.

Course Objectives

Upon completion of the course, students should gain the necessary competency to:

1. Understand data scales: nominal, ordinal, interval & ratio scales of measurement;
2. Organize raw data and present data graphically;
3. Understand the concept of distributions: binomial probability and normal probability distribution;
4. Conduct hypotheses testing for means and proportions;
5. Calculate and interpret confidence intervals and estimate sample size;
6. Learn to perform one-way analysis of variance and understand F distributions;
7. Perform non-parametric tests: chi-square and Spearman rank correlation;
8. Analyze time series data: correlation and linear regression, and tourism forecasting;
9. Apply statistical methods to tourism/hospitality management decisions;
10. Be able to understand statistical methodology published in academic research article;
11. Use SPSS to perform statistical analysis.

Method of Instruction

This course is primarily based on text reading, lectures, journal article review, problem-solving exercises in class, weekly homework assignments and SPSS exercises.

Method of Evaluation

The formal grading system serves three functions: motivation, evaluation and reinforcement of learning. The most important of the three is learning reinforcement.

Basis for Evaluation:

Participation - 20 points
Article critique of statistical research - 20 points (1 @ 20 points)
Weekly SPSS exercise - 160 points (8 @ 20 points)
Midterm - 100 points
Final Exam - 120 points

Total: 420 points
The letter grade will be based on the total of 420 points. The guaranteed grading scale is:

A = 386-420 points (92%-100%)
A- = 378-385 points (90%-91%)
B+ = 370-377 points (88%-89%)
B = 344-369 points (82%-87%)
B- = 336-343 points (80%-81%)
C+ = 328-335 points (78%-79%)
C = 302-327 points (72%-77%)
C- = 294-301 points (70%-71%)
F = below 294 points

Course Policy

1. Weekly study - Due to the sequential nature of the topics, students are expected to keep up with their weekly studies through readings and by completing exercises (both written and SPSS), and exams.

2. Weekly exercises - These exercises are a very important part of the course. In order to learn the material one must solve many statistical problems. You will have 10 weekly written exercises for the semester. These exercises are not graded, but they are designed to reinforce the knowledge introduced in each week, and they will assist you in preparing for the tests. A key to the weekly written assignment will be posted in Bb in the following session. Failure to work on these written exercises places you in considerable risk.

3. Exams - There will be two exams during the semester: one midterm exam and one final exam. Exams will assess knowledge of the materials, ability to apply the methods, understanding of the concepts and proper communication of results.

4. SPSS Program and Calculator - You will be using SPSS program for statistical analysis in this course. SPSS program (graduate version) is available on PCs in the computer labs on campus. It can also be purchased from GWU Bookstore or through SPSS company directly if you want to invest in this program. It can be also rented from OnTheHub eStore at https://estore.onthehub.com/WebStore/ProductsByMajorVersionList.aspx?cmi_cs=1&cmi_mnuMain=ed6ad73c-7bc7-e011-ae14-f04da23e67f6. You need to use a calculator in this course. A simple calculator able to do square roots will be sufficient. It may be useful for your calculators to have at least one memory feature so you can store and retrieve interim calculations.

Academic Integrity

GW is committed to the highest standards of academic integrity and students will be held responsible for the violation of these standards. Please refer to GW Code of Academic Integrity for detailed policies: http://www.gwu.edu/~ntegrity/code.html

Disability Services

Any student who feels s/he may need special accommodation based on the impact of a disability should contact the instructor privately to discuss specific needs. Please also contact GW Disability Support Services office at 202 994-8250, Suite 242 in Marvin Center, to establish eligibility and to coordinate reasonable accommodation. For additional information, please see: http://gwired.gwu.edu/dss/
Outline

Session 1 - September 2 - 2015
Introduction & Syllabus
What is statistics?
Importance of statistics and definitions.
Chapter 1

Session 2 - September 9 - 2015
Data organization & graphical presentation.
Reading: Chapter 2
SPSS Practice Exercise/written homework 1 posted

Session 3 - September 16 - 2015
Descriptive and Univariate Statistics
Reading: Chapter 3
SPSS Exercise 1/written homework 2 posted

Session 4 - September 23 - 2015
An introduction to probability
Reading: Chapter 5
SPSS 2 & Written homework 3 posted.

Session 5 - September 30 - 2015
Discrete distribution: The binomial probability distribution
Reading: Chapter 6
Written homework 4 posted.
No SPSS assignment this week

Session 6 - October 7 - 2015
Continuous distributions: The normal probability distribution
Reading: Chapter 7
SPSS Exercise 3/written homework 5 posted.

Session 7 - October 14 - 2015
Midterm Exam

Session 8 - October 21 - 2015
Statistical estimation
Reading: Chapter 8
SPSS Exercise 4/written homework 6 posted.

Session 9 - October 28 - 2015
Hypothesis Testing: Large Samples, Small Samples, and Proportions
Reading: Chapter 8
SPSS Exercise 5 handout/written homework 7 posted
Session 10 - November 4 0-2015
Analysis of Variance and F distributions
Reading: Handout reading
SPSS Exercise 6/written homework 8 posted
Article critique assignment posted

Session 11 - November 11- 2015
Analyzing Bivariate Data - Linear Regression and Correlation Methods
Reading: Chapter 3 SPSS Exercise 7 posted.

Session 12 - November 18 - 2015
Time-Series Analysis
Reading: Chapter 4
Written Homework 9 posted
No SPSS Assignment for This Week
Article Critique Due & SPSS 7 Due

Session 13 - December 2 - 2015
Analysis of Categorical Data - Chi Square Applications
Chapter 9 SPSS Exercise 8/Homework 10 posted.

Session 14 - December 9 - 2015
Summary & Review
SPSS 8 due

Session 15 - December 16 -2015
Final Exam -
Funger 222
Time: 7:40 - 9:40 pm