

Course Syllabus
PSY 201: Psychological Statistics
Connecticut College, Psychology Department, Spring 2023

Lecture

Bill Hall 403, Tuesday/Thursday 10:25 -11:40 AM

Labs

Section 3: Charles E Shain Library PC CLASS, Wed 7:00 - 7:50 PM

Section 4: Charles E Shain Library PC CLASS, Thu 5:00 - 5:50 PM

Instructor

Hyun Joon Park, hpark3@conncoll.edu, TEL: 860-439-2336

Office hours: Wednesday 9 AM – 11 AM in Bill Hall 315-1 or by appointment. You do not need to have specific questions to come to office hours. Feel free to come to the office hours to discuss any general concerns/questions about the course or just to say hi!

TA

Hannah Webster, hwebster1@conncoll.edu

Office hours: Monday 12:30 – 2:30 PM (Blue Camel)

Tutor Hours

Emily Nelson, enelson5@conncoll.edu

Tutor sessions:

Monday 3:00 – 4:00 PM (Blue Camel)

Friday 2:00 – 3:00 PM (Blue Camel)

Elena Crowell, ecrowell@conncoll.edu

Tutor session:

Fridays 9:30 - 11:30 AM (Blue Camel)

Communication

You can also contact Hannah and me through email with any questions/concerns regarding the course. I will answer your emails within two business days (at the latest). Please feel free to send me a reminder/follow-up email if I do not respond within this time frame. Please include the course number (i.e., "PSY 201") in the title of your email so I can prioritize your email. Again, please do not hesitate to reach out. There are no obvious or trivial questions/concerns, and we will try our best to address them!

Course Description

I really look forward to working with you in this course! In the lecture, you will learn about the foundational statistics knowledge needed for psychological research. Then in the lab later in the week, you will get hands-on experience on how to conduct analyses using statistical packages (i.e., mainly using SPSS and sometimes using R). In this course, materials are focused on conceptual rather than

mathematical aspects. Ultimately, after this course, you are expected to become thoughtful data analysts rather than statisticians. Especially, this course will emphasize the application of statistics knowledge. That is, whenever possible, statistical concepts you learn in the course will be tied to real-life examples and implications. Further, you will learn how to communicate and write the implications of results from statistical analyses.

I understand some of you do not like math. However, as noted above, the course will focus more on conceptual rather than mathematical aspects, and I firmly believe that everyone can understand the course materials. Also, I want to note that it is normal to find some parts of the class difficult. If you ever feel you are struggling with the course, you are not alone! Whenever you do not understand any concept during the class, please ask questions! There are no such things as obvious questions, and you benefit others by asking questions, as others may also have the same question. Also, please do not hesitate to contact us if you feel you are struggling!

Course Goals

After completing this course, you will ...

- Have a solid conceptual understanding of the foundational statistical knowledge
- Have the ability to apply statistical knowledge to test research questions
- Have the technical skills to analyze data using SPSS (and R sometimes)
- Have the ability to interpret and communicate the results of statistical analyses

Course Materials

Moodle will be used for electronic access to course materials such as announcements, syllabus, course information, and assignments. You are responsible for monitoring Moodle for new announcements and information.

Course Textbook: Aron, A., Coups, E. J., & Aron, E. N. (2012). *Statistics for Psychology* (6th ed.). You can purchase a hard copy of the book from the bookstore, or you can buy [E-Book](#). Also, the copies are reserved at library for 2 hours duration.

Additional Readings: If there are additional readings, they will be posted on Moodle at least two days prior to the class.

Class Requirements and Activities

Attendance/Participation (10%): Class attendance will be expected from you throughout the semester. I understand things can happen in your life! You can miss two classes without any excuses. However, if you miss any class without excuse after missing two classes, 10% of the total attendance/participation points will be taken off for each day of missingness. If your family or personal emergency or COVID-19 quarantine or illness causes you to miss class, please let me know in advance as soon as possible so that your absence will be excused. If you miss a class (for any reason), please make sure you catch up on the materials you missed (e.g., by getting notes from a classmate), and please feel free to contact Hannah or me if you have any questions about the things you missed.

