

# HDE 120: Research Methods in Human Development

<b>Professor</b>	Maciel M. Hernández, Ph.D.	
<b>Office</b>	2313 Hart Hall	
<b>Email</b>	mmhernandez@ucdavis.edu	*Use HDE 120 in the subject line.
<b>Lectures</b>	Tuesdays & Thursdays, 10:30–11:50 AM PST	Olson 206
<b>Office hours</b>	Tuesdays, 12:10–1:00 PM PST	via Zoom (unless noted otherwise)

\*Some lectures might be online (Zoom or uploaded to Canvas) due to unexpected events (e.g., illness). Check Canvas Announcements.

Sections	A01	A02	A03	A04
<b>TAs</b>	Nazanin Akrami	Chase Boyer	Mahek Jain	Kokul Kavitha
<b>Email</b>	nakrami@ucdavis.edu	cjboyer@ucdavis.edu	mhkjain@ucdavis.edu	kkathir@ucdavis.edu
<b>Lab Time</b>	<b>M:</b> 1:10 – 4 PM	<b>T:</b> 1:10 – 4 PM	<b>T:</b> 4:10 – 7 PM	<b>W:</b> 1:10 – 4 PM
<b>Office</b>	Check Canvas	Check Canvas	Check Canvas	Check Canvas
<b>Office hours</b>	<b>T:</b> 4:10 – 5 PM	<b>M:</b> 10 – 10:50 AM	<b>M:</b> 3:10 – 4 PM	<b>T:</b> 2:10 – 3 PM

\*All lab sections are held in 75 Hutchison.

## Course Overview

In this course, we will learn about the scientific process (research design, analysis, and interpretation) in the study of human development. We will cover issues concerning the proper design and control of experiments, and discuss how to interpret the outcomes of a given experiment. We will discuss how to properly present data and draw logical conclusions based on those data.

The goals of this course are to provide you with the skills necessary to **1)** think critically about research and scientific methodology (i.e., evaluate research by asking intelligent, sophisticated questions about a study's design, findings, and conclusions), **2)** actively conduct research through hands-on laboratory and written assignments, **3)** understand how a chosen research method can affect the conclusions drawn from statistical analyses performed on your experimental data, and **4)** prepare an APA-style research report that communicates, in a clear and concise manner, relevant research literature, hypotheses, design, and findings.

## Prerequisites

Elementary statistics is a prerequisite (including Stat 13, Ed 14, Psych 41, Soc 46A, or Soc 46B). It is expected that you have a basic knowledge of statistics (e.g., means, standard deviations, t-test, ANOVA,  $p$  values) before this course. It's also strongly recommended that you have taken HDE 100A or 100B. Let us know if you have any questions about prerequisites. We're here to support your learning!

## Required Materials

### Course Textbook

McBurney, D. H., & White, T. L. (2013). *Research Methods, 9<sup>th</sup> Edition*. Belmont, CA: Thompson Wadsworth. (any edition 6-9 is okay)

American Psychological Association. (2020). *Publication Manual of the American Psychological Association, 7<sup>th</sup> Edition*. Washington, DC: APA.

### Statistical Software

SPSS is needed to complete lab assignments for this course. You can access SPSS in 75 Hutchison, 78 Hutchison, and remotely via [the Virtual Computer Lab](https://virtuallab.ucdavis.edu/secure/virtual/virtual.cgi) available in the evening and on weekends (<https://virtuallab.ucdavis.edu/secure/virtual/virtual.cgi>). Please read instructions carefully and reach out to [labmanager@ucdavis.edu](mailto:labmanager@ucdavis.edu) for IT support. If you prefer to have SPSS installed on your computer or find it

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frustrating to log into the computer lab, you can purchase a license from the university or external websites, or rent the SPSS 29.0 BASE graduate pack for 6 months for \$34.95 (<https://studentdiscounts.com>).

## Course Format & Expectations

**Lectures** will occur every Tuesday and Thursday from 10:30-11:50 AM PST. On some occasions, lectures might need to be moved online (via Zoom or uploaded to Canvas) due to unexpected events. These occasions will be announced via Canvas. I do not require attendance to class lectures. However, attendance to lectures will play a large part in determining your grade, as the topics discussed in lecture and in-class activities may not map on with the material in your text. There will be some in-class activities (sometimes for bonus points) to help inform the concepts covered in class. It is advised that you attend lecture and be punctual. You are expected to attend **lab sessions** on your indicated section time.

