PSY301 and PSY301L: RESEARCH DESIGN AND STATISTICS
SPRING 2011 SYLLABUS
DR. CHRISTY TERANISHI MARTINEZ

PSY301 Section 03 (Bell Tower 2515): T 12 – 1:50 p.m.
LAB Section 05L (Bell Tower 1716): T 2 – 3:50 p.m.
LAB Section 06L (Bell Tower 1716): Th 12 – 1:50 p.m.

OFFICE: Sage Hall 2035
PHONE: (805)437-3311
E-MAIL: christy.teranishi-martinez@csuci.edu
OFFICE HOURS: TTh 11 – 12 pm, W 3 – 4 pm and by appt.

Course Description: Psy301 and 301L are required courses for Psychology majors, and it is a continuation from Psy300. This course provides you with a background of research methods and statistics relevant to psychological research. In this course, you will apply your understanding of descriptive and inferential statistics by carrying out an entire research project, and apply your critical and analytical thinking skills to evaluate research and statistics. We will continue to examine ways of using both qualitative and quantitative methods, to address different research questions. Lab assignments will provide you with the opportunity to practice statistical techniques using the SPSS statistical software.

Prerequisites: Successful completion of Psy300 with a C or better and upper division standing or permission of instructor.

Required Materials: You must to bring a CD or a USB flash drive and a calculator to every class.

Required Texts


Optional Recommended Texts

Additional readings and assignments may be handed out in class or posted on Blackboard.

Course Outcomes  Upon completion of this course you will:
1. Understand the basic principles and logics in conducting psychological research and be able to articulate the basic tenets of the empirical method in psychology.
2. Know how to determine the appropriate statistical technique to use with specific research questions.
3. Apply research methods and statistics to answer questions about behavior through participation in lab exercises and experiments.
4. Read, understand, and critically review and evaluate research reports published in psychological journals on the basis of their validity (e.g., construct, internal, external, statistical) and their conformity to the ethical principles for psychologists defined by the American Psychological Association (APA).
5. Demonstrate the ability to critically review psychological literature using a computerized index such as PsychLIT or PsychINFO.
6. Know how to use statistical software, e.g., SPSS, for data analysis and be able to interpret information from computer printouts.
7. Design and conduct a study, applying research methods and statistics to examine your hypotheses and answer questions about behavior.
8. Be able to write a research report and present your findings using the APA format in a poster or presentation at a conference. You should be able to verbalize basic statistical concepts and techniques, including when to use and when not to use different types of statistical procedures. You should also be able to describe the assumptions and limitations underlying the different methods and provide suggestions for future research.

Requirements: Your grades will be based on the exams, a research project, paper and presentation, workbook and lab exercises, attendance and class participation.

50% Exams
20% Research Project and Paper
10% Final Poster Presentation
10% Quizzes, Homework and Lab Exercises
10% Participation and Attendance
**Exams:** Exams will consist of a combination of multiple choice, short answer and computational problems based on the readings, lectures, homework, and lab exercises. You must bring a No.2 pencil and a calculator to the exams. Exams will be held on the following dates:

**MIDTERM EXAM:** Tuesday, March 15<sup>th</sup> in class  
**FINAL EXAM:** Tuesday, May 17<sup>th</sup> 1 – 3 p.m. (Note: Time Difference)

Lab exams will take place the last week of class in your lab sections. *Note: No make-up exams will be given unless previously approved, a doctor’s note is provided, or you have a serious emergency. Those who need special assistance during examinations, please notify me in advance so accommodations can be made.*

**Research Project, Final Paper, and Presentation:** You will conduct a small research project from start to finish, and by the end of the course be able to develop your own hypotheses, conduct statistical analysis, and write-up your results. You will present your research findings to the class. The following is a tentative schedule of your weekly goals:

- **Week 1**  
  Think about a particular phenomenon that you are interested in studying.

- **Week 2**  
  Develop Research Groups.

- **Week 3**  
  Brainstorm research ideas and hypotheses with research group. Write a one-page proposal describing your research question(s) and hypotheses. Describe how you personally relate to this research topic. This proposal is due **February 1<sup>st</sup>** (Note: One proposal is due per group.)

- **Week 4**  
  Find two peer refereed journal articles on this topic in the library (Note: Each student in the group should find their own articles different from each other). You will write a critique on these two articles, and describe how you would extend upon these studies to apply it to your own study. Your article critiques are due **March 8<sup>th</sup>**.

- **Week 5**  
  In lab you will develop three open-ended interview questions. You will also develop three survey questions and define the scales of measurement for each question. You must be able to compute inferential statistics with the survey data.

- **Week 6**  
  Finalize survey questions.

- **Week 7**  
  Recruit students to participate in survey. *Your article critiques are due this week.* Each student in your group must complete this assignment individually using different journal articles.

- **Weeks 8 & 9**  
  Administer surveys.

- **Week 10**  
  Enter data.
Week 11 Conduct statistical analysis using SPSS-PC to test your hypotheses.

