San José State University
Department of Psychology
PSYC 220: Seminar in Experimental Psychology
Section I, Spring 2017

Instructor Contact Information
Instructor: Dave Schuster, Ph.D.
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Telephone: 408-924-5659
E-mail: david.schuster@sjsu.edu
Office Hours: Tuesdays and Thursdays, 4:15pm – 5:00pm or by appointment

Course Information
Classroom: HGH 120
Class Days/Time: Tues. & Thurs., 1:30pm – 2:45pm
Prerequisites: PSYC 120A or equivalent

Course Description
This course covers advanced topics in experimental research methods in psychology. Students will gain the knowledge and skills necessary to develop novel quantitative research, articulate their approach in a research proposal, and plan for the successful and ethical execution of the research.

From the catalog: Applications of experimental method to current problems in psychology. Individual design and experimental work required.

Learning Outcomes

Program Learning Outcomes
Upon successful completion of the requirements for the MA in Research and Experimental Psychology, students will be able to:

Goal 1. Knowledge Base – Students completing the MA in Psychology program will understand the major theoretical perspectives and research methods across areas of experimental psychology, i.e., Developmental, Social, Cognitive, and Physiological.
  - PLO 1.1 – Understand the major theoretical perspectives and research methods across areas of experimental psychology, i.e., Developmental, Social, Cognitive, and Physiological.
**Goal 2. Research Methods & Scholarship** – Graduates of our program will possess an advanced level of competence in research methods, statistical techniques, and technical writing skills. Students completing the MA in Psychology program are required to complete a thesis. The thesis will:

- *PLO 2.1 – demonstrate creative problem-solving in the design, implementation of empirical research.
- *PLO 2.2 – demonstrate project management skills in the implementation of empirical research.
- *PLO 2.3 – demonstrate advanced competency in the statistical analysis and interpretation of empirical research findings.
- *PLO 2.4 – be able to communicate (oral and written) their research findings at a professional level.

**Goal 3. Career Enhancement** – Graduates of our program will experience career enhancement through placement in a doctoral program or acceptance of a position requiring a master’s in psychology in the public or private sector. Students completing the MA in Psychology program will:

- *PLO 3.1 – achieve career enhancement through placement in a doctoral program or acceptance of a position requiring a master’s in psychology in the public or private sector.

* STAT 245 contributes to PLOs 2.1, 2.2, 2.3, 2.4, and 3.1.

**Course Learning Outcomes**
The goals of this course are to help you: build a solid conceptual understanding of statistics in research, develop the practical skills to use statistics in your own research, and become a self-directed learner.

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

- **CLO 1** – Describe methods of acquiring knowledge, their strengths and limitations
- **CLO 2** – Identify answerable empirical questions
- **CLO 3** – Formulate testable and refutable hypotheses
- **CLO 4** – Execute the steps of the research process correctly and ethically
- **CLO 5** – Synthesize, cite, and evaluate literature relevant to research goals
- **CLO 6** – Develop original research ideas
- **CLO 7** – Apply ethical guidelines to research with human participants and nonhuman subjects
- **CLO 8** – Describe various experimental designs and the situations in which they would be appropriate, as well as their strengths and limitations
- **CLO 9** – Distinguish between sampling methods
- **CLO 10** – Recognize and mitigate threats to validity and reliability
- **CLO 11** – Apply research designs to a novel study
- **CLO 12** – Conduct appropriate statistical analyses of collected data
- **CLO 13** – Disseminate research outcomes and write research proposals in APA style

The learning objectives will be assessed via written assignments and exam questions. The course learning objectives were adapted from those of Drs. Sean Laraway and Howard Tokunaga.
Required Materials

**Canvas and E-Mail**
Unless otherwise announced in class, all graded assignments will be accepted only in electronic form using the Canvas learning management system assignments page (Canvas is available at https://sjsu.instructure.com/). Having access to the Internet is your responsibility, so have backup plans in case you have problems with your primary computer. I cannot accept excuses about technology problems as valid, unless the entire University network or all of Canvas is offline.

Supplementary course material will be made available on Canvas regularly. Communication regarding the course will be sent via the e-mail address linked to your MySJSU account or posted to Canvas. It is your responsibility to make sure you are enrolled in Canvas and receiving my e-mails.

**Required Texts/Readings**


Additional required readings will be made available on the Canvas site.

**SPSS, Microsoft Excel, and Microsoft Word**
You may occasionally need to perform analysis outside of class using SPSS and Microsoft Excel.

