

Psy 2100-004: Statistical Methods

Spring 2015

8:00am - 9:15am, M/W, University Hall 5150F

Instructor:	Stephen Prunier, M. A.	Erin Vogel, M. A.
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Office:	UH 5015	UH 6510 (6 th floor)
Office Hours:	M 12-1:30pm, W 9:30-11am	T/Th 11am - 12:30pm

Course Information

Textbook (required): Statistics Plain and Simple (Jackson, 3rd edition)

Prerequisite: C- or better in Math 1320 or higher math

Other materials: Calculator with a square root function. Please bring your calculator to class.

Why take Statistical Methods (aside from “because it’s required”)?

Many psychology majors dread studying statistics because of the belief that if you are not a “math person”, statistics will be boring and difficult. We encourage you to keep an open mind. Even if you have struggled in math classes in the past, you may find that statistics makes sense to you. Without statistics, psychologists would not be able to interpret our data or share what we know. You will learn to analyze research findings—not just in your coursework, but findings you see on the news, read on the Internet, etc.—rather than taking claims at face value. After taking this class, you should be able to:

1. Summarize and organize data
2. Select and calculate an appropriate statistic to decide whether a variable reliably affects another variable, or whether such findings are driven by chance
3. Critically evaluate research findings in scientific journals and in the media
4. Work with a statistical software program (SPSS), and
5. Possess a basic understanding of statistics that can be built upon in future research design and statistics classes.

...and also, it is required. In order to take Research Methods, you will need to pass this class. You do not need to be good at math to succeed in this class. You *will* need to attend lectures, read the textbook, work on practice problems, and ask questions—regardless of your math abilities.

Course Requirements

Exams: The majority of your grade will come from 3 exams during the semester plus 1 final exam. Each of the regular exams is worth 100 points and the final exam is worth 150 points.

Exam questions will be multiple choice, calculations, and short answer. Regular exams are not cumulative. You will be tested on material covered since the last exam. However, you will find that statistical knowledge builds upon itself. If you do not master the concepts learned early in this course, you will struggle to understand later concepts. The final exam is also not cumulative, with the exception of a 50-point section that will involve choosing and applying the appropriate statistical test(s) to a specific example. You must bring a photo ID, pencil, and calculator (not a smartphone) to each exam. Exams will be rescheduled *only* for students who have legitimate, university-sanctioned reasons for missing the exam. If you can anticipate that you will miss an exam (e.g., for a participatory athletic event, religious holiday, etc.), please contact us via email at least *one week* prior to the scheduled exam date. If you are unable to take an exam on time due to illness or emergency, notify us by email *before* the exam is scheduled to begin. You will be expected to take the make-up exam at the earliest possible date at the Field House Testing Center on the Main Campus. If you do not follow these procedures exactly, you will not be permitted to make up the exam.

In-class exercises: You will earn points for completing in-class exercises. Time for these will be given near the *end* of the class period, meaning that you must be present for the entire class period. You will have the opportunity to earn credit for 7 in-class exercises. We will check your work, answer questions, and assign points during class accordingly.

Homework assignments: Homework is essential for success in this course. The assignments will solidify your understanding of course material. There will be 10 homework assignments worth 10 points each. Assignments must be handed in at the beginning of class on the listed due dates. Late or emailed homework assignments are acceptable only in extenuating circumstances (e.g., illness or family emergency). If you anticipate missing a homework assignment, notify us via email at least a week prior to the assignment's due date. If you are ill or have an emergency on a day that a homework assignment is due, please notify us before class and be prepared to hand in your assignment as soon as possible.

Grading Policy

You earn points in the class as follows:

Assignment	Possible Points
3 Regular Exams - 100 points each	300 points
1 Final Exam – 150 points	150 points
10 Homework Assignments - 10 points each	100 points
In-class exercises	20 points
Total	570 points

Letter Grades

A	93+% ≥ 530 points	C	73-76%	416-438
A-	90-92% 513-529	C-	70-72%	399-415
B+	87-89% 496-512	D+	67-69%	382-398
B	83-86% 473-495	D	63-66%	359-381
B-	80-82% 456-472	D-	60-62%	342-358
C+	77-79% 439-455	F	< 60%	≤ 341

Classroom Etiquette

Please act like the adults that you are. This means, at the very least, respecting those around you. Using cell phones or computers during class is rude and distracting, even if they are on silent. We will not repeat information that you missed while you were texting. Side conversations are also distracting. If you have a question about the course material, please just raise your hand and ask. Other conversations can wait until after class.

