MMC6936 STATISTICS FOR THE COMMUNICATION INDUSTRY
SPRING 2019
3 CREDIT HOURS

INSTRUCTOR

**Mark Allen
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Phone number: 202-658-3535 (please only call in emergency situations or if a call has been pre-arranged)**

Contact

Please use either UFL email or Canvas email to contact me. There will also be a discussion forum for general questions.

Office Hours

I am available by appointment to talk on the phone or in a Zoom conference room. There may be regular office hours depending on student demand and instructor schedule.

Instructor Bio

I have a BA in Math (UC Berkeley) and went to UF for grad school (MA Sociology, PhD Pharmacy). I currently teach two classes for the UF online Master's Program in Pharmacy (Evidentiary Basis of Pharmaceutical Use, and Biostatistics) and am an Adjunct Professor in Math at Santa Rosa (CA) Junior College. My family (wife, two daughters) currently live in Sonoma County, CA about 50 miles north of San Francisco, in the middle of wine country.

COURSE WEBSITE & LOGIN

Your course is in Canvas (UF e-Learning). Go to http://elearning.ufl.edu/. Click the orange "Log in to e-Learning" button. Login with your GatorLink account. Your course may appear on your Dashboard. If it is not on the dashboard, the course will be in the Courses menu on the left navigation. Click on "All Courses" on this menu. After clicking "All Courses", you have the option to put the course on your dashboard by clicking on the star to the left of the course's name.

Contact UF Helpdesk http://helpdesk.ufl.edu/ (352) 392-HELP (4357) if you have any trouble with accessing your course.

Zoom

Zoom will be used for holding office hours and for my recorded lectures. You may also use Zoom for recording your presentations.

THIS COURSE

Course Layout

Each week, you will be assigned lecture(s) to watch and readings. These tasks can be found on each weekly module. An assignment will be due every other week. There will also be two timed quizzes during the semester.

Description

This course discusses the use of statistical methods commonly used in research within the communications and media industries. The overall goals of the course are for students to develop an understanding of statistical principles and concepts, develop the ability to perform statistical tests within various research contexts, and to critically evaluate the statistical tests and results of empirical studies to assess not only whether such tests are relevant and appropriately carried out, but whether the findings have relevant implications for individual research and/or industry projects.

Objectives

By the end of this course, students will be able to:

- Explain key statistical terms and concepts used in communications and media industry journals such as statistical significance, p-value, confidence interval, and power.

- Discern whether statistical tests have been appropriately selected and whether the results have been appropriately interpreted in published research.

- Evaluate the statistical portions of relevant research articles and be able to interpret and apply data findings when presented in figures and graphs of publications.

- Perform statistical tests in SPSS for their own research or commercial projects.

Course Deliverables

Homework – A homework assignment will be due every other week. Homework assignments can consist of any combination of the four following components:

1. Short answer questions based on the reading and lectures.
2. A short presentation (<10 minutes, recorded on Zoom) to present the statistical component of a published research paper (more detailed instructions to follow).
3. Short answer questions based on the statistical component of a published research paper.
4. Performing a statistical test in SPSS.

Quizzes – There will be two quizzes. They will consist of short answer questions based on all material covered in readings, lectures, and homework assignments. The quizzes will be available in Canvas for at least four days so that you can take the 2.5 hour quiz at a time that

best suits your schedule. The quizzes will be open "everything" (open notes, open book, open lecture, etc.).

Final presentation – Students will perform a statistical test in SPSS using real-world data to answer a research question. Students will then make a presentation (<20 minutes, recorded on Zoom or other media) detailing their project (more detailed instructions to follow).

COURSE EXPECTATIONS

There will be a course module every week (going from Monday to Sunday) consisting of reading, lectures, and an assignment.

Attendance

There will be no specified meeting times for this class. I will be scheduling optional live review sessions before each quiz through Zoom. Students are expected to check the course website on a daily basis. This course lasts for 16 weeks.

Interactions

Students are expected to comport themselves as they would within any other professional environment. This includes being respectful of others' opinions, including the instructor's, using respectful language, and showing one another common courtesy across all platforms of communication.

