

PSYC 521

Abbreviated Syllabus: Spring 2022

Class: W 4:00 -5:50 PM, AH 0401 Lab: W 6:00 – 6:50 PM, FH 3207

Instructor: Dr. Pettibone, Office Hours: TTH 11:00 am to 12:00 pm

GTA: Ryan Raymond, Office Hours: Monday, 1 to 2 pm; Thursday, 3 to 4 pm

Textbooks:

Howell (2017). Fundamental Statistics for the Behavioral Sciences. Rental Text.

Navarro & Foxcroft (2019). Learning Statistics with JAMOVl. Online text available at

<https://www.learnstatswithjamovi.com/#>

Excerpts from: Tabachnick & Fidell (2013). Using Multivariate Statistics, 6th ed. (will be provided)

Proposed Schedule/Syllabus

| Week # | Lab/Class Date | Class Topic | Reading | Notes/Assignments |
|--------|----------------|--|--|--|
| 1 | 1/12 | Review & Orientation for Semester | | <i>Online Synchronous Lecture (Teams)</i> |
| 2 | 1/19 | Correlation and Bivariate Regression | H: Ch. 9 & 10 | HW 1 |
| 3 | 1/26 | Intro to Multiple Regression | H: Ch. 11 | HW 2 |
| 4 | 2/2 | Model Selection in MR | | HW 3 |
| 5 | 2/9 | MR: Moderation & Mediation Models (medmod) | Baron & Kenny (1986) | HW4 |
| 6 | 2/16 | Review | | |
| 7 | 2/23 | Mid-Term Exam | | |
| 8 | 3/2 | ANCOVA | LSJ: Ch. 14.5 | HW 5 <i>Lecture will be online (Asynchronous) w/ an in-person lab</i> |
| 9 | 3/9 | | Spring Break | |
| 10 | 3/16 | MANOVA | T & B: Ch. 7 | HW 6 FDP 1 (Factorial ANOVA) due 3/14 |
| 11 | 3/23 | Exploratory Factor Analysis | LSJ: Ch. 15 | HW 7 |
| 12 | 3/30 | Confirmatory Factor Analysis | LSJ: Ch. 15 | HW 8 |
| 13 | 4/6 | Logistic Regression/Chi-Square | H: Ch. 19 T & B: Ch 10 | HW 9 |
| 14 | 4/13 | Meta-Analysis | H: Ch. 21 | HW 10 |
| 15 | 4/20 | Statistical Power & Open Science | H: Ch. 15 Nelson, Simmons, & Simonsohn (2018) | HW 11 FDP 2 (Multiple Regression) due 4/22 |
| 16 | 4/27 | Review for Exam | | |
| 17 | | Final Exam: 5/4 | | |

Major Changes/Updates

In-person lecture (4 to 5:50 pm) each Wednesday, followed by 50 m lab to work on computer concepts. TA will run lab most weeks. We will not be recording lab or class sessions, so it will not be possible to watch the lectures remotely. You are free to record audio on your own if you wish. PowerPoints and lab notes (possibly videos for stats procedures) will be provided.

Weekly Quiz (5 pts each)- Available Tuesday, Due Thursday after lecture. Two attempts. If you take all of them, the 11th counts as EC. (Reinforce Concepts)

Weekly Lab HW (10 pts. each)- Available Wed (at latest) due by noon next Wed. Our target is to provide feedback by the end of the following weekend. We will drop your lowest HW score if you complete all assignments. (Teach procedures)

Two Exams (50 points each). Will be based on analyzing output rather than running procedures. Can be done without a computer in the classroom. (Demonstrate Understanding)

Fake Data Papers (30 pts. Each)- Two papers, one involving a 2 x 2 factorial ANOVA and one involving multiple regression with at least 3 predictors. Students will be provided with a data set and will work independently to analyze it and report the results in APA format. (Demonstrate procedural knowledge for analyzing and reporting research)

APA 7 (non-student version) for all papers

Increased emphasis on JAMOVI- As we get into more advanced stats we will be using JAMOVI more often, and sometimes, I will teach a procedure only in JAMOVI.

