

Statistical Methods for Psychology (PSYC 2001)

Loyola Marymount University

Fall 2022

This syllabus was last updated on 08/26/2022



Section 04 (“Blue”): M/W/F, 12:15-1:25pm

Our Classroom: University Hall 3212

Who’s Teaching this Course?

My Name: Timothy Williamson, Ph.D., MPH (*hear me pronounce my name [here](#)*)

My Office: University Hall 4712

My Office Hours:

- Mondays (3-5pm), in my office (UHall 4712)
- Wednesdays (10am-12pm), near Einstein’s Bagels (UHall)
- Fridays (3-4pm), in our classroom (UHall 3212) and via [Zoom](#)
- and by appointment: calendly.com/drTimothyW



A Little Bit about Me:

Hi! My name is Dr. Timothy Williamson, and I’ll be your instructor for this course. I am a Clinical Health Psychologist with specialized training in public health and psychosocial oncology (the psychological care of people diagnosed with cancer). In my research, I study relationships between stigma, stress, and health. I grew up in Maine, but I’ve lived in Los Angeles for over 10 years. I have a cat named Kookaburra, and I absolutely love exploring data and teaching statistics!

My Message to You:

You have worked hard to be here. I believe you belong here. I am excited you are here, and I hope it will be a good semester for everyone. I want to see you succeed and have designed a course that I hope will maximize this. Finally, I care about you as a person and know life does not stop for school, so please let me know if you ever need anything.

I am happy to have you in the course, and I cannot wait to get to know you!

What is the Best Way for You to Contact Me?

Please feel welcome to get in touch with me outside of class! I would love to get to know you better and answer any questions you have! The best way to contact me depends on the question you need help with:

1. Please use our **Microsoft Teams** class page (rather than email) to ask questions related to the course schedule, assignments, deadlines, and content covered in class. I encourage this approach so that everyone in the class can benefit from the answer to your question. If you prefer to ask a question anonymously, there is a **Q&A Discussion Forum** in the course website (Brightspace) that you could use.
2. Please visit my **office hours** to bring up individual questions, dive deeper into the course content with me (including any difficulties you are encountering), or discuss other topics like applying for graduate school or learning more about clinical and health psychology. I hold my office hours in different locations throughout the week (see below). **You do not need an appointment—feel free to drop in and say hi!**
 - To meet with me outside of office hours, schedule a meeting here: calendly.com/drTimothyW
 - i. When scheduling an appointment, you can select to meet in **my office** or via **Zoom**
 - ii. Select 10 mins (quick questions), 25 mins (help w/material), or 50 mins (longer topic)
3. Please send me an **email** if you have a personal question and you are unable to attend office hours. You can usually expect me to respond within 24-48 hours (often sooner), excluding weekend days.

What do Office Hours Look Like?

| When? | Mondays 3-5pm | Wednesdays 10am-12pm | Fridays 3-4pm |
|-----------|--|---|---|
| Where? | My Office (Uhall 4712) | Near Einstein's Bagels (in UHall) | Hybrid "Study Hall" (Uhall 3212 & This Zoom Link) |
| Best For: | -Help with material -Talking about school, life, future -Individual questions and concerns | -Introductions -Quick chats -Getting to know each other | -Co-working/study with classmates -Questions about assignments -Joining in-person or remotely |





What is this Course About?

I am excited to welcome you to **Statistical Methods for Psychology!** In this course, you will learn about the world is filled with variation and that we can use statistics to understand that variation.

Here are some questions that we could attempt to answer using statistics:

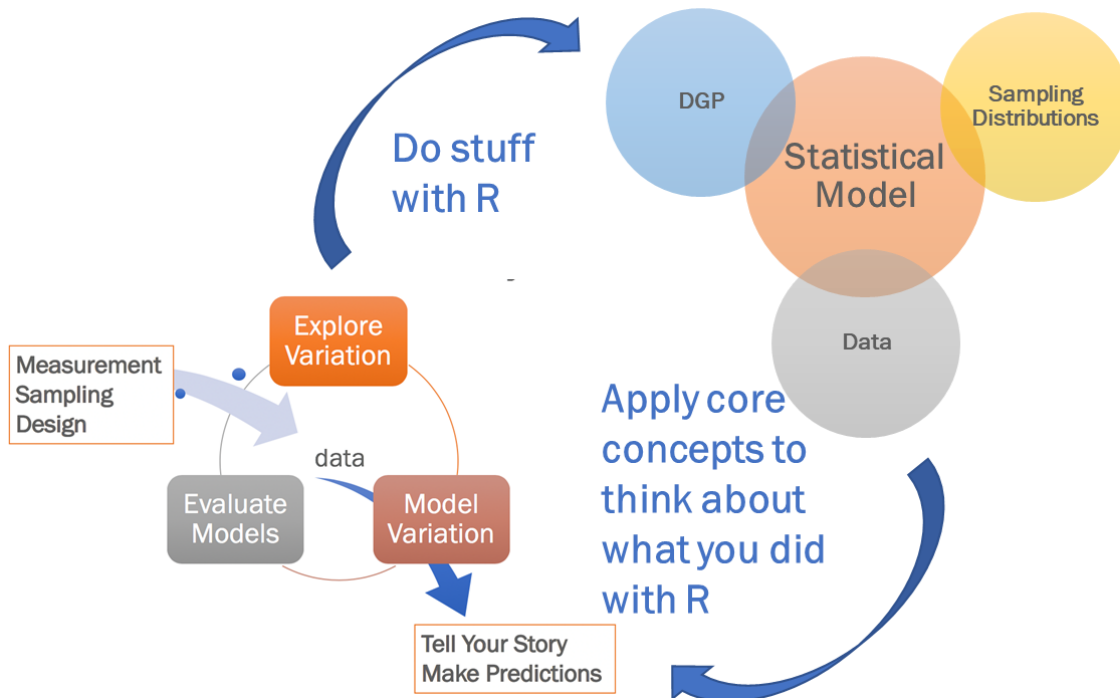
- *Why do some people live longer than others?*
- *What is the most effective strategy to promote awareness about vaccines?*
- *Do basketball players score more when playing on their home court?*
- *How do you know if a client is benefitting from psychotherapy?*
- *How accurate are the predictions from political polls?*



