COURSE DESCRIPTION

PSYC-3411 is an introduction to the methods of scientific experimentation in psychology. Skills to critically analyze journal articles, design experiments, collect and analyze data, and write reports in APA style will be developed. This course satisfies university computer literacy requirement. Students are required to enroll in a laboratory section of this course. The laboratory component of this course offers applications of the principles discussed in the large lecture.

Prerequisites: General Psychology (PSYC-2301) and Statistics (MATH 1442).

Course Materials: Syllabus, lecture slides, articles, assignments, chapter activities, and grades will be made available on Blackboard when appropriate.

Course Format

This course is a 4 credit course that has two 75 minute lecture meetings per week in addition to a 110 minute lab section per week. Class meetings may include lecture and discussion of basic concepts, assignments that apply these concepts, assistance with group projects, and examinations. It is expected that relatively more time will be devoted to lecture and discussion at the beginning of the semester and relatively more time will be spent of group projects at the end of the semester.

Student Learning Objectives

The learning objectives for students in this lecture course are to:

- Describe the basic characteristics of the science of psychology
- Describe how various research designs address different types of questions and hypotheses
- Articulate the strengths and limitations of various research designs
- Distinguish the nature of designs that permit causal inferences from those that do not
- Interpret basic statistical results
• Locate and use relevant databases, research theory to plan research, conduct research, and interpret results of research reports
• Use appropriate statistical strategies to collect data, analyze data, interpret data, and report research
• Follow APA Code of Ethics in the treatment of human and nonhuman participants in designing research, data collection, data interpretation, and reporting of psychological research
• Follow APA format to communicate via written form a psychology research project

Required Texts


Students are expected to complete the assigned readings before coming to class and review the related textbook material discussed in lecture before the next class. Additionally, there are several required reserved readings for the course. The readings will be made available through Blackboard.

Why you should take this course?
As an individual who has turned his love of Psychology into a career, I feel tremendously lucky to teach in a field of science that is such an easy sell to others. Psychology courses are very popular at all universities and for almost all majors. Much of the attraction of Psychology lies in its natural appeal of topics that are very familiar to students. Students often, however, fail to appreciate Psychology as a science. Experimental Psychology is an introduction into the methods and use of statistics that clearly identify the field as a science. Your ability to design research investigations, interpret data, apply findings, criticize designs, and communicate the results of scientific studies in Psychology is what identifies a person who studies psychology as a Psychologist.

My Philosophy of Teaching
If you believe the information that you are studying then we would refer to this information as education. If you do not believe the information that you are studying then we would refer to this information as propaganda. I feel that one of my main tasks as a teacher is to sell information to you. Just as car salesperson attempts to convince you buy a car by creating an “eager want” in the minds of a customer, I hope to create a burning curiosity in my students so that they want to know that answers to questions social psychologists have either explored or have yet to explore. In addition, good salespeople are bound to a Win/Win ethical philosophy in which both the customer and salesperson profit from their interaction. As an
instructor, I win anytime a student “gets it” and believes in what I am selling. The student wins when they accurately learn new material AND values that information because they can use it. Thus, I will attempt to not only sell you on the ideas Experimental Psychology has to offer, but I hope to demonstrate how you can make use of that information.

**Contacting Me**
The best way to contact me is through email. I generally will respond to email within 24 hours, except on the weekends. I am always ready and willing to make myself available to help you succeed in this course. I highly encourage you to come to me with your questions and concerns at any point that you need the assistance. I am very good at answering email and many of your questions could probably be answered in that way. For more complicated concerns, I encourage you to drop by my office or make an appointment so we can discuss whatever it is that is causing you to struggle. I advise you to identify and remedy any concerns as early as you can during the semester – the more time we have to address it – the more likely it is we will be able to resolve it in a way that allows you to be successful. If you wait until the end of the semester, there is little I can usually do to help at that point.

If you are interested in keeping up with what is going on within the psychology department, especially if you are a psychology major, consider “liking” our department page as well ([https://www.facebook.com/pages/Texas-AM-University-Corpus-Christi-Department-of-Psychology-Sociology/334128353345477](https://www.facebook.com/pages/Texas-AM-University-Corpus-Christi-Department-of-Psychology-Sociology/334128353345477))

**COUSE COMPONENTS**

*Exams*
Three exams will be given, each worth 100 points. All exams will contain a variety of multiple choice and short answer questions. Exam dates are posted on the schedule of topics. Make-up exams are given only if you notify me prior to the exam that you won’t be taking the exam at the regularly scheduled time. Make-up exams must be taken within one week of the scheduled exam date, and you are allowed only one make-up exam during the semester. If you fail to notify me beforehand that you will miss an exam, you will receive a failing grade for that exam. The grade you receive will be 25 points or the lowest class grade, whichever is lower.

