

**FAS 500: Research Methods**  
**Spring 2021**  
**DR. BECKY LADD**  
School of Social and Family Dynamics  
ASU Sync Remote: T TH 3:00-4:15pm

## **Course Description**

This course is designed for first-year pre-master's doctoral students enrolled in the Family and Human Development doctoral program within the T. Denny Sanford School of Social and Family Dynamics. However, it is open to all students with an interest in Research Methods used in the Developmental Psychology and Social Sciences. As part of this course, we will cover the essential features of research methods as well as provide an overview of the various methodological techniques commonly employed in developmental science.

## **Course Objectives**

By the end of the course, students should be able to

1. Critically read and evaluate research reports
2. Identify, describe, discuss, execute, and critique each step of the research process
3. Select the most appropriate research design for a given research problem and explain the rationale for your choice
4. Evaluate research designs based on threats to internal/external validity
5. Understand the logic behind the foundations, assumptions, and goals of science
6. Be familiar with historical bases and rationale for ethical concerns and legal restrictions in research with humans and know how to satisfy these concerns/restrictions
7. Prepare a professional quality research proposal that conforms to APA 7<sup>th</sup> ed format

## **Student Responsibilities**

- You are expected to attend class (in this remote context, this means you will need to have both video and audio on). Sometimes material will be discussed that cannot be found in the textbook/readings. However, absences can be excused for religious observances or practices that are in accord with ACD 304-04 or university sanctioned events/activities that are in accord with ACD 304-02.
- Please read all the assigned chapters and articles before the first class in which I will lecture on the topic. I will assume you have done so, and discussion will proceed as if everyone has this background knowledge.
- Important announcements, assignment instructions, changes to the schedule/syllabus, and grades will be posted on canvas. Emails will be sent to your official ASU account, so please make sure you check it often. It is your responsibility to check canvas *at least* once a week for updates.
- Students are expected to follow the University's Student Code of Conduct. You can find information about the Student Code of Conduct and Disciplinary Procedures at <https://eoss.asu.edu/dos/srr/codeofconduct?destination=srr/c>. Please find specific information on academic integrity and plagiarism below.

- Students are asked to contribute to a collegial atmosphere where ideas can be exchanged, discussed, and debated freely by avoiding disruptions through their own behavior and the distractions of their technology. Disruptive, threatening or violent behavior will be dealt with according to the policies in the Student Services Manual, SSM 104-02. Students wishing to record lectures electronically must first get permission from the instructor.

### **Academic Integrity & Dishonesty:**

ASU's Academic Integrity policy (<https://provost.asu.edu/academic-integrity>) for graduate students holds students to a code of conduct that defines academic dishonesty to include cheating, plagiarism, academic deceit, falsifying records, and inappropriate collaboration. Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. To increase graduate student awareness, and student-instructor discussion of these issues, students are required to visit and read ASU's Academic Integrity webpage for graduate students.

### **Student Support and Disability Accommodations:**

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, professional disability specialists and support staff at the Student Accessibility and Inclusive Learning Services (SAILS) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities. Qualified students with disabilities may be eligible to receive academic support services and accommodations. Eligibility is based on qualifying disability documentation and assessment of individual need. Students who believe they have a current and essential need for disability accommodations are responsible for requesting accommodations and providing qualifying documentation to the SAILS. Every effort is made to provide reasonable accommodations for qualified students with disabilities. Qualified students who wish to request an accommodation for a disability should contact their campus SAILS at: <http://www.asu.edu/studentaffairs/ed/drc/>. If you are a student in need of special arrangements we will do all we can to help, based on the recommendations of these services. For the sake of equity for all students, we cannot make any accommodations without formal guidance from these services.

### **Required:**

Miller, S. A. (2018). *Developmental research methods* (5th Ed.). Newbury Park, CA: Sage.

American Psychological Association (2020). *Publication manual of the American Psychological Association* (7<sup>th</sup> ed.). Washington, D. C.: American Psychological Association.

**Additional Assigned Readings are listed on the first day we cover the topic.**

### **Course Requirements**

#### **I. Assignments and Participation (100 points)**

The quality of the seminar depends on the participation of each student. Students must come to discussion sessions having read all assigned material, prepared to engage in a discussion of the readings, and to share progress on their proposals for a developmental research study, and so on.

The following are the graded elements for this requirement:

**1) Reading Reflections (70 of the 100 points)**

Reflection papers require you to read all assigned materials, and think critically about what you have read. Your reflections should be about half of a typed page in length (no more than one page) and consist of at least three questions, reactions, or comments for at least two of the corresponding readings. You will need to submit your reflection prior to the start of the class.

