



**COUN 697: Advanced Multivariate Statistics for Counseling**  
Course Syllabus: [Summer, 2020, 10 weeks, Online]

**INSTRUCTOR INFORMATION**

**Instructor:** Michael K. Schmit  
**Office Location:** Online via Zoom  
**Office Hours:** By Appointment Only  
**University Email Address:** Michael.Schmit@tamuc.edu  
**Preferred Method of Communication:** email  
**Communication Response Time:** 24-48 hours

**Graduate Co-Instructor (if available):** N/A  
**Graduate Co-Instructor University Email Address (if available):** N/A

**COURSE INFORMATION**

**Materials – Textbooks, Readings, Supplementary Readings**

**Required Textbook**

Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics* (5<sup>th</sup> ed.). Thousand Oaks, CA: Sage Publications.

Hancock, G. R., Stapleton, L. M., & Mueller, R. O. (2019). *The reviewer's guide to quantitative methods in the social sciences* (2nd ed.). Routledge.

American Psychological Association. (2019). *Publication manual of the American Psychological Association* (7th ed.). Author.

*Note.* This course will use D2L as its Learning Management System

\*\*Other readings as assigned

**Required Supplemental Reading**

Giordano, A. L., & Cecil, A. L. (2014). Religious coping, spirituality, and hypersexual behavior among college students. *Journal of Treatment & Prevention*, 21(3), 225-239.  
<https://doi.org/10.1080/10720162.2014.936542> (Hierarchical Multiple Regression)

Giordano, A. L., Prosek, E. A., Bain, C., Malacara, A., Turner, J., Schunemann, K., & Schmit, M. K. (2020). Withdrawal symptoms among American collegiate Internet gamers. *Journal of Mental Health Counseling*, 42(1), 63-77.

<https://doi.org/10.17744/mehc.42.1.05> (MANOVA with discriminate analysis post hoc)

Schmit, E. L., & Schmit, M. K., Reilly, R., & Fish, M. (2019). Gender differences of client evaluation of the working alliance in an acute care, inpatient treatment setting. *Journal of Professional Counseling: Practice, Theory & Research*, 46(1-2), 64-76.  
<https://doi.org/10.1080/15566382.2019.1673650> (MANOVA with discriminate analysis post hoc)

Schmit, E. L., Schmit, M. K., & Lenz, A. S. (2016). Meta-analysis of solution-focused brief therapy for treating symptoms of internalizing disorders. *Counseling Outcome Research and Evaluation*, 7(1), 21-39. <https://doi.org/10.1177/2150137815623836> (Meta-Analysis)

Schmit, M. K., Oller, M. L., Tapia, J. L. Jr., & Schmit, E. L. (2020). A holistic client functioning profile comparison of persons with serious mental illness. *Journal of Counseling & Development*, 98(1), 3-16. <https://doi.org/10.1002/jcad.12295> (Covariate Profile Analysis)

Schmit, M. K., Watson, J. C., & Fernandez, M. A. (2018). Examining the effectiveness of integrated behavioral and primary healthcare treatment. *Journal of Counseling & Development*, 96(1), 3-14. <https://doi.org/10.1002/jcad.12173> (Profile Analysis)

Schmit, M. K., Watson, J. C., & Schmit, E. L. (2018). Using profile analysis in counseling outcome research. *Counseling Outcome Research and Evaluation*, 10(2), 94-105.  
<https://doi.org/10.1080/21501378.2018.1443006> (How to Conduct Profile Analysis)

Watson, J. C., Lenz, A. S., Schmit, M. K., & Schmit, E. L. (2016). Calculating and reporting estimates of effect size in counseling outcome research. *Counseling Outcome Research and Evaluation*, 7(2), 111-123. <https://doi.org/10.1177/2150137816660584> (Effect Size in Outcome Research)

### Required Computer Software

The Statistical Package for the Social Sciences (SPSS; Version 24 or higher) computer software—PREMIUM GradPack.

