San José State University  
Department of Psychology  
Method and Design for Applied Research  
Psyc 291, Section 02  
Spring 2011

Instructor: Sean Laraway, PhD  
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Email: sean.laraway@sjsu.edu  
Office Hours: F, 1 – 5:00 pm  
Or by appointment  
Class Days/Time: W, 12:00 – 2:45 p.m.  
Classroom: DMH 308  
Prerequisites: Advanced Research Methods and Design (e.g., Psyc 120); Elementary and Intermediate Statistics (e.g., Stat 95 & 115)

Course Description
The goal of this course is to introduce you to the theory and practice of applied research. Topics to be covered include: (a) validity (i.e., internal, external, construct, and statistical conclusion, social); (b) research designs (e.g., randomized-group, single-case); (c) graphical and statistical analysis of data, including hypothesis tests, confidence intervals, effect size measures, and power/sample size determinations; (d) assessment methods; (e) ethical issues in applied research; (f) communication of research findings; (g) reliability; (h) causation; and (i) critical thinking in evaluating research findings and causal claims.

Course Web Page
Course web site: https://sjsu.desire2learn.com/

The best method of contacting me is via Desire2Learn (D2L) email. Please allow 1-2 business days for a response. Responses will be sent Monday-Thursday from 9 a.m.-5 p.m.

Copies of the course materials may be found on the desire2learn site. Articles will be posted to the D2L site only. You are responsible for regularly checking the D2L for announcements, etc.

Course Goals and Student Learning Objectives
The purpose of this course is to introduce clinical graduate students to the fundamental quantitative research methods and designs used in applied psychology. Students completing this course are expected to demonstrate the following learning outcomes at a masters-level of sophistication:
1. The mastery of the concepts, vocabulary, and designs of quantitative methods in applied research
2. The ability to evaluate critically research reported in scholarly journals, in the mass media, and in professional presentations
3. The ability to develop, propose, conduct, and communicate valid psychological research using APA style
4. The ability to understand, use, and critique common statistical methods used in psychological research
5. The ability to use software for analyzing data (e.g., Excel) and for presenting research proposals and findings (e.g., PowerPoint)
6. The ability to understand ethical standards relevant to psychology research, to evaluate these standards in published research, and to follow all relevant ethical standards when conducting original research
7. A basic understanding of causation and the evaluation of causal claims

**Required Texts/Readings**

**Textbook**

2. Research articles and/or chapters will be made available electronically (PDF format) via the class web site.

**Other equipment / material requirements**

1. Scientific calculator (must have square root and exponent buttons)
2. Computer, printer, internet, and library access
3. Scantron (882) forms
4. Access to relevant software

**Classroom Protocol**

**Classes**

Classes will comprise lectures, in-class activities, student presentations, and discussions. Attendance is required and is critical for success in this course. If you miss a class, you are responsible for getting the information covered. It is vital that you complete all scheduled readings and assignments before each class. Always bring your text and calculator to class. Do not talk, read, text message, or eat during class. Please arrive to class on time.

**Etiquette**

Students are expected to attend class and maintain a level of professional and courteous behavior in the classroom. Students disrupting the classroom will be asked to leave.
Cell phones and other electronic devices
Please be certain to turn off or put in silent mode (not vibrate mode as that is still audible and is distracting) all cell phones, pagers, and any other devices that produce distraction prior to entering the classroom.

Late arrivals
If you must arrive late or leave early, please do so quietly and with a minimum of distraction.

I expect you to come to class prepared
“Prepared” means you have completed the readings and any assignment before class starts, and written down any questions you had from any assignments.

Communication with Instructor
Use email or come to office hours.

Check the course Desire 2 Learn site regularly!
If I become ill, I will inform you the night before that I will be absent. Please email me before class if you will not be in class. Please set your spam controls to accept my email address.

