SRM 600-700: Introduction to Graduate Research

Fall Semester 2019
Denver/Lowry Campus

Professor:
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Prerequisites
None required. Class is offered through Extended Campus for Clinical Mental Health/School Counseling graduate students.

Class Description
This graduate level course provides an introduction to basic concepts and terminology used in conducting educational research. The course covers areas such as developing a research topic, writing research questions and hypotheses, conducting a literature review, and critiquing research articles. The course is designed to acquaint students with the concepts, principals, and methodologies used in educational research, including quantitative and qualitative methods.

Course Objectives
- Define basic terminology and concepts associated with research
- Describe the steps and decisions involved in planning, designing, and implementing a research study
- Compute and interpret basic descriptive statistics
- Identify researchable topics and issues within your discipline
- Critically evaluate published research reports
- Write a research proposal to include an introduction, literature review, rationale for the study, description of the design, sample selection, instrumental/materials, data collection procedures, and data analysis procedures

Required Text

Grading Scale (100 points total)

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Unless otherwise noted or mentioned in class, written assignments should follow APA format. Assignments should be double-spaced, on 1-page margins, and be in 12-point Times New Roman font. APA format allows for consistency in scholarly expression. Points may be taken off for not following APA format.

All page lengths indicated for assignments are suggested. More important than the page length is that you present the material fully and succinctly. Page length suggestions exclude the title page, abstract, tables, figures, reference lists, and appendices. Assignments are to be submitted via Canvas, unless otherwise noted.

Assignments

1. Class Participation and In-Class Assignments (10 points)

Class participation comprises attendance, evidence of appropriate class preparation (i.e. reading assigned materials prior to class), and active participation in class activities. In addition, you will be asked to complete additional assignments, some of which will be completed during class and some of which will require out-of-class work (e.g. library searches, etc.).

2. Quizzes (20 points total)

Four quizzes (worth 5 points each) will be given during class. You may use any “non-human” resource; you may consult textbooks, journal articles, library resources, and/or class notes, but may not discuss the quizzes in any way with other people, including people either within or outside the class.

3. Journal Article Critique: Quantitative (10 points)

Identify a quantitative research study (journal article) in your area of interest. Review and critique the article. The critique should reflect critical thinking and include a discussion and evaluation of research designs, research tools, data collection/sampling procedures, and data analysis. Submit your critique via Canvas, along with the research article itself.
Length: 3-4 pages

4. Journal Article Critique: Qualitative (10 points)

Identify a qualitative research study (journal article) in your area of interest. Review and critique the article. The critique should reflect critical thinking and include a discussion and evaluation of research designs, research tools, data collection/sampling procedures, and data analysis. Submit your critique via Canvas, along with the research article itself.

Length: 3-4 pages

5. Research Proposal (30 points)

Working in groups of two, propose a study that you could conceivably implement at some point in the future. The proposal must be feasible and preferably directly applicable to your current professional responsibilities, or a future professional role. To write a focused paper, please narrow your scope. We will cover more details in class. You will prepare 1-2 drafts of the proposal before submitting your final draft. Feel free to contact me anytime to discuss elements of your paper, including topic, scope, organization, and resources/citations to consider.

Length: 8-10 pages (excluding title page, references, and tables/figures if applicable)

Proposal Structure

Your proposal should consist of the following main sections and be structured generally according to the following. The questions within each main section should guide the structure and content of your paper. Not all questions must be answered depending on the nature and scope of your study.

1. Executive Summary: 1-page summary of your study that is accessible to a broad audience, such as someone outside your field.

2. Background and Rationale for the Study:
   2.1. What are you trying to accomplish in this study?
   2.2. Why is it important to conduct this study?
   2.3. Include a literature review to support the need and purpose for the study: the literature review will inform an understanding of the topic and available research applicable to the topic. This section may include previous studies on the same topic, methods that have been previously utilized, and gaps in the literature.

3. Research Questions and Hypotheses:
   3.1. What are the questions you are posing?
   3.2. Why are these questions important?
3.3. What are your hypotheses? What are you testing? What do you expect to find from your study?

4. Data Sources and Data Collection:

4.1. What type of data will you use? This section may consist of the following:
4.2. Are you collecting primary data or using secondary data?
4.3. Is your data qualitative or quantitative?
4.4. If qualitative, will you use focus groups, interviews, surveys, document analysis?
4.5. If quantitative, what are the measures and variables you are using? What instruments will you rely on? How will you determine whether these instruments are valid and reliable?

4.6. How will you collect the data? This section may consist of the following:
4.7. Population: Who are the intended study participants? Describe your participants.
4.8. Sampling: How will you determine the size of your sample? What is the broader population that you sample seeks to capture? How will you ensure an adequate sample size or response rate?
4.9. Selection: How will you select the participants (if applicable)?
4.10. Setting: Where will the data collection take place?

