PSY 600: Graduate Research Methods
School of Psychological Sciences | University of Northern Colorado

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Course Information
[information in this syllabus is subject to change to improve the learning experience for students]

Course Description:
Welcome to Research Methods for Educational Psychology! Educational psychologists are interested in studying a number of questions regarding learning, teaching, and factors that influence the learning process, as you will discover over the course of your Master’s program. In this course, we will be learning how to formulate scientific questions, plan research to address specific research problems, read and understand the relevant research literature, and address research questions through a variety of quantitative research methods, as well action research. Action research is a practice of in-depth inquiry to create positive change and action in an environment, such as a classroom.

My goal for this class is to provide you with a solid foundation in how researchers pose their questions, develop hypotheses, execute a method to test their hypotheses, and draw conclusions from their results. Throughout the Master’s program, you will be reading a great deal of original research, as well as research referred to in secondary sources, and this course is designed to provide you with the tools to read, understand, evaluate, and apply this research in a wide range of your courses.

General Course Objectives:
The purpose of this course is meant to give you an overview of the research tools used to study topics in educational psychology, and to prepare you to read and evaluate research articles across your graduate coursework. We will be focused on the following learning objectives across the eight-week summer session:

- Learning Objective #1: Examine the nature of research and the basic components of scientific thinking.
- Learning Objective #2: Identify a research problem and the relevant variables.
- Learning Objective #3: Learn how to search for, and critically read, and evaluate the literature relevant to your research problem.
- Learning Objective #4: Examine the considerations when planning a research study, such as measurement, reliability, and validity.
- Learning Objective #5: Identify and apply the purpose and the key features of observational research and qualitative research.
- Learning Objective #6: Identify and apply the purpose and the key features of survey research.
• Learning Objective #7: Identify and apply the purpose and the key features of experimental research, as well as the important considerations with regard to conducting experiments.
• Learning Objective #8: Identify and apply the purpose and the key features of single-subject, quasi-experimental, developmental, and action research.

**Ways of Communication:**
Email is the easiest and most reliable way to contact me. When you email me, please put the course number in the subject line of the email along with the subject you are emailing about so that the message does not get sorted as spam, and always **sign your email with your name**. During the workweek, I will make every effort to respond to your email **within 24 hours** but I tend to check my email frequently (sometimes obsessively 😊). On weekends, my response time may be longer, but I will still make an effort to respond to all emails received on the weekend as diligently as I do during the week. If you ask a question in your email and do not receive a response from me promptly, please assume that I did not receive your email, check the sending address, and resend the email. The university system uses an aggressive filter. If you send me an email message from an alternative email (e.g., hotmail, yahoo), I may not receive it. If your email is important (e.g., related to an exam or a grade), you should save a copy of your sent email AND ask for a return reply.

**Required Text:**

You can order the McGraw Hill “Connect” site that contains the Smartbook for Cozby and Bates, which is their version of an e-book. It is set up to improve your reading experience and learning through highlighting functions and methods for identifying areas of each chapter that requires more study for thorough understanding. If you prefer to have a hard copy of the book in addition to the e-book, you can order a loose-leaf paper copy for an additional $15 from the McGraw Hill website (see below). The ISBN for the Connect site with Cozby and Bates Smartbook is 9781259183171.

You can purchase access to the Connect site with Cozby and Bates Smartbook from the UNC bookstore (with a small mark-up) or directly from the McGraw Hill website.

Other Readings posted on BlackBoard

### Online Learning

**Time Requirements:**

Depending on how fast you read and type, this course should take you around 15 hours per week (so given that you are taking TWO concurrent classes this summer, you should expect that you may devote about 30 hours to the two classes in a 7-day week). This includes the time you will need to complete the reading, engaging in the online discussion, completing assignments, and studying for quizzes. There will be weeks where the workload is heavier and weeks where the load will be lighter. You should be prepared to submit
quizzes weekly for the chapters assigned, participate in the Discussion Board Activities, and submit the short papers assigned by the due dates.

**Succeeding Online:**
Learning online is both a great educational opportunity and challenge. Although you have more flexibility to schedule your course time around your needs with an online course, you also must take a greater responsibility for managing your time and getting work done. Not having to travel to campus is a great advantage (and saves on parking!) but you will find that not having a class means you have to do more written work since you cannot receive grades for class participation of attendance.

