Course Description and Outcomes

According to the course catalog, Statistics I is an introduction to the use of statistics in psychology. It covers basic ideas in measurement, frequency distributions and descriptive statistics as well as concepts and procedures in statistical inference. While the course will cover these concepts in detail, the overarching goal of this course is to empower you as behavioral scientists with both the understanding and know-how of statistics. My hope is that you not only come to appreciate the value of statistics in virtually all areas of your academic, occupational, and personal life, but that you also feel confident, prepared, and motivated to use statistics in advancing scientific knowledge in psychology and other behavioral and natural sciences.

Instructor: Kimberle A. Kelly, PhD
Office Location: SGM 529A
Office Phone: 213-740-9192
Email: akimkelly@gmail.com (include your name and lecture section in email)
Office Hours Fall 2012
On-site/phone hours (no appointment necessary):
   Tue: 11-12:30; 1:15-2:45; Wed: 10-11:30; 12:15-1:45
Online hours (email to reserve appointment time):
   Mon/Thu/Fri: 12-2

Lab Section 52456R
Thu. 12:00-1:50pm, SGM 631
TA: Andrew Larsen
Office Location: SGM 708
Email: larsena3@gmail.com
Office Hours: Tue. 1-2 & Thu. 11-12

Lab Section 52457R
Tue. 2:00-3:50pm, SGM 631
Office Location: SGM 708
Email: larsena3@gmail.com
Office Hours: Tue. 1-2 & Thu. 11-12

Lab Section 52458R
Mon. 10:00-11:50am, KOH 208
Office Location: SGM 529a
Email: akimkelly@gmail.com
Office Hours: See above

Course Management on Blackboard and Google Cloud Computing Services

Most course materials can be obtained from Blackboard beginning the first week of classes until the posting of final grades in December 2012. Most assignments will also be submitted via Blackboard. In some cases, course material and assignments will be managed through cloud-based computing services provided free of charge by Google. You will be provided access to these materials through posted links and email invitations. In order to access them, you may be required to create a gmail account (which you can link directly to your student email account). Your instructor can assist you with this setup if you have trouble accessing google-based documents.
First Things First

PSYC 274 is a labor intensive course that will require you to keep up on a weekly basis. Do not hesitate to seek assistance from the instructor, the TAs, and your classmates. We are all in this together. All required knowledge and information will be included on Blackboard, which also serves as the route for course-related announcements and email. Incidentally, it is also the route to contacting you in the unlikely event of a campus emergency or personal emergency on the instructor’s part. It is your responsibility to monitor Blackboard continuously throughout the course. In addition, it is highly suggested that you practice what you learn by using available resources to test yourself, work additional problems, etc. You will be provided plenty of options for practice, but it is up to you to take advantage of these resources. It’s an oldie but a goodie: Practice makes perfect.

Course Materials


• Companion Website: The publisher has a website to support the textbook. There is a student section that contains helpful support materials, including podcasts of the author’s own lectures.
  www.sagepub.co.uk/field3e

• Software: Outside of standard software for using the internet, preparing assignments, reports and presentations, you will use Excel, USC Library services databases, and IBM Statistics (formerly SPSS), all available on campus computers. While Excel is widely available and USC Library services are accessible on the web, IBM Statistics is only available on machines in on-campus computing classrooms and centers. You may find it useful to purchase your own copy of IBM Statistics.

• Hand Calculator with a square root function: The simplest calculator you can get with a square root function, the better. There is no need for anything fancy (a small, solar-powered one works best, $10-15). You can also use graphing calculators with statistical functions like mean and standard deviation, but this is not required.

• Personal Laptops, mobile devices, portable or online file storage: While laptops are permitted and will sometimes be used in lecture, there will be times when their use will be limited by the instructor. These devices should always be MUTED during lecture or lab, and no headphones are allowed. You will need a way to save files (portable USB drive, Dropbox, or Cloud drive).

• APA Publication Manual: Since you will be required to use APA style in formatting your assignments in this course, you may find it useful to buy your own copy. Relevant details about APA style will be provided during lecture and lab meetings.
Course Requirements

- Most course lectures will include a 5-point, individually-written assignment as part of the lecture activities. These vary among open-ended reflections, computational problems, and multiple-choice quiz questions. While attendance is not formally monitored for the class, you may not make up any lecture-based assignments outside of class. Your top 20 scores will be included in your final grade.