I will lecture on the topic prior to class discussion which typically covers a chapter in the Miller text and introduce additional readings. You may use the chapter as one of the two readings for your reflection if a clear connection is made between it and a supplemental reading (e.g., adds an important element not covered in the chapter, or extends the chapter/lecture in an important or interesting way). The reactions must demonstrate *critical thinking* about the readings and, when appropriate, an integration or synthesis of the readings. They should stimulate dialogue and debate, rather than merely raising points for clarification. **You may use bullet points.**

There are 9 topics for which discussions will be held; you are allowed to miss two reflections. Part of the 10 points includes sharing your ideas with the class during discussion and responding to others' comments and ideas. **No late reflections will be accepted.**

**2) Presentations of your research plans and progress (30 of the 100 points)**

Three discussion sessions are devoted to research proposals and require that you come prepared (e.g., written notes, sample measures) to: 1) talk about your ideas, study rationale and hypotheses; 2) share your methods and measures, and 3) give updates and raise any issues. Points will be awarded 5 for preparation (materials uploaded before class; *materials uploaded after class will be penalized 3 points*) and 5 for presentation.

**II. Article summaries (30 points)**

In the first few weeks of the semester, you will be identifying a topic for your proposal. You will need to write a one-page double-spaced summary for three articles on potential topics (may be on three different topics or all on the same topic).

**Grading Rubric:**

Be sure to include the following in your summaries:

- The primary hypotheses, including the identification of independent and dependent variables (and mediators or moderators, if any)(2 points)
- Summary of main findings (3 points)
- Identification of a deficiency, limitation, or gap in the literature that you could address (2 points)
- A brief explanation of how you could address that limitation (2 points)
- The abstract for the article (1 point)

**Late assignments will be penalized 3 points for each day late**

**III. Feedback to a classmate (20 points)**

You will provide feedback for one of your classmate's proposal. While details on this assignment will be provided later in the semester, it basically entails reading two drafts of a classmate's proposal and providing written and verbal feedback to help strengthen the proposal. A rubric will be provided to assist you in the process.

#### **IV. Exams (150 points)**

There will be two exams that consist of multiple choice and essay questions. Exams cover assigned readings, lectures, videos shown in class, and any other material presented in class. The midterm is worth 100 points and will include a set of essay questions that will be completed outside of class time, and multiple-choice items that will be taken during regularly scheduled class. The final is worth 50 points and will be taken during class time (mixture of short answer and multiple choice).

**Make-up exams:** There are only a few circumstances that warrant a make-up exam. In order to be eligible for a makeup, you need to send me documentation of the illness or issue as soon as possible. If a make-up exam is approved, an alternate form of the exam will be given at a designated time.

#### **V. Proposal (100 points)**

You will be writing a proposal for a research study. All papers must conform to the APA style guidelines (7<sup>th</sup> edition). Each proposal must have a minimum of 10 references. Further details, including a grading rubric, for your proposal will be provided later in the semester.

To keep you progressing in a timely manner, points will be given for completing drafts on time—and APA style will be checked and graded at various times. **See schedule for due dates.**

- 1) At least five references in APA format (10 points)
- 2) First draft of the introduction and methods section will be graded for timeliness and APA formatting, such as appropriate use of headings (10 points)
- 3) Second draft will be graded also on APA—but for all sections (25 points).
- 4) \*CITI Certification attached to final proposal (5 points)
- 5) At least two measures attached to final proposal (5 points)
- 6) At least one table and 1 figure included in final proposal (5 points)
- 7) Final proposal will be graded based primarily on content and clarity; however, points will be deducted for APA errors. (40 points)

**\*As part of your proposal you will need to attach your CITI certification demonstration completion of the Human Subjects Requirement for the Institutional Review Board. (information will be presented early in the semester to give you time to complete this requirement).**

#### **Course Grades**

Letter grades will be assigned as follows:

A+ 97%	B+ 87%	C+ 77%
A 92%	B 82%	C 70%
A- 90%	B- 80%	D 60%

## SCHEDULE OF READINGS, ASSIGNMENTS, DISCUSSIONS

### 1/12 Introduction to Course and APA Style and Format

APA Manual Chapters 1 and 2

### 1/14 Scientific Method

Miller Chapters 1 and 2

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### Change & Development

Baltes, P. B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental Psychology, 23*, 611-626.