Dropping and Adding
Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Information regarding adds/drops can be found at: <http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-324.html>. Information regarding a late drop can be found at: <http://www.sjsu.edu/sac/advising/latedrops/policy/>
Students should be aware of the current deadlines and penalties for adding and dropping classes.

Assignments and Grading Policy
Exams
You will have three exams. Exams will comprise multiple-choice, short answer, and computation questions. Please bring a Scantron form, pencils, and a calculator to each exam. All formulas will be provided to you. You will have 1 hr to complete each exam, after which class will resume.

Self-Management Project (SMP)
You will design and conduct a semester-long self-management project. This project will require you to identify one or more target behaviors of your own that you would like to change using the principles of behavior and research methods discussed in class. You will implement one or more interventions to change the target behavior(s). In other words, you will become your own therapist and will track your own behavioral data. You will also find at least one classmate who will serve as your “buddy” to assist you in your project. You will assist your buddy with his/her project. In other words, you will also have a “client,” whose behavior you will track. Choose a behavior that you would like to change that you don’t mind sharing with your buddy, fellow classmates, and instructor. You will collect data on your chosen behavior(s), analyze the data, and write a concise and correct summaries of behavior changes (if any). For this project, you will complete Exercises that will lead you to the Final Report. The Final Report must be at least 5 pages of text plus a cover page, abstract, reference section, and tables/graphs (typed,
double-spaced, 12-point font, 1” margins). Projects must use correct grammar, punctuation, and statistical style (as described in the *Publication Manual of the American Psychological Association*, 6th ed.). Projects must cite at least 5 relevant peer-reviewed journal articles related to your target behavior, intervention, etc. More information will be provided throughout the semester. This project will serve as the culminating experience of the course.

**Make-up Exams**

Make-up exams will only be given if you contact me prior to missing the exam in question. If deemed necessary, a single make-up exam will be given at the instructor’s convenience and discretion. Any student that fails to contact the instructor by the next class meeting following the missed exam forfeits his/her eligibility to take a make-up exam

**Grading Policy**

Your grade will result from the total number of points that you earn during the semester.  

<table>
<thead>
<tr>
<th>Table 1: Assignments and point totals</th>
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<tbody>
<tr>
<td>Assignment</td>
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<td>Exams</td>
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<td>Exercises</td>
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<td>Report</td>
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<td>TOTAL</td>
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<th>Table 2: Grading scale</th>
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<tbody>
<tr>
<td>Points earned</td>
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<tr>
<td>≥ 98</td>
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<td>93</td>
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<td>90</td>
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<td>88</td>
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<td>78</td>
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**Class Participation**

The class will use a seminar format with assigned readings, classroom discussion, and student presentations. The quality of the class will depend, in part, on how well each participant contributes to the work we do in the classroom. If we all are to gain from our efforts, it is very important that everyone come to class prepared to participate actively in discussing the issues at hand. Each member of the class is expected to…

- Attend all classes
- Complete all assigned readings prior to each class
- Participate in classroom discussion on those readings
Your final scores on all in-class presentations will include points related to your participation in ensuing discussions, including questions asked, questions answered, etc. All students should be prepared to ask at least one concise, thoughtful question during each presentation. If you need to miss a class period, please let me know prior to that date by email.

Writing Policy
The quality of your writing is graded in this class. You will lose points if I cannot understand what you are trying to say. If you are not comfortable writing, you should seek additional assistance (see below). Whenever referencing something you have read, you are expected to provide a complete, APA-style reference. It is assumed that you know, understand, and can properly apply APA-style. If not, it is your responsibility to re-familiarize yourself with this style guide. Never reference a web site or web source, ever. If you find a good article referred to on the web, get it, read it, and use that original source.

Important!! The Department of Psychology has adopted the policy that designated written assignments will be returned ungraded for substantial errors in grammar, punctuation, spelling, clarity, conciseness, and validity of content. Papers returned will suffer a minimum penalty of 10% on the final grade on rewritten work. The revised paper must be returned within a maximum of seven calendar days and submitted with a copy of the original work.