This course is structured with a mix of reading, quizzes, online participation and discussion, as well as graded papers. The best way to succeed in this environment is to plan on doing weekly work to stay on top of the course load, and don’t fall behind. In a classroom setting, students depend on the regularity of the class meetings to structure their time and course workload. In online classes, students must take much more responsibility in terms of taking the time to complete coursework on time—this is where self-regulation comes into play. The term self-regulated learning (SRL) can be used to describe learning that is guided by metacognition (thinking about one’s own thinking), strategic action (planning, monitoring, and evaluating personal progress against a standard), and motivation to learn. In particular, self-regulated learners are cognizant of their academic strengths and weaknesses, and tend to seek out opportunities for support when needed. One of the critical factors of online learning environments is that they require students to use more SRL in this particular type of context and this course is no different. Much of the information about research methods will be new information for many of you, therefore reading the text and asking questions when they arise in a timely manner will be most helpful to you and your peers that might have a similar question about the material.

Students who fall behind may find it very difficult to catch up. The best approach is to schedule the time and keep up with work. Since each assignment in this course builds on the previous assignment, falling behind is extremely detrimental. With that said, all assignments throughout the semester are inserted into the final assignment, so you will not have a tremendous amount of work at the end of the semester.

*Just as a side note:* this course is **NOT** SELF-PACED (there ARE deadlines!).

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<tr>
<th>Assessment and Grading</th>
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Students’ progress in this course will be evaluated using quizzes, online participation, and assignments.

**Course Grade**
Your final grade will be determined with the following points and percentages (subject to minor changes):

<table>
<thead>
<tr>
<th>Quizzes (10, 20 pts each)</th>
<th>200 pts (30%)</th>
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</thead>
<tbody>
<tr>
<td>Discussion Board Activities (9, 25 pts each)</td>
<td>225 pts (33%)</td>
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<tr>
<td>• Discussion Posts</td>
<td></td>
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<tr>
<td>• Responses to Group Members’ Posts</td>
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</tbody>
</table>
Papers (5, 50 pts each) 250 pts (37%)

- Paper #1 (Evaluating Research)
- Paper #2 (Observational Methods)
- Paper #3 (Survey Methods)
- Paper #4 (Experimental Methods)
- Paper #5 (Alternative Methods)

Total 675 pts

**Quizzes:**
I know that everyone is intrinsically motivated to read the chapters, but a little bit of extrinsic motivation keeps us all on the same page 😊, literally. You will take a short, 20-question, multiple-choice quiz for each of the ten chapters in the Cozby & Bates text, just to make sure you are comprehending the material and it is “sticking.” These quizzes will be given on BlackBoard and you will have 30 minutes to take each 20-question quiz.

10 Quizzes = 200

**Your Educational Research Question and Short Paper Assignments**
You will all develop an Experimental Research Question (ERQ) that piques your interest (e.g., learning, teaching strategies, behavior in the classroom, student characteristics, motivation, cognition, social interactions, cultural issues, etc). This question should involve something of interest to YOU in the field of education that you believe could be the focus of a research study. You will follow this ERQ throughout the course by identifying the connections between the concepts and methods we are discussing and the EBQ you have generated.

Five short (1 – 1 ½ pages, double-spaced) papers will be submitted to the instructor over the course of the summer session. These assignments will be graded based on an understanding of the concepts, effort (depth), clarity, and completeness. The written assignments are: 1) “Evaluating Research” which involves analyzing a research article that is relevant to your ERQ in terms of the variables they measured; 2) “Observational Methods” which involves an analysis of how your ERQ could be addressed through observational research methods; 3) “Survey Methods” which involves an analysis of how your ERQ could be addressed through survey research methods; 4) “Experimental Methods” which involves an analysis of how your ERQ could be addressed through experimental research methods; 5) “Alternative Methods” which involves and analysis of how your ERQ could be addressed through single-subject, quasi-experimental, developmental, qualitative, or action research methods. There will be a set of questions for you to address for each of these papers. You will continue to add to a single document with each of these short papers so that, at the end of the class, you can also write some final thoughts about how these methodologies compare and contrast for addressing your question of interest.

5 Papers @ 50 pts each = 250

**Discussion Board Activities:** **Online participation is 1/3 of your course grade:**
Each week, you will be participating in a Discussion Board Activity in which you work on an activity related to that week’s chapter material AND relate this material to your developing ERQ. There are NINE Discussion Board Activities throughout the course and these will be done within your assigned smaller discussion groups. The 20 (or so) students in the course will be assigned to about 4 groups and for each DB Activity, there will be a separate forum for Group A, B, C, and D. You will post your response to the
activity and respond to your peers in your group, and you will stay with your group throughout the course. These small group discussions can be more manageable for both instructor and the students, and I will read these discussions and write summary comments and feedback to the group as a whole (and sometimes to the class, as a whole). **Your discussion posts will be graded on a PASS/FAIL basis; however, I do expect your posts and responses to be thoughtful, relevant to the content, and show effort and some depth.**

**YOU MUST MAKE YOUR POSTINGS ON THE DISCUSSION BOARD BY THE DUE DATE** (i.e., Saturday of the week we are discussing the material). Due to the number of students in this class, it will be very difficult to go back and track down late posts by a student, not to mention that they will not contribute to the discourse of the class, nor help a fellow student in terms of assignment feedback. I WILL MAKE EXCEPTIONS TO THIS POLICY ONLY UNDER EXTENUATING CIRCUMSTANCES (illness, emergency----please contact me ASAP in these cases).