- For each lab meeting, a 10-point, computer-based assignment is designed to provide practice inputting, cleaning, visualizing, analyzing, interpreting, and presenting authentic data in writing. Assignments may include work in pairs or small groups or whole-class pooling, interpretation, and presentation of data. In general, labs must be posted to Blackboard by the beginning of the following lab section. Late assignments will not be accepted. Your top 10 scores will be included in your final grade.

- A 100-point applied statistics assignment will be completed in lab sub-groups. The assignment is to be written up as a paper by each student to demonstrate mastery of statistics using topics selected by the group for study. You will develop this project over the course of the semester as part of your weekly lab assignments, and your final draft must be posted to Blackboard by the start of the final lab meeting. This assignment will lose 5 points for every day it is late without an excused absence.

- The 100-point final exam will be cumulative in the sense that it requires you to use material from throughout the semester, but it is an “open-book” final. You will use laptops in the final examination. If you don’t have one, we will arrange for one, but you must tell us in advance. A sign-up sheet will be circulated toward the end of the semester. If you miss the final exam, you will be permitted to reschedule provided you 1) contact the instructor within 24 hours of the missed exam, and 2) the absence is excused.

*An excused absence requires that you provide documentation from a university employee or physician stating that within 24 hours of the due date, you were ill, at a school-related event, or experiencing an unanticipated personal emergency.

Grade Information

- Daily Lecture-Based Assignments 25% (Top 20 5-point assignments)
- Weekly Lab-Based Assignments 25% (Top 10 10-point assignments)
- Final Applied Statistics Assignment 25% (100 points)
- Final Examination 25% (100 points)

Grade Scale

The minimum percentage required to receive each letter grade below will NOT be adjusted.

- A 93% or better
- A- 90%
- B+ 87%
- B 83%
- B- 80%
- C+ 77%
- C 73%
- C- 70%
- D+ 67%
- D 60%
- F below 60%
Expectations for Student and Instructor Behaviors and Classroom Practices

For the Instructor and Teaching Assistants

• Communicate upcoming deadlines and reminders via the Blackboard Announcements system a day or two in advance, like homework assignments
• If possible, post slides in advance of lecture
• Do not rush through course material
• Do a quick overview of previous lecture at the beginning of class
• Do a quick preview of next lecture at the end of class
• Finalize course content each week in the course content area on Blackboard
• Post all course assignments on Blackboard with clear instructions and deadlines, in advance when possible and appropriate
• Always discuss assignments in class, both before they are due and whole-class feedback as well
• Grades are updated weekly for the assignments turned in the week prior
• Points are awarded on a consistent and fair basis

For the Students

• Show up to class, preferably on time. Fill the back seats/wall seats first. If you must be late, be sensitive to when you enter and minimize your intrusion
• Come to class prepared: Know your resources, completed assigned reading, have proper materials
• No loud or smelly food allowed in class, no food or drink allowed in lab
• Minimize side conversations when not requested
• Do not use your phones: Keep the volume down/muted, no earpieces, minimal texting
• Collaborate with others on problems, be supportive and reach out to those who seem to be struggling, do not be afraid to ask questions or seek help
• Be respectful of others: Do not judge, be sensitive to how you respond, follow the “Golden Rule”
• Communicate openly and responsively
• In your small groups, be especially sensitive
  - Work together as much as possible but not to the point where efficiency is sacrificed
  - Allow everyone to contribute and do not take all of the attention within your group
  - Be open and engaged in your group
  - What is discussed in your group, stays in your group, make the group a safe space
• Be responsible computer users
  - No unnecessary surfing, no vulnerable or questionable websites
  - Do not change the settings on lab computers
  - Do not steal class or lab equipment
  - No personal printing in the lab
  - Do not forget to log off the lab computers
University Course Policies, Academic Integrity, and Seeking Help

Although the following comments are brief, they are extremely important to understand, as they constitute the official policies guiding the conduct of this course. You are accountable for them.

- You will receive feedback about your performance on all course-related tasks in a timely manner. All points assigned will be updated weekly on Blackboard. Changes to grades will only be made on the basis of instructor or TA error. The course adheres to standard university grading and course completion policies, available at [http://www.usc.edu/dept/ARR/grades/gradinghandbook/gradingpolicies.html](http://www.usc.edu/dept/ARR/grades/gradinghandbook/gradingpolicies.html).