Accountability

As this is a graduate level program, student work should be a reflection of analytical and critical thought, as well as higher-level writing and academic abilities. Assigned readings are expected to be completed on time, and it is your responsibility to watch all of the lecture videos. Professional behavior also includes honoring all deadlines and adhering to academic honesty policies. Your success in this class will ultimately be determined by the amount of care and effort that you put into it.

Ownership Education

As graduate students, you are not passive participants in this course. All students in this Program have a background in marketing, advertising, public relations, journalism, or similar fields. This class allows you to not only take ownership of your educational experience but to also provide your expertise and knowledge in helping your fellow classmates. The Canvas shell will have an open Q&A thread where you should pose questions to your classmates when you have a question as it relates to an assignment or an issue that has come up at work. Your classmates along with your instructor will be able to respond to these questions and provide feedback and help. This also allows everyone to gain the same knowledge in one location rather than the instructor responding back to just one student which limits the rest of the class from gaining this knowledge.

REQUIRED TEXTS

Online Statistics Education: A Multimedia Course of Study (http://onlinestatbook.com/2/index.html) Project Leader: David M. Lane, Rice University.

Mertler, C. & Vannatta Reinhart, R. (2017). *Advanced and multivariate statistical methods* (6th ed.). Routledge. E-book available via UF Libraries page (VPN required). https://ebookcentral.proquest.com/lib/ufl/detail.action?docID=4732821 (with VPN)

Byrne, BM. (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming, third edition*. Routledge. E-book available via UF Libraries page (VPN required).

http://eds.a.ebscohost.com.lp.hscl.ufl.edu/eds/detail/detail?vid=1&sid=4797bf15-c574-4305-8e4e-194657dcf300%40sessionmgr4010&bdata=JkF1dGhUeXBlPWlwLHVpZCZzaXRlPWVkcy1saXZlI#AN=1249128&db=nlebkFor help with SPSS, you are also encouraged to use Google to find tutorials for the specific question you are having.

PREREQUISITE KNOWLEDGE & SKILLS

There are no formal prerequisites for this course. For those of you who have taken a statistics course at some point in the past, much of the material in the first half of the course will be a review.

TEACHING PHILOSOPHY

My role is to assist you when I can. I hope that you use me as a resource for whenever you have questions about the material. I would like for you to learn statistics in a way that will be most relevant to your career.

COURSE POLICIES

Attendance Policy

Because this is an online asynchronously delivered course, attendance in the form of calling roll will not occur; however, students are expected to sign onto the course site at least once each day, Monday – Friday, to check for course updates in the announcements and discussion sections of the site.

Late Work & Makeup Policy

Deadlines are critical to this class. All work is due on or before the due date. Please contact me before an assignment is due to request an extension. Minor inconveniences such as family vacation or minor illness are not valid reasons for extensions.

Unless excused, work submitted within 24 hours after the due date will automatically be deducted by 30%. No work will be accepted past 24 hours after the due date.

Issues with uploading work for a grade is not an excuse. If a student is having technical difficulties with Canvas, there are other means to submit completed work. Students may email assignments to the Instructor via UF email. Students should compensate for technical difficulties by not waiting until the last minute to submit work.

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document

the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up. Contact UF helpdesk (352) 392-HELP.

Emergency and extenuating circumstances policy: Students who face emergencies, such as a major personal medical issue, a death in the family, serious illness of a family member, or other situations beyond their control should notify their instructors immediately.

Students are also advised to contact the Dean of Students Office if they would like more information on the medical withdrawal or drop process: https://www.dso.ufl.edu/care/medical-withdrawal-process/ .

Students MUST inform their academic advisor before dropping a course, whether for medical or non-medical reasons. Your advisor will assist with notifying professors and go over options for how to proceed with their classes. Email your academic advisor and put "dropping a course" in the subject line. Your academic advisor will reply with the necessary procedures.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalogue at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Coursework Submissions
All assignments, quizzes, and presentations will be submitted electronically through Assignments or Quizzes in Canvas. All documents should be Microsoft Word documents (*.doc, .docx). All presentations should be Microsoft Powerpoint presentations (.ppt, *.pptx)

Deadlines
All assignments will be due by 11:59PM EST on Sundays. For quizzes, you will have at least a four-day window to take the 2.5-hour timed test.

