San José State University
Psychology Department
PSYC 291, Methods and Design for Applied Research
Fall 2017

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Email: Matthew.capriotti@sjsu.edu
Office Hours: Thurs, 8:00-8:55 AM, 10:25-11:30
Class Days/Time: Wednesday 9:00 – 11:45am
Classroom: DMH 308

Course Description

From the course catalog:
Development and management of applied research programs based on contributions of psychological research and methodology. Criticizing existing and proposed research. Reporting and communicating research results. Prerequisite: PSYC 18 or PSYC 120A; STAT 95 and STAT 115. Notes: MS program priority.

This class is designed to give you an overview of applied psychological research, and the methods used both in experimental group designs and in single-subject designs in applied settings. An overview of methodology, time-series design, and how to conduct and report clinical findings is provided with an emphasis on the importance of accountability in clinical psychological practice in the modern era.

Course Goals and Student Learning Objectives

Specifically, the goals of this course are for students to gain an understanding of research methods, statistical analysis, the use of research to inform evidence-based practice, the importance of research in advancing the profession of counseling, and statistical methods used in conducting research, needs assessment, and program evaluation.

Course Learning Outcomes (CLOs)

Upon successful completion of this course, students will be able to:

Upon successful completion of this course, students will:
1. CLO1: Understand the scientist practitioner model
2. CLO2: Develop an applied research project, collect data, and report results
3. CLO3: Understand the use of research in evidence-based practices
4. CLO4: Learn intervention and research planning within the principles of evidence-based practice.

Program and Licensure Learning Outcomes
See Appendix B

Required Texts/Readings

Required Texts

(2) Supplementary Journal Articles and Chapters. Supplementary book chapters will be available for download on the course website. These are essential readings and you will be responsible for them during the semester. You will also access journal articles for the course through the SJSU Library; the full citations for these are listed on the last page of this syllabus.

Course Website/Canvas
All of the material shown on the slides in lectures will be available on the on Canvas after class. These materials are not meant to be a substitute for coming to class, and many times they will not be available until after the material is discussed in class. In that this a graduate course, my expectation is that you will be very engaged in the material as it is being discussed in class, and will use the notes as reference, either during or after class, and to prepare for examinations and for future reference rather than a way to not be present physically or intellectually in class. In addition to the notes, the Canvas page will have a copy of the course schedule, which I will update as needed.

In-Class Participation and Late Work
This is a graduate class, and participation is crucial. Due to the nature and format of the class, your attendance at, and participation in, each meeting is crucial. You will almost certainly not be successful in this course without coming to class, attending to what is going on, and actively engaging. If you know in advance that you will need to miss class for a University-approved “excused” absence (e.g., religious observance), please let me know at least 2 weeks in advance (ideally during the first week of class). If you experience a significant, documented illness or other major life disruption (e.g., death of a family member) that affects your participation across multiple weeks of the class, I will work with you to come up with a plan for you to make up work and catch up with what you miss.
Classroom Protocol and Etiquette

Students are expected to behave with professionalism, respect, and courtesy in all in-class and out-of-class communications with classmates and the instructor. This includes actively participating in class discussions. See Appendix C for detailed expectations for in-class behavior and professional communication.

Final Examination or Evaluation

The program evaluation project is the culminating experience for this course, as it requires students to integrate concepts from across the semester and apply them to an on-the-ground clinical/systems issue. See description below.

Assignments and Grading Policy

Grades

Grading is based on a combination of several factors. The components of your grade are

- Research Critiques (7 @ 20 points each) 140
- Program Evaluation Project 140
- Graphing Project 50
- Participation (see below)

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330 total points

Participation. You are expected to contribute to class discussion each class period, defined as speaking out loud at least once. This may be asking a question about the material, answering a question posed by the instructors, or posing a comment about the material or another student’s comment. I will track participation throughout each class period. Your first two classes without participating will result in verbal feedback (or via email if you are not present). After this, 10 points will be deducted from your grade for every class meeting in which you do not participate.