- No cheating—it only cheats you of the learning you are here for. There is a tutorial and quiz that all students must take at [http://www.usc.edu/libraries/about/reference/tutorials/academic_integrity/index.php](http://www.usc.edu/libraries/about/reference/tutorials/academic_integrity/index.php). An academic tutorial and quiz on Academic Integrity will be completed as part of lecture 3.

- If you are having personal trouble, seek help immediately from appropriate resources (if in doubt, contact Student Affairs, Counseling Services, [http://www.usc.edu/student-affairs/Health_Center/counseling/](http://www.usc.edu/student-affairs/Health_Center/counseling/). You should not disclose personal issues to your instructor or TAs.

- If you would like additional tutoring or help with writing, you can contact the Center for Academic Support at [http://sait.usc.edu/academicsupport/centerservices/tutorlearning.html](http://sait.usc.edu/academicsupport/centerservices/tutorlearning.html), or the Writing Center at [http://dornsife.usc.edu/writingcenter/](http://dornsife.usc.edu/writingcenter/).

- I’ll say it again: PSYC 274 is a labor intensive course that will require you to keep up on a weekly basis. Do not hesitate to seek assistance from the instructor, the TAs, and your classmates on course-related material. We are all in this together.

Accommodations

If you require accommodations beyond those provided in lecture and lab (e.g., assistance using a computer, taking notes, extra time for exams), you are required to work with the Disability Services Program (DSP) to provide documentation of the need and we will work together to provide the necessary accommodations for you. More information is available at [http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html).

Extra Credit

You may participate in the USC Psychology Subject Pool for up to 20 course points, or 5% of your total grade. Each credit is worth 4 points. To receive credits for a course, you have to successfully complete the experiment AND complete an online form at [https://docs.google.com/spreadsheet/viewform?formkey=dGtHbG1MVzhmdGdtRmpPZGZmZU1YVe6MQ](https://docs.google.com/spreadsheet/viewform?formkey=dGtHbG1MVzhmdGdtRmpPZGZmZU1YVe6MQ). All materials are due no later than 12/8/2012 by midnight, which is the day you are sent preliminary reports of your points by the Experiment Management System. See the documents on Blackboard from the subject pool TA Miao Wei, weimiao@usc.edu concerning the use of the subject pool. Any questions about the online form that you must complete should be directed to the course instructor. It is recommended that you take the online form questions with you and complete them immediately following the study.
### Class Schedule

The class schedule is a living document, which means that it can change. An updated syllabus will be available at all times on Blackboard.