Attendance

Regular attendance is crucial to succeeding in this course. That being said, illnesses, injuries, family emergencies, etc. can arise throughout the semester. If you have extenuating circumstances that may impact your attendance and/or performance in this course, please meet with one of us so that we can discuss your options. Otherwise, you will be expected to read the book and get notes from a classmate if you skip class. We encourage you to come to office hours with questions or specific issues. We will not re-teach material that you missed. We will not be taking attendance, but if you miss in-class exercises, you will not earn points toward your grade (see "In-class exercises".)

University of Toledo Policy Pertaining to Academic Integrity

Academic dishonesty will not be tolerated. Among the aims of education are the acquisition of knowledge and development of the skills necessary for success in any profession. Activities inconsistent with these aims will not be permitted. Students are responsible for knowing what constitutes academic dishonesty. If students are uncertain about what constitutes plagiarism or cheating they should seek the instructor's advice. Examples of academic dishonesty include, but are not limited to:

- Plagiarizing or representing the words, ideas or information of another person as one's own and not offering proper documentation;
- Giving or receiving, prior to an examination, any unauthorized information concerning the content of that examination;
- Referring to or displaying any unauthorized materials inside or outside of the examination room during the course of an examination;
- Communicating during an examination in any manner with any unauthorized person concerning the examination or any part of it;
- Giving or receiving substantive aid during the course of an examination;
- Commencing an examination before the stipulated time or continuing to work on an examination after the announced conclusion of the examination period;

- Taking, converting, concealing, defacing, damaging or destroying any property related to the preparation or completion of assignments, research or examination;
- Submitting the same written work to fulfill the requirements for more than one course.

Students with Disabilities

Reasonable accommodations will be made for anyone with a disability that may require some modification of seating, testing, or other class requirements. Students must contact the Office of Accommodations (Rocket Hall 1820) for an evaluation and a form specifying what course accommodations are judged reasonable for that student. Please contact the instructor after class or during office hours so that appropriate arrangements may be made.

The contact information for the Office of Accommodations is as follows:

Campus Address: Rocket Hall 1820, Mail Stop #342

Phone Number: 419.530.4981

Web: <http://www.utoledo.edu/utlc/accessibility/>

Tentative Course Schedule
(Subject to change based on in-class announcements)

Week	Date	Topic	Reading	Assignment
1	Jan. 12	Introduction: Science and Statistics	Module 1	
	Jan. 14	Variables and Measurement	Module 2	
2	Jan. 19	MLK Day (No class)		
	Jan. 21	Data Organization	Module 3	Assignment 1 due
3	Jan. 26	Measures of Central Tendency	Module 4	
	Jan. 28	Measures of Variation	Module 5	Assignment 2 due
4	Feb. 2	Measures of Variation		
	Feb. 4	Standardized (Z) Scores	Module 6	Assignment 3 due
5	Feb. 9	Standardized (Z) Scores		
	Feb. 11	Exam # 1 (Modules 1-6)		
6	Feb. 16	Sampling & Distributions	Module 7	
	Feb. 18	Sampling & Distributions		
7	Feb. 23	Hypothesis Testing Basics	Module 8	Assignment 4 due
	Feb. 25	Single-sample z-tests	Module 9	
8	Mar. 2	t-statistic and Single-sample t-tests	Module 10	Assignment 5 due
	Mar. 4	t-statistic and Single-sample t-tests		
9	Mar. 9	Spring Break (No class)		
	Mar. 11	Spring Break (No class)		
10	Mar. 16	Independent Groups t-tests	Module 11	Assignment 6 due
	Mar. 18	Correlated Groups t-tests	Module 12	
11	Mar. 23	Exam # 2 (Modules 7-12)		
	Mar. 25	Analysis of Variance (ANOVA)	Modules 13-14	
12	Mar. 30	Analysis of Variance (ANOVA)		
	Apr. 1	RM and Two-Factor ANOVA	Modules 15-17	Assignment 7 due
13	Apr. 6	RM and Two-Factor ANOVA		Assignment 8 due
	Apr. 8	Exam # 3 (Modules 13-17)		
14	Apr. 13	Correlation	Modules 18-19	
	Apr. 15	Correlation & Regression	Module 20	
15	Apr. 20	Chi-square	Module 21	Assignment 9 due
	Apr. 22	Chi Square		Assignment 10 due
16	Apr. 27	Choosing the Right Statistic		
	Apr. 29	TBA		

FINALS WEEK: Exam #4 (Modules 18-21); Monday, May 4, 2015, 8am – 10am