We will take variation in the world and turn it into data. Then, we will use statistics to do these three things:

1. **Explore variation:** Find patterns and make sense of the variation we observe in our data
2. **Model the variation:** Formulate an idea about how to explain variation and make predictions
3. **Evaluate our models:** Determining how good our models are to help us understand the world

Our focus will be on **understanding**, not memorization. Please adopt a stance of curiosity: try to make sense of what we are learning and please ask questions if you need help making sense. During the course, you will strengthen your scientific reasoning muscles and channel your inner data scientist. There are important and thought-provoking questions out there for us to explore, so let's get started!



(This image shows a snapshot of everything we will learn and practice in this course, but don't worry about understanding any of these terms right now—we'll work through them in class and unpack them together!)

What Can You Expect to Learn from this Course?

We will be working together in this course with the primary goal of helping you learn. It is important to understand what the learning goals are because all the ways that your learning is assessed in this course is linked to at least one of these learning objectives. Reviewing these learning objectives also gives you a preview of what you can expect to gain from taking this course.

Overarching Learning Goal:

By the end of this course (and even a year from now), you will be able to:

Generate research questions that could be answered with data and engage in the cycle of data analysis: exploring variation, modeling variation, evaluating your models, and communicating the results of what you have learned from data analysis.

Specific Learning Objectives:

By the end of this course, you will be able to do the following:

| Dimensions of Significant Learning ¹ | Specific Learning Objectives |
|--|---|
| 1. Foundational Knowledge <i>What key information and ideas are important for you to know?</i> | a) Describe distributions of data b) Articulate the concept of statistical models c) Explain the concept and features of a sampling distribution |
| 2. Application <i>What kinds of skills are important for you to be able to do?</i> | a) Evaluate the appropriateness of data to specific questions and purposes b) Fit a model by calculating the best fitting parameter estimates c) Construct confidence intervals to compare models |
| 3. Integration <i>What connections should you be able to recognize?</i> | a) Compare models using sum of squares (SS), proportional reduction in error (PRE), and the F statistic b) Differentiate the features of a sample distribution, population distribution, and sampling distribution |
| 4. Human Dimension <i>What should you learn about yourself and interacting with others?</i> | a) Identify the impact that statistics and data science has on topics that affect you and others |
| 5. Caring <i>What might be important changes in your feelings, interests, and/or values?</i> | a) Reflect on how your attitudes about R, statistics, and data science may have changed during the course |
| 6. Learning How to Learn <i>What should you learn about becoming a self-directed learner?</i> | a) Self-assess which learning activities are most helpful to develop deep understanding |

¹Based on Fink's six dimensions of significant learning. Fink, L. D. (2013). Creating significant learning experiences: An integrated approach to designing college courses (2nd ed.). San-Francisco, CA: Jossey-Bass.

What Materials do You Need?

All the materials for this course are available for free!

Here is how to access the materials:

- **Textbook:** Son, J. Y. & Stigler, J. W. (2022). *Statistics and Data Science: A Modeling Approach*.
 - This interactive textbook (by the “CourseKata” Team) is automatically provided to you, digitally, and is available through the course website.
 - To read the textbook and complete the activities, visit this Canvas website:
 - **Blue:** <https://canvas.instructure.com/courses/5209796>
 - I will send you an invitation to join this Canvas website. You will be need to create a (free) account on Canvas using your LMU email.
 - This is what you will use to complete your homework assignments (there are learning activities embedded within each page of the textbook).
 - I strongly recommend you use Chrome as your browser when working through the textbook and check that your version of Chrome is [up to date](#).