Grading
All work is graded on a 10-point scale. Your work will be evaluated according to the following distribution:

- Quizzes (2)   20%
- Assignments (7)   70%
- Final Presentation   10%

Your final grade (rounded to one decimal place) will be awarded as follows.

A	100%	to	93.5%
A-	< 93.5%	to	89.5%
B+	< 89.5%	to	86.5%
B	< 86.5%	to	83.5%
B-	< 83.5%	to	79.5%
C+	< 79.5%	to	76.5%
C	< 76.5%	to	73.5%
C-	< 73.5%	to	69.5%
D+	< 69.5%	to	66.5%
D	< 66.5%	to	63.5%
D-	< 63.5%	to	59.5%

F   < 59.5%   to   0%

UNIVERSITY POLICIES

University Policy on Accommodating Students with Disabilities

Students requesting accommodation for disabilities must first register with the Dean of Students Office (http://www.dso.ufl.edu/drc/). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

Students with Disabilities who may need accommodations in this class are encouraged to notify the instructor and contact the Disability Resource Center (DRC) so that reasonable accommodations may be implemented. DRC is located in room 001 in Reid Hall or you can contact them by phone at 352-392-8565.

Netiquette: Communication Courtesy

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

Class Demeanor

Mastery in this class requires preparation, passion, and professionalism. Students are expected, within the requirements allowed by university policy, to attend class, be on time, and meet all deadlines. Work assigned in advance of class should be completed as directed. Full participation in online and live discussions, group projects, and small group activities is expected.

My role as instructor is to identify critical issues related to the course, direct you and teach relevant information, assign appropriate learning activities, create opportunities for assessing your performance, and communicate the outcomes of such assessments in a timely, informative, and professional way. Feedback is essential for you to have confidence that you have mastered the material and for me to determine that you are meeting all course requirements.

At all times it is expected you will welcome and respond professionally to assessment feedback, that you will treat your fellow students and me with respect, and that you will contribute to the success of the class as best as you can.

Other Resources

Other resources are available at http://www.distance.ufl.edu/ getting-help for:

- Counseling and Wellness resources
    - http://www.counseling.ufl.edu/cwc/ 352-392-1575
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course, please contact your program director and/or student support coordinator at distancesuppport@jou.ufl.edu or visit http://www.distance.ufl.edu/student-complaints to submit a complaint.

Course Evaluation

Students in this class are participating in a new course evaluation system called GatorEvals. The new evaluation system is designed to be more informative to instructors so that teaching effectiveness is enhanced and to be more seamlessly linked to UF's Canvas e-learning management system. Students can complete their evaluations through the email they receive from GatorEvals, or in their Canvas course menu under GatorEvals.

University Policy on Academic Misconduct

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at

https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

The University of Florida Honor Code was voted on and passed by the Student Body in the fall 1995 semester. The Honor Code reads as follows:

Preamble: In adopting this Honor Code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the University community. Students who enroll at the University commit to holding themselves and their peers to the high standard of honor required by the Honor Code. Any individual who becomes aware of a violation of the Honor Code is bound by honor to take corrective action. A student-run Honor Court and faculty support are crucial to the success of the Honor Code. The quality of a University of Florida education is dependent upon the community acceptance and enforcement of the Honor Code.

The Honor Code: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

For more information about academic honesty, contact Student Judicial Affairs, P202 Peabody Hall, 352-392-1261.

Academic Honesty

All graduate students in the College of Journalism and Communications are expected to conduct themselves with the highest degree of integrity. It is the students' responsibility to ensure that they know and understand the requirements of every assignment. At a minimum, this includes avoiding the following:

Plagiarism: Plagiarism occurs when an individual presents the ideas or expressions of another as his or her own. Students must always credit others' ideas with accurate citations and must use quotation marks and citations when presenting the words of others. A thorough understanding of plagiarism is a precondition for admittance to graduate studies in the college.

