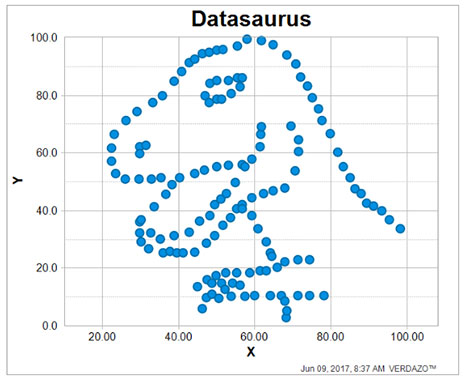
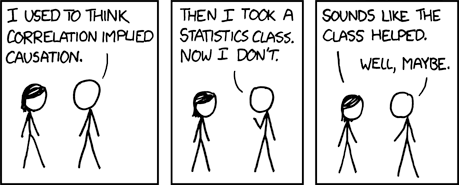
**Psychology 3020 - Statistics in Psychology - Syllabus**



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| **Where and When:** |
| Lecture: M/W/F 8:00 am – 8:50 am, in King Hall D3082  Lab: M/W/F 9:00 am – 9:50 am, in King Hall D3068 |

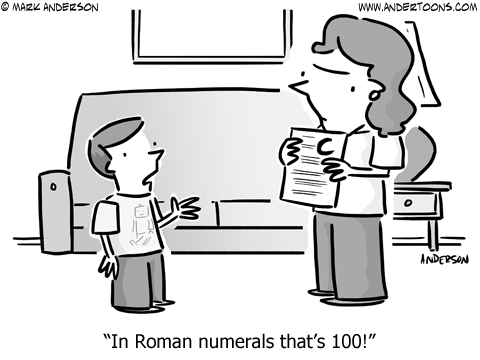
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| **The Prof:** |
| **Instructor**: Caylor Davis  **Phone/Text**: 949-229-5677  **E-mail**: [prof.cay.d@gmail.com](mailto:prof.cay.d@gmail.com) (preferred) or  [caylor.davis38@calstatela.edu](mailto:caylor.davis38@calstatela.edu) |
| **Office/Hours**: KH C165 (Basement), Mon 12:00 pm - 1:00pm and Thu 2:00 pm - 3:00 pm  (or by appointment)   * Coming to office hours is *highly* recommended (for all your classes!) * You can come to office hours for many reasons:   + Get help with statistics   + Get advice on college, graduate school, psychology research   + Chat about anything!     Directions to office: Enter main entrance of King Hall (with sliding door). Go straight ahead to the stairs and go down the stairs to the basement. Turn right down the hall at the bottom of the stairs (toward the King Hall Link computer lab). Take the first right down the C-wing hallway (right before the women’s restroom and the elevators). Near the end of the hallway will be a sign above the door that says “Learning Lab” → I’m in there! |



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| **What are we learning?** |
| The course provides an introduction to statistics in psychology, the written and oral presentation of statistical results, and the use of statistical software packages (R, Excel, SPSS). The focus of this course is on a conceptual understanding of the major concepts in statistics. **General Outcomes** Students will be able to understand and apply basic analytic methods in psychology, including:   1. selection of an analytic strategy that is appropriate to the data at hand 2. data organization and entry using standardized statistical packages (e.g., R, Excel) 3. implementation of data analysis by hand and via standardized statistical packages 4. checking for violation of statistical assumptions 5. interpretation of output/results from analysis 6. appropriate reporting of results (written, tabular, graphical) using standard APA format |

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| **How are we learning?** |
| This course is unique in that we will be using the “flipped classroom” model of instruction. A flipped classroom inverts the typical cycle of content acquisition and application. Usually, students get knowledge in class (via listening to lecture) and then apply that knowledge in homework. In flipped classrooms, students gain necessary knowledge before arriving in class and the instructor guides students to interactively clarify, apply, and synthesize that knowledge during class time. In this course, the “listening to lecture” component is done at home and the “application” part is done during class time. More information about this is provided in class. |

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| **What you need** |
| 1. **Canvas:** Canvas will be used as your online textbook and will contain information about assignments, videos, resources for exam preparation, and other useful materials. It will be frequently updated throughout the semester. If something is not specified on the syllabus, it may be clarified on Canvas. It is your responsibility to check Canvas frequently (every 2-3 days) and to make sure you are receiving messages from Canvas and your school email.    2. **Calculator and Highlighters:** You need a basic calculator with the square root and exponent function (no cell phone calculators allowed, and no scientific calculator needed), and at least two *different* *color* ink pens or highlighters.  3. **Binder with Dividers:** You will need a 2-3 inch 3-ring binder (anything smaller than 2 inches will likely not be sufficient space) with tabbed dividers. This will be used as your study guide throughout the semester. A traditional textbook is not required, but all of the notes, classwork, exams, and other paper-based work that we do will be compiled in your binder as the study guide that you my bring to open-note assignments. You are expected to bring your binder to every class. |

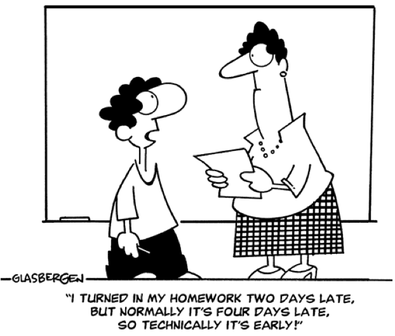


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| **Grade Evaluation** | **Weight** |
| Group Presentation | 5% |
| Quizzes | 15% |
| Online Homework | 20% |
| Classwork/Labwork & Participation | 20% |
| Analysis & Results Assessments | 20% |
| Final Exam | 20% |
| ***TOTAL*** | ***100%*** |

Grades will be assigned according to Cal State LA grading policy (A>=93%, A->=90%, B+>=87%, B>=83%, B->=80%, C+>=77%, C>=73%, C->=70%, etc.). Conventional rounding will be used.