- **Jupyter Notebooks:** We will be using Jupyter Notebooks as a tool for running data analyses during our class activities. Jupyter Notebooks are like a word document, but they are built with special tools so that you can conduct data analysis with them (no need for any extra software!).
 - There are planned class activities to help you become familiar with Jupyter Notebooks and practice using them.
 - You will have your own Jupyter Notebooks account for this class.
 - To access your account, go to the “MyCourseKata” folder on the class website and click on the “My Progress + Jupyter” page.
 - Jupyter Notebooks will also be used during quizzes.

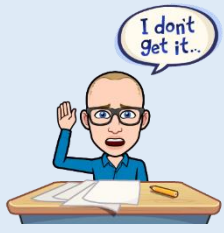




- **Pollev:** We will use polleverywhere.com during class. To participate you will need to register for a free account. To register go to pollev.com/twilliamson100 and click on the Registration link. Either login (if you have an account) or sign up for a new account. When it asks you to register with a presenter, put in the name twilliamson100.



How Can You Succeed in this Course?

I care deeply about your learning, and I am here to help you get the most out of this course. This is why I encourage you to develop **deep understanding** rather than rote memorization. Here are some evidence-based² strategies that I recommend you keep in mind to maximize your success and learning in this course:

| Learning Strategy | What does it mean? | Why is it helpful? | How will you do this in this course? |
|--------------------------------------|---|--|--|
| Engage in productive struggle | <p>Deep understanding takes hard work and effort.</p>  | <p>The learning process includes not knowing the answer (otherwise, we would already “know” it and thus not learn anything!). If things are difficult and challenging to learn, then we are much more likely to remember and understand those concepts than if they were effortless to learn.</p> <p>The feeling of “not knowing” can be very uncomfortable, but I invite you to think about it as an important part of learning. This can introduce a difficult balancing act of knowing when to sit with the “not knowing” and knowing when to ask for help. I suggest you try first with full effort, but please always feel welcome to ask for help.</p> | <p>Homework, Class activities and quizzes will be designed to push your thinking in challenging ways, and this is a time when you can sit with the “not knowing”.</p> <p>When you design and complete your data analysis project, you will have the opportunity to grapple with tough conceptual questions without knowing how to solve them at the outset.</p> |
| Make explicit connections | <p>Deep understanding develops when we see how concepts are related.</p>  | <p>Many topics are multifaceted and include concepts that are interrelated in a complex structure. If we only focus on understanding each concept in isolation, we might gain a surface-level understanding without seeing the bigger picture.</p> | <p>Working through the homework, class activities, quizzes, and data analysis project, you will make connections by comparing and contrasting how different statistical concepts are used in the process of exploring variation, modeling variation, and evaluating our models.</p> |
| Practice Deliberately | <p>Deep understanding is gained from doing something repeatedly while upping the challenge.</p>  | <p>Skills like playing the piano or shooting free throws take a lot of practice, and so does learning! <i>Deliberate practice</i> is different than <i>repeated practice</i> alone, which often creates the feeling that something is becoming easier to understand.</p> <p>Deliberate practice takes the awareness to know when things start to feel easier and the action to up the challenge. The goal of deliberate practice is to develop problem solving skills that you apply towards increasingly difficult challenges, which will promote deep understanding.</p> | <p>Each class activity and quiz will build upon previous content (and also builds upon the homework), so you will have many opportunities to practice your skills deliberately.</p> |

²Fries, L., Son, J. Y., Givvin, K. B., & Stigler, J. W. (2021). Practicing connections: A framework to guide instructional design for developing understanding in complex domains. *Educational Psychology Review*, 33(2), 739-762

How Will We Create an Inclusive Community?

My Pledge and My Invitation to You

My intention is that students from all diverse backgrounds and perspectives be well-served by this course, that your learning needs are addressed both in and out of class, and that the diversity of students in our class is viewed as a strength and benefit to our learning community. I intend to present materials and activities that are respectful of diversity in its many forms: gender (identity and expression), sexual orientation, (dis)ability, age, socioeconomic status, ethnicity, race, culture, religion, spirituality, and other background characteristics. Your suggestions about how to improve the value of diversity in this course are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

My intention is to treat everyone with respect, and I invite you to return the effort with your fellow classmates and me. I commit to promoting an anti-discriminatory environment where everyone feels safe and welcome. I recognize that discrimination can be direct or indirect and take place at both institutional and personal levels. I believe that such discrimination is unacceptable, and I will strive to provide equitable learning opportunities for everyone by eliminating all discrimination, harassment, bullying, or victimization. **In building an inclusive learning community, we all have a responsibility not to be offensive to each other, or to participate in, or condone harassment or discrimination.** Acts of intolerance, discrimination, or harassment are not tolerated in our learning community and can be reported through LMU's [Bias Incident Response Team](#).

