California State University, Fullerton Logo

College of Humanities and Social Sciences

Psychology Department

# PSYCH 300 – Intermediate Research Methods and Statistics

# CRN: 18038 Sec: 52

Location: Fully Online

Instructor: Dr. Trevor Basil, PhD

Office: via Zoom at [Zoom Link](https://fullerton.zoom.us/j/7190005197)

E-mail: [trbasil@fullerton.edu](mailto:trbasil@fullerton.edu)

Office hours: T/Th 1-2pm, F 5-7pm, and by appointment

Student Technical support: (657) 278-8888

* [StudentITHelpDesk@fullerton.edu](mailto:StudentITHelpDesk@fullerton.edu)
* <http://www.fullerton.edu/it/students/helpdesk/index.php>
* Chat with IT: Log into: <http://my.fullerton.edu/> and Click Online IT Help Click on Live Chat
* Canvas Support Hotline: 855-302-7528
* [Canvas Support Chat Faculty](https://cases.canvaslms.com/liveagentchat?chattype=admin&sfid=001A000000YzcwQIAR) / [Canvas Support Chat Student](https://cases.canvaslms.com/liveagentchat?chattype=student&sfid=001A000000YzcwQIAR)

## Teaching Assistants

Dyanne Holm

[dyanneholm@csu.fullerton.edu](mailto:dyanneholm@csu.fullerton.edu)

Office Hours – W 1:00pm - [Zoom Link](https://us04web.zoom.us/j/6276182701?pwd=UzNrNE9VZ2pYaEZaanNWd1ZpTzNZdz09)

Amir Sherkat

[asherkat@csu.fullerton.edu](mailto:asherkat@csu.fullerton.edu)

Office Hours – Th 6:00pm - [Zoom Link](https://us04web.zoom.us/j/73185632131?pwd=E1UcXlzUiB9dScZh2qEXIxjuyicyCP.1)

## Course Description

General introduction to the use of computers in psychology. Selection and use of application programs in research, statistics and testing will be emphasized.

The purpose of this course is to introduce you to basic computer and statistical applications commonly used in psychology and social sciences. Topics covered include R, MS Office (Word, Excel, PowerPoint), Internet and library research. Psychology 300 covers a broad range of topics related to computer use in psychology, but it emphasizes computer applications to intermediate statistics.

Psychology 300 serves as the bridge between 201 and 465 and also provides basis for 302L-306L.

## Course PREREQUISITES

PSYC 101, PSYC 201, PSYC 202

## COURSE OBJECTIVES AND Learning Goals

Psychology 300 covers a broad range of topics related to computer use in psychology, but it emphasizes computer applications for intermediate statistics. Psychology 300 serves as the bridge between 201 and 465 and also provides basis for 302L-306L.

1. Being able to search information using search engine in the context of psychological research.
2. Being able to search literature using Pollak Library database and save/e-mail the search results for later use.
3. Understanding various functions available in MS Word in the context of writing a research paper in APA style and can use them to write a paper in the correct format such as heading and indentation.
4. Being able to use spreadsheet software (Excel) for initial data entry and basic statistical analysis such as sorting data and using formulas.
5. Being able to import raw data from Excel file and code the data appropriately in R.
6. Being able to conduct repeated-measures ANOVA and factorial ANOVA with understanding of experimental design.
7. Being able to conduct product-moment correlation and simple regression.
8. Being able to select and perform the appropriate statistical analyses in R based on the explicit research questions and to describe the research question, analysis results, and the conclusion in a correct format (e.g. 2 quant. = r, 2 qual./cat. = chi-square, 1 quant. & 1 qual. = t/ANOVA).
9. Notebook: ALL students MUST have a notebook at the end of the semester that contains notes structured in the required format that they can refer to in higher level classes.