Bornstein, M. H., Putnick, D. L., & Esposito, G. (2017). Continuity and stability in development. *Child Development Perspectives, 11*(2), 113-119.

Ferrer, E., & Grimm, K. J. (2012). Issues in collecting longitudinal data. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.) *APA handbook of research methods in psychology: Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 275-290). Washington DC: American Psychological Association.

### 1/19 Lecture

### 1/21 Discussion

ASSIGNMENT DUE: Reading Reflection 1

ASSIGNMENT DUE: Article Summary 1

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### APA: Citations, References

APA Manual Chapters. 8, 9 and 10

### 1/26 Lecture

### 1/28 ASSIGNMENT DUE: Presentations of ideas for proposals

ASSIGNMENT DUE: Article Summary 2

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### Hypotheses/Research Ethics

Miller Chapter 10

Fine, M.A., & Kurdek, L.A. (1993). Reflections on determining authorship credit and authorship order on faculty-student collaborations. *American Psychologist, 48*, 1141-1147.

Leong, F. T. L., Schmitt, N., & Lyons, B. J. (2012). Developing testable and important research questions. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.) *APA handbook of research methods in psychology: Vol. 1: Foundations, planning, measures, and psychometrics* (pp. 119-132). Washington DC: American Psychological Association.

### 2/2 Lecture

### 2/4 Discussion

ASSIGNMENT DUE: Reading Reflection 2

ASSIGNMENT DUE: Article Summary 3

ASSIGNMENT DUE: APA Reference Section with at least 5 references

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## **Design**

Miller Chapters 3 and 6

Rutter, M. (1994). Beyond longitudinal data: Causes, consequences, changes, and continuity. *Journal of Consulting and Clinical Psychology*, 62, 928-940.

**2/9 Lecture**

**2/11 Discussion**

ASSIGNMENT DUE: Reading Reflection 3

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## **Measurement**

Miller Chapter 4 (except 79-89)

Bradley, R. H. (2004). Chaos, culture, and covariance structures: A dynamic systems view of children's experiences at home. *Parenting: Science and Practice*, 4, 243-257.

Lester, P. E., Inman, D., & Bishop, L. K. (2014). Handbook of Tests and Measurement in Education and Social Sciences, 3<sup>rd</sup> Edition. Bowman & Littlefield: New York, NY.  
Chapter 4. Measurement in Quantitative Research (45-59).

Lester, P. E., Inman, D., & Bishop, L. K. (2014). Handbook of Tests and Measurement in Education and Social Sciences, 3<sup>rd</sup> Edition. Bowman & Littlefield: New York, NY.  
Chapter 5. Examples of Measurement Procedures (59-75).

Roosa, M. W., Deng, S., Nair, R. L., & Burrell, G. L. (2005). Measures for studying poverty in family and child research. *Journal of Marriage and Family*, 67, 91-988.

**2/16 Lecture**

**2/18 Lecture**

**2/23 Discussion**

ASSIGNMENT DUE: Reading Reflection 4

**2/25** ASSIGNMENT DUE: Presentations: Measures for proposed study

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## **Sampling**

Miller pages 15-17

Bornstein, M. H., Jager, J., & Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. *Developmental Review*, 33, 357-370.

Fletcher, A. C., & Hunter, A. G. (2003). Strategies for obtaining parental consent to participate in research. *Family Relations*, 52, 216-221.

**3/2 Lecture**

**3/4 Discussion**

ASSIGNMENT DUE: Reading Reflection 5

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## **Midterm (100 points): No class zooms this week**

**3/9** Essay questions available (due Thursday before 3pm; however, you should be able to complete during class time)

**3/11** During class, MC portion of exam will be taken (taken online; opens at 3pm, closes at 4:15)

## Writing & Publishing

APA Manual Chapters 6 and 12

Miller Chapter 11

Levesque, R. J. R. (2006). Reporting empirical research on adolescence: Reflections on the appeal of coherence, purpose and responsibility. *Journal of Youth and Adolescence*, 35, 1 – 9.

Sternberg, R. J., & Sternberg, K. (2012). Preparing a manuscript for publication. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.) *APA handbook of research methods in psychology: Vol. 3: Data analysis and research publication* (pp. 503-519).

**3/16 Lecture**

**3/18 Discussion**

ASSIGNMENT DUE: Reading Reflection 6

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## Survey Methods/Observational

Miller Chapter 5, and pages 79-87

Bakeman, R., & Quera, V. (2012). Behavioral observation. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.) *APA handbook of research methods in psychology: Vol. 1: Foundations, planning, measures, and psychometrics* (pp. 207-225).

