

PSY521 Statistical Procedures I
(3 credit hours)
Course Syllabus

Course Description

This course provides a foundation on the basic principles of statistics. Students will focus on methods of summarizing and describing data and will be introduced to the concepts of inferential statistics and hypothesis testing. The course introduces the use of electronic statistical software such as Microsoft Excel and SPSS.

Course Learning Outcomes

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

1. Organize data for presentation.
2. Summarize and interpret data accurately.
3. Explore the conceptual basis for hypothesis testing.

Required Textbook(s) and Resources

Field, A. (2017). *Discovering Statistics Using IBM SPSS Statistics* (5th ed.)

IBM SPSS Software. (latest version) Grad Pack Standard.

Be sure to also review the weekly **Explore** sections for additional library or web resources. For access to databases, research help, and writing tips, visit the [Tiffin University Library](#).

Time Commitment

Effective time management is possibly the single most critical element to your academic success. To do well in this online class you should plan your time wisely to maximize your learning through the completion of readings, discussions, and assignments. Because of our accelerated, seven-week term, TU online courses are designed with the expectation that you dedicate a little over **six (6)** hours per credit hour to course activities and preparation **each week**. For example, for successful completion of a three-credit, seven-week online course you should reserve roughly **twenty (20) hours per week**.

To help plan your time and keep on track toward successful course completion, note the distinctive rhythm of assignment due dates:

1. All times assume Eastern Time (GMT-4).
2. Weeks begin at 12:00 a.m. ET on Monday and end at 11:55 p.m. ET on Sunday.
3. Unless otherwise noted, initial assignments or discussion posts are due by **11:55 p.m. ET on Wednesdays**.
4. Additional assignments or follow-up discussion posts are due by **11:55 p.m. ET on Saturdays, and**
5. Major assignments and reflections are typically due by **11:55 p.m. ET on Sundays**.

Learning Activities

In this course, you will reflect on your work by sharing your understanding of the topics presented and your thoughts or concerns in a forum post. Your weekly assignments will consist of practice analyses in the textbook and the application of similar scenarios using different datasets. The course will commence with a final exam on the topics presented.

Grading

The chart below identifies the individual contributions from each type of activity, per week.

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Forum Activity 1.1 (0) Activity 1.2 (30)	Forum Activity 2.1 (30)	Forum Activity 3.1 (30)	Forum Activity 4.1 (30)	Forum Activity 5.1 (30)	Forum Activity 6.1 (30)	Forum Activity 7.1 (30)	210
Assignments Activity 1.3 (80)	Assignments Activity 2.2 (40) Activity 2.3 (60)	Assignments Activity 3.2 (40) Activity 3.3 (60)	Assignments Activity 4.2 (40) Activity 4.3 (60)	Assignments Activity 5.2 (40) Activity 5.3 (60)	Assignments Activity 6.2 (40) Activity 6.3 (60)	Assignments Activity 7.2 (60)	640
(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	Activity 7.3 Final Exam I (150)	150
110	130	130	130	130	130	240	1000

Grading Scale

A: 90-100% | B: 80-89% | C: 70-79% | F: <69%

Course Schedule and Weekly Checklist

Topic	Learning Activities (Due by 11:55 p.m. ET on day designated)
Start Here	<input type="checkbox"/> MON: Activity 1.1: What do you fear about this course?
Week 1: Introduction to Statistics Uses of Statistics Levels of Measurement Decision Making	<input type="checkbox"/> WED: Activity 1.1: What do you fear about this course? <input type="checkbox"/> SAT: Activity 1.2: Practice Smart Alex's Tasks <input type="checkbox"/> SUN: Activity 1.3: Stats Reflection

<p>Week 2:</p> <p>IBM SPSS Statistics Environment</p> <p>Variable Types and Data Formats</p> <p>Exploring Data with Graphs</p>	<ul style="list-style-type: none"> <input type="checkbox"/> WED: Activity 2.1: Topic Application and Reflection <input type="checkbox"/> SAT: Activity 2.2: Practice Smart Alex's Tasks <input type="checkbox"/> SUN: Activity 2.3: Findings Report
<p>Week 3:</p> <p>Data Distribution and Bias</p> <p>Variance Heterogeneity and Tests</p> <p>Independence and Normality Assessment</p>	<ul style="list-style-type: none"> <input type="checkbox"/> WED: Activity 3.1: Topic Application and Reflection <input type="checkbox"/> SAT: Activity 3.2: Practice Smart Alex's Tasks <input type="checkbox"/> SUN: Activity 3.3: Findings Report
<p>Week 4:</p> <p>Non-Parametric Test Basics</p> <p>Mann-Whitney and Wilcoxon Tests</p> <p>Friedman's and Kruskal-Wallis Tests</p>	<ul style="list-style-type: none"> <input type="checkbox"/> WED: Activity 4.1: Topic Application and Reflection <input type="checkbox"/> SAT: Activity 4.2: Practice Smart Alex's Tasks <input type="checkbox"/> SUN: Activity 4.3: Findings Report
<p>Week 5:</p> <p>Types of Correlation Coefficients</p> <p>Calculating Effect Size in Correlation Analysis</p> <p>Reporting Correlation Coefficients Effectively</p>	<ul style="list-style-type: none"> <input type="checkbox"/> WED: Activity 5.1: Topic Application and Reflection <input type="checkbox"/> SAT: Activity 5.2: Practice Smart Alex's Tasks <input type="checkbox"/> SUN: Activity 5.3: Findings Report
<p>Week 6:</p> <p>Fitting Linear Regression Models in SPSS</p> <p>Statistical Regression Tests in Linear Regression Analysis</p> <p>Assessing Model Fit and Significance in Linear Regression</p>	<ul style="list-style-type: none"> <input type="checkbox"/> WED: Activity 6.1: Topic Application and Reflection <input type="checkbox"/> SAT: Activity 6.2: Practice Smart Alex's Tasks <input type="checkbox"/> SUN: Activity 6.3: Findings Report
<p>Week 7:</p> <p>t-test Basics</p> <p>Dependent Means Comparison</p> <p>Independent Means Comparison</p>	<ul style="list-style-type: none"> <input type="checkbox"/> WED: Activity 7.1: Topic Application and Reflection <input type="checkbox"/> SAT: Activity 7.2: Practice Smart Alex's Tasks <input type="checkbox"/> SUN: Activity 7.3: Final Exam

Tips for Success

Online learning requires self-discipline and self-direction. As seekers of the truth, we should be willing to challenge one another's academic work in a spirit of respectful comradery. Your course is a place for you to grow as you benefit from the expertise, experience, and diverse perspectives of your instructor and peers. Constructive feedback will challenge you to stretch your own thinking, thereby expanding your knowledge and understanding.

To get the most out of your learning experience, you should actively engage (participate) in **ALL** course activities. Course elements are arranged chronologically. To complete a week, simply work your way "down the page" through all of the course materials and activities.

For More Information:

Be sure to review the [Support, Policies, and Procedures](#) addendum.