Note: SPSS Statistical software (version 24 or higher is recommended). About the cheapest place you can purchase and download a copy is from <http://www.hearne.software/Home>. Other sources include <http://www.onthehub.com/spss/> and <http://studentdiscounts.com> (can be installed on two computers). Be sure that you choose the **PREMIUM GradPack**. If you do not buy the Premium version, you will not be able to complete the assignments for this class. You can get a 6 month or 12 month license. The software is also available on computers located in the student labs at the Metroplex and various labs on the Commerce campus.

## **COURSE DESCRIPTION**

### **Catalogue Description of the Course**

#### *COUN 640. Advanced Multivariate Statistics for Counseling*

An advanced doctoral-level statistics course, emphasizing applications to both counseling and other human services. Includes a thorough examination of multivariate inferential statistics, along with applying both univariate and multivariate post hoc procedures. Usage of a computer-based statistical software tool (Statistical Package for the Social Sciences) will be emphasized. Meets requirements for a Level V research tool course. Prerequisite: Level I, Level II, and Level III research tools or equivalent or permission by the course instructor.

### **General Course Information**

Advanced Multivariate Statistics for Counseling is intended to provide graduate students with advanced training in multivariate statistical techniques and is approved by the Graduate School as a Level V research tool. The emphasis in this course will be upon understanding advanced statistical concepts and applying and interpreting tests of statistical inference. Content will include but not be limited to: multivariate model assumptions and multivariate inferential statistical procedures: MANOVA with univariate post hoc, MANOVA with multivariate post hoc, MANCOVA, profile analysis, doubly multivariate analysis of variance, hierarchical multiple regression, and meta-analysis. Computer software, the Statistical Package for the Social Sciences (SPSS; version 24 or higher), will be employed to assist in the analysis of data for this course. Students should have access to a computer, SPSS software, and the Internet. This access is available at the Metroplex Center and on the Commerce campus in certain computer labs.

### **Doctoral Student Learning Outcomes**

*Note.* This course is absent of CACREP doctoral student learning outcomes, but has been approved by the graduate school as a level 5 research tool.

### **COURSE OBJECTIVES include, but are not limited to, the following:**

1. design and implementation of quantitative research methodologies and corresponding multivariate statistical analyses
2. appropriate application and interpretation of multivariate inferential statistical tests
3. assumptions underlying multivariate inferential statistical tests
4. accurately developing APA style write-ups describing methodology and results from various multivariate statistical analyses
5. application of statistical results to counseling and other human services

### **Content Areas include, but are not limited to, the following:**

- I. Multivariate model assumptions
  - A. Multivariate normality
  - B. Homogeneity of variance and covariance
  - C. Linearity

- D. Multicollinearity and singularity
  - E. Univariate and multivariate outliers
- II. Statistical analyses: SPSS software application and interpretation
- A. MANOVA
  - B. MANCOVA
  - C. Profile analysis
  - D. Doubly multivariate analysis of variance
  - E. Hierarchical multiple regression
  - F. Meta-Analysis
- III. Presentation of multivariate results
- A. APA 7<sup>th</sup> edition results section write-ups suitable for publication
  - B. Visual and statistical presentation of findings

## **COURSE REQUIREMENTS**

### **Minimal Technical Skills Needed**

In this class, you will utilize the Learning Management System (LMS) entitled D2L for portions of instructional and learning methods and submitting assignments. You will need to utilize other technologies such as Microsoft Word, PowerPoint, SPSS, and so forth. If you have issues with this system, it is your responsibility to contact the help desk immediately.

### **Instructional Methods**

This course consists of lecture and didactic learning methods, small group discussions, and in-class assignments, coupled with experiential learning and practical application. When we are not meeting face to face, you will be expected to participate and complete all online tasks via D2L. In addition to this, small lecture, discussion, activities, and workshops may be utilized during this course.

### **Student Responsibilities or Tips for Success in the Course**

As a student in this course, you are responsible for the active learning process. Expectations of this course include the following:

1. You are expected to display professionalism at all times. Be respectful of your professor and peers. Be open to feedback, as you will receive this throughout the program.
2. Prepare for classes. Complete any and all readings prior to class time.
3. Complete all assignments by the deadline.
4. Adhere to the university student code of conduct.
5. Participate. During face-to-face classes, you are expected to actively participate in all activities and discussion. In the online format, you are expected to participate in all online discussions/activities. This is crucial to your learning.
6. All writing assignments must be done according to APA 7<sup>th</sup> edition.
7. Regularly check your University email. My suggestion is to check this at least once a day as your instructors and others from the department and University may contact you.