Total Points

| | |
|--|-----------------|
| Quizzes: (11 @ 5 pts. each, 11 th counts as EC) | 50 pts |
| HW: (11 @ 10 pts. each, worst HW counts for EC up to 5 pts.) | 100 pts |
| Exams: (2 @ 50 pts each) | 100 pts. |
| FDP: (2 @ 30 pts. each) | 60 pts |
| Total: | 310 pts. |

Final grade will be computed as a percentage of possible points with standard cutoffs (i.e. $\geq 90\%$ = A). No rounding will be applied to final grades.

JAMOVI Review

There are handful of people on YouTube that are making good tutorial videos for JAMOVI. Since we will have less of an emphasis on recorded video this semester, I wanted to share these with you to supplement our work.

Dr. Alexander Swan

<https://www.youtube.com/watch?v=frF5RXdlY4&list=PLvYqRUmlLZUOSjDKeEiukZWayxpuiFPRp>

FreeCodeCamp.org

<https://www.youtube.com/watch?v=mZomeS0tLxY>

COVID/Distance Learning

SIUE states that an in-person class can have up to 25% of its content (4 weeks) delivered online. We will take advantage of that when needed to account for COVID and other considerations. Should we go online for a week, I will give as much notice as possible and will provide a recorded lecture and lab for the class. If we are required to be synchronous, we will use teams. You will be free to use the reserved lab time if you feel safe (and the University allows) or may do the work remotely. We are currently scheduled to be online the week of 3/2, leaving us three other weeks we can use. Please let me know if you cannot come to class due to COVID. If a significant number of students cannot attend, I will consider moving the class online. That said, please be smart over the month of January and February. Limit your exposure to large groups

Class Policies (Same as 520)

Attendance Policy: As this class moves at a fast pace by necessity, missed lab sessions will be very damaging to your success in learning the material. I consider your attendance in lab to be mandatory- however, I will not take attendance. You are all adults, and I do not need to know when you miss class. If you need to miss class, go ahead, but take responsibility for your actions. Do not expect your professor or the GTA to teach you everything you missed.

Late Work/Make up Exams: If any part of an assignment is turned in after the due date (beginning of class) without a pre-approved excuse, the grade for the entire assignment will be reduced by 25% for each solar day that it is late. To get preapproval for turning in an assignment late, tell your professor before the due date if, for example, you have surgery scheduled. You are responsible for computer failures, just as you would be if you were a working professional. It is your responsibility to back up all of your work so that none of it is lost, to store your files in safe places, to print things well before they are due, and turn things in on time. Computers and printers let everyone down at inconvenient times, so if you want to be successful, anticipate and prepare for these problems so you're not caught off guard.

Missed exams can be made up during the final exam period, where you will take both the third exam and the one that you missed. There are no exceptions to this policy.

Academic Courtesy: Be courteous during class. Be quiet when your classmates or I am speaking, and we will be quiet when you are speaking. Please do not engage in any behaviors during class that you would not want to see if you were teaching. The nature of a class like this entails that all students will be board at times and frustrated at times. Please do not let that interfere with your classmates. When you are board, others will be frustrated, so please show them the respect you would expect if you were the one who was frustrated. If you have any issues with the class, please come to my office to speak to me. I often do not know there is a problem unless you tell me.

Academic Honesty: Although I encourage students to talk to one another about your assignments, your final product must be written alone. Please get together to hash out concepts and to aid one another but do the actual work yourself. You may not share any verbatim product or computer file with other students. It is **never** appropriate to turn in a photocopy of other students work as your own, nor is it appropriate for multiple students to turn in identical assignments, even if you worked "together". Minor changes attributed to paraphrasing may still be considered academic misconduct. While you will often have the same data, the way each of you describe that data should be unique to you within the guidelines provided in the assignment.