*Group Projects*
Working in a group on the research project is a large part of this course. You will work in groups of 4 or 5 students on the different aspects of the research project from start to finish. Each group begins by exploring an assigned topic and using existing published research to build your knowledge of the topic, which helps to sharpen your question, and explore possible extension experiments. The research group will also work together to develop a design that best answers your research question/hypothesis. The group will share the responsibility of collecting and analyzing the data. Finally, your research group will
collaborate to produce a written and oral report of your research. Each member of the research team is expected to participate in all aspects of the project and to do their share of the work. When this is the case, each team member will receive the same grade for project-related assignments. In cases where the workload is not shared equally, individuals will be graded to reflect the differences. Once research teams have been established, each team member will be expected to submit a brief (1-5 sentences) summary of their contribution (not what the group did) to the research project. These individual summaries should be turned into lab instructors before the start of lab class each week. Each student is responsible for saving copies of their weekly summaries so that the entire semester’s worth of summaries can be turned in at the end of the semester.

**Laboratory Assignments**
Numerous assignments will be given in the laboratory class that are designed to help you obtain mastery of the assigned material. Assignments and due dates will be provided by laboratory instructors. Failure to turn in assignments by the due dates will result in a penalty of 5% (one half letter grade) for each day they are late.

**Attendance**
Attendance is required and missing class may directly impact your grade. Assignments (or quizzes) will be collected during at least 10 class periods during the semester to record attendance. You can miss one of these quizzes without any penalty. Missing more than one, however, will lower your attendance grade by 5%. A similar approach will be taken in the Lab sections of the course.

**DETERMINATION OF GRADES**
All grading components of both lecture and laboratory class will be combined to determine your overall grade in the class.

Each component of the course will be worth the following percentages of your final grade:

<table>
<thead>
<tr>
<th>LECTURE CLASS</th>
<th>450 pts (64.3%)</th>
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<tbody>
<tr>
<td>3 Exams (100 pts each)</td>
<td>300 pts (64.3%)</td>
</tr>
<tr>
<td>Lecture Attendance (10 assessments collected by assignments or quizzes 5 pts each)</td>
<td>50 pts (11.1%)</td>
</tr>
<tr>
<td>1 Group Project Manuscript (100 pts)</td>
<td>100 pts (22.2%)</td>
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<tr>
<th>LAB CLASS</th>
<th>250 pts (35.7%)</th>
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<tr>
<td>Assignments (15 assignments collected varying in point values from 10 – 20 pts each)</td>
<td>200 pts (80%)</td>
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Lab Attendance (10 assessments collected by assignments or quizzes 5 pts each) | 50 pts (7.1%)
---|---
**TOTAL COURSE** | **700 pts (100%)**

Final letter grades will be assigned based on the following total percentages. If you have questions about your grade at any time, please come see me.

- 630 pts or higher (90%-100%) = A
- 560 pts - 629 pts (80% – 89%) = B
- 490 pts - 559 pts (70% – 79%) = C
- 420 pts – 489 pts (60 – 69%) = D
- Less than 420 pts (less than 60%) = F

**Academic Integrity/Plagiarism**
University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a zero for the assignment or exam.

**Dropping a Class**
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Friday, April 8th is the last day to drop a class with an automatic grade of “W” this term.

**Expectations**
Class will start on time every day, and you should expect it to run the full period. Please avoid disturbing other students (by arriving late, leaving early, talking with a neighbor, etc.). Make sure that your electronic devices are turned off.

I expect students to make every effort to attend each class. Should you find it necessary to miss class, please note that you will be held responsible for all material covered during the missed class.
Classroom/professional behavior
Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor's ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. We expect that you 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.

Statement of Academic Continuity
In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

Academic Advising
The College of Liberal Arts requires that students meet with an Academic Advisor as soon as they are ready to declare a major. Degree plans are prepared in the CLA Academic Advising Center. The University uses an online Degree Audit system. Any amendment must be approved by the Department Chair and the Office of the Dean. All courses and requirements specified in the final degree plan audit must be completed before a degree will be granted. The CLA Academic Advising Office is located in Driftwood #203. For more information please call 361-825-3466.