To use SPSS, it is intended that you obtain a copy of SPSS for your own computer from the Academic Technology Computer Center in Clark Hall (CL 102). The lab has kiosk computers where you can download the SPSS installer files onto a portable drive or upload them onto your SJSU Google Drive free of cost. Otherwise, install media is available for both Mac and Windows for $15.

SJSU’s license for Microsoft Office allows you a free subscription to Office 365, which includes downloads of Excel and Word. Visit the eligibility web site at http://www.office.com/getoffice365.

**Grading Policy**

**Determination of Grades**
Grades will be available to you on Canvas throughout the semester. Grades are assigned based on your final point total (out of 1000 points for the semester):

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>966+ points</td>
</tr>
<tr>
<td>A</td>
<td>916 - 965 points</td>
</tr>
<tr>
<td>A-</td>
<td>896 - 915 points</td>
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<tr>
<td>B+</td>
<td>866 - 895 points</td>
</tr>
<tr>
<td>B</td>
<td>816 - 865 points</td>
</tr>
<tr>
<td>B-</td>
<td>796 - 815 points</td>
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</tbody>
</table>
Rounding is Included in the Grading Scale

The point totals reflect rounding up to the nearest percentage. For example, an A- would normally require 900 points (or 90% of 1000 points). With rounding, it only requires 896 points (or 89.6% of 1000 points). Because rounding is built in to the grading scale, your grade will be based on your final point total, rounded to the nearest whole point (so, 895.75 points is an A-, but 895.25 points is a B+). To be fair to everyone in the class, these are firm cutoffs; no additional rounding will be done.

Course Requirements and Assignments

All assignments must be submitted through Canvas. Late assignments are not accepted for credit except as described below.

Exams
Exams are 35% of your final grade (350 points total).

Two take-home exams are worth 175 points each for a total of 350 points. Take-home exams must be completed independently without the help of any other individual. Be aware that technological methods may be used by the instructor to detect academic dishonesty. The instructor reserves the right to administer any exam in-class.

Research Presentation (Final Examination or Evaluation)
The research presentation is 5% of your final grade (50 points total).

The final evaluation activity in the course is a research conference session held during the final exam period. During the research conference session, students will present their final research proposal.

Research Proposal
The research proposal is 40% of your final grade (400 points total).

Two research proposal assignments will be graded according to the rubric posted to Canvas. The second assignment will reflect revisions to, and an expansion of, the first proposal.

Homework Assignments
Homework assignments are 20% of your final grade (200 points total).

Homework assignments are assigned in the syllabus schedule. Credit will only be given for fully completed assignments that reflect graduate-level work. This requires, at minimum, that APA style is used.
consistently, that the writing is intelligible, and that the work is largely free of errors in spelling, punctuation, and grammar. All homework assignments must be submitted through Canvas. Late assignments are not accepted for credit except as described below. The homework grade will be determined by multiplying 200 points by the proportion of satisfactorily completed assignments.

Make-Up and Extension Policy
Make-ups or extensions for any graded assignment will only be given when:

- The assignment is not labeled, “no make-ups or extensions for any reason.”
- The reason is exceptional, unforeseen, and unavoidable. Examples of exceptional circumstances are health emergencies, religious obligations, and military service. Work scheduling is not a sufficient reason for a make-up or extension.
- You provide written documentation.
- You notify me immediately after you become aware of the circumstances requiring a make-up or extension by filling out this form:
- You submit a request form at http://goo.gl/forms/0yJQ2KbvtP.

If the need for a make-up is known before the assignment due date, the assignment must be completed early. Make-up exams will be scheduled based on instructor availability. Do not e-mail your instructor with requests for a make-up or extension; instead, complete the request form.

Classroom Protocol
In the graduate seminar format, professional behavior is an expectation. As this is a graduate class, attending class implies your willingness to behave in a professional manner. Respectful disagreement and debate are encouraged. However, unprofessional, disrespectful, or disruptive behavior is a violation of the Student Code of Conduct, available at http://www.sjsu.edu/studentconduct/docs/Student%20Conduct%20Code%202013.pdf. Such behavior may result in being asked to leave the class and/or referrals to the Office of Student Conduct and Ethical Development.

University Policies
Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs’ Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/.

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, and clinical practica.