Grades will be determined by the following scale:

<table>
<thead>
<tr>
<th>Percent</th>
<th>Letter Grade</th>
<th>Percent</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>73-76.99</td>
<td>C</td>
<td>≥ 97</td>
<td>A+</td>
</tr>
<tr>
<td>70-72.99</td>
<td>C</td>
<td>93-96.99</td>
<td>A</td>
</tr>
<tr>
<td>67-69.99</td>
<td>D+</td>
<td>90-92.99</td>
<td>A-</td>
</tr>
<tr>
<td>63-66.99</td>
<td>D</td>
<td>87-89.99</td>
<td>B+</td>
</tr>
<tr>
<td>60-62.99</td>
<td>D-</td>
<td>83-86.99</td>
<td>B</td>
</tr>
<tr>
<td>&lt;60</td>
<td>F</td>
<td>80-82.99</td>
<td>B-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>77-79.99</td>
<td>C+</td>
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Research Critiques

Over the course of the semester, you will critique research articles to build your ability to examine such articles and use them thoughtfully. In response to these research articles, you will answer in writing specific questions designed to assess your understanding of the studies and the research methodology utilized. See Appendix D for the questions and instructions.
**Graphing Project**

For this project, you will create graphical displays of hypothetical clinical data using Microsoft Excel. You will also submit a brief summary of your decision-making process in creating the graphs, following a format provided by the instructor. I will do a limited amount of in-class demonstration on how to graph in Excel, and also provide extensive resources and tutorials to assist you in building your Excel graph making skills. I will also be happy to assist you with graph-making during office hours.

**Program Evaluation Plan**

You will create an evaluation plan to evaluate a program or initiative at the agency where you are completing your practicum. This may be an initiative or program that is in place (e.g., a training you participated in), or an initiative or program you would like to see implemented at your agency. At the end of the semester you will present your evaluation plan to the class. The steps of this project are:

1. Draft evaluation plan (30 points). You will submit a written evaluation plan on Canvas by 9/27/2017. Instructions, a rubric, and a sample are available on Canvas as of the first day of class.

2. Final evaluation plan (80 points). You will submit a final evaluation plan on Canvas by 12/2/2017. The goal is for you to refine your evaluation plan based on feedback, showing the progression of your thinking throughout the semester.

3. Oral presentation (30 points). At the end of the semester, you will give a 10-12 minute oral presentation on your evaluation plan. Grading will be based on the extent to which you clearly communicate info contained in each section of the evil plan. A rubric is available on Canvas as of the first day of class.

**A Note on Using Other Resources**

Please note, if you work together to develop ideas, be certain that your writing is always your own. If you turn in writing that another student has turned in, I will assume you plagiarized (copied) each other’s work (see academic integrity policy). In this case, you will both fail the assignment and the course. Your immediate dismissal from the graduate program will be carefully considered.

**University Policies**

Office of Graduate and Undergraduate Programs maintains university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc.” You may find all syllabus related University Policies and resources information listed on GUP’s [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at http://www.sjsu.edu/gup/syllabusinfo/
# Appendix A: PSY 291 / Research Methods, Fall 2017

## Course Schedule

This tentative schedule and reading list is subject to change with one week’s notice at any time.