## Required Texts

[Learning Statistics with R](https://learningstatisticswithr.com/lsr-0.6.pdf)

* Free and online textbook that serves as an excellent reference for learning Statistics in R

## Other Required Materials

Required Software

* R and R Studio (You will need to download and install R first on a local drive, not a virtual drive, and then install RStudio to the same local drive)
  + (R software) <https://mirror.las.iastate.edu/CRAN/>
  + (RStudio software) <https://rstudio.com/products/rstudio/download/>
* Microsoft Office software
  + For current students MUST BE downloaded from <http://www.fullerton.edu/IT/students/software> BY FRIDAY OF THE FIRST WEEK OF CLASS
  + Please contact IT support if you have trouble downloading the software. You may also utilize the virtual computing lab if you prefer.
* Students should have the most current version of R Studio, Microsoft Word, Excel, PowerPoint, and Adobe Acrobat Reader. PAGES and KEYNOTE FORMATS WILL NOT BE ACCEPTED. The Google Suite of software will unfortunately not be accepted either.

## IMPORTANT STUDENT INFORMATION AND POLICY LINKS

Students with Special Needs

Please inform the instructor during the first week of classes about any disability or special needs that you may have that may require specific arrangements related to attending class sessions, carrying out class assignments, or writing papers or examinations. According to California State University policy, students with disabilities must document their disabilities at the Disability Support Services (DSS) Office in order to be accommodated in their courses. Additional information can be found at the DSS website, by calling 657-278-3112 or email [dsservices@fullerton.edu](mailto:dsservices@fullerton.edu). If you are a course match student and require ADA accommodations for access to this course and are registered with Disability Services at your home campus, please contact the Disability Support Services office at CSU, Fullerton by emailing dsservices@fullerton.edu or by calling (657) 278-3112 for assistance.

Academic Dishonesty Policy

Please see the posted University Policy on Academic Dishonesty on this website.

<http://www.fullerton.edu/senate/publications_policies_resolutions/ups/UPS%20300/UPS%20300.021.pdf>

Emergency Preparedness

Please see the posted University Policy on Emergency Preparedness on this website.

<https://prepare.fullerton.edu/documents/Emerg%20Prep%20Handout-classes-2016.pdf>

Undergraduate Student Learning Goals

Please see the posted University Student Learning Goals at this website.

<https://www.fullerton.edu/data/assessment/assessment_at_csuf/learninggoals.php>

General Education

This course does not meet any of the General Education requirements.

Student Learning Outcomes by Degree Programs

Please see the posted Learning Outcomes for the B.A. in Psychology degree at this website.

<http://www.fullerton.edu/data/assessment/assessment_at_csuf/program_slos/hss_ba_psy.php>

Library Support

Please see the posted information on Library Support at this website.

<http://www.library.fullerton.edu/about/guidelines/online-instruction-guidelines.php>

Final Exams Schedule

The Final Exam for this course will take place via Canvas

* More information will be announced closer to finals week. We will be discussing this over the course of the semester.

## Response TIME

The instructor will respond to emails usually within 48 hours except weekends. You may also attend office hours to get answers to your course questions.

## COURSE COMMUNICATIoN

All course announcements and individual email are sent through the learning management system (LMS) Canvas, which only uses CSUF email accounts. Therefore, you MUST check your CSUF email on a regular basis (several times a week) for the duration of the course.

The instructor will be online during scheduled office hours and available via email.

## Grading Standards, and Criteria

|  |  |
| --- | --- |
| Grading | |
| Assignments (15 @ 10 ea) | 150 |
| Midterm Exam | 100 |
| Notebook Check | 100 |
| Final Exam | 150 |
| **Total Points** | **500** |
|  |  |

Note: The instructor reserves the right to make minor changes in the final grading scale.

The overall semester grade will be determined by calculating your total points divided by 500.

The grading scale is as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Letter Grade | Percentage | Grade Point | Minimum Points |
| A+ | >100% | 4 | >500 |
| A | 90-100% | 4 | 450 |
| B | 80-89.9% | 3 | 400 |
| C | 70-79.9% | 2 | 350 |
| D | 60-69.9% | 1 | 300 |
| F | <60% | 0 | <300 |

Keep all assignments and exams returned to you so that any discrepancies can be easily and fairly straightened out

## Grading Policy

* Online activities will be assessed and graded using Canvas date and time stamps, and log reports for all exams and homework assignments.
* Assignments will be due at midnight on Sundays. This gives you nearly a full week to work on assignments and turn them in.