As with any college course, you should expect a challenge. In order to *earn* an A, you should expect to spend a considerable amount of time **reading** and **reviewing** chapters and lecture notes. It is from my experience that students who do not fully engage themselves in the material for this course do not earn an A. The exams will be challenging and cover concepts that we will have cumulatively built throughout the course. Because of the fast-pace of this class, it will be imperative that you **review the material ahead of time**. I advise you not cram studying before the exams. By not cramming you will have less anxiety before the exam, fewer mental blocks, and you will perform better.

Labs and lab assignments serve an opportunity to learn hands-on about the concepts we are covering in lecture. Similarly, the quality of your work will be based on how much you review the concepts covered and dedicate to revising the assignments. You will spend a considerable amount of time completing, reviewing lab work, and editing your writing.

You will have the opportunity to work in groups for the final lab project and presentation. Collaborating with colleagues is an integral part of the research process. I expect that group members respect each other's time and work, and **contribute equally** to the group's success.

I encourage students to visit the Success Coaching and Learning Strategies Success Center (<https://opportunity.ucdavis.edu/services/scls>) for academic advising and services (e.g., tutoring, study strategies, drop-in appointments) and the Writing Support Center (<https://tutoring.ucdavis.edu/writing>) for writing support. Your academic experience will be greatly improved by using resources such as office hours, writing tutoring, study groups, etc.

## Taking Notes

Your best results in the course are likely to come from taking notes by hand. If you do take notes via electronic device, please make sure that other programs are turned off during class and lab. Slides are purposely not posted in either lecture or lab, and therefore you may not take photographs of slides. We can slow down, repeat information, or go back to a previous slide if you missed some information!

## COVID-related Information



My primary priority is a healthy and safe classroom. Face coverings are recommended for indoor settings. I will always wear a mask during class. Some of your TAs will also wear a mask during labs.

<https://campusready.ucdavis.edu/face-coverings-masks>

**Stay home** if you are feeling sick, test positive for COVID-19, or have had a potential COVID-19 exposure, and contact me as soon as you can. Please err on the side of caution if you are unsure about your symptoms. We can find an alternative way for you to follow along. Your grade will **not** be affected if you need to stay home due to potential illness or precautions.

## Enrollment Policy

There is a heavy emphasis on written assignments in this course. In order to facilitate feedback on assignments, we are unable to add students off the waitlist. You may only attend the section in which you are enrolled. HDE 120 is currently offered every quarter.

## Assessments & Grading

Your final grade will be determined on your performance in lectures (40%) and labs (60%).

### Lectures (40%):

Exams (99% of lecture grade): There will be two 80 minute non-cumulative exams administered online via Canvas. The exams will consist of multiple-choice, “true or false” questions, and written response questions. Exam content will include lectures and assigned readings, and will consist of approximately 30-50 items.

Surveys (1% of lecture grade): There are two surveys on Canvas. One survey is about academic integrity (due October 13) and the other is about virtual library access (due October 27).

### Labs (60%):

Your lab grade will be based on your participation, your scores on the assignments, and the final paper. There is no curve on your grade, and your grade will be calculated automatically on Canvas. Students are required to submit assignments in Canvas. Please do not submit assignments over email.

Assignment	Points	Time Assigned	Time Due
APA worksheet #1	10	Lab 1	Lab 2
APA worksheet #2	10	Lab 1	Lab 3
APA worksheet #3	10	Lab 1	Lab 4
IRB certification	20	Lab 1	Lab 6
t-test	50	Lab 2	Lab 3
One-way ANOVA	100	Lab 4	Lab 5
Two-way ANOVA	100	Lab 5	Lab 6
Group project proposal	150	Lab 5	Lab 7
Final paper	300	Lab 7	Dec 12 (early = bonus)
Final presentation	100		Lab 10
Participation	150		
<b>Total</b>	1000		

### Bonus points (2.5% max):

There will be some activities to help inform and extend course concepts, some of which will be worth bonus points. These bonus opportunities might not be announced in advance.

