

Professor	Andrew Roberts Ph.D.	Phone	210-784-2495
Office	STEM 237C	E-mail	Andrew.Roberts@tamusa.edu
Student Office Hours	Mondays: 1:00 – 2:00 PM Tuesday/Thursday: 11:00-12:00 PM By Appointment		

Course Description

From the catalog: Introduction to basic research methodology (i.e., designing and evaluating behavioral research) and ethical issues in research. Statistical methods will be discussed as they pertain to research design and interpretation. Prerequisites: PSYC 2301 PSYC 2385, minimum Grade of C in PSYC 2388, and MATH 1314. Corequisites: PSYC 3088. TSI Restriction(s): Math

Required Course Materials

- *Textbook:* McBride, D. (2019). *The Process of Research and Statistical Analysis in Psychology*. Sage.
- *Workbook:* McBride, D. (2019). *Lab Manual for Psychological Research and Statistical Analysis*. 1st Edition. Sage
- *Handbook:* American Psychological Association. (2019). *Publication manual (7th ed)*. Washington, DC: Author. Reserve copy is available in the library if you don't already own a copy.
- *Software:* We will be using Statistical Package for the Social Sciences (SPSS) and Microsoft Excel during class, and you will be required to use SPSS or Microsoft Excel to complete homework. It is available in the computer labs on campus. You are not required to purchase an SPSS license. We will also be using Excel with the Data Analysis package add-in. This software is available in the computer labs on campus and be downloaded through information technology services for your personal devices.

Contact Guidelines

- ***Email:* Only use official university e-mail through Blackboard and include course and section (e.g., PSYC 2388) and full name in subject line. Failure to follow these steps will result in my not responding to your email.** This is my primary and preferred point of contact outside of the classroom. I check my messages regularly on Monday – Friday from 8 to 5. Within that timeframe, I will generally respond within 24 hours. If you don't hear back from me, email again in the event your message went to my Junk email box. On weekends, I am generally not available by email and will reply on the subsequent Monday. If you need to contact me, plan ahead. In all communications, be specific. Your correspondence **MUST** include information as specified above. If you send an email without sufficient information, I likely won't reply. Additionally, begin a new email thread in lieu of responding back to one of my emails if you are beginning a new conversation unrelated to the previous email. Professional language and formatting is expected.
- ***Student Office Hours:*** During the designated office hour times, I will be present in my office for students who wish to discuss aspects relating to course work, grades, etc. Virtual meetings are potentially possible pending advanced request and confirmation from me. If you are not available during that time, request for alternative appointment time may be made, but such request are subject to my availability.

Learning Objectives and Class Structure

This course will teach you the fundamentals of understanding and conducting research in psychology. We will discuss how research projects are selected, designed, and performed. We will also discuss how to evaluate the research of others (and our own research designs!). In this course, you will read about prominent theories in psychology and describe them to the class. You will learn about a variety of research methodologies and demonstrate your understanding of those methods. You will receive some basic training in SPSS and learn how to analyze data. Also, you will work with the class to formulate your own hypotheses based on theories we've discussed, design an experiment, collect data, analyze your data, and decide whether your hypotheses were supported.

Specific Learning Objectives (from APA Guidelines for Psychology Majors)	
This course will	Outcomes
Reinforce the student's ability to	
2.1 Use scientific reasoning to interpret psychological phenomena	2.1a Identify basic biological, psychological, and social components of psychological explanations (e.g., inferences, observations, operational definitions, interpretations)
	2.1b Use psychology concepts to explain personal experiences and recognize the potential for flaws in behavioral explanations based on simplistic, personal theories
	2.1c Use an appropriate level of complexity to interpret behavior and mental processes
	2.1d Ask relevant questions to gather more information about behavioral claims
	2.1e Describe common fallacies in thinking (e.g., confirmation bias, post hoc explanations, implying causation from correlation) that impair accurate conclusions and predictions
2.2 Demonstrate psychology information literacy	2.2b Describe what kinds of additional information beyond personal experience are acceptable in developing behavioral explanations (i.e., popular press reports vs. scientific findings)
	2.2c Identify and navigate psychology databases and other legitimate sources of psychology information
	2.2d Articulate criteria for identifying objective sources of psychology information
2.4 Interpret, design, and conduct basic psychological research	2.4a Describe research methods used by psychologists including their respective advantages and disadvantages
	2.4b Discuss the value of experimental design (i.e., controlled comparisons) in justifying cause– effect relationships
	2.4g Describe the fundamental principles of research design
2.5 Incorporate sociocultural factors in scientific inquiry	2.5a Relate examples of how a researcher's value system, sociocultural characteristics, and historical context influence the development of scientific inquiry on psychological questions
4.1 Demonstrate effective writing for different purposes	4.1a Express ideas in written formats that reflect basic psychological concepts and principles
	4.1b Recognize writing content and format differ based on purpose (e.g., blogs, memos, journal articles) and audience
	4.1c Use standard English, including generally accepted grammar
	4.1d Write using APA style
	4.1e Recognize and develop overall organization (e.g., beginning, development, ending) that fits the purpose