Unless otherwise noted, all written assignments must be typed, double-spaced, with 1" margins, and use a standard font (i.e., Arial, Times New Roman, or Helvetica) of size 12. Your name, the semester of the course, and the course name must appear in the upper right corner (except for the Research Report). Multiple pages must be sequentially numbered and stapled in the upper left corner. Assignments will not be accepted and will be considered “late” until they are consistent with the above policy.

Late Work Policy
All assignments must be handed in immediately upon request according to the schedule below. Material handed in after this period will be considered late. Ten percent (10%) will be deducted from the final grade for each day that an assignment is late. Assignments more than three days late will not be accepted unless other arrangements have been made with the instructor.

Classroom Environment and Electronics Policy
In an effort to create a classroom environment conducive to sharing one’s thoughts, I require the following classroom etiquette:

• Be polite and respectful to the other people in the class.
• Do not carry on conversations with others during class.
• Do not work on any other course material during class, including studying for other exams.
• Do not sleep during class.

Professional Communication
As a University student, you are encouraged to engage in professional communication with faculty, staff, and your fellow students. This is especially important in electronic mail notes that you might send. When sending email, I would encourage you to create an email account that includes your name (e.g., sean.laraway@internet.com). If you do not create such an email, be
certain to include your name in the correspondence. Please be sure to follow the following basic guidelines when communicating in a professional capacity:

- Do not leave the Subject: field blank. Always fill in the Subject: field with a brief and concise description of the content of your email.
- Be sure to identify yourself clearly by stating your full name and the specific course and section number in which you are enrolled.
- Be clear and concise in your statement about what you are asking for or of what you are informing the reader.
- Always spell check your email, proofread for errors, capitalize your sentences and use appropriate punctuation and grammar. No not use abbreviations common to text messages.
- Refrain from formatting your email with colored text, fancy fonts, or strange backgrounds.
- When sending an email to groups of people, list all of the recipients email addresses in the BCC (Blind Carbon Copy) field. When an email address is designated in the BCC field, the recipient will get a copy of the email while their email address remains invisible and protected from the view of the other recipients of the email - some of whom they may or may not know.
- If needed, clearly request a reply. I strongly encourage you to request a response back if you send something that needs to be graded in a timely matter to be certain it was received. If you do not hear back within a reasonable amount of time from the person you sent the email to, politely request a response and resend the original message (you can use the forward function here).
- Do not use Return Receipt Request (RR) for every email you send because you like "knowing" when someone opens your email. Not only is this annoying to the recipient, this feature is intrusive!
- Do not expect an immediate reply. Electronic communication is available 24/7. This is not true of your instructor or your classmates.
- Raise your right hand and repeat after me: "I will not forward any dumb joke, chain letters, virus warnings, or unimportant emails to others without their permission."

University Policies

Academic integrity

Students should know that the University’s Academic Integrity Policy is available at <http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf> Your own commitment to learning, as evidenced by your enrollment at San Jose State University and the University’s integrity policy, require you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The website for Student Conduct and Ethical Development is available at <http://www.sa.sjsu.edu/judicial_affairs/index.html>

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person’s ideas without giving proper credit) will result in a failing grade and sanctions by the University. At SJSU plagiarism is the act of representing the work of another as one’s own (without giving appropriate credit) regardless of how that work was obtained, and submitting it to fulfill academic requirements. Plagiarism at SJSU includes but is not limited to:
1. The act of incorporating the ideas, words, sentences, paragraphs, or parts thereof, or the specific substances of another’s work, without giving appropriate credit, and representing the product as one’s own work;
2. And, representing another’s artistic/scholarly works such as musical compositions, computer programs, photographs, painting, drawing, sculptures, or similar works as one’s own.

The following URL will take you to the SJSU library’s plagiarism tutorial. If you have not yet completed this, it is worth your while to do so.