## Grading Scale

A+	97-100 %	B+	87-89 %	C+	77-79 %	D	60-69 % [NP]
A	93-96 %	B	83-86 %	C	73-76 %	F	< 60 %
A-	90-92 %	B-	80-82 %	C-	70-72 % [P]		<i>no curves</i>

Refer to the [Office of the Registrar](https://registrar.ucdavis.edu/calendar/quarter) for a list of add/drop and grading variance deadlines.  
<https://registrar.ucdavis.edu/calendar/quarter>

## Grading Concerns

You have one week after an assignment grade is posted to discuss any concerns with Dr. Hernández. After the one-week time period, the grade stands.

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 Any changes will be noted in the Announcements section on Canvas.*

## Course Procedures & Policies

### Course Behavior

It is important that when you communicate with Dr. Hernández, TA, and peers, you do so in a professional manner. Please engage in respectful exchange of ideas, as aligned with the [UC Davis Principles of Community](https://diversity.ucdavis.edu/principles-community) (<https://diversity.ucdavis.edu/principles-community>)

### Lab Policies

Lab is an active, participatory laboratory course. Attendance is critical. Because of space issues, you should attend the lab in which you are enrolled.

1. A total of 15% of your lab grade is based on participation. Please plan accordingly. Online experiments provide the data for your lab section to analyze. Because sections are small, full participation is necessary to statistically test hypotheses. There are 3 experiments + final project experiments consisting of a total of 5%. You will also receive 0.5% for "passive" participation each time you attend lab and complete any in-class activities (5% total). Because activities are often dependent on each student's participation, if you arrive late or leave early from lab (more than 10 m), you will not get passive participation for that lab session. Being actively engaged (i.e., going beyond your "passive" requirements) determines your active participation score (5% total).
2. You should attend the lab in which you are enrolled. If you need to miss lab, you may attend a different section that week—with permission from both TAs—in order to get the information missed. However, you will not earn passive participation credit and points will be deducted for participation if you switch labs more than once.
3. Papers/assignments are due at the beginning of the scheduled lab time (the earlier time listed). All lab assignments should be typed according to APA style and uploaded in advance of the official start of your lab section. Upload an electronic copy as an attachment via the Assignments mechanism on Canvas. Late assignments receive an automatic deduction of 10% for each day late. "Late" means that you uploaded your assignment after the start of lab and "day" constitutes a 24-hour period. Late papers will not be accepted if they are more than 1 week late and will receive a score of 0. Late papers really hurt your grade. If you do not turn in a final paper, you will receive an "F" for your lab grade.\*
4. Because of the labor-intensive nature of grading the assigned course papers, we are unable to read/comment on drafts of papers before the due date. We are, however, happy to answer or review any specific questions you may have about the written assignments. If you need additional writing help, you can visit the Academic Assistance and Tutoring Center to sign up for writing support: <https://tutoring.ucdavis.edu/>

### Communication Procedures

Announcements, grades, handouts, documents will be posted in Canvas. It is your responsibility to check Canvas regularly and to hold on to your assignments in case of any clerical errors.

Use the Canvas discussion board to pose and respond to content and course-related questions. Dr. Hernández and the TAs will likely request that you post your question to Canvas should we receive it via email. Multiple students stand to benefit from the answer to any one student's question. Questions posted to Canvas can be responded to by other students, and will serve as a collaborative course resource.

The Teaching Assistants (TAs) and I make every effort to respond to email within 2 working days. Before sending a message, review the syllabus, class announcements, and relevant Canvas resources to make sure your question isn't answered in those resources already. In order to maintain a quick response time, email correspondence should be brief. If your questions are longer than 5 lines, or if you have questions that require long responses, please plan to attend office hours instead. Please include **HDE 120** and a brief description in the subject line of your message to identify the email and decrease the likelihood that your message gets filtered into junk email

## Make-up Exams and Extensions

Make-up exams and paper extensions will be allowed in extreme cases (e.g., major personal illness or that of a close family member, death in the family, major life stressor). Contact Dr. Hernández as soon as possible prior to the assignment deadline.