8. Begin your readings ASAP. Sometimes it may take more than one attempt to digest the material.
9. Deadlines are the last possible moment something is due—not the first moment to start. Work ahead. I realize this may not always be possible; however, when you can, do so.
10. Be open to the process. This degree takes time, work, effort, and growth.

### **Assignments/Assessments**

1. **Two Application Assignments (100 points total; 50 points each homework assignment):** Two application assignments will be distributed in D2L throughout the semester (weeks 5 and 9). The purpose of an application assignment is to evaluate your knowledge and skill regarding research design, research questions, statistical concepts, inferential statistics, effect size interpretations, and so forth, and develop your interpretation and application skills to counseling. Application assignments may require you to critically evaluate a research scenario; identifying various statistical procedures; developing your own research questions and scenario as it related to the particular design; complete tasks in SPSS; and provide practical implications for counseling. Both application assignments will be distributed two weeks prior to its due date. Feel free to use your classmates as a resource, but your work is your own and must be submitted independently in D2L. Submission of application assignments should be completed as a Word document following APA 7th edition guidelines (unless notified otherwise). The goal of application assignments is to demonstrate your knowledge and skill of various advanced statistical procedures and concepts discussed throughout this course.

*Note.* You may be asked to develop a result section write-up suitable for publication and/or include a PDF version of SPSS output as part of your response to application assignment questions.

**In-class Presentation (100 points):** Along with a partner, you will choose a statistical analysis covered in class (e.g., MANOVA, MANCOVA, profile analysis, doubly multivariate analysis of variance, hierarchical multiple regression) and apply it to a research project you create. The project must include (a) detailed overview of the chosen statistic; (b) research scenario, research design, research question, and instrumentation; (c) dataset fitting the constructed scenario; (d) demonstration of using the statistical procedure in SPSS, to include appropriate model assumptions; and (e) explanation of results and exploration of practical implications.

Please note that students will have to develop their own dataset and instrument/measure [dependent variable(s)] for this project. More information will be provided throughout the semester. The goal of this presentation is to demonstrate your knowledge and skill in research methods and statistics, as well as test your ability to conceptualize how to apply your research findings to counselor practice. See rubric below.

#### **In-Class Presentation Rubric**

	1 – Does not meet Expectation (0-15.9 points)	2 – Meets Expectation (16-17.9 points)	3 – Exceeds Expectation (18-20 points)
Detail overview of chosen statistic (20 points)	Description of statistic was insufficient or incorrect, lacking depth, detail, and accuracy (description provided did not reach beyond information from textbook); no examples were provided to evidence comprehension; no evidence of knowledge about chosen statistic was communicated/evidenced throughout the presentation; not representative of doctoral level work	Description of statistic sufficient with only containing one or two incorrect elements (some of the description provided reached beyond information from textbook); description had depth and detail but one or two elements missing/incorrect; evidence of knowledge about statistic was communicated/evidenced throughout the presentation; representative of doctoral level work	Exceptional description of statistic with no missing elements (description provided reached beyond information from textbook); examples provided were accurate and communicated comprehension; information had depth and detail; clear evidence of knowledge about statistic was communicated/demonstrated/evidenced throughout the presentation; representative of doctoral level work
Research scenario, research design, research question, instrumentation (20 points)	Research scenario, research design, research question, and/or instrumentation were not addressed/identified, poorly addressed, or lack depth and detail; no rationale provided connecting scenario, research design, and/or research questions to one another; no evidence of comprehending particular research designs with constructing types of research questions; not representative of doctoral level work	Research scenario, research design, research question, and instrumentation were addressed/identified and had depth and detail but missing one or two key elements; rationale provided connecting scenario, research design, and/or research questions to one another but missing one or two key elements; some evidence of comprehending particular research designs with constructing types of research questions; representative of doctoral level work	Research scenario, research design, research question, and instrumentation were addressed/identified with attention to detail and depth with no missing key elements; clear rationale provided connecting scenario, research design, and/or research questions to one another with no missing elements; clear evidence of comprehending particular research designs with constructing types of research questions; representative of doctoral level work