Trigger Warnings

I have done my best to identify any lessons with potentially triggering content. I have reviewed the class activities for any content related to violence, racism, misogyny, or self-harm. I have tagged one lesson that includes content relating to violence (examining NFL suspensions for violent behavior, including domestic violence) and one lesson that includes content relating to misogyny (evaluating the pay gap between men and women). If you have concerns about encountering anything specific in the course material that I have not already reviewed or tagged and would like me to provide warnings, please come see me or send me an email. I will do my best to flag any requested triggers for you in advance.

The Tone of our Learning Community

I encourage an environment where you can ask for help. I want to make sure you have the support and guidance you need to succeed, and there are many ways that I encourage for you to ask for help in this course:

- **I love it when you ask questions:** If you are stuck, confused, or want to dive deeper into something we covered, I enthusiastically welcome your questions in class! You can also ask questions when doing small group work, during office hours, and on the course website.
- **I welcome your feedback throughout the course:** I encourage your feedback at any time throughout the quarter about things that are helping you learn or things that are not helping.
- **I promote accessible learning.** I intend to make this class accessible for students with a broad array of learning needs, in accordance with the American with Disabilities Act. If you are registered with the Disability Support Service Office (DSS) and wish to discuss accommodations, please contact me as soon as possible. For more information or to request accommodations, visit academics.lmu.edu/dss.
- **I encourage everyone to be safe:** Please stay informed about LMU's [COVID Plans and Protocols](#).



What will the Schedule Look Like for the Semester?

I may make changes to the course syllabus and/or schedule during the course as appropriate. You will be notified of any changes with as much advance notice as possible. **Please be sure to open the syllabus on the course website each time you check the syllabus to ensure that you get the most updated information.**

| Week | Dates | Topic | What should I do before class? <i>*Homework assignments are due by 11:59pm on the day before class</i> | What are we doing during class? <i>*Jupyter Notebooks are due by 11:59pm on the day of class</i> |
|------|--------------|---|---|---|
| 1 | Mon 8/29 | Getting to Know You | Read the Syllabus | |
| | Wed 8/31 | An Introduction to Statistics | HW0 (Getting Started) HW1 (1.1-1.7) | JNB-1 (The Whole Thing) |
| | Fri 9/2 | Understanding Data | HW2a (2.1-2.5) | JNB-2A (Launching Gummi Bears) |
| 2 | Mon 9/5 | | Enjoy the long weekend! | No Class – Labor Day |
| | Wed 9/7 | Understanding Data | HW2b (2.6-2.11) | JNB-2B (Tidying our Data) |
| | Fri 9/9 | Examining Distributions | HW3a (3.1-3.5) | JNB-3A (Where are our Eyes?) |
| 3 | Mon 9/12 | Examining Distributions | HW3b (3.6-3.11) | JNB-3B (Video Game “Goodness”) |
| | Wed 9/14 | Explaining Variation | HW4a (4.1-4.4) | JNB-4A (Wii vs. PS3 vs. Xbox360) |
| | Fri 9/16 | Explaining Variation | HW4b (4.5-4.15) | JNB-4B (Revisiting our Gummi Bears) |
| 4 | Mon 9/19 | | | Quiz 1 (Ch. 1-4) <i>*Due 9/19 by 11:59pm</i> |
| | Wed 9/21 | A Simple Model | HW5a (5.1-5.9) | JNB-5A (COVID-19 Mortality Rate) |
| | Fri 9/23 | A Simple Model | HW5b (5.10-5.12) | JNB-5B (Home Court Advantage) |
| 5 | Mon 9/26 | Quantifying Error | HW6a (6.1-6.3) | JNB-6A (Eating Vegemite) |
| | Wed 9/28 | Quantifying Error | HW6b (6.4-6.12) | JNB-6B (Pokémon Battles) |
| | Fri 9/30 | | | Work on Data Analysis Project |
| 6 | Mon 10/3 | | | Quiz 2 (Ch. 1-6) <i>*Due 10/3 by 11:59pm</i> |
| | Wed 10/5 | Adding an Explanatory Variable to the Model | HW7a (7.1-7.3) | JNB-7A (NFL Suspensions) <i>*Trigger Warning for Violence</i> |
| | Fri 10/7 | Adding an Explanatory Variable to the Model | HW7b (7.4-7.7) | JNB-7B (Revisiting Vegemite) |
| 7 | Mon 10/10 | Adding an Explanatory Variable to the Model | HW7c (7.8-7.14) | JNB-7C (Global Life Expectancies) |
| | Wed 10/12 | | | Work on Data Analysis Project |
| | Fri 10/14 | | | No Class – Autumn Day |

