

Statistics for Psychology

Welcome to Psyc Stats!

Statistics for Psychology is an introduction to the basic methods psychologists use to examine, evaluate, and analyze their research data. Understanding these statistical procedures is crucial for undergraduate psychology majors because these procedures help determine the validity of information put forth by researchers, therapists, educators, politicians, media outlets, internet bloggers, among others. Statistical thinking, in turn, helps you become a more informed consumer of information by improving your critical thinking and reasoning skills.

The purpose of our course is to provide you with a broad overview of the basic procedures that psychologists use to analyze data.

This semester we will learn the basics of descriptive and inferential statistics. Specific topics and procedures we will cover include graphically displaying data, measuring central tendency and variability, z-scores, basic probability, null hypothesis significance testing, confidence intervals, effect sizes, and parametric tests such as z-tests, different kinds of t-tests, one-way analysis of variance (ANOVA), and correlation.



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"The goal of science is to make the wonderful and complex understandable and simple—but not less wonderful."

Herbert Simon

WHERE & WHEN

PSYC 201, SECTION 010

TIME: 3:20 - 4:35 on M & W

LOCATION: HART, ROOM 217

Course Materials



You can use Blackboard to access homework packets, examine our syllabus, check for announcements, and review your grades.

Heiman, G. (2015). *Behavioral Sciences STAT* (2nd ed.). Stamford, CT: Cengage.

* No other edition will cover the same material.

"It is the mark of a truly intelligent person to be moved by statistics."

George Bernard Shaw

A scientific calculator (please bring to class)



Professor Information

PROFESSOR: Dr. Michael Root

OFFICE: Hall Hall, Room 326

OFFICE HOURS: 8:00 - 9:00 M / 11:00 - 12:00 M & W

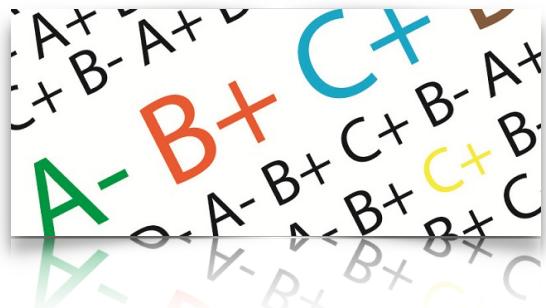
PHONE: 508-531-1958

EMAIL: m1root@bridgew.edu

*Email or visiting my office are the most effective ways of contacting me.

Assignments & Grading

Statistics for Psychology is designed to improve skills and knowledge. Our evaluative assignments and in-class activities reflect this fact.



Tests

Tests consist of computations, making decisions about hypotheses, short answer, and multiple-choice questions. Each test should take no more than 50 minutes. I will provide reference tables and the needed formulas. You can use calculators during the tests, but **no cell phones and no headphones**. The tests will include material from our textbook, lectures, and class activities. Make-up tests are only given with a documented excuse (**see page 8 for the make-up policy**).

Homework Packets

Homework packets are due on the day of each test. Packets are graded for completeness, not accuracy. Complete packets = 10, incomplete packets = 5 (even if only missing 1 question), failure to submit = 0 points. These are excellent practice for the tests and a great way to improve your grade. **I do not accept late assignment packets.** Please stop by my office if you have questions about packet questions.

