

NRRT601-001 – Quantitative Analysis in Tourism Decision–Making

Instructor: Dr. Jerry J. Vaske
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Term: Spring, 2015
Credits: 2
Prerequisite(s): ST312 (or equivalent)

Course Description: NRRT601 provides an overview of the statistical techniques used by researchers to inform and support tourism decision-making. Emphasis is placed on understanding data manipulation techniques and what statistics are appropriate for addressing applied decision–making problems.

Primary Text(s): Selected chapters from:

Vaske, J. J. (2008). *Survey research and analysis: Applications in parks, recreation and human dimensions*. State College, Pennsylvania: Venture Publishing Inc.

Vaske, J. J. (in prep.). *Understanding multivariate statistics: Applications in parks, recreation and human dimensions*.

Supplemental readings

Vaske, J. J., Beaman, J., Barreto, H., & Shelby, L. B. (2010). An extension and further validation of the potential for conflict index. *Leisure Sciences*, 32, 240-254.

Additional Class Material:

Readings and computational software for the Potential for Conflict Index (PCI₂) are available at <http://warnercnr.colostate.edu/~jerryv/PCI2/>

Students will need to have access to IBM SPSS v22. The student version of the software is available from RamTech. A one-year license is \$72.00. Alternatively, SPSS is available on the WCNR computer lab PCs.

Electronic data sets for use in class quizzes will be made available to students.

Course Objective(s): At the end of this course, students will ...

1. Have an understanding of the major statistical techniques used by researchers to inform and support tourism decision-making.
2. Be able to differentiate what statistical techniques are appropriate for analyzing selected types of tourism research questions.
3. Be able to conduct data analysis using statistical software.
4. Interpret computer printouts and construct data tables / figures for communicating with technical and non–technical audiences.

Course Topics / Module Schedule:

Module 1 – Introduction to quantitative analysis

Reading – Levels of measurement: Once over again (Vaske, 2008 – Chapter 5, pp. 79-88)

Lecture – Some basic terminology

Lecture – Chapter 05 – Levels of measurement.ppt

Quiz – Levels of measurement

Reading – Levels of measurement: Once over again (Vaske, 2008 – Chapter 5, pp. 89-94)

Lecture & Quiz – Selecting an appropriate statistic

Module 2 – The Analytical Tool

Reading – An introduction to SPSS for Windows (Vaske, 2008 – Chapter 9, pp. 223-240)

Lecture – Chapter 09 – Intro to SPSS v22.ppt

Quiz – Introduction to SPSS

Reading – Understanding SPSS variables (Vaske, 2008 – Chapter 10, pp. 242-257)

Lecture – Chapter 10 – Understanding SPSS variables.ppt

Quiz – Understanding SPSS variables

Module 3 – Turning Descriptive Data into Information

Reading – Frequencies and descriptive statistics (Vaske, 2008 – Chapter 11, pp. 259-277)

Lecture – Chapter 11 – Frequencies & Descriptives.ppt

Quiz – Frequencies – CO State Parks

Reading – Data manipulation techniques (Vaske, 2008 – Chapter 12, pp. 285-314)

Lecture – Chapter 12 - Data manipulation.ppt

Quiz – Data Manipulation – Mt. Evans conflict

In Class Lecture and Quiz

Vaske, J. J., Beaman, J., Barreto, H., & Shelby, L. B. (2010). An extension and further validation of the potential for conflict index. *Leisure Sciences*, 32, 240-254.

Lecture – Vaske (2013) – Intro to PCI2.ppt

Non-graded Quiz – Yellowstone wolves

Module 4 – Detecting Differences between Known Tourism Markets – Part 1

Reading – Hypothesis testing and effect size (Vaske, 2008 – Chapter 6, pp. 97-120)

Lecture – Chapter 6 – Hypothesis testing & Effect size.ppt

Quiz – Hypothesis testing & Effect size

Reading – Crosstabulations (Vaske, 2008 – Chapter 13, pp. 315-342)

Lecture – Chapter 13 – Crosstabs and Chi-Square.ppt

Quiz – Crosstabs – CO Tourism impacts

Module 5 – Detecting Differences between Known Tourism Markets – Part 2

Reading – Means and *t*-tests (Vaske, 2008 – Chapter 14, pp. 343-374)