### ATTENDANCE POLICY

If you know in advance that you are unable to keep up with weekly class recordings and assignments, you should not take this course at this time. Given that we are in a truly unique and challenging time, unforeseen issues will be handled on a case-by-case basis.

Students are prohibited from recording class activities (including class lectures, office hours, advising sessions, etc.), distributing class recordings, or posting class recordings. This university policy (330.230) is in place to protect the privacy of students in the course, as well as to maintain academic integrity through reducing the instances of cheating. Students who record, distribute, or post these materials may be referred to the Office of Student Conduct. It is the responsibility of students that require special accommodations or assistive technology due to a disability to notify the instructor.

**Group Zoom Etiquette** (We may have some live review sessions or group study)

1. Mute Your Microphone: To help keep background noise to a minimum, make sure you mute your microphone when you are not speaking.
2. Be Mindful of Background Noise and Distractions: Find a quiet place to “attend” office hours, to the greatest extent possible.
3. Avoid video setups where people may be walking behind you, people talking/making noise, etc.
4. Avoid activities that could create additional noise, such as shuffling papers, listening to music in the background, etc.
5. Position Your Camera Properly: Be sure your webcam is in a stable position and focused at eye level.
6. Limit Your Distractions/Avoid Multitasking: You can make it easier to focus on the meeting by turning off notifications, closing or minimizing running apps, and putting your smartphone away (unless you are using it to access Zoom or participate in a course activity).
7. Use Appropriate Virtual Backgrounds: If using a virtual background, it should be appropriate and professional and should NOT suggest or include content that is objectively offensive or demeaning.

### Late Assignments

With the exception of severe circumstances (e.g. hospitalizations, natural disasters, etc.) late assignments will love 10% of the possible grade. Appropriate documentation should be provided for severe circumstances.

## Assignment Descriptions

Homework Assignments (10 points each x 15) – Each week assignments will be posted that should be completed and submitted via Canvas before the deadline. These will be scored for correctness via file submissions in Word, Excel, or R.

Notebook Assignment (100 points) – Students will be required to keep class notes for each session and create a word document to submit via Turnitin at the end of the class. The instruction sheet provided on Canvas lists the required items to be included in the notes.

Midterm (100 points) and Final exam (150 points). Exams will be administered via Canvas. They will be OPEN NOTE, OPEN BOOK and you will have ONE week to complete your exam.

## Alternative Procedure for Submitting Work

In case of technical difficulties with the learning management system (LMS) Canvas, the instructor will communicate with students directly through CSUF email, and assignments can be sent through email. In the case email doesn’t work, students should call the IT support and receive documentation of your call at 657-278-7777 for further direction.

## Policy on Retention of Student Work

Student work submitted for this course shall be retained by the University or its academic employees for a reasonable time after the semester is completed. For this course it will be until the end of the following semester term.

## Technical Requirements

Students are expected to

1. Have basic computer competency which includes:
   1. the ability to use a personal computer to locate, create, move, copy, delete, name, rename, and save files and folders on hard drives, secondary storage devices such as USB drives, and cloud such as Google Drive (Titan Aps) and Dropbox
   2. the ability to use a word processing program to create, edit, format, store, retrieve, and print documents
   3. the ability to use their CSUF email accounts to receive, create, edit, print, save, and send an e-mail message with and without an attached file; and
   4. the ability to use an Internet browser such as Chrome, Safari, Firefox, or Internet Explorer to search and access web sites in the World Wide Web.
2. Have ongoing reliable access to a computer with Internet connectivity for regular course assignments
3. Utilize a recent version of Microsoft® Office 2019 (for P.C.) or 2020 (for Mac) including Word, PowerPoint, and Excel to learn content and communicate with colleagues and faculty; have the ability to regularly print assignments or Microsoft Office 365
4. Maintain and access three times weekly their CSUF student email account
5. Use Internet search and retrieval skills to complete assignment
6. Apply his/her educational technology skills to complete expected competencies
7. Utilize other software applications as course requirements dictate
8. Utilize the learning management system (LMS) Canvas, to access course materials and complete assignments

### Software for Students

Did you know you can get FREE and low-cost software for being an active CSUF student? Software downloads and request forms can be found on the [CSUF Student Software website](http://www.fullerton.edu/it/students/software/).