For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU’s Academic Policy F06-1 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act
If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC (Disability Resource Center) to establish a record of their disability.

Student Technology Resources
Computer labs for student use are available in the Academic Success Center located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union.

Learning Assistance Resource Center
The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. The center provides support services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. The LARC website is located at <http://www.sjsu.edu/larc/>

SJSU Writing Center
The SJSU Writing Center is located in Room 126 in Clark Hall. It is staffed by professional instructors and upper-division or graduate-level writing specialists from each of the seven SJSU colleges. Our writing specialists have met a rigorous GPA requirement, and they are well trained to assist all students at all levels within all disciplines to become better writers. The Writing Center website is located at <http://www.sjsu.edu/writingcenter/about/staff/>

Peer Mentor Center
The Peer Mentor Center is located on the 1st floor of Clark Hall in the Academic Success Center. The Peer Mentor Center is staffed with Peer Mentors who excel in helping students manage university life, tackling problems that range from academic challenges to interpersonal struggles. On the road to graduation, Peer Mentors are navigators, offering “roadside assistance” to peers who feel a bit lost or simply need help mapping out the locations of campus resources. Peer Mentor services are free and available on a drop-in basis, no
Tips to help you succeed in Psyc 291

1. Attend all classes and take good notes; Type and compile your notes soon after class
2. Start studying at least 2 weeks before each exam; form a study group with fellow students
3. Read assigned readings before each class; read each chapter at least twice
4. Ask questions in class, in office hours, and on the course web site
5. Check the web site daily and read all postings
6. Make flashcards for important concepts and terms
7. Visit the LARC or Writing Center if you need additional help
8. Complete assignments as soon as the relevant information is presented in class
9. Be a good team member: stay in contact, do your work, meet your deadlines.
10. Start reading NOW.

Statement of research ethics

In this class, you will collect and analyze quantitative data. These data may come from observing human behavior. You are expected to conduct ethical research studies. Failure to do so will result in failing grades for the relevant project. “Conducting ethical research” means that:

1. You do not break any laws or University policies in collecting or reporting your data.
2. You do not annoy, harass, or coerce people when collecting your data.
3. You collect and accurately report anonymous public data, which does not identify participants.
4. You do not endanger the participants or expose them to harm, including physical or emotional harm, embarrassment, ridicule, legal action, and so on. This means that you only collect data that do not involve illegal or embarrassing behavior (there are some exceptions that we will discuss in class).
5. You follow all ethical guidelines described in the APA Code of Ethics.

Acknowledgments

I would like to thank Dr. Ron Rogers for the use of his Psyc 220 syllabus from Spring 2009. He is responsible for much of the content and structure of the current syllabus. Of course, he is not responsible for any errors contained herein. I would also like to thank Dr. Susan Snyderski, Dr. Clifton Oyamot, and Dr. Glenn Callaghan for their helpful discussions and recommendations regarding class structure and pedagogy.
Notes on the schedule

This course will follow this schedule to the extent possible. The timing and specific nature of topics and activities may change. You are responsible for being informed of any changes made to the class syllabus. Such changes will be clearly stated in class and will be posted on the class web site before the changes take effect.