<table>
<thead>
<tr>
<th>Date</th>
<th>Week</th>
<th>Topic</th>
<th>Reading/ Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/23</td>
<td>1</td>
<td>Overview; Evidence-Based Practice</td>
<td>Hayes et al (Ch. 1); skim: Baer, Wolf, Risley (1968); GL Ch. 1-2</td>
</tr>
<tr>
<td>8/30</td>
<td>2</td>
<td>Reliability+ Replication</td>
<td>GL Ch. 5 (p. 85-94) and 6 (all); OSC (2015); Gilbert et al., (2015)</td>
</tr>
<tr>
<td>9/6</td>
<td>3</td>
<td>Validity + Threats to it</td>
<td>GL Ch. 5 (95-end), Kadin Ch. 2; Baer (1977); GOLDIN et al (2013)</td>
</tr>
<tr>
<td>9/13</td>
<td>4</td>
<td>Program Evaluation</td>
<td>Hayes et al., Ch. 10, sample eval plan</td>
</tr>
<tr>
<td>9/20</td>
<td>5</td>
<td>Methods of Single-case Behavioral Research: Selecting DVs, Interobserver Agreement, and Graphing</td>
<td></td>
</tr>
<tr>
<td>9/27</td>
<td>6</td>
<td>Withdrawal and Reversal Designs</td>
<td>GL Ch 7 + 8; Nelson &amp; Hayes (1981); Eval Plan I (draft) Due</td>
</tr>
<tr>
<td>10/4</td>
<td>7</td>
<td>Multiple Baseline Designs</td>
<td>GL Ch. 10; ERVIN et al (1996),</td>
</tr>
<tr>
<td>10/11</td>
<td>8</td>
<td>Comparison and Alternating treatments designs</td>
<td>GL Ch. 11; Slatery et al. (2015);</td>
</tr>
<tr>
<td>10/18</td>
<td>9</td>
<td>Group Designs: Subjects, Assignment, and Designs</td>
<td>GL 14; Kadin Ch 6; Graphing Project Due</td>
</tr>
<tr>
<td>10/25</td>
<td>10</td>
<td>Control and Comparison Groups</td>
<td>KADIN Ch 7, SHAPIRO (1989)</td>
</tr>
<tr>
<td>11/1</td>
<td>11</td>
<td>Assessing the Experimental Manipulation and Subsequent Outcomes</td>
<td>KADIN Ch 8 &amp; 14, Devilly et al. (1998),</td>
</tr>
<tr>
<td>11/8</td>
<td>12</td>
<td>Interpreting and Reporting Outcomes</td>
<td>KADIN Ch. 16; Gerdes et al. (2012); Newman et al. (1996)</td>
</tr>
<tr>
<td>11/15</td>
<td>13</td>
<td>Tying it together: Clinical Trial Quality and Ethics</td>
<td>KADIN Ch. 17; POTS Team (2004)</td>
</tr>
<tr>
<td>12/6</td>
<td>15</td>
<td>Program Eval Presentations</td>
<td>Eval Plan II (revised) due 12/2</td>
</tr>
<tr>
<td>M 12/18, 0715-0930</td>
<td>Final Exam</td>
<td>Program Eval Presentations</td>
<td>Optional : Pelham et al (2016), to replace one previous critique grade</td>
</tr>
</tbody>
</table>
Appendix B: Program and Licensure Learning Outcomes

Upon successful completion of the MS in Clinical Psychology:

PLO1.1 – Students will demonstrate breadth of knowledge of a variety of psychotherapy theories and in-depth knowledge of one chosen theory of intervention.

PLO1.2 – Students will demonstrate knowledge of empirically supported clinical interventions and evidence ability to select treatments for individual clients given this literature.

PL02.1 – Students will demonstrate effective integration and communication of clinical case material.

PL02.2 – Students will demonstrate the ability to synthesize contextual and cultural variables into presentations of client materials.

PL02.3 – Students will effectively respond to queries about clinical material and engage in discussions about their clients with supervisors and peers.

PL02.4 – Students will be able to think and discuss cases other than their own, applying theories, principles, and relevant empirical findings to those cases.

PL03.1 – Student will demonstrate understanding of different assessment devices and strategies for assessing outcome over the course of treatment including standardized nomothetic and idiographic approaches.

PL04.1 – Students will demonstrate depth and breadth of understanding in areas including, but not limited to, psychotherapy theory, service delivery, ethics, assessment, research methods, family therapy, cultural diversity, psychopharmacology, and issues relevant to adult and child clinical populations. Students will be able to apply this knowledge to clinical cases.

PL05.1 – Students will demonstrate fulfillment of coursework and other pre-degree licensing requirements outlined by the Board of Behavioral Sciences.

This course meets the following Program Learning Outcomes: 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 3.1, 4.1.

Licensure Learning Outcomes (LLO)

Licensing requirements for academic coursework toward the MFT and/or LPCC will be met for this course in the following way:
LLO1: For the LPCC requirements, this course is designed to fulfill category: (H) Research and evaluation, including studies that provide an understanding of research methods, statistical analysis, the use of research to inform evidence-based practice, the importance of research in advancing the profession of counseling, and statistical methods used in conducting research, needs assessment, and program evaluation. per BPC Section 4999.12

1. LLO2: For the MFT requirements, this course includes instruction in Diagnosis, assessment, prognosis, and treatment of mental disorders, including severe mental disorders, evidence-based practices, psychological testing, psychopharmacology, and promising mental health practices that are evaluated in peer-reviewed literature (BPC Section 4980.36(d)(2)(A))

This course will also cover aspects of the general MFT requirements that programs:

(1) Integrate all of the following throughout its curriculum: (A) Marriage and family therapy principles, (B) The principles of mental health recovery-oriented care and methods of service delivery in recovery-oriented practice environments, among others, (C) An understanding of various cultures and the social and psychological implications of socioeconomic position, and an understanding of how poverty and social stress impact an individual’s mental health and recovery; (2) Allow for innovation and individuality in the education of marriage and family therapists; (3) Encourage students to develop the personal qualities that are intimately related to effective practice, including, but not limited to, integrity, sensitivity, flexibility, insight, compassion, and personal presence; and (4) Permit an emphasis or specialization that may address any one or more of the unique and complex array of human problems, symptoms, and needs of Californians served by marriage and family therapists.
Appendix C: Expectations for In-Class Conduct and Professional Communication

This is a graduate seminar, so I expect you to be attentive in meetings, participate in discussions, and limit other distractions. Most importantly, please be respectful of your classmates’ opinions, as this is a seminar course and we are likely to discuss topics for which students will have differing opinions. Also, if you discuss patient-related content in class, please be sure to protect that person’s confidentiality. Students are asked not to share these discussions outside of class. In general, my expectation for students in class is that they participate actively, attentively, and respectfully. These issues are not typically a problem; that said, doing any of these will not be tolerated and will be grounds for dismissal from the class.

1. Be polite and respectful to the other people in the class, particularly when engaged in discussion. While I encourage an open discussion of many ideas, please refrain from using language that is prejudicial or hurtful to others.
2. Do not carry on conversations with others during class. (If you have a question or point to make, just say it so we can all hear it!)
3. Please turn off your cell phone for the time you are in class. If you need to receive an emergency call or monitor for an important message, let me know about it in advance. Never take a call and start talking during class.
4. Do not text message during class.
5. If you bring a laptop, please use it only for the purposes of the class (e.g., note-taking, referencing readings).
6. Attend to the class material. Do not work on any other course material during class, including studying for other exams.
7. Do not sleep during class.

Professional Communication
Email is NOT a place to get extensive help with exam questions or with papers. If you have questions about a paper or larger assignment, you must come to office hours to discuss them; I will not read drafts of papers over email. If you have specific questions about an upcoming exam with respect to material covered, please tell me the question and then make an attempt to answer the question. I will let you know if you are on track and amend the answer to make it better, if need be. Please do not send more than two questions at a time. If you have more than two questions, office hours are the place to get those answered.

As a graduate student, you are encouraged to engage in professional communication with faculty, staff, and your fellow students. This is especially important over email. Though this seems simple at face, students (and professionals) often fail to communicate professionally via email. Please be sure to follow the following basic guidelines when communicating in a professional capacity:

1. In the Subject line, state what specific issue you are emailing about (e.g., exam 3, quiz 7, absence on 9/12/16).
2. Be clear in your statement about what you are asking for or of what you are informing the reader.
3. Consider your request before you make it. If you believe you can make that request in a professional way and support your reasons for your request, please ask. If you have overslept, are tired, etc., please do not make requests based on those reasons.
4. Use a polite and respectful tone.
5. Use complete sentences.
6. Do not use abbreviations for words that are often used in text messages.
7. Use upper and lower case letters.
8. Be sure to use correct grammar and spelling in your message.
9. If you need a reply to the email you have sent, please request that clearly. 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.
10. 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).

If I notice you struggling to maintain a professional tone in emailing, I may point this out and suggest changes you might make. If this happens, please know that this is intended to further your professional development, and not out of anger, frustration, disdain, etc..
Appendix D: Research Critique Instructions and Questions/Prompts

Please use the number and header to denote where your answers to each question begin and end.

Each critique is worth 20 points, divided as follows (2 points/question):

1. What was the clinical problem being addressed?
2. Is it a relevant/important clinical problem in your opinion? Why or why not?
3. Briefly describe the intervention, if present
4. What is the proposed process variable or mechanism of change? How is it measured, if it is?
5. What is the outcome of interest? How is it measured?
6. Briefly describe the methods
7. Briefly describe the main findings.
8. Briefly describe the way outcomes are reported. What, in your opinion, are the strengths and weaknesses of the ways outcomes were reported (e.g., graphed)?
9. What, in your opinion, was helpful about this study?
10. What are criticisms/limitations of the study (at least 3)?

Note that minor modifications to questions may be made to best suit some research articles. Modifications will be discussed in class at least 1 week prior to assignment due dates.
References