## Netiquette Requirements

Each student is expected to conduct themselves in a professional manner during the class - taking full advantage of the learning opportunities available. This includes completing all online discussions and assignments, adhering to proper netiquette, and so on. Netiquette refers to a set of behaviors that are appropriate for online activity - especially with email and threaded discussions. The core rules of netiquette can be found at the [Netiquette website](http://www.albion.com/netiquette/corerules.html). Please read through these netiquette rules to ensure that you are familiar with what will be the expected online behavior for this course.

### The Learning Management System (LMS) Canvas

As a registered student you are enrolled in the Learning Management System (LMS) Canvas. You may access Canvas for all your classes by clicking on your student portal, found on the CSUF website. There is a [short video explaining Titanium access](http://www.fullerton.edu/IT/students/digitaleducation/AccessTitanium.php) and [student resource guides for Canvas](https://www.fullerton.edu/it/events_projects/lms_project/student_resources.php) . Problems? Contact the student help desk at (657) 278-8888 or email [StudentITHelpDesk@fullerton.edu](mailto:StudentITHelpDesk@fullerton.edu).

### University Learning Center

The goal of the University Learning Center is to provide all CSUF students with academic support in an inviting and contemporary environment.  The staff of the University Learning Center will assist students with their academic assignments, general study skills, and computer user needs. The ULC staff work with all students from diverse backgrounds in most undergraduate general education courses including those in science and math; humanities and social sciences; as well as other subjects. They offer one-to-one peer tutoring, online writing review, and many more services. More information can be found on the[University Learning Center website](http://www.fullerton.edu/ulc/)**.**

### Writing Center

The Writing Center offers 30-minute, one-on-one peer tutoring sessions and workshops, aimed at providing assistance for all written assignments and student writing concerns. Writing Center services are available to students from all disciplines. Registration and appointment schedules are available a**t the**[Writing Center Appointment Scheduling System](http://fullerton.mywconline.com/)**.** Walk-in appointments are also available on a first come, first served basis, to students who have registered online. More information can be found at the  [Writing Center webpage](http://www.fullerton.edu/learningassistance/tutoring_centers/writing.asp). The Writing Center is located on the first floor of the [Pollak Library](http://www.library.fullerton.edu/) their phone number is (657) 278-3650.

TENTATIVE SCHEDULE (This will be updated regularly)

|  |  |  |
| --- | --- | --- |
| Week | Topic | Assignments |
| 1 (1/24) | Course Overview, Syllabus, R Studio basics, Datasets and File Types | * Read Syllabus * R basics assignment |
| 2 (1/31) | MS Excel and Importing Files into R Studio | * Reading TBD * MS Excel assignment |
| 3 (2/7) | MS Word and APA Formatting | * Reading TBD * APA formatting assignment in Word |
| 4 (2/14) | Literature Search and Survey Design | * Reading TBD * Survey Questions and Works Cited |
| 5 (2/21) | Data Cleaning and Manipulation | * Reading TBD * Data cleaning assignment |
| 6 (2/28) | Chi-square | * Reading TBD * Chi-square summary assignment |
| 7 (3/7) | Correlation | * Reading TBD * Correlation summary assignment |
| 8 (3/14) | t-test | * Reading TBD * T-test summary assignment |
| 9 (3/21) | Midterm Exam | * Review |

|  |  |  |
| --- | --- | --- |
| 10 (3/28) | Spring Recess – No Class | * NA |
| 11 (4/4) | One way and Two way ANOVA | * Reading TBD * ANOVA summary assignment |
| 12 (4/11) | ANCOVA | * Reading TBD * ANCOVA summary assignment |
| 13 (4/18) | Repeated Measure ANOVA | * Reading TBD * Repeated measures summary assignment |
| 14 (4/25) | Mixed ANOVA | * Reading TBD * Mixed Models ANOVA summary assignment |
| 15 (5/2) | Linear regression | * Reading TBD * Regression summary assignment |
| 16 (5/9) | Review and Final Exam Prep | * Reading TBD |
| FINALS | Final exam Posted Monday May 16th via Canvas | * Review |