Problem Sets (50%): During the semester, you will be asked to complete problem sets. Problem sets are designed to give you practice in analyzing data and applying statistical knowledge you

have learned in your course. That is, problem sets will often ask you to run statistical analyses using SPSS (and sometimes R) and explain the results you obtained to facilitate your understanding of the materials. For full credit, you are expected to show and explain your results and show relevant outputs from statistical software. Your answers should provide a summary that explains the results of your tests and their implications for the research question or hypothesis. Also, you can skip two assignments. If you choose to submit all assignments, I will drop the two lowest scores from your assignments. All statistical reporting should follow APA 7th guideline. **Please submit the hard copy of your assignment at the beginning of class each Tuesday.** Unless other arrangements are made in advance, problem sets will not be accepted **after the start** of class on Tuesday.

Midterm Exam (20%): This course will have one midterm. The midterm will include some conceptual questions and the interpretation of the output from SPSS. Please let me know *before* the midterm if you need to schedule a makeup time. No makeup exam will be allowed after the scheduled midterm date.

Final Exam (20%): This course will have a final take-home exam. Like the midterm, the final may include some conceptual questions but most of it will be focused on analyzing and interpreting data from SPSS.

Extra Credit (up to 1.75% of total grade): Throughout the semester, there will be psychology department colloquium and conference taking place. You will be able to earn extra credit points by participating in those events (see the below schedule for details).

Resources

SPSS: SPSS will be available on almost all computers in the labs. Also, you can install a copy of SPSS on your personal computer (follow the instruction [here](#)).

R: R will be available on almost all computers in the labs. Please see instruction on how to install R and R studio (it is a program that makes using R more user friendly) [here](#).

APA format: When you write your results in your problem sets, please follow APA style (7th edition). Used versions of the manual can be ordered online. There are also helpful [online resources](#).

Individual and Group Work

You are definitely encouraged to work in groups for the problem sets. However, you must submit your own individual write-ups for each problem set. You are not permitted to collaborate on the exams.

Class Schedule

Class Dates	Topics	Readings/Assignments Due	Lap topic
Week 1			
Tue 1/24	Introduction to the course		No lab
Thu 1/26	Distribution of Data	Ch. 1	
Week 2			
Tue 1/31	Means and Variability	Ch. 2	PS 1 lab: Introduction & Descriptive statistics
Thu 2/2	Inferential Statistics I	Ch. 3	
Week 3			
Tue 2/7	Inferential Statistics II	Ch. 3 / PS 1 Due	PS 2 lab: Z scores, Normal curves
Thu 2/9	Hypothesis Testing I	Ch. 4	
Week 4			
Tue 2/14	Hypothesis Testing II	Ch. 5 / PS 2 Due	PS 3 lab: Hypothesis testing & Z tests
Wed 2/15	Psychology Department Colloquium (Not required to attend but extra credit available)	<ul style="list-style-type: none"> Keynote speaker: Dr. Alex Browman (Assistant Professor of Psychology, Holy Cross), 4:00 – 5:00 PM Meeting session with students 0.50% extra credit (per event) to your total grade, if you attend. 	
Thu 2/16	Errors/Effect Size/ Power I	Ch. 6	
Week 5			
Tue 2/21	Errors/Effect Size/ Power II	Ch. 6 / PS 3 Due	PS 4 lab: Errors/Effect Size/Power
Thu 2/23	No class due to Prof. Park attending an academic conference		
Week 6			
Tue 2/28	t-Test I	Ch. 7 (pp. 226-240) / PS 4 Due	PS 5 lab: Dependent t-Test
Thu 3/2	Dependent samples t-test	Ch. 7 (to the end)	
Week 7			
Tue 3/7	Review/Questions about Exam 1	PS 5 Due	No lab
Thu 3/9	Exam 1		
Week 8			
Tue 3/14	Spring Break		
Thu 3/16	Spring Break		
Week 9			
Tue 3/21	Spring Break		
Thu 3/23	Spring Break		
Week 10			
Tue 3/28	Independent samples t-tests I	Ch. 8	PS 6 lab: Independent t-test

