



## PSY 681.01W: Intermediate Statistics

COURSE SYLLABUS: Summer II 2022

### INSTRUCTOR INFORMATION

**Instructor:** Curt A. Carlson, Ph.D.

**University Email Address:** [curt.carlson@tamuc.edu](mailto:curt.carlson@tamuc.edu)

### COURSE INFORMATION

#### Materials – Textbooks, Readings, Supplementary Readings

**Textbook(s) Required:** *Discovering Statistics Using SPSS*, 5<sup>th</sup> edition, by Field

**Software Required:** IBM SPSS Statistics (version 21 or newer). Your textbook relies on version 21, but there is not a big difference across recent versions. A recent version should be available in Henderson 214 (Psychology department computer lab) as well as on library computers (and many academic libraries and computer labs have some version of SPSS). Keep in mind that many versions of SPSS are not backwards-compatible, so you must be very careful when saving/exporting your work. For data files, just save as the default file type, which should be accessible in any version of SPSS. However, for output files, the story is different. You must always export these files (e.g., to pdf) rather than simply saving them.

#### Course Description

This course, a Graduate School approved level III research tools course, is an intermediate level course that concentrates on statistical methods applicable to educational and psychological research procedures and interpretations.

Note: Students will be required to use computational software to assist in the analysis and interpretation of data.

One of our course objectives follows NASP Model 10 Domains of Practice:  
*2.9: Research and Program Evaluation. You will gain knowledge of research design, statistics, measurement, varied data collection and analysis techniques, and program evaluation sufficient for understanding research and interpreting data in applied settings.*

*The syllabus/schedule are subject to change.*

### **CACREP Standards (for Counseling students)**

<b>Doc Standard</b>	<b>Learning Activity or Assignment</b>	<b>Assessment</b>
2.C.5. Design, implementation, and analysis of quantitative and qualitative research.	Textbook chapters, SPSS assignments	Quizzes, exams, and assignments
2.C.6. Models and methods of assessment and use of data.	Textbook chapters, SPSS assignments	Quizzes, exams, and assignments
4.E.1. Understands univariate and multivariate research designs and data analysis methods.	Textbook chapters, SPSS assignments	Quizzes, exams, and assignments
4.E.3. Knows models and methods of instrument design.	Textbook chapters, SPSS assignments	Quizzes, exams, and assignments

### **Student Learning Outcomes**

1. You will learn about the normal distribution, hypothesis testing, t-tests, ANOVA, MCPs, ANCOVA, correlation, regression, multiple regression, how to deal with categorical data, and some information about non-parametric tests.
2. You will build upon your knowledge from Introductory Statistics, including your ability to use SPSS.

## **COURSE REQUIREMENTS**

### **Minimal Technical Skills Needed**

Ability to use SPSS, Microsoft Word, and Excel.

### **Instructional Methods**

This is an online course, which is not to be interpreted as self-paced. Rather, you are required to log on regularly in order to succeed. You may consume the material at a more rapid pace than set by the below schedule, but assignments and exams will still take place according to the schedule. The time and effort required for this course is equivalent for any graduate level statistics course that you might take face-to-face. A high level of both your time and effort will be necessary to succeed.

## **GRADING**

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

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

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## Assessments

### ASSIGNMENTS (30%):

There will be three assignments, each worth 10% of your grade. You may work with others in the class on these assignments, but quizzes and exams are to be taken individually.

### QUIZZES (40%):

There will be four quizzes, each worth 10% of your grade. These are meant to be taken closed-book, therefore time to take them is limited (i.e., you must study well for each, and will not have time to look answers up in the book and are not allowed to do so anyway). You must contact me **prior** to the scheduled quiz to re-schedule if you absolutely cannot take the quiz that particular day.

### EXAMS (30%):

There are two exams, each worth 15% of your grade. **Due to the nature of the material, these will be cumulative: On each exam, there will be questions relating to material covered on the previous exam(s).** The questions will require not only recognition of concepts and correct answers, but will be designed to test comprehension and application of concepts as well. Material for the exams will be drawn from the textbook and any online lectures. Each exam will be open to take via D2L during a particular week. There will be no make-up exams except as mandated by University policy for University-excused absences, religious holidays and major illnesses. You must contact me **prior** to the scheduled exam to re-schedule if you absolutely cannot take the exam that particular week. Each exam is to be taken closed-book, therefore time to take each is limited.

## 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.

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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
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

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Device	Operating System	Browser	Supported Browser Version(s)
			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
- 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,

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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

It is best to communicate with me via email ([curt.carlson@tamuc.edu](mailto:curt.carlson@tamuc.edu)). I will respond to emails within 24-48 hours. Please do not re-send your email unless at least 48 hours have passed since your last email.

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# COURSE AND UNIVERSITY PROCEDURES/POLICIES

## Course Specific Procedures/Policies

No quizzes, exams, or homework will be accepted after the deadline unless permission is provided in advance of the deadline by the instructor.

## 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>

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[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/>

### **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.

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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.

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit [www.tamuc.edu/counsel](http://www.tamuc.edu/counsel)

## COURSE OUTLINE / CALENDAR

Though we will try to abide by the following schedule, it is possible that it may change.

7/11 - 7/14	Topic 1: Introductions, review of PSY 612 material: Introductory chapters
7/15 – 7/18	Topic 2: Regression
7/19 – 7/22	Topic 3: ANOVA; <b>Assignment 1 &amp; Quiz 1 (7/22)</b>
7/23 – 7/26	Topic 4: ANCOVA; <b>Exam 1 (7/26)</b>
7/27 – 7/29	Topic 5: Factorial ANOVA; <b>Assignment 2 &amp; Quiz 2 (7/29)</b>
7/30 – 8/2	Topic 6: Repeated measures ANOVA; <b>Quiz 3 (8/2)</b>
8/3 – 8/8	Topic 7: Mixed Design ANOVA; <b>Assignment 3 &amp; Quiz 4 (8/8)</b>
8/9 - 8/11	Topic 8: Categorical Data
8/11	<b>Final Exam</b>

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