# Classroom Emergency Preparedness Guide

Information provided by the University Police Emergency Management Coordinator

## Emergency Preparedness for: PSYCH 300

## On the first day of every semester:

* Know the emergency exits and evacuation areas for every classroom.
* Devise "buddy systems" so that everyone is accounted for in an evacuation.
* Evaluate the challenges that you might face during an evacuation and speak with your instructor.
* Add the CSUF Emergency Information number – 877-278-1712 – to your cell phone to hear recorded information regarding campus conditions or closure.
* [Personal Preparation website](http://prepare.fullerton.edu/personalpreparedness/default.asp)

## Emergency Communication

Campus emergency communication is done via a voice message, text and/or an email. Go to your Portal to review your contact information. [A guide to update your personal information](http://prepare.fullerton.edu/emergencynotification/default.asp)

## Evacuations – Drills or real

* You may not know if this is a drill or not, so take every call to evacuate seriously.
* Take your personal belongings and immediately leave the building.
* Know where the evacuation area is for every building. [A map of all campus evacuation areas](http://prepare.fullerton.edu/evacuationprocedure/)
* Re-enter buildings only when directed by Building Marshals or other campus authority.
* Leave the campus only if instructed.

### For this class, the closest 2 exits are: Not applicable

### We will meet at: Not applicable

### Earthquake

As soon as you feel shaking, **DROP, COVER and HOLD ON**: Immediately seek shelter (under a desk or table) cover your head and hold on. Evacuate if directed, or you feel it is safe to do so.

### Fire

* When you see smoke or fire, immediately evacuate the building.
* If not already activated, pull the fire alarm switch to alert others of the situation.
* Use a fire extinguisher only if you know how to use it and the fire is small.

### Shelter in Place or Dangerous Situation

* If directed, or you feel it is best to do so, seek shelter in a room with a lock.
* Turn off the lights and silence all cell phones.
* Hide as best as possible until the all clear signal has been given by authorities.
* If possible, move away from the dangerous situation as fast as you can.
* If you cannot safely hide or escape, be prepared to take action to protect yourself.
* See [some helpful videos on sheltering in place](http://prepare.fullerton.edu/shelterinplace.asp)

## When you need help **Immediately or to report a dangerous situation, CALL 911.**

University Police non-emergency line: (657) 278-2515

## For more information

Ask your instructor, or go to [Campus Preparedness website](http://prepare.fullerton.edu/campuspreparedness/)

HOW THIS COURSE CONTRIBUTES TO THE PSYCHOLOGY DEPARTMENT’S

STUDENT-LEARNING OUTCOMES

In accordance with University policy, the Psychology Department has established a set of Student-Learning Outcomes for the undergraduate program that will help us assess the program’s instructional effectiveness. This course covers the outcomes that are checked below, and for each outcome the Mastery Level to be achieved is represented as follows,

I = Introduced.

D = Developed and practiced with feedback.

M = Demonstrated at the mastery level appropriate for graduation.