Dataset fitting the constructed scenario (20 points)	Dataset was inappropriately designed/missing information or misaligns with the scenario, research design, and/or research question; dataset omits considerations of sample size, statistical power, and effect size; not representative of doctoral level work	Dataset was appropriately designed but missing one or two key elements; dataset aligns with the scenario, research design, and research question but missing one to two key elements; dataset attends to considerations of sample size, statistical power, and effect size; not representative of doctoral level work	Dataset was detailed, well-designed with no missing detail; dataset clearly aligned with the scenario, research design, and research question with no missing detail; dataset clearly attended to considerations of sample size, statistical power, and effect size; not representative of doctoral level work
Demonstration of using the statistical procedure in SPSS, to include appropriate model assumptions (20 points)	Demonstration was poorly executed, misleading, or incorrect; demonstration was not relevant to the chosen statistic, design, and research question; demonstration lacked depth and detail; no evidence of knowledge about the statistic was communicated/evidenced during SPSS demonstration; not representative of doctoral level work	Demonstration was properly executed but missing one or two key elements; demonstration was relevant to the chosen statistic, design, and research question but missing one or two key elements; demonstration had depth and detail but missing one or two key elements; evidence of knowledge about the statistic was communicated/evidenced during demonstration; representative of doctoral level work	Demonstration was properly executed with great precision and accuracy with no missing detail; demonstration was highly relevant to the chosen statistic, design, and research question; demonstration had exceptional depth and detail with no missing detail; clear evidence of knowledge statistic was communicated/evidenced during demonstration; representative of doctoral level work
	1 – Does not meet Expectation (0-7.9 points)	2 – Meets Expectation (8-9.9 points)	3 – Exceeds Expectation (9-10 points)
Explanation of results and exploration of practical implications (10 points)	No communication of results or results were irrelevant/incorrect with chosen statistic; absence of a practical discussion of findings or practical discussion was highly	Communication of results was evident and corresponded to chosen statistic but missing one or two key elements; practical discussion of findings was evident but missing one or two	Communication of results was clearly evident and corresponded to chosen statistic with no missing detail; practical discussion of findings was clearly evident with no missing detail;



	underdeveloped; no practical applications to counseling or human service shared (implications); not representative of doctoral level work	key elements; practical applications to counseling or human service (implications) was evident but missing one or two key elements; representative of doctoral level work	practical applications to counseling or human service (implications) was clearly evident with no missing detail; representative of doctoral level work
Presentation and Presenter Qualities (10 points)	Approval of topic not confirmed; presentation occurred outside the allotted timeframe; information appeared disorganized/ disjointed; presenters appeared unrehearsed and presentation was unpolished; presentation quality was inappropriate for doctoral level work; presenters were not invested or euthanistic about the topic or presentation (no evidence during presentation); less than 3 scholarly sources were utilized	Approval of topic was confirmed; presentation occurred within the allotted timeframe. Information appeared fairly organized, but missed one or two key elements; presenters appeared rehearsed at times, but missed one or two key elements; presentation quality was acceptable for doctoral level work; presenters seemed invested and euthanistic about the topic and throughout the presentation about 75% of the time; 5-8 scholarly sources were utilized	Approval of topic was confirmed; presentation occurred within the allotted timeframe; information was well-organized with no missing detail; presenters appeared rehearsed; presentation material(s) were aesthetically pleasing; presentation quality was appropriate for doctoral level work; presenters seemed invested and euthanistic about the topic and throughout the presentation about 90% of the time; 9 or more scholarly sources were utilized

## GRADING

Final grades in this course will be based on the following scale:

90%-100%	A
80%-89%	B
70%-79%	C
60%-69%	D
< 59%	F

Assignment/Assessment	Point Value
Application Assignment (2 total)	100
In-class Presentation	100



Total 200

Total points possible = 200. Your Final Grade is determined adding the point values earned from each assignment and then dividing by 200. The resulting value is multiplied by 100 to yield a percentage. For example:  $(170 \text{ [points earned]}/200) \times 100 = 87.5\%$

Assignments are due on the day noted in the syllabus. Unless noted otherwise, all assignments are due at the beginning of the class period. Late assignments will have 10% deduction per day late from the final score, up to a maximum of three days. After three (3) days past the initial due date, the assignment will no longer be accepted.