This course will Assess the student's ability to	Outcomes
2.2 Demonstrate psychology information literacy	2.2a Read and summarize general ideas and conclusions from psychological sources accurately
	2.2e Interpret simple graphs and statistical findings
2.3 Engage in innovative and integrative thinking and problem solving	2.3a Recognize and describe well-defined problems
	2.3b Apply simple problem-solving strategies to improve efficiency and effectiveness
	2.3c Describe the consequences of problem solving attempts
2.4 Interpret, design, and conduct basic psychological research	2.4c Define and explain the purpose of key research concepts that characterize psychological research (e.g., hypothesis, operational definition)
	2.4d Replicate or design and conduct simple scientific studies (e.g., correlational or two-factor) to confirm a hypothesis based on operational definitions
	2.4e Explain why conclusions in psychological projects must be both reliable and valid
	2.4f Explain why quantitative analysis is relevant for scientific problem solving
	2.5b Analyze potential challenges related to sociocultural factors in a given research study
	2.5c Describe how individual and sociocultural differences can influence the applicability/ generalizability of research findings
	2.5d Identify under what conditions research findings can be appropriately generalized
4.1 Demonstrate effective writing for different purposes	4.1f Interpret quantitative data displayed in statistics, graphs, and tables, including statistical symbols in research reports
	4.1g Use expert feedback to revise writing of a single draft

Course Assignments

Exams:

- There will be a total of three exams each worth 100 points.
- Exams will be split up into two parts administered through Blackboard: a 60-minute multiple choice section worth 40 points and an untimed take-home section worth 60 points.
- Both parts will need to be completed by the specified deadline (see calendar) and students can complete them in any order.
- Students may not receive any outside assistance while completing either part of their exams.
- Students may, however, use their notes and textbook while completing the take-home portion only!

Quizzes:

- During the semester, there will be several quizzes. Quizzes may be administered during class time and/or administered through Blackboard. Each quiz will have a 20-minute time limit.

Writing Assignments:

- A requirement for research stat II involves writing a research paper that adheres to APA standards. In preparation for this research paper, students will complete two different writing assignments this semester.
- **Writing Assignment #1** will involve identifying a potential research question and constructs of interest, locating appropriate peer-reviewed articles, etc. Feedback will be provided to students.
- **Writing Assignment #2** will involve producing a 3-page APA-style Introduction (i.e., literature review) including a testable hypothesis and citations for six peer-review sources, an APA-style Method section of students proposed research experiment (approximately 2-pages), and a properly formatted APA-style Reference section that includes source information for each citation (approximately 2-pages).
 - A rubric will be provided, and students will receive extensive feedback about their submission.

Final Research Paper:

- The final research paper will be comprised of a corrected Introduction, Method, and Reference sections utilizing feedback from Writing Assignment #1 & #2.
- Students will be adding a proposed Results section with an analysis of a data set provided by the instructor that corresponds to students' research design. Students will be expected to accurately describe this analysis, report statistical values in accordance to APA standards, provide an APA-style figure (graph) that accurately depicts their analysis, and interpret findings in the context of students' proposal hypothesis.
- A rubric and a checklist for the Final Research Paper will be provided.
- The final length of the paper will be between 8 – 10 pages.

Attendance & Classroom Participation

- Very few students who frequently miss class perform well. Given students are [paying](#) a significant amount of money per class period, it is to your advantage to attend and actively engage. Attendance and class participation are included in the grading system because class participation depends on attendance.
- Students who attend every class and participate will receive full credit.
 - Students can miss up to **3 days of class for unexcused reasons** without penalty
 - **Every subsequent unexcused absence will result in a 5 pt deduction from students' attendance grade (see excused absence policy below).**
 - **Other grounds for deductions for attendance / participation:**
 - Regular tardiness, playing on phones during class, being disruptive, etc.
 - Deduction value subject to instructor's judgment!