Plagiarism: Plagiarism includes either presenting someone else's words without quotation marks (even if you cite the source) or presenting someone else's ideas without citing that source. Sources may include published research

articles, but they also include other students in the class. If you plagiarize, your instructor cannot evaluate your understanding of the topic. When paraphrasing from another source, at the very least the student should change the wording, sentence syntax, and order of ideas presented in the paper. Ideally, the student will integrate ideas from multiple sources while providing critical commentary on the topic in a way that clearly identifies whether words and ideas are those of the student or are from another source. University policy states that "Normally a student who plagiarizes shall receive a grade of F in the course in which the act occurs. The offense shall also be reported to the Provost." (<http://www.siu.edu/POLICIES/1i6.html>). The University policy discusses additional academic sanctions including suspension and expulsion from the University. To ensure that you understand how to avoid plagiarism, we encourage you to review the information on plagiarism provided on the Department of Psychology web page at <http://www.siu.edu/PSYCHOLOGY/plagiarism.htm>.

Cell Phone Policy: Cell phones are not allowed in class because of the distractions that they cause, as well as the potential for cheating. Please note that this includes texting as well as all other uses. Texting implies that you have something else more important to do, or somewhere else that you would rather be. This may very well be the case—this is a statistics class after all. If this is true, please leave the class to use your phone, and accept that you are responsible for any material missed. Otherwise, please turn all cell phones off at the beginning of class. Even phones on “vibrate” can disturb other students. If you must have your phone on for emergency reasons, no problem, but please notify me before class. **If your cell phone rings or vibrates during an exam you will fail it, no questions asked.**

General Note: There are exceptions to every rule (see COVID policies at the end of this syllabus), but they are far more likely to be made if you notify me in advance (a priori) rather than after the fact (post hoc).

DEPARTMENT OF PSYCHOLOGY POLICY ON INCOMPLETE GRADES AND WITHDRAWAL: All withdrawals must be completed by the end of the 13th week of classes during fall and spring, and by a similarly late date (i.e., before 82% of class meetings have occurred) in any summer term. Grades that apply to students who initiate a withdrawal and grades that apply when a student fails to officially withdraw within established deadlines are determined by university policy (see <http://www.siu.edu/policies/1j1.shtml>). The granting of a grade of I (Incomplete) is not automatic. It is available only in cases when a student has completed most of the work required for a class but is prevented by a medical or similar emergency from completing a small portion of the coursework before the deadline for grade submission. An I must be approved by the instructor with appropriate documentation provided by the student. If an instructor agrees to give a student an I, the instructor will fill out a Memorandum of Incomplete Grade to be kept with the student’s records. If the work is not completed by the time specified on the Memorandum, the student’s grade will be changed from I to F.

Statement on Disabilities: SIUE offers a range of resources to support students with disabilities. At SIUE every effort has been made to eliminate barriers to learning and help you reach your educational goals. If you are a student with a disability and wish to request accommodations, please contact Disability Support Services located in Rendleman Hall, Room 1218 (phone: 650-3726).

SIUE Statement on Diversity: All societies and peoples have contributed to the rich mix of contemporary humanity. In order to achieve domestic and international peace, social justice, and the development of full human potential, we must build on this diversity. SIUE nurtures an open, harmonious, and hospitable climate that facilitates learning and work. Each member of the University is responsible for contributing to such a campus environment.

SIUE Nondiscrimination policy: Southern Illinois University Edwardsville (SIUE) is a public comprehensive University committed to creating and maintaining a diverse community in which students, faculty, and staff can learn and work together in an environment free of discrimination and free from any form of illegal harassment. Such actions violate the dignity of the individual and the integrity of the University as an institution of learning. SIUE prohibits discrimination against employees, applicants for employment and students on the basis of age, color, disability, marital status, national origin, race, religion, sex, sexual orientation, or veteran’s status. Discrimination in any form will not be tolerated; management and supervisory personnel, at all levels, are responsible for taking reasonable and necessary action to prevent discrimination.