Cheating: Cheating occurs when a student circumvents or ignores the rules that govern an academic assignment such as an exam or class paper. It can include using notes, in physical or electronic form, in an exam, submitting the work of another as one's own, or reusing a paper a student has composed for one class in another class. If a student is not sure about the rules that govern an assignment, it is the student's responsibility to ask for clarification from his instructor.

Misrepresenting Research Data: The integrity of data in mass communication research is a paramount issue for advancing knowledge and the credibility of our professions. For this reason any intentional misrepresentation of data, or misrepresentation of the conditions or circumstances of data collection, is considered a violation of academic integrity. Misrepresenting data is a clear violation of the rules and requirements of academic integrity and honesty.

Any violation of the above stated conditions is grounds for immediate dismissal from the program and will result in revocation of the degree if the degree previously has been awarded.

Students are expected to adhere to the University of Florida Code of Conduct

https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

If you have additional questions, please refer to the Online Graduate Program Student Handbook you received when you were admitted into the Program.

COURSE & ASSIGNMENT DETAILS

Weekly Lectures

The Instructor will post at least one lecture video to Canvas for all 16 weeks and two additional videos – one is an introduction to the course and course topic and the other will cover the syllabus. These videos will vary in length depending on the material. It is your responsibility to watch each of the videos.

There will also be at least two live lectures, currently scheduled to occur before the two quizzes. These give you the chance to ask questions directly to the instructor. If you can't take part in these lectures there will be the opportunity to catch up by watching recordings. The aim for this interaction is to provide you with more skills and ideas for your assignments and story writing. Additional live lectures may be included.

Although it is possible to watch the pre-recorded video lectures at any time and at any pace, keeping up with the videos week to week according to the schedule will be easier as many build off the other along with the weekly readings.

Assignment Details

Homework assignments

Homework assignments can consist of any combination of the four following components:

1. Short answer questions based on the reading and lectures.
2. A short presentation (<10 minutes, recorded on Zoom or any other platform I can access) to present the statistical component of a published research paper (more detailed instructions to follow).

3. Short answer questions based on the statistical component of a published research paper.
4. Performing a statistical test in SPSS and answering questions pertaining to the results.

Short answer questions and SPSS outputs will be graded by points/percentages based on number of correct questions.

Your presentation for the Module 8 Homework will be evaluated using the following rubric:

0	No presentation is made or presentation includes plagiarized content.
1-2	Presentation fails to meet the length requirement. The presentation does not address the required content elements of the assignment or does not do so completely. Project content is not very thoughtful or well-developed. Presentation is not well organized. There are many spelling or grammar errors, or outside content is not appropriately cited.
3-4	Presentation fails to meet the length requirement but does address the required content elements of the assignment. The presentation content, however, is not thorough, well presented or well thought out. Content is not well organized. There may be several grammatical or spelling errors or outside content is not appropriately cited.
5-6	Presentation meets the length requirement and addresses required content elements, but could be elaborated on or explicated more completely or thoughtfully. The content may be disorganized or not well presented. There may be grammatical or spelling errors as well, or outside content is not appropriately cited.
7-8	Presentation is thoughtful, relevant, and well written, addressing the required content elements of the assignment with adequate substance and depth. Outside content is cited appropriately (Ex. "According to Jones (2017)..."). Presentation either does not meet length requirement or has spelling/grammatical errors.
9-10	Presentation is thoughtful, relevant, and well written, addressing the required content elements of the assignment with appropriate substance and depth. Outside content is cited appropriately (Ex. "According to Jones (2017)..."). Presentation meets length requirements and is without grammatical or spelling errors.

Quizzes

There will be two quizzes. To access the quizzes, you will go to Quizzes in Canvas. Once started, you will have 2.5 hours to complete the quiz. Both quizzes will be available for at least a 4-day period so that you can choose the optimal time to take the quiz. Both quizzes are open-note, open-lecture, and open-book. Quizzes will be graded by points/percentages based on number of correct questions.