## TECHNOLOGY REQUIREMENTS

### Browser support

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

### Desktop Support

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft® Edge	Latest	N/A

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft® Internet Explorer®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

### Tablet and Mobile Support

Device	Operating System	Browser	Supported Browser Version(s)
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	The current major version of iOS (the latest minor or <b>point</b> release of that major version) and the previous major version of iOS (the latest minor or <b>point</b> release of that major version). For example, as of June 7, 2017, D2L supports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version.  Chrome: Latest version for the iOS browser.
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution

- **For YouSeeU Sync Meeting sessions 8 Mbps is required.** Additional system requirements found here: <https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>
- You must have a:
  - Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones.
  - \*For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: [JAVA web site](http://www.java.com/en/download/manual.jsp) <http://www.java.com/en/download/manual.jsp>
- Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed.

JavaScript is enabled.

Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - [Adobe Reader](https://get.adobe.com/reader/) <https://get.adobe.com/reader/>
  - [Adobe Flash Player \(version 17 or later\)](https://get.adobe.com/flashplayer/) <https://get.adobe.com/flashplayer/>
  - [Adobe Shockwave Player](https://get.adobe.com/shockwave/) <https://get.adobe.com/shockwave/>
  - [Apple Quick Time](http://www.apple.com/quicktime/download/) <http://www.apple.com/quicktime/download/>
- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

## ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu).

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

## COMMUNICATION AND SUPPORT

### Brightspace Support

#### Need Help?

#### Student Support

If you have any questions or are having difficulties with the course material, please contact your Instructor.

### Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778 or click on the **Live Chat** or click on the words “click here” to submit an issue via email.



### System Maintenance

Please note that on the 4th Sunday of each month there will be System Maintenance which means the system will not be available 12 pm-6 am CST.

### Interaction with Instructor Statement

#### *[Example]*

Communication with your professors is key to your professional growth. I am here to support and guide you along your academic journey. With that being said, I cannot help you if you do not communicate with me. Please make an appointment if you have any concerns or questions. Because I teach in different locations, email is the best way to reach me. I will attempt to answer all emails within 24 hours, Monday-Friday, but at times will need up to 72 hours to do so. When emailing, please use your university email and address me with courtesy and respect.

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

### Course Specific Procedures/Policies

Written assignments are due on the day noted in the syllabus. All papers are due at the beginning of the class period. Late papers will have 10% deduction per day late from the final score.



## **Syllabus Change Policy**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

## **University Specific Procedures**

### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette

<http://www.albion.com/netiquette/corerules.html>

### **TAMUC Attendance**

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

### **Academic Integrity**

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

Graduate Student Academic Dishonesty 13.99.99.R0.10

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>



## **ADA Statement**

### **Students with Disabilities**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

### **Office of Student Disability Resources and Services**

Texas A&M University-Commerce  
Gee Library- Room 162  
Phone (903) 886-5150 or (903) 886-5835  
Fax (903) 468-8148  
Email: [studentdisabilityservices@tamuc.edu](mailto:studentdisabilityservices@tamuc.edu)

Website: [Office of Student Disability Resources and Services](http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)  
<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