| | | | | |
|-------------|--------------|---|--------------------------|---|
| 8 | Mon 10/17 | | | Quiz 3 (Ch. 1-7) *Due 10/17 by 11:59pm |
| | Wed 10/19 | Models with a Quantitative Variable | HW8a (8.1-8.3) | JNB-8A (The Business of Pizza) |
| | Fri 10/21 | Models with a Quantitative Variable | HW8b (8.4-8.6) | JNB-8B (Coaching a Baseball Team) |
| 9 | Mon 10/24 | Models with a Quantitative Variable | HW8c (8.7-8.9) | JNB-8C (Who takes a lot of selfies?) |
| | Wed 10/26 | Models with a Quantitative Variable | HW8d (8.10-8.12) | JNB-8D (Battle of the Models) |
| | Fri 10/28 | | | Work on Data Analysis Project |
| 10 | Mon 10/31 | | | Quiz 4 (Ch. 1-8) *Due 10/31 by 11:59pm |
| | Wed 11/2 | The Logic of Inference | HW9a (9.1-9.4) | JNB-9A (Can parasites take control?) |
| | Fri 11/4 | The Logic of Inference | HW9b (9.5-9.7) | JNB-9B (Hurricanes and Birds) |
| 11 | Mon 11/7 | Model Comparison with F | HW10a (10.1-10.5) | JNB-10A (Counting Presidential Votes) |
| | Wed 11/9 | Model Comparison with F | HW10b (10.6-10.8) | JNB-10B (Changing Vaccine Attitudes) |
| | Fri 11/11 | | | Work on Data Analysis Project |
| 12 | Mon 11/14 | | | Quiz 5 (Ch. 1-10) *Due 11/14 by 11:59pm |
| | Wed 11/16 | Parameter Estimation and Confidence Intervals | HW11a (11.1-11.3) | JNB-11A (Feeling Rich, Acting Greedy) |
| | Fri 11/18 | Parameter Estimation and Confidence Intervals | HW11b (11.4-11.6) | JNB-11B (Revisiting the Home Court) |
| 13 | Mon 11/21 | | | Work on Data Analysis Project |
| | Wed 11/23 | | | No Class – Thanksgiving |
| | Fri 11/25 | | | No Class – Thanksgiving |
| 14 | Mon 11/28 | Learning SPSS | | JNB-SPSS-1 (SPSS Integration pt. 1) |
| | Wed 11/30 | Learning SPSS | | JNB-SPSS-2 (SPSS Integration pt. 2) |
| | Fri 12/2 | Learning SPSS | | JNB-SPSS-3 (SPSS Integration pt. 3) |
| 15 | Mon 12/5 | Applying What You've Learned to Something New | HW12 (12.1-12.3) | JNB-12 (The Gender Pay Gap) *Trigger Warning for Misogyny |
| | Wed 12/7 | | | Class Presentations |
| | Fri 12/9 | | | Class Presentations *Analysis Report due 12/9 by 11:59pm |
| Finals Week | | Blue (04): Wed @ 11am | | Quiz 6 (Ch. 1-12) *Due 12/14 by 11:59pm |

How Will Your Learning Will Be Assessed? (Grading Policy)

I will assess the learning objectives in this course with the assignment categories below. A description of course assignments is provided on the next page.

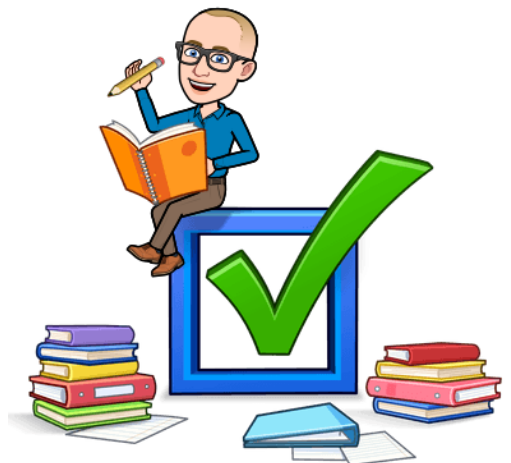
| Assignment Categories | Learning Objectives Assessed | % of Final Grade |
|---|------------------------------|------------------|
| Online Homework: Interactive Textbook <ul style="list-style-type: none"> Graded on completion only (not correctness) Your lowest Homework score is dropped | 1abc, 2abc, 3ab, 4a | 15% |
| Class Activities: Jupyter Notebooks <ul style="list-style-type: none"> Graded on mix of completion & correctness Your lowest Class Activity score is dropped | 1abc, 2abc, 3ab, 4a, 5a | 15% |
| Data Analysis Project & Presentation <ul style="list-style-type: none"> Graded based on a scoring rubric The rubric will be provided later in the course | 1abc, 2abc, 3ab, 4a, 5a, 6a | 20% |
| Quizzes <ul style="list-style-type: none"> Graded on correctness only Your lowest Quiz score is dropped | 1abc, 2abc, 3ab | 50% |

Calculating Your Final Grade

The final course grade will be based on the following percentages of total points, using the weights shown above. Your total percentage will be rounded to the nearest whole number. Students with less than 60 percent will earn an F.

The course will not be graded on a curve, as it is my philosophy that each student's grade should be based solely on his/her/their own performance, not on the performance of others in the class.

| | |
|-----------|--------|
| A | 93-100 |
| A- | 90-92 |
| B+ | 87-89 |
| B | 83-86 |
| B- | 80-82 |
| C+ | 77-79 |
| C | 73-76 |
| C- | 70-72 |
| D | 60-69 |



How are the graded course assignments structured?