Thu 3/30	Independent samples t-tests II		
Week 11			
Tue 4/4	ANOVA I	Ch.9 (pp. 317-339) / PS 6 Due	PS 7 lab: ANOVA
Thu 4/6	ANOVA II	Ch.9 (to the end)	
Week 12			
Tue 4/11	Factorial ANOVA I	Ch.10 / PS 7 Due	PS 8 lab: Factorial ANOVA
Thu 4/13	Factorial ANOVA II	Ch. 10	
Week 13			
Tue 4/18	Correlation	Ch. 11/ PS 8 Due	PS 9 lab: Correlation + Regression
Thu 4/20	Regression	Ch. 12	
Week 14			
Tue 4/25	Regression II	Ch. 12 / PS 9 Due	PS 10 lab: Regression + Multiple Regression
Thu 4/27	Multiple Regression	Ch. 12	
Week 15			
Mon 5/1	Psychology Department Symposium (Not required to attend but extra credit available)	<ul style="list-style-type: none"> Keynote speaker: Dr. Jonathan Cook (Association Professor of Psychology, Penn State), 9:00 AM- 10:15AM 0.75% extra credit to your total grade, if you attend. 	
Tue 5/2	Chi-Square	Ch. 13 / PS 10 Due	PS 11 lab: Q&A
Thu 5/4	Advanced materials	Ch. 15	
Week 16			
Tue 5/7	Wrap up + Review for Exam		No lab
Week 17			
Final Examination Period			

Campus Policies/Resources:

Credit Hour Definition

A semester course is normally equivalent to four credit hours. Connecticut College complies with federal regulations defining the credit hour. For each credit hour awarded, a course will provide an average of at least one hour of classroom or direct faculty instruction (class meetings, labs, review sessions, field trips, office hours, film screenings, tutorials, training, rehearsals, etc.) and at least two hours of out-of-class work (homework, preparatory work, practice, rehearsals, etc.) per week.

The Connecticut College Honor Code

Academic integrity is of the utmost importance in maintaining the high standards of scholarship in our community. Academic dishonesty is considered to be a serious offense against the community and represents a significant breach of trust between the professor, the classmates, and the student. There are many forms of academic dishonesty including plagiarism, falsifying data, misrepresenting class attendance, submitting the same work in two courses without prior approval, unauthorized discussion or distribution of exams or assignments, and offering or receiving unauthorized aid on exams or graded assignments. Students violating the Honor Code may be referred to the college's Honor Council for resolution.

Title IX Statement

As a faculty member, I am deeply invested in the well-being of each student I teach. I am here to assist you with your work in this course. If you come to me with other non-course-related concerns, I will do my best to help. It is important for you to know that all faculty members are trained and required to report any incidents of gender-based discrimination, including discrimination based on gender identity, gender expression, and sexual orientation. This means that I cannot keep information confidential about sexual harassment, sexual assault, dating violence, stalking, or other forms of gender-based discrimination, and that I will report that information to the Title IX office, if it is shared with me. However, the Title IX office typically only acts on formal complaints, and in response to notice from me will reach out to you to offer support and resources, and offer you the opportunity to file a formal Title IX complaint, which is up to you. The Director of Sexual Violence Prevention and Advocacy and the SVPA Confidential Advocates can advise you confidentially as can Counseling Services and any of the College chaplains. SVPA can also help you access other resources on campus and in the local community. You can reach the Confidential Advocates at SVPA@conncoll.edu, make an appointment with the Confidential Advocates at <http://bit.ly/ConnCollSVPA> or contact the SVPA Confidential Advocate ON Call 24/7 at 860-460-9194. The student sexual harassment, dating violence, stalking, and non-discrimination policies are in the Sexual Harassment and Nondiscrimination Policy, which can be found on CamelWeb, in the "Documents/Policies" section, under the Student Life section. There you will find the policies, definitions, procedures, and resources. If you need to report an incident or have any questions about the policy, you can contact 860-439-2624 or titleix@conncoll.edu.

Academic Resource Center

The Academic Resource Center (ARC) offers services to support your academic work such as study skills workshops, time management, coaching and tutoring. Its offices are located on the second floor of Shain Library. Students can make appointments by clicking on this link: <https://forms.gle/BQecmVdK8Bg1sv5P7>.