COVID-19 Pandemic Policies Related to Classroom Instruction (Fall 2021)

Health and Safety

The measures outlined below are required and any student who does not comply may be in violation of the *COVID-19 People-Focused Health and Safety Policy*, as well as the University's *Student Code of Conduct*.

The full text of the *COVID-19 People-Focused Health and Safety Policy* can be found here: <https://www.siu.edu/policies/Covid.shtml>

Classrooms, Labs, Studios, and Other Academic Spaces

While in the classroom, lab, studio, or other academic spaces, students (regardless of vaccination status) shall wear face coverings that fully cover the nose and mouth and practice physical distancing measures to the extent practicable based on the specific classroom capacity and pedagogy. Classroom furniture should not be rearranged, and furniture that has been taped off or covered should not be used.

Students who forget to wear a face covering will be reminded of their obligation to comply with SIUE's *COVID-19 People-Focused Health and Safety Policy* and temporarily asked to leave the class until they are able to conform to the policy. Students who forget or lose their face coverings may be able to obtain replacements from a friend, a faculty member, or a nearby departmental office. Face coverings are also available for purchase in the Cougar Store (MUC).

Students who refuse to wear a face covering will be asked to leave the classroom and referred to the Dean of Students for non-compliance with community health and safety protocols. Repeated non-compliance may result in disciplinary actions, including the student being administratively dropped from an on-ground/face-to-face course or courses without refund if no alternative course format is available.

If a student has a documented health condition which makes wearing a face covering medically intolerable, that student should contact ACCESS to explore options with the understanding that ACCESS will not grant accommodations which excuse the need for a face covering while on campus or in the classroom. ACCESS will work with qualifying individuals to find reasonable alternatives, whenever such solutions are available. Please call or contact the ACCESS Office via email to schedule an online appointment to discuss potential alternatives. ACCESS office (Student Success Center, Room 1203, 618-650-3726, and myaccess@siue.edu).

General Health Measures

At all times, students should engage in recommended health and safety measures, which include:

- Conducting a daily health assessment. If you have [COVID-19 symptoms](#), but not yet tested positive, have had COVID-19 close contact exposure, or are COVID-19 diagnosed as presumptive or confirmed positive, stay home and contact your health provider or SIUE Health Service at cougarcare@siue.edu or 618-650-2842. More information on reporting procedures is available [here](#).
- Frequent washing or disinfecting of hands.
- Physical distancing.
- Face masks or face coverings that cover the nose and mouth are required in indoor public spaces regardless of the ability to maintain physical distance. Indoor public spaces include common spaces or community settings that anyone can access, such as reception areas with walk-in access, restrooms, hallways, classrooms, teaching and

research laboratories, as well as common spaces in residence halls, conference rooms, lobbies, and break rooms.

- If present, adhere to directional signs and traffic flow patterns in buildings and offices. In many spaces, doors for entering and exiting buildings are designated.

Academic Integrity

Students are reminded that the expectations and academic standards outlined in the Student Academic Code (3C2) apply to all courses, field experiences and educational experiences at the University, regardless of modality or location. The full text of the policy can be found here:

<https://www.siu.edu/policies/3c2.shtml>.

Recordings of Class Content

Faculty recordings of lectures and/or other course materials are meant to facilitate student learning and to help facilitate a student catching up who has missed class due to illness or quarantine. As such, students are reminded that the recording, as well as replicating or sharing of any course content and/or course materials without the express permission of the instructor of record, is not permitted, and may be considered a violation of the University's Student Conduct Code (3C1), linked here:

<https://www.siu.edu/policies/3c1.shtml>.

Potential for Changes in Course Schedule or Modality

As the COVID-19 pandemic continues, there remains a possibility that planned classroom activities will need to be adjusted. Depending on circumstances and following state-issued recommendations, potential changes include changes in course modality (e.g., transition from face-to-face to online) or in course scheduled meetings. These changes would be implemented to ensure the successful completion of the course. In these cases, students will be provided with an addendum to the class syllabus that will supersede the original version.