Lecture – Chapter 14 – Means and *t*-tests.ppt

Quiz – Means & *t*-tests – CO State Parks

Reading – Analysis of Variance (Vaske, 2008 – Chapter 15, pp. 375-407)

Lecture – Chapter 15 - 1-way & n-way ANOVA.ppt

Quiz – ANOVA – CO Tourism impacts

Module 6 – Forecasting Tourism Behavior

Reading – Correlation (Vaske, 2008 – Chapter 16, pp. 409-421)

Lecture – Chapter 16 – Bivariate Correlation.ppt

Quiz – Correlation – Tourism Development

Reading – Regression (Vaske, 2008 – Chapter 16, pp. 422-452)

Lecture – Chapter 16 – Regression.ppt

Quiz – Regression – Tourism Development

In Class Lecture & Quiz

Psychological scales and reliability analysis (Vaske, 2008 – Chapter 18, 501-531)

Lecture – Chapter 18 – Psychological Scales & Reliability Analysis.ppt

Non-graded Quiz – Reliability – Skier-Snowboarder

Module 7 – Predicting Discrete Tourism Choices

Reading – Logistic Regression (Vaske, 2008 – Chapter 17, pp. 453-475)

Lecture – Chapter 17 – Logistic Regression.ppt

Quiz – Logistic – Community vs. Property Rights

Module 8 – Market Segmentation

Reading – Cluster Analysis (Vaske, in preparation)

Lecture – Cluster Analysis.ppt

Quiz – Cluster Analysis – Mountain Biker Conflict

Instructional Methodology: This class is a combination of online lecture, discussion and computer-aided learning.
The class will meet for 8 Weeks.
January 20 – March 10.

Mode of Delivery: The primary mode of delivery for this class will be online. Lectures will be presented via videos.
I fully realize that statistics courses can be challenging for some people.
Since face-to-face contact in this course is limited to one day per week, additional challenges are likely.
That said never hesitate to contact me when you get stuck.
Notice that the previous sentence said “when” not “if.”

Methods of Evaluation:

Students will be evaluated on 14 quizzes.

Quizzes are available in Canvas.

Questions for some of the quizzes will be based on the course content for a given Module.

Other quizzes involve running SPSS analyses and interpreting the results.

The table on the next page outlines the points for each quiz.

Class	Module	Quiz	Topic	% of Grade	Points	Due
Jan. 20	1	1	Levels of measurement	4%	15	Jan. 25
	1	2	Selecting the appropriate statistic	13%	50	Jan. 25
Jan. 27	2	3	Introduction to SPSS	5%	20	Feb. 1
	2	4	Understanding SPSS variables	5%	20	Feb. 1
Feb. 3	3	5	Frequencies	3%	10	Feb. 8
	3	6	Data manipulation techniques	4%	16	Feb. 8
Feb. 10	4	7	Hypothesis testing & Effect size	3%	13	Feb. 15
	4	8	Crosstabulations & chi-square	9%	34	Feb. 15
Feb. 17	5	9	Means & t-tests	8%	30	Feb. 22
	5	10	Analysis of variance	8%	30	Feb. 22
Feb. 24	6	11	Correlation	5%	20	Mar. 1
	6	12	Regression	8%	30	Mar. 1
Mar. 3	7	13	Logistic Regression	16%	62	Mar. 8
Mar. 10	8	14	Cluster analysis	13%	50	Mar. 15
Total				100%	400	

All assignments are due before midnight on the dates noted in the last column. Answers to assignments will be available at 1 am the following day.

Grades will be based on the total points accumulated from requirements listed above. Grades will be assigned as follows.

Letter Grade	Percentage %	Points
A+	97-100	388 – 400
A	93-96	372 – 387
A-	90-92	360 – 371
B+	87-89	348 – 359
B	83-86	332 – 347
B-	80-82	320 – 331
C+	77-79	308 – 319
C	73-76	292 – 307
C-	70-72	280 – 291
D	60-69	240 – 279
F	Less than 60	< 240