Week 12 Conduct statistical analysis using SPSS-PC to test your hypotheses.

Week 13 Work on Results and Discussion sections.

Weeks 14& 15 Prepare a Power point and a poster to present to the Psychology department. Groups will present in class May 3rd and 10th. Each student in the group must contribute to the presentation (approximately 5 minutes each). Your final poster is due on MAY 3rd. Your final research paper formatted in APA style is due at the beginning of class on MAY 10th.

Quizzes, Homework and Lab Exercises: You will have weekly quizzes at the beginning of class. If you miss a quiz, you will not be able to make it up. You are required to complete homework and lab exercises related to the lecture, textbooks, and lab materials. These assignments are due without exception at the beginning of class on the date specified by your instructor. Assignments may include research and statistical problems, article critiques, and interpretations of statistical analyses.

You will apply your knowledge and understanding of quantitative and qualitative methods by entering and analyzing sample data from surveys that are provided, as well as with your own collected data utilizing the SPSS statistical program.

You are required to attend weekly lab sessions (Note: If you incur more than three unexcused absences in lab, you will not pass Psy301). You will conduct literature reviews, design and conduct empirical studies, analyze data using SPSS, and write up results and findings using APA format. Your lab grade is based on your attendance, participation, and knowledge of the SPSS program.

Class Participation and Attendance: Class attendance is mandatory to pass this course and participation is highly encouraged. If you incur more than three unexcused absences in either lecture or lab, you will not pass the course. Attendance, participation and homework exercises help to facilitate your learning in this course. You must read the assigned readings before each class. While reading the material, take note of your questions or concerns. In class, you should be an active learner. Try to connect the information in the lecture with your readings. Lecture presentations may emphasize some points from the text and may also include additional information from other sources. Merely reading from your texts or attending class is not sufficient to meet the course objectives.
Grades: The goal of this course is to provide you with the opportunity to gain new knowledge in research methodology in psychology and social sciences. Be the end of this course, you should be able to understand statistical concepts and apply them to your own research questions. If you fulfill all of your requirements and fully participate in class, your effort will be reflected in your grades: You earn the grades that you deserve. The more you put into the course, the more you will learn from our class. For successful completion of this course, you must earn a C or better.

Late Work Policy: Assignments are considered late if turned in any time after the beginning of the class on the date they are due.
• 1 day late 80% of total points possible
• 2 days late 50%
• More than 48 hours after due date 0

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Topic</th>
<th>Reading Assignment</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Intro to Course</td>
<td>Review Chapter 7: Hypothesis Testing</td>
<td>Develop project Form groups in lab</td>
</tr>
<tr>
<td>Week 2</td>
<td>Experimental Design: Between-Participant</td>
<td>Jackson: Chapter 8 pp. 202-215</td>
<td>Group Project Proposal Due HW#1 assigned</td>
</tr>
<tr>
<td>Week 3</td>
<td>Experimental Design: Correlated Groups</td>
<td>Jackson: Chapter 8 pp. 215-220</td>
<td>HW #1 Due HW#2 &amp; 3 assigned</td>
</tr>
<tr>
<td>Week 4</td>
<td>Experimental Methods Project Day</td>
<td>Revised Proposal and HW#2 Due</td>
<td></td>
</tr>
<tr>
<td>Week 5</td>
<td>t-test for paired and independent samples</td>
<td>Jackson: Chapter 9 pp. 225-240 SPSS: Chapter 13</td>
<td>HW#3 Due HW#4 assigned</td>
</tr>
<tr>
<td>Week 6</td>
<td>One-Way Between-Participant ANOVA</td>
<td>Jackson: Chapter 10 pp. 256-274 SPSS: Chapter 14</td>
<td>Work on article critiques</td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Lecture Topic</td>
<td>Reading Assignment</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>----------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Week 7</td>
<td>3/08</td>
<td>One-Way Repeated Measures ANOVA</td>
<td>Jackson: Chapter 10 pp. 274-283 SPSS: Chapter 16</td>
</tr>
<tr>
<td>Week 8</td>
<td>3/15</td>
<td><strong>MIDTERM EXAM</strong></td>
<td></td>
</tr>
<tr>
<td>Week 9</td>
<td>3/22</td>
<td>Spring Break! No Class 😊</td>
<td></td>
</tr>
<tr>
<td>Week 10</td>
<td>3/29</td>
<td>Factorial Design and Two-Way ANOVAs</td>
<td>Jackson: Chapter 11 SPSS: Chapter 18</td>
</tr>
<tr>
<td>Week 11</td>
<td>4/05</td>
<td>Quasi Experimental and Single Case Design</td>
<td>Jackson: Chapter 12</td>
</tr>
<tr>
<td>Week 12</td>
<td>4/12</td>
<td>Correlation and Regression Analysis</td>
<td>Jackson: Chapter 6 SPSS: Ch. 10-11</td>
</tr>
<tr>
<td>Week 13</td>
<td>4/19</td>
<td>Non-Parametric and Chi-Square</td>
<td>Jackson: Chapter 9 pp. 240-248 SPSS: Chapter 17</td>
</tr>
<tr>
<td>Week 14</td>
<td>4/26</td>
<td>Final Exam Review Work on Poster and Presentation</td>
<td></td>
</tr>
<tr>
<td>Week 15</td>
<td>5/03</td>
<td><strong>FINAL GROUP PRESENTATIONS</strong></td>
<td><strong>FINAL POSTER DUE</strong></td>
</tr>
<tr>
<td>Week 16</td>
<td>5/10</td>
<td><strong>FINAL GROUP PRESENTATIONS</strong></td>
<td><strong>FINAL RESEARCH PAPER DUE</strong></td>
</tr>
<tr>
<td>Week 17</td>
<td>5/17</td>
<td><em><strong>FINAL EXAM</strong></em></td>
<td>1 – 3 p.m.</td>
</tr>
</tbody>
</table>