Phillips, M. M., Phillips, K. T., Lalonde, T. L., & Dykema, K. R. (2014). Feasibility of text messaging for ecological momentary assessment of marijuana use in college students. *Psychological Assessments*, 26, 947-957.

Underwood, M. K., Rosen, L. H., More, D., Ehrenreich, S. E., & Gentsch, J. K. (2012). The BlackBerry project: Capturing the content of adolescents' text messaging. *Developmental Psychology*, 48, 295 – 302.

**3/23 Lecture**

**3/25 Discussion and Presentations (Updates on progress on proposals)**

ASSIGNMENT DUE: Reading Reflection 7

ASSIGNMENT DUE: 1st Draft of Proposal (INTRO AND METHODS)

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## Qualitative & Mixed Methods

Miller Chapter 7

Fossey, E., Harvey, C., McDermott, F., & Davidson, L. (2002). Understanding and evaluating qualitative research. *Australian and New Zealand Journal of Psychiatry*, 36, 717-732.

Small, M. L. (2011). How to conduct a mixed methods study: Recent trends in a rapidly growing literature. *Annual Review of Sociology*, 37, 57 - 86.

Yoshikawa, H., Weisner, T. S., Kalil, A., & Way, N. (2008). Mixing qualitative and quantitative research in developmental science: Uses and methodological choices. *Developmental Psychology*, 44, 344 – 354.

**3/30 Lecture**

**4/1 Discussion**

ASSIGNMENT DUE: Reading Reflection 8

ASSIGNMENT DUE: Peer Feedback on 1st Draft of Proposal (Breakout Chats)

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## **Best Practices: Missing Data**

Graham, J. W. (2009). Missing data analysis: Making it work in the real world. *Annual Review of Psychology*, 60, 549-576.

Windle, M. (2012). Longitudinal data analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.) *APA handbook of research methods in psychology: Vol. 3: Data analysis and research publication* (pp. 245-266).

**4/6 Lecture**

**4/8 Discussion**

ASSIGNMENT DUE: Reading Reflection 9

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## **Secondary Data/Physiological Methods**

Davis-Kean, P. E., Jager, J., & Maslowsky, J. (2015). Answering developmental questions using secondary data. *Child Development Perspectives*, 9, 256-561.

Gunnar, M. R., & Adam, E. K. (2012). The hypothalamic-pituitary-adrenocortical system and emotion: Current wisdom and future directions. *Monographs of the Society for Research in Child Development*, 77, 109-119.

Hofferth, S. L. (2005). Secondary data analysis in family research. *Journal of Marriage and Family*, 67, 891-907.

Obradovic, J., & Boyce, W. T. (2012). Developmental psychophysiology of emotion processes. *Monographs of the Society for Research in Child Development*, 77, 120 - 128.

**4/13 Lecture**

**4/15 Discussion**

ASSIGNMENT DUE: 2nd Draft of Proposal (Draft of all sections)

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## **Best Practices: Measurement Invariance**

Millsap, R. E., & Cham, H. (2012). Investigating factorial invariance in longitudinal data. In B. Laursen, T. D. Little, N. A. Card (Eds.) *Handbook of Developmental Research Methods* (pp. 109-126). New York, NY: Guilford Press.

**4/20 Lecture**

**4/22 Discussion**

ASSIGNMENT DUE: Peer Feedback on 2nd Draft of Proposal (Breakout Chats)

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**4/27 Final Exam during class: 3:00 to 4:15pm**

**4/29 Proposal Due**

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<b>Grading Requirement</b>	<b>Pts Possible</b>	<b>Your Points</b>
Reading Reflection	10	
Reading Reflection	10	
Reading Reflection	10	
Reading Reflection	10	
Reading Reflection	10	
Reading Reflection	10	
Reading Reflection	10	
Presentation: Study Topic	10	
Presentation: Methods, Measures	10	
Presentation: Updates	10	
Article Summary 1	10	
Article Summary 2	10	
Article Summary 3	10	
Peer Feedback	10	
Peer Feedback	10	
Midterm	100	
Final	50	
<b>Proposal</b>		
References (at least 5 in APA)	10	
1st draft	10	
2nd draft on time (all sections)	25	
Final Proposal	50	
CITI Certification	5	
<b>Total Points</b>	<b>400</b>	