DISABILITY SERVICES
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 believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Corpus Christi Hall, Room #116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

GRADE APPEALS PROCESS
Students who feel that they have not been held to appropriate academic standards as outlined in this class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details on the process of submitting a formal grade appeal, please visit the College of Liberal Arts website, cla.tamucc.edu/students/studentinfo.html. For assistance and/or guidance in the grade appeal process, students may contact the Associate Dean’s Office.

Supplemental Readings
Tentative Schedule of Topics and Assignments

<table>
<thead>
<tr>
<th>Class Date</th>
<th>Topic</th>
<th>Readings</th>
<th>Assignment</th>
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</table>
| 1/21 | Intro to Course  
Nature of Science  
Types of References | Levels of Measurement  
Means and Standard Deviation |
| 1/26 | Questions/Hypotheses  
Literature Search | St. James: 1, 2, 4  
Stanovich: 2 | Forming Research  
Questions  
Refining Searches |
| 1/28 | Measurements  
Reliability/Validity | St. James: 3  
Platt (1964) | Reliability Analysis |
| 2/02 | Experimental Control | St. James: 5  
McBurney & White: 8 | Identifying Control in Experiments |
| 2/04 | APA format | Schwartz et al.: Sect III  
Bordens & Abbott: 2 | APA Formatting  
Exercise |
| 2/09 | Research Ethics | St. James: 4  
Middelst mit et al. (1976)  
Koocher (1976)  
Belmont Report | Identifying Ethical Issues in Experiments |
| 2/11 | Causal inference | St. James: 5 (pp. 111-115)  
Stanovich: 5 | Identifying Threats to Internal Validity |
| 2/16 | External Validity | St. James: 5 (pp. 111-115)  
Lauman et al. (1994)  
Lewontin (1995) | Identifying Limitations to External Validity |
| 2/18 | Hypothesis testing  
Statistical Validity | St. James: 6, 7 (pp. 157-160) | Identifying Type I, Type II Errors; Ingredients of Power |
| 2/23 | EXAM 1 | St. James: Appendix C  
St. James: 5, 9 | DSC Method of Calculating Correlations; |
| 2/25 | Correlational Research  
Simple & multiple regress | St. James: Appendix C  
St. James: 5 | Making sense of regression results |
| 3/01 | Simple & multiple regress | St. James: Appendix C  
St. James: Appendix D | Content Analysis Exercise |
| 3/03 | Observational research | St. James: 7  
Rosenhan (1973) | Advantages and disadvantages of Case Studies |
| 3/10 | Proposal presentations | | |
| 3/15 & 3/17 | No Class – Spring Break | | |
| 3/22 | Experimental design I  
One-way between Subj | St. James: 10 (pp. 172-182)  
Gustafson (1987) | Explaining Logic of Hypothesis Testing  
using and ANOVA Model Exercise |
| 3/24 | Experimental design II  
One-way within Subj | St. James: 10 (pp. 182-189)  
Ishee & Titlow (1986) | Identifying Design Exercise |
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<tr>
<th>Date</th>
<th>Topic</th>
<th>Resource</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>3/29</td>
<td>Experimental design III</td>
<td>St. James: 11</td>
<td>Factorial Design Exercise</td>
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<tr>
<td></td>
<td>Factorial Design</td>
<td>Linder &amp; Hynan (1987)</td>
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<tr>
<td>3/31</td>
<td>Main effects and Interactions</td>
<td>Spencer et al. (1999)</td>
<td>Describing Results in terms of Main effects and interactions</td>
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<tr>
<td>4/05</td>
<td>Graphs and Tables</td>
<td>Stanovich: 9 &amp; 10</td>
<td>Creating APA style Tables and Figures Exercise</td>
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<td>4/07</td>
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<tr>
<td><strong>3/31</strong></td>
<td>Last Day To Drop Class</td>
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<td>4/08</td>
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<td>4/12</td>
<td>Quasi Experiments</td>
<td>TBA</td>
<td>Identifying Threats Exercise 1</td>
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<tr>
<td>4/14</td>
<td>Quasi Experiments</td>
<td>TBA</td>
<td>Identifying Threats II</td>
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<td>4/19</td>
<td>Article Critiques</td>
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<td>Critique Exercise 1</td>
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<tr>
<td>4/21</td>
<td>Article Critiques</td>
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<td>Critique Exercise 2</td>
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<td>Article Critiques</td>
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<td>Critique Exercise 3</td>
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<tr>
<td>4/28</td>
<td>Summing up and review for final Exam</td>
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<tr>
<td>5/03</td>
<td>Final Exam (Exam 3)</td>
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<tr>
<td>5/10</td>
<td>Research Colloquium</td>
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<td>Group Presentations</td>
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