In general, students can expect that submitted assignments will be graded and returned within 1 week.

Online Homework (Interactive Textbook)

Much of the core work for this course will be done online for homework. Our class sessions are designed as learning activities that supplement the homework, not substitute for it. Therefore, our class time will be dedicated to deliberately practicing what you have learned to further reinforce your learning.

Each homework assignment consists of completing a certain number of sections in the interactive textbook (online, through the course website). To get credit for the homework assignments, you need to read each page carefully, do all of the embedded R exercises, answer all of the embedded questions (designed to help you learn and check your understanding as you go), and answer the review questions at the end of each chapter (which is a great way to study for the quizzes!). The course website will automatically track your progress on each homework assignment and inform me whether you completed it before the due date (no need to submit anything).



Grades for each of the homework assignments will be scores as percent completed (from 0-100). **Homework is graded for completion, not correctness.** As you are first encountering the material, I am trying to help you learn, not trip you up. as you are first encountering the material. It is OK to take your best guess (even if it's incorrect!)—that won't affect your homework grade. Nevertheless, I want you to put forth your best effort, so you will not get credit for nonsensical responses.

Each page will show “Completed” at the top when it is complete. There is also a “Try Again” button if you want to practice going through the page again.

Completed ✓

TRY AGAIN

If you have technical issues with the online textbook, please file a support ticket by clicking on the question mark in the blue circle in the lower right-hand corner of the page you are on (see picture). Describe your problem as fully as possible and include screen grabs to show us what you are seeing. *FYI- the first question the support team will usually ask is “Are you using Chrome, and is it up-to-date?”*



Class Activities (Jupyter Notebooks)

During class, we will work together with new examples, deepening our understanding of concepts and connections among them, and addressing any topics that you are finding difficult. Each class activity will introduce a Jupyter Notebook (or JNB for short) when class begins. The JNB will include some datasets that we will explore together, some R code for you to run, room for you to take notes, and space for you to write your own R code. When you have completed all the questions in the activity (a mix of R coding and short answer responses), you will “submit” your notebook (at the top of the JNB) and I will be able to review your answers.

Each class activity is scored from 0-100. You will earn 80 points for submitting your JNB by the due date (based on completion) and 20 points for two questions selected at random (based on correctness, 10 points each). One question will be a coding question (full credit if it runs and produces what is asked) and one question will be a short answer (full credit if your answer is thoughtfully completed).

Data Analysis Project & Presentation

You will create a Data Analysis Report as your semester-long project in this course. Later in the course, we will have dedicated class sessions to working on the Data Analysis Project. During the first of those sessions, **I will provide additional details about the project, including a structured guide for each section and a rubric that will be used to evaluate your project.**

In short, you will select and use a data set from the real world that you find interesting in some way. Then, you will brainstorm a research question that is suitable to be addressed using that data set. Using the tools you will learn throughout the course, you will then write a Data Analysis Report, which describes the method and results of a data analysis to an audience that is interested in your findings. A good report is one that is readable, informative, and useful. You will write the report in paragraph form (using a structured guide) to tell a story about your motivation for the analysis, the research question you asked, how you addressed the research question, the results of your analysis, and the significance of the findings.



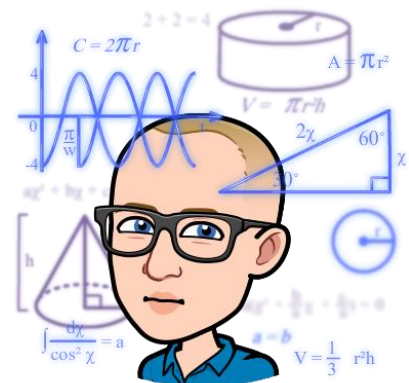
Essentially, the Data Analysis Report is a written document of what you did, why you did it, and what you think it means for your audience. You will write and submit your Data Analysis Project as a Jupyter Notebook so that you can include your analyses and results seamlessly into the same document as your paragraphs. At the end of the semester, you will create a short presentation pitch of your report.

Quizzes

There will be six quizzes, each administered and submitted using Jupyter Notebooks. Each quiz will be made available during one of our regularly scheduled class sessions (the sixth quiz is made available during our Final Exam timeslot but is similar in length to all other quizzes). Quizzes will include questions that are very similar to what is presented in the Class Activities and Chapter Review Questions (a mix of multiple choice, short answer, and writing/modifying R code). Each quiz is cumulative, meaning that it covers all chapters of the book from the beginning of the course up through those completed on the day that the quiz is administered.

All quizzes are open book. Additionally, you may consult any outside resource that you wish—including your notes, your Class Activities, and Google. However, **you are expected to work by yourself on quizzes** (you cannot work with or ask for help from other students). I will be available during the class time to answer any questions you have about the quiz.