If you follow these guidelines and Dr. Hernández determines that your situation meets the necessary criteria, arrangements will be made; otherwise, you will receive a zero. Missed exams and assignments may not be taken or submitted late for a non-excused reason.

## Course Incompletes

Incompletes are an option under rare circumstances and granted only when the student is (a) passing the class, and (b) when circumstances beyond the student's control arise, such as serious illness. Instructors cannot give incompletes because of missed classes or exams, failing or lower than expected grades. Refer to the [University Registrar <https://registrar.ucdavis.edu>](https://registrar.ucdavis.edu) for details.

## Course Content Copyright

Course content, including lecture presentations and recordings, tests, outlines, and similar materials, are copyrighted materials protected by U.S. copyright law and University policy. Students may not share outside the class, upload, sell, or distribute course content or notes taken during the conduct of the course (refer to [UC Davis Standards of Conduct for Students 102.23](https://ossja.ucdavis.edu/uc-davis-standards-conduct-students); <https://ossja.ucdavis.edu/uc-davis-standards-conduct-students>).

## UC Davis Policies & Resources

### Academic Integrity

The [UC Davis Code of Academic Conduct](https://ossja.ucdavis.edu/code-academic-conduct) exists to support high standards of behavior and to ensure fair evaluation of student learning. If there is evidence of cheating or plagiarism, you will receive a zero on the assignment. Some examples of academic dishonesty include submitting someone else's work under your own name, using ChatGPT or other AI composition software, collaborating with someone else on an individual project, or including another person's written words or ideas into your work without appropriate citation. Students are to complete exams and assignments individually and not discuss exam content with other students. Academic dishonesty also includes using all or part of an assignment you have completed from another class and submitting it for this class. Students who violate the [Code of Academic Conduct](https://ossja.ucdavis.edu/code-academic-conduct) are subject to disciplinary sanctions. <https://ossja.ucdavis.edu/code-academic-conduct>

### Prohibition against Discrimination, Harassment, and Retaliation

Discrimination, harassment, and retaliation are not tolerated. All instructors are mandated reporters and obligated to report any information regarding alleged acts of sexual discrimination, harassment, violence and/or other forms of prohibited discrimination. If you would rather share information about sexual harassment, violence or discrimination to a confidential employee who does not have this reporting responsibility, you can find a list of those individuals at [CARE <https://care.ucdavis.edu>](https://care.ucdavis.edu)

### Accommodation for Religious Practices

In accord with [UC Davis Policy, Chapter 210, Section 50](#), you will not be penalized for absences due to religious practices. You do, however, need to communicate with Dr. Hernández prior to the absence in order to allow for any needed accommodations.

### Accommodation for Disabilities

Our goal is to create a learning environment that is equitable, useable, inclusive, and welcoming. If you have, or think you may have, a disability or medical condition that may affect your learning and performance in this course and feel you need accommodations, contact the [Student Disability Center <https://sdc.ucdavis.edu>](https://sdc.ucdavis.edu). Requests for accommodations and information regarding disabilities are kept confidential. If you have accommodations, please contact Dr. Hernández as soon as possible to discuss

your accommodations.

### Inclement Weather/Circumstances

Check the [UC Davis homepage https://www.ucdavis.edu](https://www.ucdavis.edu) for news on inclement weather, seasonal weather, and other impacts. Official campus closures or delays will be announced there first. Course announcements regarding assignments and expectations during a closure will follow once the severity of the situation is known.

### Basic Needs

Any student who has difficulty affording groceries or accessing sufficient food, who lacks a safe and stable place to live, or who is experiencing undue stressful life circumstances, and believes this may affect their academic performance, is urged to contact [Aggie Compass](#) for support.

Diminished mental health, including significant stress, mood changes, excessive worry, or problems with eating and/or sleeping can interfere with optimal learning. The source of symptoms might be strictly related to your course work; if so, please speak with me. Problems with relationships, family worries, loss, or personal struggles or crises can also contribute to decreased academic functioning. UC Davis [Counseling Services https://shcs.ucdavis.edu/services/counseling-services](https://shcs.ucdavis.edu/services/counseling-services) offers free, confidential psychological services to help you manage personal challenges that might threaten your well-being and academic success. Getting help is a smart and courageous thing to do.