* Please note: This schedule is tentative and may change due to special presentations, guest speakers, special student interests, and/or the instructor’s creative inspirations. If you are absent, it is your responsibility to find out what you missed and to turn in all assignments in a timely manner.
PSY301 RESEARCH DESIGN AND STATISTICS
RESEARCH PROJECT
Dr. Christy Teranishi Martinez

Goals: You will conduct a small group research project from start to finish, and by the end of the course be able to develop your own hypotheses, calculate statistics on actual data, and write-up the results of your study. Please complete the following checklist and turn it into me in a folder with your completed project:

1. _______ 1 page proposal of your research project including your research questions and/or hypotheses, and why you are interested in this research topic (one proposal per group) is due FEBRUARY 1st.

2. _______ 2 page typed critiques of at least two resources from peer refereed journals that provide recent empirical research findings on your topic of interest are due at the beginning of class on MARCH 8th. Note: Each student in your group must complete this assignment individually using different references.

Your final research paper is due at the beginning of class on MAY 10th. No late papers will be accepted. It must include the following:

______ A printout of your statistical analyses
______ A printout of your references

Your final report should include:

______ 1) Description or demographics of the participants
______ 2) Your research question(s)
______ 3) Hypotheses and a brief rationale
______ 4) Results of your analysis
______ 5) Discussion of whether your hypotheses were confirmed or not confirmed
______ 6) Implications of your findings and suggestions for future research

Use this checklist when you turn in your group research project. Let me know if you need help in carrying out any of these step-by-step procedures. You will develop a Power point presentation and poster to present to the class and the Psychology department. Cite all references using APA format. Your final poster is due MAY 3rd.
Course Policies

Absences. We will cover theories and concepts in a comprehensive manner. I will make each lecture interesting and interactive as possible. You must attend classes on a regular basis in order to connect the material from one class to the next. If you miss a class, it is your responsibility to obtain missing notes from one of your classmates. You should also arrange to have someone turn in your homework assignment and obtain your homework assignments. Note: You may not incur more than three unexcused absences in either lecture or lab and pass this course.

Academic Honesty. All work you submit as your own work must, in fact, be your own work. Any information acquired, learned, or copied from other source must be cited. For example, if a paper presents ideas of others, it must clearly indicate the source. Word-for-word language taken from other sources – books, papers, websites, people, etc. – must be placed in quotation marks and the source identified. Likewise, work on examinations must be your own work, not copied or taken from other students’ work. You must also comply with instructions regarding use of books, notes, and other materials. In accordance with the CSU Channel Islands policy on academic dishonesty, students in this course who submit the work of others as their own (plagiarize), cheat on tests and examinations, help other students cheat or plagiarize, or commit other acts of academic dishonesty will receive appropriate academic penalties, up to and including failing the course. You are encouraged to consult with me on when and how to document sources if you have questions about what might constitute an act of plagiarism or cheating.

Papers with plagiarized ideas or language will be given an “F” and must be rewritten with proper use of quotations and referencing. The grade of “F” will remain the recorded grade on that assignment. In cases where the cheating or plagiarism is premeditated or planned, students will receive an “F” for the course.

Classroom Behavior. The classroom is a special environment in which students and faculty come together to promote learning and growth. It is essential to this learning environment that respect for the rights of others seeking to learn, respect for the professionalism of the instructor, and the general goals of academic freedom are maintained. Differences of viewpoint or concerns should be expressed in terms that support the learning process, create an environment in which students and faculty may learn to reason with clarity and compassion, to share of themselves without losing their identities, and to develop an understanding of the community in which they live. Student conduct that disrupts the learning process will not be tolerated and may lead to disciplinary action and/or removal from class. Cell phones must be turned off during class.

Students with Special Needs. Please discuss approved accommodations with me at the beginning of the semester. Cal State Channel Islands is committed to equal educational opportunities for qualified students with disabilities in compliance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990. The mission of Disability Accommodation Services is to assist students with disabilities to realize their academic and personal potential. Students with physical, learning, or other disabilities are encouraged to contact the Disability Accommodation Services Bell Tower 1541, Ph. 437-8510, accommodations@csuci.edu for personal assistance and accommodations.