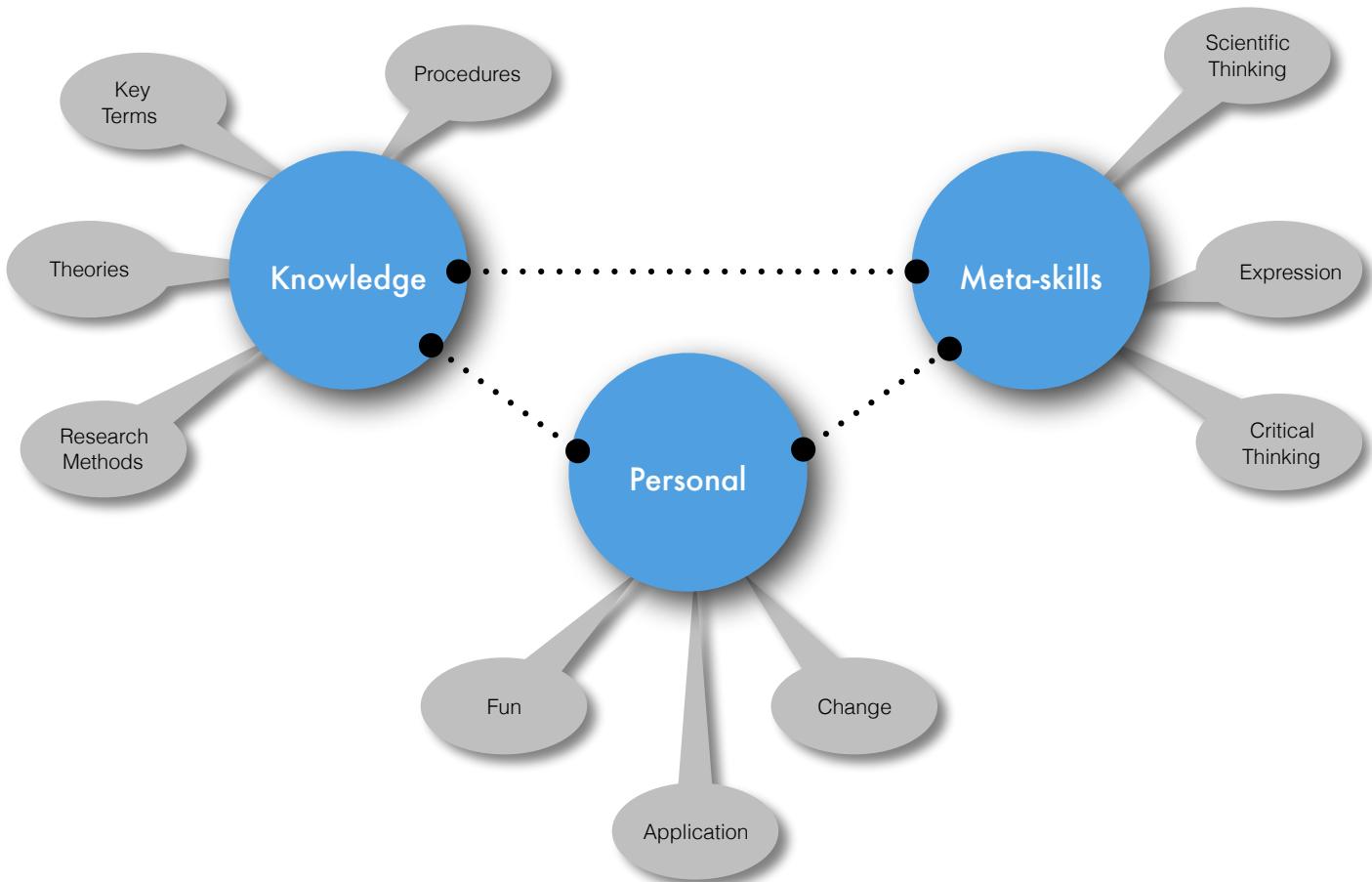
Criteria	# of Assignments	# of Points/Assignment	Totals
Tests	4	40	160
Homework Packets	4	10	40
			200

A = 186 - 200	B+= 174 - 179	C+ = 154 -159	D+ = 134 -139	
	B = 166 - 173	C = 146 -153	D = 126 - 133	F = 0 - 119
A- = 180 - 185	B- = 160 - 165	C- = 140 - 145	D- = 120 - 125	

"60% of the time, it works every time."

Brian Fontana (Paul Rudd) from Anchorman

Course Objectives



My course objectives are broken into 3 interrelated categories: knowledge, meta-skills, and personal objectives. My hope is that by the end of this course you will exhibit mastery of the 3 categories of course objectives

I take these course objectives very seriously and I hope that you will too. Not only does your grade depend on meeting these objectives, they also can contribute to your intellectual growth. I believe that it is my responsibility to instruct you with these objectives in mind. I believe it is your responsibility to focus your learning experiences with these objectives in mind. There will be a number of opportunities for me to assess your proficiency on mastering these objectives.

"Facts are stubborn things, but statistics are pliable."
Mark Twain

Course Schedule

* I reserve the right to alter our Course Schedule in case of unforeseen events.