9 DB Activities @ 15 pts per Post – 135 pts  
9 DB Activities @ 10 pts per Response to Group Member – 90 pts  
225 pts

**Assignment Submission and Late Policy:**  
**When papers are due, please submit them in the Blackboard Assignment Dropbox by 11 pm, Mountain Time. There will be a designated Dropbox on BB for each assignment.**

In most cases, partial credit will be given for late work. My standard policy is that all late assignments will be deducted 10% for each day late (i.e., every 24 hour period starting at the end of the deadline). Please contact me before the assignment is due if you are feeling like you cannot meet the deadline so that we can discuss alternative options, don’t wait until after the deadline to contact me. Students who consistently turn in late work will struggle to pass this course. Completing assignments on time is critical to your success in the course and to the master's project.

It is recommended that you log into the BlackBoard website every day or so to read and respond. If you can manage to log in every day or every other day, you will get much more out of the discussion. Think about these discussions as an extended face-to-face seminar. Your job will be to read the material for each week and POST and RESPOND for each of the DB Activities (some weeks there are two of these activities, some weeks there is one). Postings should be thoughtful and engaged with the topic (i.e. not simple or minor types of responses). Some weeks you will be asked to post an article for others to read or give peer feedback.

If you have a question, chances are someone else does too. I know that the topic of research will be new to many of you so ask away!!! Based on the notion that we are a community of learners, I would suspect that we will all be able to answer questions when they arise. There General Question thread on the Discussion Board where students should feel comfortable posting questions, concerns, areas of confusion, etc.

**Grading:**  
**Grades are earned, not given.** Grades will be assigned according to the following percentages, based on points accumulated:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100</td>
</tr>
<tr>
<td>A-</td>
<td>90-92.9</td>
</tr>
<tr>
<td>B-</td>
<td>80-82.9</td>
</tr>
<tr>
<td>C+</td>
<td>78-79.9</td>
</tr>
<tr>
<td>D+</td>
<td>68-69.9</td>
</tr>
<tr>
<td>D</td>
<td>63-67.9</td>
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</tbody>
</table>
Course Grade Criteria --- all the grades will be posted in BlackBoard under the MY GRADES link.

Final course grades will be determined by a combination of quizzes, papers, and discussion board participation; each of these are weighted as about 1/3 of your grade (see above). Discussions, quizzes and papers will stress integration of course material, with particular emphasis on the relationship between course principles and classroom practice with the central theme of research.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>B+</td>
<td>88-89.9</td>
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<tr>
<td>C</td>
<td>73-77.9</td>
</tr>
<tr>
<td>D-</td>
<td>60-62.9</td>
</tr>
<tr>
<td>B</td>
<td>83-87.9</td>
</tr>
<tr>
<td>C-</td>
<td>70-72.9</td>
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<tr>
<td>F</td>
<td>&lt;=59.9</td>
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Other Important Information

Technical Issues:
I can answer SOME technical questions, but your best bet is the UNC HELP DESK, which is available to answer questions about everything 24/7/365. Their local phone number is 970-351-HELP (970-351-4357). They also have a toll free number which is 1-800-545-2331 and you can get help online at https://help.unco.edu/ics/support/default.asp?deptID=15212&_referrer= Have your Bear number handy when you call.

Academic Honesty:
In order to encourage and foster academic excellence, the University expects students to conduct themselves in accordance with certain generally accepted norms of scholarship and professional behaviors. Academic misconduct is an unacceptable activity in scholarship and is in conflict with academic and professional ethics and morals. The University of Northern Colorado's Student Code of Conduct http://www.unco.edu/dos/pdf/StudentCodeofConduct.pdf and Honor Code (http://www.unco.edu/dos/honor_code/index.html) strictly prohibit any form of academic misconduct. Academic misconduct includes but is not limited to plagiarism, cheating, fabrication, and knowingly or recklessly encouraging or making possible any act of plagiarism, cheating, or fabrication. Academic misconduct is an unacceptable activity in scholarship and is in conflict with academic and professional ethics and morals. All incidents of alleged plagiarism or other forms of academic dishonesty will be investigated and violations of academic integrity will result in a consequence that may be as severe as an F in the class and a recommendation for expulsion. For more information on plagiarism and appropriate paraphrasing, please see: http://www.unco.edu/dos/pdf/StudentCodeofConduct.pdf

Disability Access and CEBS Diversity Statement:
Students with disabilities who believe they may need accommodations in the class are encouraged to contact Disability Support Services at (970) 351-2289 as soon as possible to ensure that accommodations are implemented in a timely fashion. Please submit forms to me prior to quizzes and exams. You do not need to share with me specific details about your disability unless you choose to do so. I will respect your privacy.