Final Presentation

Using the data in either of two SPSS sample datasets (telco or car_sales), you must formulate two of your own research questions and do two different statistical analyses from among the following tests:

- Factorial ANOVA
- Repeated measures ANOVA
- ANCOVA
- Factorial ANCOVA
- MANOVA
- Factorial MANOVA
- MANCOVA
- Factorial MANCOVA
- Multiple linear regression
- Exploratory factor analysis (not with the telco dataset)
- Multiple logistic regression

You will record a <20 minute presentation (and turn in a Powerpoint presentation in Assignments in Canvas) that includes the following:

1. Brief background of your analysis
2. Two appropriate research questions for main effects; if doing a factorial analysis, list the research question(s) for interactions as well.
3. Confirmation that the tests that you chose was appropriate given the number and levels of measurement for independent variables, dependent variables, and covariates, as well as the purpose of the tests (group differences, underlying structure, predictive model, etc.)
4. Confirmation that the assumptions for doing the particular statistical tests are met
5. The results (either relevant SPSS output tables or figures and tables created by you)
6. Your interpretation of the results; this should include answers to all of the research questions from part 2).

At any time prior to Friday May 1, you can arrange to meet with me (or email me) to ensure that you are using the appropriate statistical test for your research questions.

You are free to record your presentation on any platform that you desire, as long as I can view it. Your presentation should include video as well as audio, and is intended for a professional audience.

Your presentation will be evaluated using the following rubric:

0	No presentation is made or presentation includes plagiarized content.
1-2	Presentation fails to meet the length requirement. The presentation does not address the required content elements of the assignment or does not do so completely. Project content is not very thoughtful or well-developed. Presentation is not well organized. There are many spelling or grammar errors, or outside content is not appropriately cited.
3-4	Presentation fails to meet the length requirement but does address the required content elements of the assignment. The presentation content, however, is not thorough, well presented or well thought out. Content is not well organized. There may be several grammatical or spelling errors or outside content is not appropriately cited.

5-6	Presentation meets the length requirement and addresses required content elements, but could be elaborated on or explicated more completely, thoughtfully, or accurately. The content may be disorganized or not well presented. There may be grammatical or spelling errors as well, or outside content is not appropriately cited.
7-8	Presentation is thoughtful, relevant, and well written, addressing the required content elements of the assignment with adequate substance, depth and accuracy (including choice of statistical test and interpretation of results). Outside content is cited appropriately (Ex. "According to Jones (2017)..."). Presentation either does not meet length requirement or has spelling/grammatical errors.
9-10	Presentation is thoughtful, relevant, and well written, addressing the required content elements of the assignment with appropriate substance, depth, and accuracy (including choice of statistical test and interpretation of results). Outside content is cited appropriately (Ex. "According to Jones (2017)..."). Presentation meets length requirements and is without grammatical or spelling errors.

COURSE SCHEDULE

WEEKLY MODULE DATES

Week 1 January 7 - January 13
Week 2 January 14 - January 20
Week 3 January 21 - January 27
Week 4 January 28 - February 3
Week 5 February 4 - February 10
Week 6 February 11 - February 17
Week 7 February 18 - February 24
Week 8 February 25 - March 3
SPRING BREAK - March 4 - March 10
Week 9 March 11 - March 17
Week 10 March 18 - March 24
Week 11 March 25 - March 31
Week 12 April 1 - April 7
Week 13 April 8 - April 14
Week 14 April 15 - April 21
Week 15 April 22 - April 28
Week 16 April 29 - May 3

Course Introduction & Syllabus
- Course introduction to be recorded
- Syllabus introduction to be recorded

COURSE SCHEDULE

Week 1 – Basic Statistical Concepts part 1
Learning Objectives
- Students will become familiar with statistical concepts including, but not limited to:
    o Sampling
    o Types of variables
    o Visualizing data
    o Descriptive statistics
    o Measures of central tendency

- Week 1 Highlights video
- Sampling video

- Online Stat Book (Chapter: sections)

    I:1-9, 11-12
    II:1-12
    III:1-4, 8, 11-13

- No assignments are due this week

Week 2 – Basic Statistical Concepts part 2

- Students will become familiar with statistical concepts including, but not limited to:
    - Correlation
    - Correlation (ordinal variables)
    - Probability
    - Reliability & validity
    - Research design
    - Normal distribution

- Week 2 Highlights video

- Online Stat Book (Chapter: sections)