Excused absences include family emergency and death in the family. Work conflicts or difficulty with parking do not constitute legitimate reasons. If you know ahead of time that you will miss an exam or there may be a potential conflict, discuss these matters with your instructor well in advance of the exam date because it may be possible to schedule an alternate exam time or make-up.

Legitimate reasons with documentation include but are not limited to:

- Illness, injury, transportation failure athletic obligation, injury/illness/death of a friend or family member or other circumstances that requires your assistance (includes pets)

Non-legitimate reasons for missing exams or assignments but **NOT** qualifying for make-ups include:

- Vacation, lack of preparation, being busy, just not feeling like it, overslept, etc.

Note: Excused absences **do not count** against students Attendance and Classroom Participation grades! However, your instructor reserves the right to determine whether something qualifies as an excused absence.

Point Breakdown for the Semester (subject to change)

<i>Course Component</i>	<i>Point Value</i>	<i>How Many?</i>	<i>Total Points</i>
Classroom Participation & Attendance			30
Exams	100	3	300
Quizzes	10	6	60
Writing Assignments	50	2	100
Final Research Paper	150	1	150
Total			650

Grades will be posted on Blackboard where you (and only you) can access your grade in order to protect your confidentiality and identity.

Decimal points of .5 and greater will be rounded up. Decimal points below .5 will be rounded down. For the sake of fairness, there are no exceptions to this.

No additional assignments or extra credit will be possible at the end of the semester.

*Please monitor your grades and come to me **early** with any concerns you may have so that I can help you achieve your goals.*

Grade	Percentage	Point Range
A	90-100%	585-650
B	80-89%	520-584
C	70-79%	455-519
D	60-69%	390-454
F	<60%	Less than 390 points

With the proposed grading scale, the easiest way to think about grades is that every 65 points = 10% of your course grade overall.

Late Work Submission Policy:

Students may submit late work up to two days past the assignment deadline with an approved excused with no penalty.

What constitutes a valid “excuse” is up to the discretion of your instructor and would require students to communicate in advance (when possible) or in a timely manner to discuss their submission status.

Your instructor reserves the right to request appropriate documentation and/or may request additional information to make a determination about your status.

In the event students do not have a valid excuse or elect not to discuss their status with their instructor, missing and/or late work will be given an automatic grade of 0.

IMPORTANT POLICIES AND RESOURCES

Academic Accommodations for Persons with Disabilities: The Americans with Disabilities Act Amendments Act (ADAAA) of 2008 and the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights protection for persons with disabilities. Title II of the ADAAA and Section 504 of the Rehabilitation Act require that students with disabilities be guaranteed equal access to the learning environment through the provision of reasonable and appropriate accommodation of their disability. If you have a diagnosed disability that may require an accommodation, please contact Disability Support Services (DSS) for the coordination of services. The phone number for DSS is (210) 784-1335 and email is dsupport@tamusa.edu.

Academic Learning Center: The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the *Tools* section of Blackboard. You can contact the Academic Learning Center by emailing tutoring@tamusa.edu, calling (210) 784-1307, or visiting the Central Academic Building, room 202.

Counseling/Mental Health Resources: As a college student, there may be times when personal stressors interfere with your academic performance and/or negatively impact your daily functioning. If you are experiencing emotional difficulties or mental health concerns, support is available to you through the Student Counseling Center (SCC). To schedule an appointment call 210-784-1331 or visit Modular C, Room 166 (Rear entrance).

All mental health services provided by the SCC are free and confidential (as the law allows). The Student Counseling Center provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services.

Crisis support is available 24/7 by calling the SCC at 210-784-1331 (after-hours select option '2'). For more information and self-help resources, please visit www.tamusa.edu/studentcounseling

Emergency Preparedness: JagE Alert is Texas A&M University-San Antonio's mass notification. In the event of an emergency, such as inclement weather, students, staff and faculty, who are registered, will have the option to receive a text message, email with instructions and updates. To register or update your information visit: <https://tamusa.bbcportal.com/>.