### **Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

### **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

### COURSE OUTLINE / CALENDAR

Date	Topic	Readings	Assignments
Week 1 (6/1-6/7)	-Introductions, Course Overview and Expectations -Review of basic statistical concepts (e.g., NHST, model assumptions, effect size, confidence intervals, SPSS environmental, graphs, etc.)  <b>*Class meeting via Zoom on 6/2/2020 @ 8:15pm</b>	-Field (2018) Chapters 1: Introduction to statistics (Basic Concepts) -Field (2018) Chapters 2: The SPINE of statistics -Field (2018) Chapter 3: The phoenix of statistics -Field (2018) Chapter 4: IBM SPSS Statistics environment -Field (2018) Chapter 5: Exploring data with graphs -Field (2018) Chapter 6: The beast of bias -Watson et al. (2016) Calculating and reporting estimates of effect size in counseling outcome research	
Week 2 (6/8-6/14)	-MANOVA, with univariate and multivariate post-hoc test	-Field (2018) Chapters 17: MANOVA -Giordano et al. (2020) Withdrawal symptoms among American ... (MANOVA with discriminate analysis post hoc) -Schmit et al. (2019) Gender differences of client ... (MANOVA with discriminate analysis post hoc example)	
Week 3 (6/15-6/21)	-MANCOVA, with univariate post hoc tests  <b>*Class meeting via Zoom on 6/16/2020 @ 8:15pm</b>	-Field (2018) Chapters 13: Comparing means adjusted for other predictors (analysis of covariance) -Field (2018) Chapters 17: MANOVA -Schmit et al (2020) A holistic client functioning profile comparison of persons with serious mental illness (Covariate Analysis example)	
Week 4 (6/22-6/28)	-Introduction to Profile Analysis	-Schmit et al. (2018) Using profile analysis in counseling outcome research (How to Article)	





Week 5 (6/29-7/5)	-Profile Analysis Cont.  <b>*Class meeting via Zoom on 6/30/2020 @ 8:15pm</b>	-Schmit et al. (2018) Examining the effectiveness of integrated behavioral and primary healthcare treatment (Profile Analysis) -Schmit et al (2020) A holistic client functioning profile comparison of persons with serious mental illness (Covariate Analysis example)	Application Assignment 1 due (submit in D2L)
Week 6 (7/6-7/12)	-Introduction to Doubly Multivariate Analysis of Variance	-core.ecu.edu/psyc/wuenschk/MV/RM-ANOVA/DMRM.doc - <a href="https://www.ibm.com/support/knowledgecenter/SSLVMB_24.0.0/spss/tutorials/glmer_diet_intro.html">https://www.ibm.com/support/knowledgecenter/SSLVMB_24.0.0/spss/tutorials/glmer_diet_intro.html</a> - <a href="http://claudiaflowers.net/rsch8140/DoublyExample.htm">http://claudiaflowers.net/rsch8140/DoublyExample.htm</a>	
Week 7 (7/13-7/19)	-Doubly Multivariate Analysis of Variance Continued  <b>*Class meeting via Zoom on 7/14/2020 @ 8:15pm</b>	-core.ecu.edu/psyc/wuenschk/MV/RM-ANOVA/DMRM.doc - <a href="https://www.ibm.com/support/knowledgecenter/SSLVMB_24.0.0/spss/tutorials/glmer_diet_intro.html">https://www.ibm.com/support/knowledgecenter/SSLVMB_24.0.0/spss/tutorials/glmer_diet_intro.html</a> - <a href="http://claudiaflowers.net/rsch8140/DoublyExample.htm">http://claudiaflowers.net/rsch8140/DoublyExample.htm</a>	
Week 8 (7/20-7/26)	-Hierarchical Multiple Regression	-Field (2018) Chapters 9: Linear Model (Regression) -Giordano & Cecil (2014) Religious coping, spirituality, and hypersexual .... (Hierarchical Multiple Regression Analysis example)	
Week 9 (7/27-8/2)	-Meta-Analysis  <b>*Class meeting via Zoom on 7/28/2020 @ 8:15pm</b>	- <a href="https://www.meta-analysis.com/pages/why_do.php">https://www.meta-analysis.com/pages/why_do.php</a> - <a href="https://himmelfarb.gwu.edu/tutorials/studydesign101/metaanalyses.cfm">https://himmelfarb.gwu.edu/tutorials/studydesign101/metaanalyses.cfm</a> Schmit et al. (2016) Meta-analysis of solution-focused brief therapy for treating symptoms of internalizing disorders (Meta-Analysis example)	Application Assignment 2 due (submit in D2L)
Week 10 (8/3-8/6)	In-Class Presentations	In-Class Presentations	In-Class Presentations (submit link)

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