    IV:1-3, 5
    V:1-3
    VI:1-7
    VII:1-4, 6

- Module 2 Homework

Week 3 – Basic Statistical Concepts part 3

- Students will become familiar with statistical concepts including, but not limited to:
    - Sampling distributions
    - Central limit theorem
    - Standard error of the mean
    - Confidence intervals / estimation
    - Hypothesis testing
    - Type I error vs. Type II error vs. Power
    - P-values

- Week 3 Highlights video

- Online Stat Book (Chapter: sections)

    IX:1-2, 6-7
    X:1-4, 6-9
    XI:1-10
    XIII:1-3, 6

- No assignments are due this week

Week 4 – T-tests and Chi-squared tests

Learning Objectives
- Students will become familiar with the following:
    - T-tests
    - Paired t-tests
    - Contingency tables
    - Chi-square test
    - Fisher's exact test

Watch:
- Week 4 Highlights video

Required Readings:
- Online Stat Book (Chapter: sections)

    XII:1-2, 4, 6-8, 10-11
    XVII:1-3, 5

Assignments
- Module 4 Homework

Week 5 – Linear regression & introduction to multivariate statistics

Learning Objectives
- Students will become familiar with the following:
    - Simple linear regression
    - Determining appropriate multivariate statistical tests

Watch:
- Week 5 Highlights video

Required Readings:
- Online Stat Book (Chapter: sections)

    XIV:1-2, 4-8

- Mertler, C. & Vannatta Reinhart, R. *Advanced and multivariate statistical methods*

Chapters 1&2

Assignments
- Quiz #1 is available from Saturday Feb. 9 (9AM) to Wednesday Feb. 13 (11:59PM). It will cover material up through linear regression (only material covered in the Online Stat Book, nothing from the Multivariate book).

Week 6 – ANOVA

Learning Objectives
- Students will become familiar with the following:
  - ANOVA
  - Pairwise comparisons
  - Repeated measures ANOVA
  - Factorial ANOVA

Watch:
- Week 6 Highlights video

Required Readings:
- Online Stat Book (Chapter: sections)

  XV:1-3, 6, 8

- Mertler, C. & Vannatta Reinhart, R. *Advanced and multivariate statistical methods*

  Chapter 4

Assignments
- Module 6 Homework
- Quiz #1 is available from Saturday Feb. 9 (9AM) to Wednesday Feb. 13 (11:59PM). It will cover material up through linear regression (only material covered in the Online Stat Book, nothing from the Multivariate book).

Week 7 – ANCOVA

Learning Objectives
- Students will become familiar with the following:
  - ANCOVA
  - Factorial ANCOVA

Watch:
- Week 7 Highlights video

Required Readings:
- Mertler, C. & Vannatta Reinhart, R. *Advanced and multivariate statistical methods*

  Chapter 5

- No assignments are due this week

Week 8 – MANOVA

Learning Objectives

- Students will become familiar with the following:
  - MANOVA
  - Factorial MANOVA

Watch:

- Week 8 Highlights video

Required Readings:

- Mertler, C. & Vannatta Reinhart, R. *Advanced and multivariate statistical methods*

  Chapter 6, Part 1 - MANOVA

Assignments

- Module 8 Homework

Week 9 – MANCOVA

Learning Objectives

- Students will become familiar with the following:
  - MANCOVA
  - Factorial MANCOVA

Watch:

- Week 9 Highlights video

Required Readings:

- Mertler, C. & Vannatta Reinhart, R. *Advanced and multivariate statistical methods*

  Chapter 6, Part 2 - MANCOVA

Assignments

- No assignments are due this week. However, now that you are somewhat familiar with SPSS and several multivariate statistical tests, you should probably start thinking about the Final Presentation (due at the end of Week 16, May 3). Review the two SPSS datasets (telco and car_sales) and start thinking about what kind of analyses you would like to do.