More information about Emergency Preparedness and the Emergency Response Guide can be found here:

<https://www.tamusa.edu/uploadfile/folders/sdbowen23/pdf/pdf-635073426137928167-10.100.20.116.pdf>

Financial Aid and Verification of Attendance: According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which include class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended the first week of class. Any student receiving federal financial aid who does not attend the first week of class will have their aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of their federal aid.

Jaguar Writing Center: The Jaguar Writing Center provides writing assistance to graduate and undergraduate students in all three colleges. Writing tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. Students can make individual or group appointments with a writing tutor. The Writing Center is located in the Central Academic Building, Suite 208. Appointments can also be made through JagWire under the services tab.

Meeting Basic Needs: Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Dean of Students (DOS@tamusa.edu) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources they may possess.

Military Affairs: Veterans and active-duty military personnel are welcomed and encouraged to communicate, in advance if possible, and special circumstances (e.g., upcoming deployment, drill requirements, disability accommodations). You are also encouraged to visit the Patriots' Casa in-person room 202, or to contact the Office of Military Affairs with any questions at military@tamusa.edu or (210)784-1397.

Religious Observances: Texas A&M University-San Antonio recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes.

Respect for Diversity: We understand that our students represent diverse backgrounds and perspectives. When we are equity-minded, we are aware of differences and inequalities and are willing to discuss them so we can act to resolve them. The University is committed to building cultural competencies, or the attitudes, skills, and knowledge that enable individuals and organizations to acknowledge cultural differences and incorporate these differences in working with people from diverse cultures. Respecting and accepting people different than you is vital to your success in the class, on campus, and as a future professional in the global community. While working together to build this community we ask all members to:

- Share their unique experiences, values, and beliefs.
- Be open to the views of others.
- Honor the uniqueness of their colleagues.
- Value each other's opinions and communicate respectfully.
- Keep confidential discussions that the community has of a personal (or professional) nature.
- Use this opportunity together to discuss ways in which we can create an inclusive environment in this course and across the A&M-San Antonio community.

The Six-Drop Rule: Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student's GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as "F" grades and will impact the student's GPA.

Statement of Harassment and Discrimination: Texas A&M University-San Antonio is committed to the fundamental principles of academic freedom, equality of opportunity and human dignity. To fulfill its multiple

missions as an institution of higher learning, A&M-San Antonio encourages a climate that values and nurtures collegiality, diversity, pluralism and the uniqueness of the individual within our state, nation, and world. All decisions and actions involving students and employees should be based on applicable law and individual merit. Texas A&M University-San Antonio, in accordance with applicable federal and state law, prohibits discrimination, including harassment, on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, gender identity, or gender expression. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the appropriate offices within their respective units.

Texas A&M University-San Antonio faculty are committed to providing a safe learning environment for all students and for the university as a whole. If you have experienced any form of sex- or gender-based discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking, know that help and support are available. A&M-San Antonio's Title IX Coordinator can support those impacted by such conduct in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The university strongly encourages all students to report any such incidents to the Title IX Coordinator. Please be aware that all A&M-San Antonio employees (other than those designated as confidential resources such as counselors and trained victims advocates) are required to report information about such discrimination and harassment to the university. This means that if you tell a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the university's Title IX Coordinator (titleix@tamusa.edu, 210-784-2061, CAB 439K). If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact the Student Counseling Center at (210) 784-1331, Modular C.

Students' Rights and Responsibilities: The following statement of students' rights and responsibilities is intended to reflect the philosophical base upon which University Student Rules are built. This philosophy acknowledges the existence of both rights and responsibilities, which is inherent to an individual not only as a student at Texas A&M University-San Antonio but also as a citizen of this country.

Students' Rights

1. A student shall have the right to participate in a free exchange of ideas, and there shall be no University rule or administrative rule that in any way abridges the rights of freedom of speech, expression, petition and peaceful assembly as set forth in the U.S. Constitution.
2. Each student shall have the right to participate in all areas and activities of the University, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, or veteran status in accordance with applicable federal and state laws.
3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.
4. Each student subject to disciplinary action arising from violations of university student rules shall be assured a fundamentally fair process.

Students' Responsibilities

1. A student has the responsibility to respect the rights and property of others, including other students, the faculty and administration.