1. Students can identify appropriate basic research methods to test hypotheses empirically.

Covered at Mastery Level: I D M

1. Students can apply psychological theory to scientific questions and real-world problems.

Covered at Mastery Level: I D M

1. Students can find and evaluate relevant literature.

Covered at Mastery Level: I D M

1. Students can demonstrate proficient writing skills, including scientific writing in APA format.

Covered at Mastery Level: I D M

1. Students can manage and analyze data using appropriate statistical methods.

Covered at Mastery Level: I D M

1. Students can analyze psychological research and theory in relation to their own personal development.

Covered at Mastery Level: I D M

1. Students can identify how diversity impacts individual and social behavior.

Covered at Mastery Level: I D M

1. Students can employ appropriate ethical principles in psychological settings.

Covered at Mastery Level: I D M

## UPS Links

[UPS 300.004 Policy on Syllabi (Course Outlines](http://www.fullerton.edu/senate/documents/PDF/300/UPS300.004_12-3-13.pdf))

[UPS 320.005 Retention of Student Work](http://www.fullerton.edu/senate/documents/PDF/300/UPS320.005_Retention_Student-Work_effec_8-16-13.pdf)

[UPS 411.104 Policy on Online Instruction](http://www.fullerton.edu/senate/documents/PDF/400/UPS411.104_effec_1-17-14.pdf)



**DEPARTMENT OF PSYCHOLOGY**

**Student Responsibility Code**

The Department of Psychology is dedicated to providing you with the highest quality educational program. In order to maximize the benefits of our program, it is important that you meet your responsibilities as a student. Listed be- low are some of the responsibilities to be met.



# Advisement – Please familiarize yourself with university and departmental policies and deadlines.

You should obtain and read pertinent sections of the University Catalog and instructor course outlines. If you are a psychology major or minor, you should read the Psychology Student Handbook and meet with a psychology undergraduate advisor (Room H-830J) at least once a year to review your study plan and career goals. The Handbook is available at <http://psychology.fullerton.edu/advisement/>

# Class Attendance – Please remember that you are responsible for attending all classes and laboratory meetings, and for being on time. The benefit you derive from your education is often lost if you are lost too!

The Learning Environment – Please be mindful of your fellow students and the instructors.

Behavior that persistently interferes with classroom activities may be subject to disciplinary action. Such behavior may include, but is not limited to, cell phones ringing, rude or abrasive communication with instructor or peers, entering the class late, leaving the class prematurely, eating in class or chatting with other students during class. A student responsible for continual disruptive behavior may be required to leave class pending discussion and resolution of the problem.

# Workload – Please be realistic in adjusting your outside responsibilities (work, family, social obligations, etc.) in order to allow sufficient time for your education.

In order to receive a quality education, you must not overload yourself. As a general rule, you should allow two to three hours of study outside of class, for each hour spent in class. Additional information on this topic is dis- cussed in the Psychology Student Handbook.

# Academic Integrity – The world of academia is completely dependent on straightforward honesty and integrity, and it protects these values in many ways. Your ability to think of yourself as an educated person depends on these same values. For these reasons the University imposes serious penalties for breaches of academic honesty and cases of suspected breaches of honesty may be reported. Please familiarize yourself with the academic integrity guide- lines found in the current student handbook and the CSUF Student Conduct site [http://www.fullerton.edu/integrity/student/AcademicIntegrityResources.asp.](http://www.fullerton.edu/integrity/student/AcademicIntegrityResources.asp)

* Work produced through academic misconduct (e.g., cheating on exams, plagiarism) will be dealt with according to the policies of the academic integrity guidelines. Students who violate university standards of academic integrity are subject to disciplinary sanctions, including failure in the course and suspension from the university. Since dishonesty in any form harms the individual, other students and the University, policies on academic integrity are of great concern to us all.
* Your exams, homework, research reports, and term papers should reflect your own work, unless your instructor directs you otherwise.
* Proper methods of referencing outside sources of information should be used at all times. Additional information on this requirement may be obtained by reading the University Catalog section on Academic Dishonesty.

# Special Needs – If you need special assistance in the classroom, please apply for services from the office of Disability Support Services (UH-101, 657-278-3112, <http://www.fullerton.edu/dss/>) and notify the instructor by the end of the first week of the semester.

Emergency Procedures – In the event of an emergency, please adhere to these university guidelines.

<http://prepare.fullerton.edu/campuspreparedness/ClassroomPreparedness.php>



If you have any questions concerning the above responsibilities, please contact your psychology instructor or the Psychology Department Chair.