The College of Education and Behavioral Sciences (CEBS) supports an inclusive learning environment where diversity and individual differences are understood, respected, appreciated and recognized as a source of strength. We expect that students, faculty and staff within CEBS will be accepting of differences and demonstrate diligence in understanding how other peoples’ perspectives, behaviors, and world views may be different from their own. Furthermore, as stated by UNC, “The University will not engage in unlawful discrimination in…educational services against
any person because of race, religion, gender, age, national origin, disability, or veteran status. It is the University's policy to prohibit discrimination in…educational services on the basis of sexual orientation or political affiliation.” (See [http://www.unco.edu/hr/AAEO_TitleIX.htm](http://www.unco.edu/hr/AAEO_TitleIX.htm))

Please visit the CEBS Diversity and Equity Committee website for more information on our commitment to diversity ([http://www.unco.edu/cebs/diversity](http://www.unco.edu/cebs/diversity)).

### Course Schedule of Reading, Topics, and Activities

<table>
<thead>
<tr>
<th>Week</th>
<th>Chap</th>
<th>Topics</th>
<th>DB Activities</th>
<th>Writing Assignments</th>
<th>Quizzes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6/8 – 6/14</td>
<td>1, 2</td>
<td>Scientific Understanding of Behavior; Where to Start</td>
<td><strong>1. C. 1 Activity Q OR</strong>&lt;br&gt;C. 2 Activity Q Due 6/13</td>
<td>C. 1, 2 Due 6/13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>2. C. 3 Activity Q OR C.4 Activity Q;</strong>&lt;br&gt;<strong>3. Developing an Educational Research Question (ERQ) Due 6/20</strong></td>
<td><strong>Short Paper #1: Evaluating Research Relevant to your ERQ Due 6/27</strong></td>
<td>C. 3, 4 Due 6/20</td>
</tr>
<tr>
<td>3</td>
<td>6/22 – 6/28</td>
<td>5</td>
<td>Measurement Concepts</td>
<td><strong>5. C. 6 Activity Q AND your ERQ Due 7/4</strong></td>
<td><strong>C. 6 Due 7/4</strong></td>
</tr>
<tr>
<td>4</td>
<td>6/23 – 7/5</td>
<td>6</td>
<td>Observational Methods and Qualitative Research</td>
<td><strong>6. C. 7 Activity Q (directly related to your ERQ) Due 7/11</strong></td>
<td><strong>Short Paper #2: Examining your ERQ through Observational or Qualitative Methods Due 7/12</strong></td>
</tr>
<tr>
<td>5</td>
<td>7/6 – 7/12</td>
<td>7</td>
<td>Asking People About Themselves: Survey Research</td>
<td><strong>7. C. 8 Activity Q AND your ERQ Due 7/18</strong></td>
<td><strong>C. 7 Due 7/18</strong></td>
</tr>
<tr>
<td>6</td>
<td>7/13 – 7/19</td>
<td>8</td>
<td>Experimental Design</td>
<td><strong>8. C. 9 Activity Q AND your ERQ Due 7/25</strong></td>
<td><strong>Short Paper #4: Answering your ERQ through Experimental Methods Due 7/26</strong></td>
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<tr>
<td>7</td>
<td>7/20 – 7/26</td>
<td>9</td>
<td>Conducting Experiments</td>
<td><strong>9. C. 11 Activity Q AND your ERQ Due 7/31 (FRI)</strong></td>
<td><strong>C. 11 Due 7/31 (FRI)</strong></td>
</tr>
<tr>
<td>8</td>
<td>7/27 – 8/1</td>
<td>10, 11</td>
<td>Single-Case, Quasi-Experimental &amp; Developmental Research; Action Research</td>
<td><strong>Short Paper #5: Answering your ERQ through Alternative Methods and Final Thoughts Due 8/1 (SAT)</strong></td>
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</tbody>
</table>
NOTE: DB Activities = Be sure that you participate in the Discussion Board Forum using the correct thread for your Group (A, B, etc), though you may look at other Groups forum to gain more insights. ALL DB Activities and Chapter Quizzes are due by 11 pm on Saturday of that week. All Papers are due to the dropbox on BlackBoard by Sunday of that week. [EXCEPTION IS WEEK 8----DB AND QUIZ DUE FRIDAY, PAPER DUE SATURDAY]