### Resources

AB 540/Undocumented Student Center <http://undocumented.ucdavis.edu>

Academic Assistance and Tutoring Centers <https://tutoring.ucdavis.edu>

Center for Advocacy Resources and Education (CARE) <http://care.ucdavis.edu>

Counseling Services (219 North Hall) \* <https://shcs.ucdavis.edu/counseling-services>

*\* For immediate mental health crisis assistance, call 530-752-2349.*

Mental Health Resource Library <https://healthy.ucdavis.edu/mental-emotional/resource-library>

National Child Abuse Hotline: 1-800-422-4453, <https://www.childhelp.org/hotline/>

National Domestic Violence Hotline: 1-800-799-7233, <https://www.thehotline.org/>

National Suicide Hotline: 1-800-273-8255 <https://suicidepreventionlifeline.org/>

National Suicide Chat Online: <http://chat.suicidepreventionlifeline.org/GetHelp/LifelineChat.aspx>

Student Affairs <https://studentlife.ucdavis.edu>

Student Disability Center <https://sdc.ucdavis.edu>

Student Health and Wellness Center <https://shcs.ucdavis.edu/medical-services>



### Course Calendar

Week, Day, Date			Lecture Topic	Readings	Due in Lab
0	Th	Sept 28	Welcome!	Syllabus Go through Week 0 Module in Canvas	No Lecture or Labs
1	T	Oct 3	Introduction	Ch 1: Psychology and Science	Conduct Exp #1
	Th	Oct 5	Hypothesis testing Variables	Ch 2: Developing a Research Question Ch 5: Variables APA: pp. 3-10, 29-49, 112-164	
2	T	Oct 10	Measurement	Ch 4: Writing in Psychology	APA #1
	Th	Oct 12	Reliability & Validity	Ch 6: Validity APA: pp. 165-250	
	F	Oct 13	--	Academic Integrity and Plagiarism Survey Quiz due	
3	T	Oct 17	Ethical Research	Ch 3: Ethics in Research	t-test APA #2
	Th	Oct 19		Ch 14: Data Exploration APA: pp. 11-26, 71-93, 225-309, 312-359	
4	T	Oct 24	Single Factor & Experiments	Ch 7: Control	Conduct Exp #2 APA #3
	Th	Oct 26		Ch 10: True Experiments: Single Factor Designs	
	F	Oct 27	--	Virtual Library Access Survey Quiz due	
5	T	Oct 31	Single Factor & Factorial Designs	Ch 11: True Experiments: Factorial Designs	Conduct Exp #3 One-way ANOVA
	Th	Nov 2		<b>Exam 1</b>	
6	T	Nov 7	Topic TBA	Ch 15: Data Exploration: Inferential Statistics	IRB certification Two-way ANOVA
	Th	Nov 9	Catch up if needed		
7	T	Nov 14	Developmental Research	Ch 12: Single-Subject Experiments	Group project proposal
	Th	Nov 16		Ch 13: Quasi Experiments	
8	T	Nov 21	Observational Research	Ch 8: Nonexperimental Research: Observational, Archival, and Case-Study Research	
	Th	Nov 23	No class	University holiday	Lab plan TBA
9	T	Nov 28	Survey-Based Research	Ch 9: Nonexperimental Research: Survey Research	
	Th	Nov 30			
10	T	Dec 5	Topic TBA	Readings TBA	Presentations
	Th	Dec 7	<b>Exam 2</b>	Exam in Canvas: Time window TBA.	
	F	Dec 8	Early Final Papers due for Bonus	*Turn in Final Paper on Dec 8 = bonus* Submit Online on Canvas by 11:59 PM	
	T	Dec 12	Final Papers Due	Submit Online on Canvas by 11:59 PM	

*Note.* The final paper is considered the final exam for this course. Late work policy does NOT apply. If you do not turn in the paper by the end of Dec 12, you will receive a score of zero. Papers turned in by Dec 8 are eligible for bonus points.

\* All chapters are based on the McBurney & White 9<sup>th</sup> edition textbook.

\* APA = APA manual

20-day drop date: Oct 24