**Assignment Descriptions**

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| \*NOTE: All material, coursework, assessments, and the final are CUMULATIVE  In this course, all of the concepts are cumulative in nature. Everytime we learn something, we will continue to build and expand upon it and how it relates to other concepts. Because of this, it is very important that you remain current with your online homework, and that you regularly attend class in order to maintain your understanding of the material and succeed in the course. |
| Group Presentation  The semester will culminate with a group presentation, whereby, you will have a chance to work with your peers and put together all of the skills we have learned throughout the semester. This is also an opportunity to prepare for the inevitable presentation you will have to give in PSY 3040 (Research Methods). More information will be provided in class. |
| Online Homework:  All homework is to be completed in the online textbook in Canvas. Read each page carefully, do all of the embedded R exercises, answer all of the embedded questions, and answer the practice quiz questions at the end of each chapter.  Homework will be due at the beginning of each week according to the schedule below. **You should expect the homework to take 6-8 hours per week, so start the previous week.**  As you work through the homework, be sure to write down questions and things you don’t understand. **Bring these questions to lecture, lab, or office hours.** Everything covered in the online textbook is fair game for exams; it is your responsibility to make sure you have understood the content.  The flipped classroom assumes that everyone will do their fair share of preparation before coming to class. Without adequate preparation for class, you will not be able to effectively contribute to our learning community. |
| Classwork & Participation:  Students will be frequently asked to discuss ideas and attempt problems in class. Missing class frequently and not attempting to answer questions will result in low classwork/participation scores.  Classwork handouts are part of the “study guide” that you will build in your binder, and you are expected to keep classwork in your binder and bring it to each class for reference and for studying. |
| Quizzes  There will be periodic in-class or on Canvas quizzes meant to test your knowledge of the material. Your lowest quiz score will be dropped. |
| Analysis & Results (A&R) Assessments  Part of the learning goals of this course is to appropriately analyze, interpret, and report relevant data, as well as to master statistical analyses in R (a statistical software package) and to learn how to write results in APA style. These tests will assess those learning goals.  There will be two A&R assessments. |
| Final Essay Exam  Often students misinterpret statistics as a class based on memorization of formulas and attempts to “plug in” values for these formulas. Thus, they miss out on actually understanding statistics concepts. In order to combat this tendency, this class will feature an essay question based final examination (i.e., short-answer essay questions on the concepts we learn throughout the course). |

\*Late assignments will not be accepted.

**Course Outline\***

\* Subject to change. Announcements regarding any changes to the course outline will be made in class and/or via Canvas/e-mail.

Important dates:

Labor Day -- Monday, Sept 2 (University Closed)

Veteran’s Day -- Monday, Nov 11 (University Closed)

Fall Recess -- Mon-Wed, Nov 25-27 (No Classes; University Open)

Thanksgiving -- Thu-Sat, Nov 28-30 (University Closed)

Final Exams -- Tue-Mon, Dec 10-16

If you have any questions while completing the assignments, please email Professor Davis ([prof.cay.d@gmail.com](mailto:prof.cay.d@gmail.com)), or you may call/text her at (949) 229-5677 (any time!).

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| **Date**  **(Week)** | **Due Sunday 11:30pm** | **Homework:**  **During this week, work on chapters...** | **In-Class** |
| *Part I: Exploring Variation* | | | |
| 8/18 - 8/24  (1) |  | 1 Welcome to Statistics  2 Understanding Data |  |
| 8/25 - 8/31  (2) | Ch 1 & 2 | 3 Examining Distributions |  |
| 9/1 - 9/7  (3) | Ch 3 | 4 Explaining Variation | **No class Mon 9/2 (Labor Day)** |
| 9/8 - 9/14  (4) | Ch 4 | 5 A Simple Model |  |
| *Part II: Modeling Variation* | | | |
| 9/15 - 9/21  (5) | Ch 5 | 6 Quantifying Error |  |
| 9/22 - 9/28  (6) | Ch 6 | 7 Adding an Explanatory Variable to  the Model |  |
| 9/29 - 10/5  (7) | Ch 7 | 8 Regression Models |  |
| 10/6 - 10/12  (8) | Ch 8 | 9 Sampling Distributions | A&R Test 1 |
| 10/13 - 10/19  (9) |  | 9 Sampling Distributions (cont’d) |  |
| *Part III: Evaluating Models* | | | |
| 10/20 - 10/26  (10) | Ch 9 | 10 Confidence Intervals |  |
| 10/27 - 11/2  (11) |  | 10 Confidence Intervals (cont’d) |  |
| 11/3 - 11/9  (12) | Ch 10 | 11 Comparing Models with F | A&R Test 2 |
| 11/10 - 11/16  (13) |  | 11 Comparing Models with F  (cont’d) | **No class Mon 11/11**  **(Veteran’s Day)** |
| 11/17 - 11/23  (14) | Ch 11 | 12 What you have learned |  |
| 11/24 - 11/30 |  | **THANKSGIVING BREAK** | **No Classes** |
| 12/1 - 12/7  (15) | Ch 12 |  | Group Presentations |
| **Finals Week**  **(16)** |  | **Final Exam: TBA** |  |