The quizzes are designed in a way so that they can reasonably be completed within the allotted class time (70 mins). However, **all quizzes are due by 11:59pm (Pacific Time) on the day they are scheduled.** This means that you can take additional time after class to review your answers, continue working on the quiz, or start the quiz later in the afternoon/evening. My intention in providing this extra “buffer” time is to promote flexibility for you to demonstrate your learning best without the anxiety from a time pressure. Take your time to do your best.



Missed quizzes cannot be made up, but I drop your lowest quiz score when calculating your final grade (everyone can miss one quiz without any academic penalty).

Frequently Asked Questions (FAQs) about the Course

What is the attendance policy?

I believe that in-person attendance is an important part of maximizing your learning. I have designed the class so that you will get the most out of it by attending class regularly, and **my invitation is for you to attend class in person when you are able to do so**. In my experience, those who attend class regularly tend to do the best in the course. However, I do not include attendance as part of your grade. Keep in mind, you will have dedicated time in class to complete the Class Activity (which is a part of your grade), so regular attendance is a good strategy for learning and success. Each class session, there will be a sign-in sheet for attendance (but it is not graded).

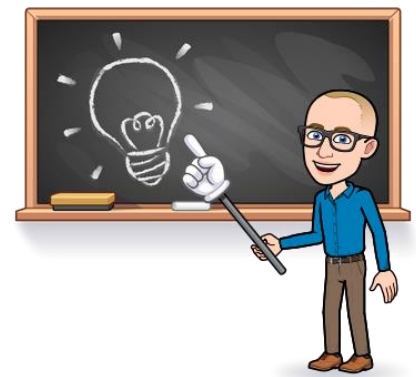


Why is attendance recorded if it is not part of our grade?

I intend to co-create a learning community with you where we can support each other and check in regularly. I regularly take attendance so that I can reach out to check in with you if you are unable to attend class. That way, I can ask whether there is anything you need help with. During each class session, I will pass around a sign-in sheet so I know who is in class. If you are unable to attend class, I invite you to let me know via email or chat (Teams) beforehand. I know that life happens, and it is not always possible to know when we might miss class ahead of time. Therefore, I will reach out to you after class if you were not able to join us and I did not hear from you beforehand. I will never ask you to explain why you missed class or provide any outside documentation—**you are more than welcome to share reasons why you missed class, but it is up to you to decide what you are comfortable sharing with me and others in the class**.

Can I still complete the Class Activity if I am absent from class?

The Class Activity (Jupyter Notebook) will be made available at the start of the class session and is due by 11:59pm on the day when it is covered in class. If you attend class in person, you will usually be able to complete and submit the entire Class Activity by the end of the class session (without needing to work on it afterwards). However, if you are absent from class, then you can still complete the Class Activity (on your own) by logging into the course website and navigating to your Jupyter tab. It is often more difficult to complete the Class Activity on your own, because we usually work together in groups (either as a full class or small groups) when completing the Class Activity during class. Each class activity takes approximately 60-70 minutes to complete.



How can I keep up with my learning if I am absent? Is there an option to join class via Zoom?

If you cannot attend class in person, there will not be an option to join class via Zoom. I made this decision to maximize the learning experience for in-person instruction. However, I have built flexibility into the course so that you can keep up with the learning if you miss class. Specifically, you can continue to complete all the homework assignments remotely and you can complete the Class Activities remotely, if needed. Also, your lowest homework assignment score, lowest Class Activity score, and lowest Quiz score are dropped when calculating your final grade.

How can I request an extension for an assignment?

I anticipate that unforeseen events, unexpected emergencies, and health-related absences may happen during the course and that these may interfere with the completion of some assignments. If you need an extension on a Homework or Class Activity assignment, you can use the link in the course website that says “I need an extension!” to complete a form (before the assignment due date) that lets me know you will take an extension. **I might reach out to you via email to talk to you about your request, but if you do not hear from me, your extension is automatically approved.** I will not ask why you need the extension because you do not need to justify your request to me. I trust that you will take the time you need to show your best work.

Here are the questions that you will respond to when requesting an extension:

1. **What assignment do you need the extension for?**
 - a. *Please note that you can only request extensions for Homework or Class Activity assignments*
2. **What is your new proposed due date?**
 - a. *Please propose a new due date, which should be as soon as you can reasonably complete the assignment, no later than 7 days after the original due date. The time for all due dates is 11:59pm.*
3. **Is there anything that I can help you with?**
4. **Do you want support from LMU’s Community of Care?**
 - a. *This includes a wide array of resources including academic or disability support, mental health resources, help with food or housing, reporting a bias-related incident or harassment, etc.*
5. **Is there anything else that you would like me to know?**



You cannot request an extension for the Data Analysis Project & Presentation or the Quizzes. Missed quizzes cannot be made up, but I drop your lowest quiz score when calculating your final grade (everyone can miss one quiz without any academic penalty).

What support is available to me at LMU?