About Diversity
Consistent with the mission of San José State University, I welcome persons of differing backgrounds and experiences including but not limited to age, disability and health status, ethnicity and race, family structure, geographic region, language, religious/spiritual and secular beliefs, resident status, sex, sexual orientation and gender identity/expression, and socioeconomic status.
It is my goal to foster an environment in which diversity is recognized and embraced, and every person is treated with dignity, respect, and justice. I hope that your academic experience in this course and at San José State University will provide the opportunity to gain knowledge and experiences necessary to thrive in a diverse, global environment.

Course Schedule
The course schedule is tentative and subject to change; modifications will be posted to Canvas.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics</th>
<th>Readings read before class on Tuesday; see also Canvas</th>
<th>Assignments due by 11:59pm on Thursday</th>
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<tbody>
<tr>
<td>1</td>
<td>Thu. Jan. 26</td>
<td>Philosophy of science</td>
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<tr>
<td>2</td>
<td>Tue. Jan. 31 Thu. Feb. 2</td>
<td>Topic generation and selection of a research approach</td>
<td>Creswell Ch. 1</td>
<td>Topic statement Article reflection 1</td>
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<tr>
<td>3</td>
<td>Tue. Feb. 7 Thu. Feb. 9</td>
<td>Literature review</td>
<td>Creswell Ch. 2</td>
<td>Article reflection 2</td>
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<tr>
<td>4</td>
<td>Tue. Feb. 14 Thu. Feb. 16</td>
<td>Constructs and measurement</td>
<td>Creswell Ch. 3</td>
<td>Literature review</td>
</tr>
<tr>
<td>5</td>
<td>Tue. Feb. 21 Thu. Feb. 23</td>
<td>Ethics</td>
<td>Creswell Ch. 4 APA Ch. 2 APA Ch. 6</td>
<td>Model Development CITI Training</td>
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<tr>
<td>6</td>
<td>Tue. Feb. 28 Thu. Mar. 2</td>
<td>Writing the introduction: Deficiencies model</td>
<td>Creswell Ch. 5 APA chapter 2</td>
<td>Introduction 1</td>
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<tr>
<td>7</td>
<td>Tue. Mar. 7 Thu. Mar. 9</td>
<td>Writing the introduction: Purpose and hypotheses</td>
<td>Creswell Ch. 6 Creswell Ch. 7</td>
<td>Introduction 2 Peer review 1</td>
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<td>8</td>
<td>Tue. Mar. 14 Thu. Mar. 16</td>
<td>Issues of apparatus and measurement</td>
<td>Creswell Ch. 8 APA chapter 3</td>
<td>Operationalization Article reflection 3</td>
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<td>9</td>
<td>Tue. Mar. 21 Thu. Mar. 23</td>
<td>Writing workshop</td>
<td></td>
<td>Exam 1 Peer review 2</td>
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<tr>
<td>10</td>
<td>Tue. Mar. 28 Thu. Mar. 30</td>
<td><strong>Spring Break</strong></td>
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<tr>
<td>11</td>
<td>Tue. Apr. 4 Thu. Apr. 6</td>
<td>Validity and reliability</td>
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<td>Article reflection 4</td>
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<td>12</td>
<td>Tue. Apr. 11 Thu. Apr. 13</td>
<td>Validity and reliability</td>
<td></td>
<td>Proposal draft</td>
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<tr>
<td>Week</td>
<td>Date</td>
<td>Topics</td>
<td>Readings read before class on Tuesday; see also Canvas</td>
<td>Assignments due by 11:59pm on Thursday</td>
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<td>13</td>
<td>Tue. Apr. 18</td>
<td>Validity and reliability</td>
<td>IRB proposal</td>
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<td>Thu. Apr. 20</td>
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<td>Thu. Apr. 27</td>
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<td>14</td>
<td>Tue. Apr. 25</td>
<td>Research designs</td>
<td>Analysis plan</td>
<td>Anticipated results</td>
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<td>Thu. Apr. 27</td>
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<td>15</td>
<td>Tue. May 2</td>
<td>Research designs</td>
<td>Peer review 3</td>
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<td></td>
<td>Thu. May 4</td>
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<td>16</td>
<td>Tue. May 9</td>
<td>Research designs</td>
<td>Final proposal</td>
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<td>Thu. May 11</td>
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<tr>
<td></td>
<td>Tue. May 16</td>
<td>Research designs</td>
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<tr>
<td>Final</td>
<td>Tue. May 23</td>
<td>Final exam</td>
<td>Research conference (May 23)</td>
<td>Exam 2 (due May 23)</td>
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