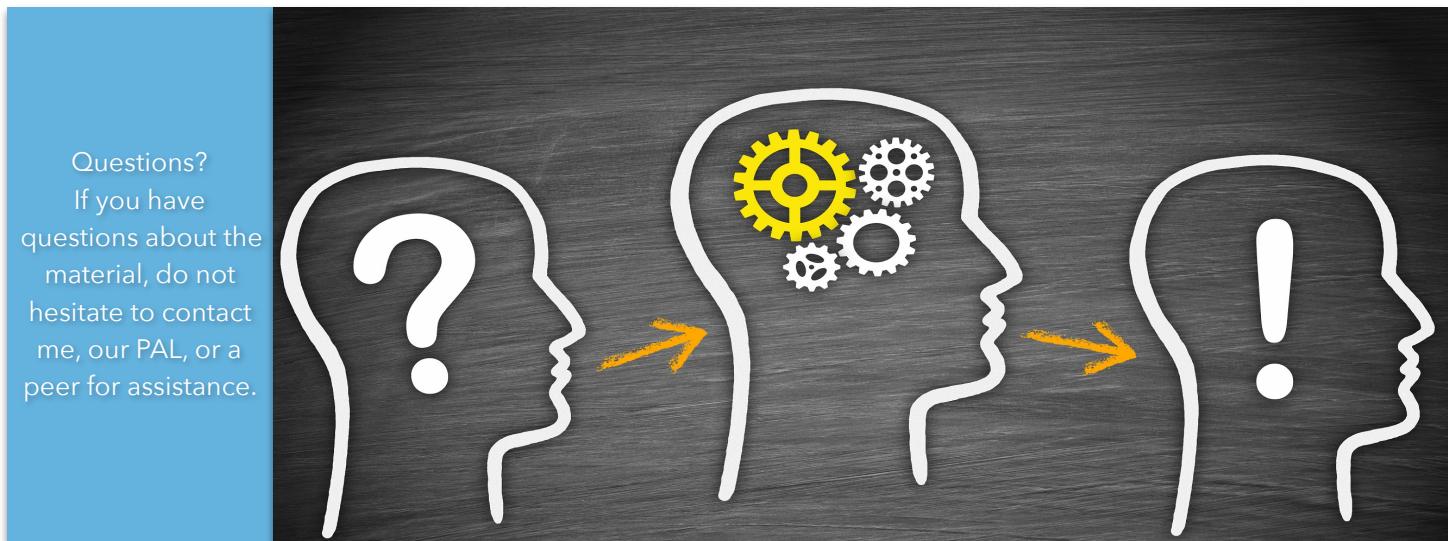
Date	Topic	Assignment
Week 1		
W Jan 22	Welcome & Intro. to Stats	Read Syllabus, Ch. 1, Appendix A-1
Week 2		
M Jan 27	Intro. to Stats / Frequency Dist.	Read Ch. 2
W Jan 29	Frequency Distributions	Read Ch. 3
Week 3		
M Feb 3	Central Tendency	Read Ch. 4
W Feb 5	Central Tendency / Variability	
Week 4		
M Feb 10	Variability	
W Feb 12	Test 1 (Ch. 1 - 4)	Homework Packet 1 due
Week 5		
M Feb 17	President's Day (No Class)	Read Ch. 5
W Feb 19	z-scores	Read Ch. 6
Week 6		
M Feb 24	z-scores / Probability	Read Ch. 7
W Feb 26	Probability / z-tests	
Week 7		
M Mar 2	z-tests	
W Mar 4	Test 2 (Ch. 5 - 7)	Homework Packet 2 due

Date	Topic	Assignment
Week 8		
M Mar 9	Spring Break (No Class)	
W Mar 11		Read Ch. 8
Week 9		
M Mar 16	One-sample <i>t</i> -test	
W Mar 18	One-sample <i>t</i> -test	Read Ch. 9
Week 10		
M Mar 23	Two-sample <i>t</i> -test	
W Mar 25	Two-sample <i>t</i> -test	
Week 11		
M Mar 30	Two-sample <i>t</i> -test	
W Apr 1	Test 3 (Ch. 8 & 9)	Homework Packet 3 due
Week 12		
M Apr 6	Correlation	Read Ch. 10
W Apr 8	Correlation	
Week 13		
M Apr 13	ANOVA	Read Ch. 11
W Apr 15	ANOVA	
Week 14		
M Apr 20	Patriot's Day (No Class)	
W Apr 22	ANOVA	

Date	Topic	Assignment
Week 15		
M Apr 27	ANOVA	
W Apr 29	ANOVA	
Week 16	Test 4 @ 8:00 AM (Ch. 10 & 11)	Homework Packet 4 due

"Cognitive psychology tells us that the unaided human mind is vulnerable to many fallacies and illusions because of its reliance on its memory for vivid anecdotes rather than systematic statistics."

Steven Pinker



"Facts are stubborn things, but statistics are pliable."
Mark Twain

Course Policies



Attendance Policy

As mature individuals I expect you to attend class regularly but, ultimately, it is your responsibility to decide your level of participation in our course. Unless there is a test on a day you miss, I do not need an explanation for an absence. **But I do not supply students with missed notes.** You need to find a classmate that is willing to share this information with you. It is a good idea to have a classmate review the notes with you instead of you passively copying the notes. This will allow you to better understand the missed notes.

You should be aware, however, that attendance is crucial for your success in our course. Statistics for Psychology can be a challenging course and if you consistently fail to attend class, you will undoubtedly do poorly. There is too much information and it is at a level of difficulty that makes it improbable you will succeed without attending class.

Make-up Test Policy

Make-up tests are only given for documented excuses. Acceptable excuses include student-athlete events, military service, hospitalization/medical issues, family emergencies. I require proof of the issue on some form of official document. Please ask, if you have questions.

Academic Integrity Policy

Cheating is a serious offense in this class and at Bridgewater State University. Anyone caught cheating

in this class will automatically fail this course and I will refer your offense to the Academic Review Panel. There are no excuses for cheating (e.g., "I did not know I couldn't copy from my neighbor."). If you have any questions or concerns about this policy, do not hesitate to ask. It is better to err on the side of caution considering the potential consequences.

Additional Comments

Psychology majors need a **C or better** to pass this course. Because of this minimum grade requirement there are **no extra credit opportunities**. Your grade is determined **solely** by the points you earn on the 4 homework assignments and 4 tests.

If you have any special needs or requirements for this course, please contact me about them within the first two weeks of the semester so we can make accommodations. Feel free to stop by my office or email me anytime to discuss your performance in the class. Please do not hesitate to discuss with me anything of concern to you (even if it does not pertain to this class).

"The brain is like a muscle. When it is in use we feel very good. Understanding is joyous."

Carl Sagan