Week 10 – Multiple linear regression

Learning Objectives

- Students will become familiar with the following:
  - Multiple linear regression
  - Multiple R & R^2
  - Standardized reg. coefficients
  - Model building

- Week 10 Highlights video

Required Readings:
- Online Stat Book (Chapter: sections)

  XIV:9

- Mertler, C. & Vannatta Reinhart, R. *Advanced and multivariate statistical methods*

  Chapter 7

Assignments
- Module 10 Homework

Week 11 – Path analysis

Learning Objectives
- Students will become familiar with the following:
  - Path analysis
  - Interpreting outputs from AMOS

Watch:
- Week 11 Highlights video

Required Readings:
- Mertler, C. & Vannatta Reinhart, R. *Advanced and multivariate statistical methods*

  Chapter 8

Assignments
- No assignments are due this week. However, if you have not started on your Final Presentation, you should do so.

- Quiz #2 is available from Wednesday March 27 (9AM) to Sunday March 31 (11:59PM). It will cover material up through multiple linear regression (material covered up to and including Module 10). You should read the following research study before you take the Quiz and have it open during the quiz:

Age Differences in Nonhedonic Entertainment Experiences

Matthias Hofer, Mathias Allemand, Mike Martin. *Journal of Communication*, Volume 64, Issue 1, 1 February 2014, Pages 61–81

https://academic-oup-com.lp.hscl.ufl.edu/joc/article/64/1/61/4085978#104195554

Week 12 – Introduction to Structural Equation Modeling (SEM)

Learning Objectives
- Students will become familiar with the following:

- o The basics of SEM
- o Interpreting outputs from AMOS

- Week 12 Highlights video

Required Readings:
- Byrne, BM. *Structural equation modeling with AMOS: Basic concepts, applications, and programming, third edition*

    Chapter 1

Assignments
- Module 12 Homework

Week 13 – Exploratory factor analysis

Learning Objectives
- Students will become familiar with the following:
    - o Exploratory factor analysis
    - o Principal components analysis
    - o Factor rotation
    - o Interpreting outputs from AMOS

Watch:
- Week 13 Highlights video

Required Readings:
- Mertler, C. & Vannatta Reinhart, R. *Advanced and multivariate statistical methods*

    Chapter 9

Assignments
- No assignments are due this week

Week 14 – Confirmatory factor analysis

Learning Objectives
- Students will become familiar with the following:
    - o The basics of confirmatory factor analysis
    - o Interpreting outputs from AMOS

Watch:
- Week 14 Highlights video

Required Readings:
- Byrne, BM. *Structural equation modeling with AMOS: Basic concepts, applications, and programming, third edition*

Chapter 3 p.69-90 & 102-108 (91-101 optional; you should have a general idea of what goodness-of-fit statistics are used for, but you don't need to know all of the details on each one as is presented in p. 91-101).

Assignments
- Module 14 Homework

Week 15 – Scale development
Learning Objectives
- Students will become familiar with the following:
  - The process of how a scale is developed
  - Scale validity
  - Scale reliability

Watch:
- Week 15 Highlights video

Required Readings:
- Hinkin, T. R., Tracey, J. B., & Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments [Electronic version]. Retrieved 12/7/18 from Cornell University, School of Hotel Administration site: http://scholarship.sha.cornell.edu/articles/613

  Pdf available in Canvas

Assignments
- No assignments are due this week

Week 16 – Logistic regression
Learning Objectives
- Students will become familiar with the following:
  - Logistic regression
  - Logit function

Watch:
- Week 16 Highlights video

Required Readings:
- Mertler, C. & Vannatta Reinhart, R. *Advanced and multivariate statistical methods*

  Chapter 11

Assignments
- Final presentation

ASSIGNMENTS

Assignment	Due Date	% of Grade or # of Points
Module 2 Homework	Jan. 20, 2019 11:59PM	10
Module 4 Homework	Feb. 3, 2019 11:59PM	10
Quiz #1	Available Feb. 9 (9AM) to Feb. 13 (11:59PM)	10
Module 6 Homework	Feb. 17, 2019 11:59PM	10
Module 8 Homework	March 3, 2019 11:59PM	10
Module 10 Homework	March 24, 2019 11:59PM	10
Quiz #2	Available March 27 (9AM) to March 31 (11:59PM)	10
Module 12 Homework	April 7, 2019 11:59PM	10
Module 14 Homework	April 21, 2019 11:59PM	10
Final Presentation	May 3, 2019 11:59PM	10

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