The ARC is open to the community as a quiet study space at any time the library is open. Professional staff is there for appointments Monday – Friday, 8:30 – 5:00 (evenings are by appointment only). If faculty or students have any questions or concerns, they should contact Patricia Dallas (pdallas@conncoll.edu).

Writing Center

The Roth Writing Center provides one-to-one peer tutoring (free of charge) to help student writers of all abilities during all stages of the writing process. If you're a confident, experienced writer, our tutors can help you to push your ideas and polish your style; if you're a relatively inexperienced and not-so-confident writer, they can help you to work on grammar or organization or whatever you need. Working with a tutor gives you the opportunity to share your work-in-progress with an actual reader so that you can get useful feedback on that work before you have to turn it in for a final grade. You can make an appointment by using the Google Calendar link on the Writing Center's website at <http://write.conncoll.edu/> or by emailing the Writing Center at writingcenter@conncoll.edu; a new calendar of appointments will become available by the second week of each semester.

Office of Student Accessibility Services

Connecticut College complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. If you have a documented disability and have been approved for academic accommodations, please have your Faculty Notification Letter emailed to me through the Student Accessibility online management system (AIM) and schedule a meeting during my office hours as early as possible in the semester so that we can discuss the logistics of your accommodations. If you are not approved for accommodations, but

have a disability requiring academic accommodations, or have questions about applying for accommodations, please contact Student Accessibility Services at 860-439-5428 or sas@conncoll.edu.

Classroom Recording

With the exception of those granted accommodations through the Office of Student Accessibility Services, students are prohibited from audio, video, or photographic recording during class periods or out-of-class meetings with the instructor without explicit permission from the instructor. Recordings approved in this manner may not be shared in any form without permission of the instructor. Violations of this policy shall be considered an Honor Code violation.

Office Hours

Office hours provide students with additional opportunities to review or ask questions about the class discussions and assignments. Connecticut College faculty encourage students to go to office hours so they might learn about your interests, both inside and outside the classroom. In addition to talking about class material and assignments, you may find you share common interests, such as music, books, hobbies, and movies. If a professor knows your interest, they may inform you about campus programs and activities or other opportunities like fellowships and scholarships. Most importantly, a professor who knows their students writes better letters of recommendation. Successful students at Connecticut College make time to go to their professors' office hours. All Connecticut College faculty are required to have office hours on their syllabus and posted on their office door. If you cannot make your professor's scheduled office hours, contact your professor to set up an appointment.

Respecting Personal Pronouns and Identity

Everyone deserves to be referred to and addressed in accordance with their personal identity. As a faculty member, I am committed to ensuring my classroom affirms people of all gender expressions and gender identities. In this course, we will only use the name and pronouns of each individual's choosing. The repeated usage of incorrect names and/or pronouns are against Connecticut College policy and may constitute a T9 policy violation as well as a violation of state and federal law.

In the classroom, be assured that you will always be referred to by the name and pronouns you choose. If you go by a different name than your legal name, Connecticut College has a process to change your preferred name on most campus systems. If you want to learn more about this process go to conncoll.edu/equity-inclusion/preferred-name-faq/ or email GSP@conncoll.edu.

Students, faculty and staff are now able to choose and share their pronouns within the college community by using the Preferred Name/Pronouns link on the navigation menu in CamelWeb and the CC Mobile App. Your gender pronouns will appear in the internal directory located in CamelWeb and the CC Mobile App. If none are selected, or if "Not Applicable" is selected, no pronouns will display. Enrolled students' gender pronouns will also display in Moodle for instructors via the class participants page.

Pronouns are one way to affirm someone's gender identity, but they are not necessarily indicative of a person's gender identity. Commonly, they/them is a gender-inclusive pronoun used by a variety of identities. However, while some people use they/them, others may use pronouns like ze/zem, xi/xim, he/him, she/her, any combination of those and/or many others. They may even reject pronouns altogether and use their name in place of pronouns. Remember to ask for pronouns, listen, and then respect the gender identities of those around you by using the proper terminology. If you have any further questions or you want to learn more about gender & sexuality, please do not hesitate to contact the Director of Gender & Sexuality Programs at gsp@conncoll.edu.