<table>
<thead>
<tr>
<th>Lecture #</th>
<th>Date TTM</th>
<th>Lecture Topics, Activities</th>
<th>Text</th>
<th>Lab Topic</th>
<th>Text</th>
<th>Study Points</th>
<th>10points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tue 08/20/12</td>
<td>Course overview and &quot;Getting to Know You&quot; PowerPoint</td>
<td>1. Success in Statistics module completed in class and online assessment packet as homework</td>
<td>In class: Getting to Know You Power Point</td>
<td>During Lab 1: Article Reflection</td>
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<tr>
<td>2</td>
<td>Thu 08/30/12</td>
<td>Why statistics? Reflection on Scientific American article</td>
<td>Ch. 1</td>
<td>In class: Reflection on How Babies Think</td>
<td>None</td>
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<tr>
<td>3</td>
<td>Tue 09/04/12</td>
<td>Lecture in Statistics (optional)</td>
<td>An Ian--a-tor Ray week, assessment packet provided on syllabus via blackboard</td>
<td>In class: Academic integrity quiz</td>
<td>None</td>
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<tr>
<td>4</td>
<td>Tue 09/11/12</td>
<td>Technology in statistics in this course and Academic integrity quiz</td>
<td>Ch. 3</td>
<td>Assessment packet controlled</td>
<td>None</td>
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<tr>
<td>5</td>
<td>Thu 09/13/12</td>
<td>The mean as a simple statistical model</td>
<td>Ch. 3</td>
<td>Midnight: Quiz Chapter 1</td>
<td>None</td>
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<tr>
<td>6</td>
<td>Tue 09/18/12</td>
<td>Visualizing distributions of data</td>
<td>Ch. 4</td>
<td>Midight: How Rahiem Thinks Revisited</td>
<td>None</td>
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<tr>
<td>7</td>
<td>Thu 09/20/12</td>
<td>Visualizing relationships and comparisons</td>
<td>Ch. 1 &amp; 2</td>
<td>Validate the effects of extreme scores in a distribution</td>
<td>None</td>
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<tr>
<td>8</td>
<td>Tue 09/25/12</td>
<td>Using models to test research questions; Introduce the Applied Statistics assignment</td>
<td>Ch. 2</td>
<td>Predict the exercise results</td>
<td>None</td>
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<tr>
<td>9</td>
<td>Thu 09/27/12</td>
<td>Testing theoretical assumptions about data</td>
<td>Ch. 4</td>
<td>Finish Lab 2 at beginning of lab; due by midnight of lab meeting date</td>
<td>None</td>
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<tr>
<td>10</td>
<td>Tue 10/02/12</td>
<td>Comparing two means: the t test</td>
<td>Ch. 9</td>
<td>None</td>
<td>None</td>
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<td>11</td>
<td>Thu 10/04/12</td>
<td>Contrasting independent and dependant t tests</td>
<td>Ch. 10</td>
<td>None</td>
<td>None</td>
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<tr>
<td>12</td>
<td>Tue 10/09/12</td>
<td>Communicating statistical findings</td>
<td>Ch. 10</td>
<td>None</td>
<td>None</td>
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<tr>
<td>13</td>
<td>Thu 10/11/12</td>
<td>More than two groups: one independent variable; Oneway ANOVA</td>
<td>Ch. 10</td>
<td>None</td>
<td>None</td>
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<tr>
<td>14</td>
<td>Tue 10/16/12</td>
<td>More than one independent variable: Factorial ANOVA</td>
<td>Ch. 12</td>
<td>None</td>
<td>None</td>
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<tr>
<td>15</td>
<td>Thu 10/18/12</td>
<td>Contrasting main effects and interaction effects in ANOVA</td>
<td>Ch. 10</td>
<td>None</td>
<td>None</td>
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<td>Lecture #</td>
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<td>16</td>
<td>Tue 10/23/12</td>
<td>The case of dependent samples: Repeated-measures ANOVAs</td>
<td>Ch. 13</td>
<td>Ch. 12</td>
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<tr>
<td>17</td>
<td>Thu 10/25/12</td>
<td>Mixed design ANOVAs</td>
<td>Ch. 14</td>
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<tr>
<td>18</td>
<td>Tue 10/30/12</td>
<td>It’s all about relationships among variables: Correlation</td>
<td>Ch. 6</td>
<td>Ch. 13 &amp; 14</td>
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<tr>
<td>19</td>
<td>Thu 11/1/12</td>
<td>Using relationships for prediction: Regression</td>
<td>Ch. 7</td>
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<tr>
<td>20</td>
<td>Tue 11/6/12</td>
<td>Analyzing categorical data: Chi-square test</td>
<td>Ch. 18</td>
<td>10. Correlation and Regression (DD)</td>
<td>Ch. 6 &amp; 7</td>
<td></td>
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<tr>
<td>21</td>
<td>Thu 11/8/12</td>
<td>Bringing it all together: Example of loglinear analysis</td>
<td>Ch. 18</td>
<td>11. Categorical Data (AL)</td>
<td>Ch. 18</td>
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<td>22</td>
<td>Tue 11/13/12</td>
<td>Non-parametric statistics: two groups</td>
<td>Ch. 15</td>
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<tr>
<td>23</td>
<td>Thu 11/15/12</td>
<td>Non-parametric statistics: more than two groups</td>
<td>Ch. 15</td>
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<tr>
<td>24</td>
<td>Tue 11/20/12</td>
<td>Communicating statistical findings, Review</td>
<td>Lec. Ch. 15</td>
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<tr>
<td>25</td>
<td>Tue 11/27/12</td>
<td>The sky is the limit; Covariate, multivariate, and mixed models</td>
<td>Ch. 8, 11, 16, 17, 19</td>
<td>12. Non-parametric Test Statistics (RR)</td>
<td>Ch. 15</td>
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<tr>
<td>26</td>
<td>Thu 11/29/12</td>
<td>The road we have traveled. Practice for the exam</td>
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<tr>
<td>27</td>
<td>Tue 12/4/12</td>
<td>Practice for the exam and course evaluation</td>
<td></td>
<td>13. DUE: Final Draft Applied Statistics Assignment, Peer Review Assignment completed in Class (KK)</td>
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<tr>
<td>28</td>
<td>Thu 12/6/12</td>
<td>Final Exam, 11-11pm</td>
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<td>DUE: Final Applied Statistics Assignment</td>
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<tr>
<td>29</td>
<td>Thu 12/13/12</td>
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