- * indicates that the assignment is due on that day
- # indicates that you should be working on this even if it is not due on that day
- ^ indicates that a brief, informal presentation is required on that day
- MP = Martin & Pear (2011). *Behavior modification: What it is and how to do it.*
- MH = Malott & Harrison (2005). *I’ll stop procrastinating . . . when I get around to it.*
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic(s)</th>
<th>Reading Due</th>
<th>Assignment</th>
</tr>
</thead>
</table>
| 01/26  | 1. Introductions & expectations 2. Introduction to performance management | 1. Syllabus 2. MH, Ch. 1, 9, 10 (read over next 2 weeks)                     | *Attendance & Attention  
*Choose a “buddy”  
#Start thinking about target behaviors, incentives, aversives, etc.                                                                                                                                   |
| 02/02  | 3. Introduction to psychological research                                 | 3. K, Ch. 1                                                                  | **Exercise 1:**  
--Make a list of 5 possible target behaviors you would like to change (and the desired direction of change)                                                                                           |
| 02/09  | 4. Introduction to applied behavior analysis                             | 4. MP, Ch. 3 4. MP, Ch. 13 4. MP, Ch. 17                                      | **Exercise 2:**  
--Do Self-Modification Exercises 1-3 on p. 50 (including questionnaire in Figure 3.3)                                                                                                                  |
| 02/16  | 5. Assessment Methods & Strategies                                       | 5. K, Ch. 13                                                                | **Exercise 3:**  
-- Describe how your project will meet the 10 Guidelines for Goal Setting on p. 215 of M&P to determine your SMP goals.                                                                                     |
| 02/23  | 6. Data analysis                                                         | 6. K, Ch. 15                                                                | **Exercise 4:**  
--Finalize target behaviors, incentives, aversives, goals, deadlines, etc.  
--Complete MH Ch. 10 Objectives                                                                                                                                         |
| 03/02  | EXAM 1 7. Introduction to single-case designs                            | Exam-related materials on study guide (TBA) 7. Huitema & Laraway (2006)       | ^Discussion of designs for SMP  
#Start collecting baseline data for SMP                                                                                                                                                                           |
| 03/09  | 7. Case studies and single-case designs                                  | 7. K, Ch. 10                                                                | #Collect baseline data                                                                                                                                                                                   |
| 03/16  | 7. Single-case designs                                                  | 7. PML, Ch. 5                                                               | #Collect baseline data                                                                                                                                                                                   |
| 03/23  | 7. Single-case designs                                                  | 7; ER, Ch. 9                                                                | **Exercise 5:**  
--Description of research design for SMP, with graphed baseline data  
#Collect baseline data                                                                                                                                                                                 |
| 03/30  | Spring Break                                                             |                                                                           | #Collect baseline data  
#Find articles related to SMP                                                                                                                                                                               |
| 04/06  | 7. Evaluation of the single case in clinical work                        | 7. K, Ch. 11                                                                | #Start first intervention phase  
#Find articles related to SMP                                                                                                                                                                               |
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Materials Provided</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>04/13</td>
<td>EXAM 2</td>
<td>Exam-related materials on study guide (TBA)</td>
<td>#Collect intervention data #Find articles related to SMP</td>
</tr>
<tr>
<td>04/20</td>
<td>9. Internal and external validity</td>
<td>9. K, Ch. 2</td>
<td><strong>Exercise 6:</strong> --SMP update: effectiveness of intervention, recycling, etc. #Find articles related to SMP</td>
</tr>
<tr>
<td>04/27</td>
<td>10. Construct validity &amp; statistical conclusion validity</td>
<td>10. K, Ch. 3</td>
<td>#Collect intervention data #Find articles related to SMP</td>
</tr>
<tr>
<td>05/04</td>
<td>11. Assessment and evaluation of interventions</td>
<td>18. K, Ch. 14</td>
<td>#Collect intervention data #Find articles related to SMP</td>
</tr>
<tr>
<td>05/11</td>
<td>12. Interpretation of Data</td>
<td>19. K, Ch. 16</td>
<td>#Collect intervention data #Find articles related to SMP</td>
</tr>
<tr>
<td>05/20</td>
<td>EXAM 3, 9:45-12:00</td>
<td>Exam-related materials on study guide (TBA)</td>
<td>*Final SMP Report</td>
</tr>
</tbody>
</table>

*Numbers include references, figures, and tables.
Self-management materials ©2005 Richard W. Malott & Holly Harrison

Available at:

http://old.dickmalott.com/students/undergradprogram/psy4600/selfmanage/