Community of Care. At LMU, we have an interdisciplinary team of trained professionals that coordinate closely to support students. The Community of Care can connect you with many resources at LMU, based on what your specific needs are, including the reporting of sexual or interpersonal misconduct. You can [click here](#) to refer yourself (or you can ask me to help you with that), which will put you in touch with the team.

Mental Health Resources. You may experience a range of challenges or issues that make it difficult to learn, including strained relationships, increased anxiety, feeling down, difficulty concentrating, or lack of motivation. These concerns are important, and there are services at LMU to assist you. There is a broad range of confidential mental health services available on campus. [Click here to learn more.](#)

Academic Support. Sometimes the content in class can be overwhelming to learn, and we might need some additional guidance to help us work through our learning process. There are tutoring sessions available at the Academic Resource center that could help you with academic skills. [Click here to learn more.](#)

Identity, Belonging, and Contribution. There are several student spaces and services that provide resources for a wide range of student groups. Some examples include the [Asian Pacific Student Services](#), [Black Student Services](#), [the Mbongi Spot \(Black Student Space\)](#), [Chicano Latino Student Services](#), [LGBT Student Services](#), [Jewish Student Life](#), [Muslim Student Life](#), [non-denominational Christian Outreach](#), and [Campus Ministry](#).

Research Opportunities. If you are excited by what you learn in this class and want to get involved in research, I invite you to talk with me during office hours and explore the research programs that are available to LMU students. [Click here to learn more.](#)

Additional Course Guidelines and LMU Policies to Know

Use of Computers, Tablets, and Phones in Class

Our classroom is set up so that everyone will have access to a desktop computer. This makes certain class activities easier (completing our Jupyter Notebooks), but it can sometimes make it difficult to have a lively discussion when everyone is behind a computer and might be tempted to multitask or check email. I kindly ask that you do not multitask on the computers or on your laptop, tablet, or phone during class. Research finds that multitasking during class can hinder not only your own learning, but also the learning of anyone who can see your screen. I therefore ask that if you choose to multitask on an electronic device during class, please sit in the back of the classroom.



Academic Integrity, Academic Dishonesty, and Plagiarism Awareness

Enrolling in this class means you have read and acknowledged the LMU's policies on [Academic Honesty](#), the [Lion's Code](#), and the [Student Conduct Code](#). It's important that your writing comes from you. I will often encourage you to draw from other sources to help guide your writing, but you must always provide appropriate citations to these sources and tie them to ideas of your own. Plagiarism—even if unintentional—is misrepresenting others' ideas as your own, and that is why it is important to be aware of what constitutes plagiarism and to seek out help if you are unclear. If you have questions, you can contact me or access resources through the Academic Resource Center for avoiding plagiarism.

Expecting the Unexpected (Things might change—including the syllabus!)

It is possible that I might revise the syllabus during the semester. Please make sure to visit the course website every time you need to reference the syllabus, because I will always post the most up-to-date version on our course website (and note the date that it was last updated on the first page). I will also announce changes in class as well as via email.

How Many Hours per Week You Can Expect to Put towards this Class

This course is a 4-credit class. Did you know there is a federal regulation that defines how many hours per week students can expect to devote per credit? A 4-credit class corresponds to an expectation of 12 hours of work per week (including class time). This means that, on average, you can expect to spend 3.5 hours in class each week and approximately 8.5 hours working independently outside of class (e.g., homework assignments, data analysis project). Please allow yourself the needed time to show your best work.



What You Need to Complete *Before* Taking this Class

To take this class, you need to have received a letter grade of C (2.0) or higher in General Psychology (PSYC 1000).

What Taking this Class Helps you Complete (University Core and Psychology Major)

This course fulfills the Foundations: Quantitative Reasoning requirement for the University Core. Earning a C (2.0) or higher in this class (PSYC 2001) is needed to enroll in the next required course in the Psychology major sequence (PSYC 2002: Research Methods). If you earn a C- or lower, you will need to take this course again.

Confidentiality and its Limits

My door is open to you, and I am here to listen and support you if you need it. In general, what you share with me will stay confidential between us (unless you give me permission to share, in which case we will talk about that together). However, it is important that I tell you about the areas where I cannot keep the information you share with me confidential. If you share any information about an instance of sexual or interpersonal misconduct or any other information that leads me to believe you or someone else's safety is at risk, then I am required to report that information to make sure that everyone is safe. If you have questions about this, please let me know and I would be happy to talk with you about it.

That's all, Folks!

Thank you for reading this syllabus and contributing to our learning community!

I am excited to meet you and support your learning in this course.



Portions of this syllabus were inspired by or modified from resources offered by Drs. Viji Sathy, Kelly Hogan, Jim Stigler, Ji Son, Regan Gurung, Rachel Soicher, Alanna Gillis, Amy Nusbaum, Teresa Nguyen, as well as the LMU Center for Teaching Excellence, UCLA Center for Education Innovation and Learning in the Sciences, University of Virginia Center for Teaching Excellence, University of Michigan, University of Minnesota, University of Iowa College of Education, and CourseKata team, with permission.