2. A student has the responsibility to be fully acquainted with the published University Student Rules found in the Student Handbook, [Student Code of Conduct](#), on our website, University Catalog and to comply with them, as well as federal, state, and local laws.
3. A student has the responsibility to recognize that student actions reflect upon the individuals involved and upon the entire University community.
4. A student has the responsibility to recognize the University's obligation to provide an environment for learning.
5. A student has the responsibility to check their university email for any updates or official university notification.

We expect that students will behave in a manner that is dignified, respectful, and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

Students are expected to exhibit a high level of honesty and integrity in their pursuit of higher education. Students engaging in an act that violates the standards of academic integrity will find themselves facing academic and/or disciplinary sanctions. Academic misconduct is any act, or attempt, which gives an unfair advantage to the student. Additionally, any behavior specifically prohibited by a faculty member in the course syllabus or class discussion may be considered as academic misconduct. For more information on academic misconduct policies and procedures please review the [Student Code of Conduct](#).

Use of A.I. Policy:

No Use of Generative A.I. Permitted

PSYC 3488: Research Stat II assumes that all work submitted by students will be generated by the students themselves, working individually or in groups. Students should not have another person/entity do the writing of any portion of an assignment for them, which includes hiring a person or a company to write assignments and/or using artificial intelligence (AI) tools like ChatGPT. Use of any AI-generated content in this course qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

Course Schedule

I will do my best to abide by this schedule. Any topic changes or course adjustments will be announced by any combination of lecture, e-mail and/or Blackboard. You are responsible for keeping up with any possible changes to the course schedule.

Week	Date	Topic	Assignment
1	Jan 20	Martin Luther King, Jr. Day – No Classes	
	Jan 22	Introductions & Course Expectations	
2	Jan 27	Stats Review (Ch 7 & 8)	
	Jan 29	Review: Ch. 9 (Hypothesis Testing pt 1)	
3	Feb 3	Review: Ch. 9 (Hypothesis Testing pt 2)	
	Feb 5	Review: Ch. 10 (t tests pt 1)	Review Quiz #1 (Feb 9th)
4	Feb 10	Review: Ch. 10 (t tests pt 2)	
	Feb 12	Review: Writing in Psychology pt 1	Review Quiz #2 (Feb 15th)
5	Feb 17	Review: Writing in Psychology pt 2	
	Feb 19	Examining Causality pt 1	Writing Assignment #1 (Feb 23rd)
6	Feb 24	EXAM 1 ***NO CLASS***	
	Feb 26	EXAM 1 ***NO CLASS***	
7	Mar 3	Ch. 11: One-Way ANOVA pt 1	
	Mar 5	Ch. 11: One-Way ANOVA pt 2	
8	Mar 10	Spring Break – NO CLASS	
	Mar 12	Spring Break – NO CLASS	
9	Mar 17	Ch. 11: One-Way ANOVA pt 3	
	Mar 19	Ch. 16: One-Way Within-Subjects Analysis pt 1	Review Quiz #3 (Mar 23rd)
10	Mar 24	Ch. 16: One-Way Within-Subjects Analysis pt 2	
	Mar 26	Ch. 14: Multi-Factor Experiments pt 1	Writing Assignment #2 (Due Mar 30th)
11	Mar 31	Ch. 14: Multi-Factor Experiments pt 2	
	Apr 2	Ch. 14: Multi-Factor Experiments pt 3	Review Quiz #4 (Apr 6th)
12	Apr 7	EXAM 2 ***NO CLASS***	
	Apr 9	EXAM 2 ***NO CLASS***	
13	Apr 14	Ch. 15: Two-Way ANOVA	
	Apr 16	Ch. 15: Two-Way ANOVA	Review Quiz #5 (Apr 20th)
14	<i>Apr 21</i>	<i>Last Day to Drop with an Automatic Grade of "W"</i>	
	Apr 21	Ch. 12 Correlation and Regression pt 1	
	Apr 23	Ch. 12 Correlation and Regression pt 2	Review Quiz #6 (Apr 27th)
15	Apr 28	APA Style: Figures & Tables	
	Apr 30	Ch. 13 Chi-Square pt 1	
16	May 5th	Ch. 13 Chi-Square pt 2	Final Research Paper (Due May 5th)
	May 6th	Study Day (No Classes Meet)	
	Final Exam	Posted: Wednesday, May 7th Due: Tuesday, May 13th	