5. Method/Data Analysis Plan:

5.1. How will you analyze your data? Describe applicable analysis methods in detail (e.g., descriptive statistics, regression analysis, document analysis, etc.).
5.2. How will you interpret the results of your analysis?
5.3. Limitations: What are some things that your research proposal does not address? Note any limitations to the data or methods (e.g. generalizability).

6. Expected Findings and Significance: Because it is not feasible to conduct your study during the duration of this class, here you will propose potential findings from your study.

6.1. What findings do you expect will emerge from your data analysis?
6.2. What implications will these findings have?
6.3. Are there future directions for research worth considering?
6.4. Timeline and feasibility (optional): What is the proposed time frame for completing your data collection and analysis?
6.5. Resources (optional): What resources do you need to complete your study? (e.g., staff time, statistical expertise, classroom space, etc.)

7. References: Follow APA format in the reference list and for in-text citations.

8. Appendix: Any instruments, surveys, protocol, tables, and figures should be included here.
6. Presentation of Research Proposal (10 points)

Working in the same groups as your written research proposal, you will present your proposed study during class. You (and your group, as applicable) will sign up to do a 1-hour presentation. Interactive presentations are encouraged. Allocate at least 10 minutes within your presentation for Question & Answer.

You will likely be doing your presentation before your final research proposal is completely finished. Please use the presentation as a way to solicit feedback on your paper. We will cover more details in class on the structure of your presentation.

7. Peer Review of Research Proposal (10 points)

Each person will be assigned to review drafts of 2-3 research proposals from peers. You will provide written feedback and comments as if you were a journal reviewer. You should contextualize your feedback within the Proposal Structure listed in the Research Proposal description above, making sure the draft covers the necessary and applicable sections. You will base your feedback on the grading rubric (to be distributed) and gear it towards helping the authors improve their proposal. Each person will develop 1-2 questions, 1 area of strength, and 1 area of growth for each of the following sections: (1) Background and rationale for the study & Research questions and hypotheses (combined section); (2) Data sources and data collection; (3) Method.

**Uni-Structural Questions:** Uni-Structural questions ask the researcher to define, identify, and describe ideas. Uni-structural questions focus on surface level technical of the what, where, and who of research at a singular level. Uni-structural questions emerge when the communication of ideas is extremely unfocused and are hard to understand even with significant effort.

**Multi-Structural Questions:** Multi-Structural Questions ask the researcher to clarify, explain, or elaborate on ideas. Multi-structural questions focus on technical details of the what, where, and who of research. Multi-structural questions emerge when the communication of ideas is unfocused and technical details needs to be clarified before higher order questions of research can be posed.

**Relational Questions:** Relational questions ask the researcher to think about how ideas are related to the bigger picture. They are concerned with how ideas are applied, compared, critiqued, analyzed, classified, and related to positive and negative aspects of the bigger picture. Relational questions emerge when technical details are sufficiently clear but the relationship between ideas need further clarity.

**Extended Abstract questions:** Extended abstract questions ask the researcher to think deeply about how and why ideas are synthesized in a manner that allows the researcher to generate, hypothesize, and theorize. They ask the researcher to consider how. They also probe in such a manner that considers the topic in a new way. Extended-abstract questions emerge as a result of the combination of the communication of the idea and the depth of thinking of the questioner. These questions, reflective in nature, encourage the researcher to further examine their research
and may suggest other research paradigms to consider. In social sciences, extended abstract questions also encourage the research to consider the generative mechanisms that cause social structures to exist in relation to the research topic.

Class Meetings and Topics

Class 1: Friday, September 13

Readings:
Ch. 1: The Nature of Scientific Inquiry
Ch. 2: Research Approaches in Education
Ch. 3: The Research Problem

Activities:
Introductions
Syllabus and Class Expectations
Form groups of 2-3 to complete a research proposal
Think about what type of research you are interested in conducting

Class 2: Saturday, September 14

Quiz 1 in class

Readings:
Ch. 4: Reviewing the Literature
Ch. 5: The Hypothesis in Quantitative Research
Ch. 6: Descriptive Statistics
Ch. 7: Sampling and Inferential Statistics

Activities:
Brainstorm research questions
Conduct literature search
Select journal articles to critique
Discuss how to critique journal articles

Class 3: Sunday, September 15

Quiz 2 in class

Readings:
Ch. 8: Tools of Research
Ch. 9: Validity and Reliability
Ch. 10: Experimental Research
Ch. 11: Experimental Research Designs

Activities:
Work on introduction and literature review
Meet with professor
Brainstorm methods section
Discuss design choices

Week in-between classes

Assignments due:
Journal article critique (quantitative) due Saturday, September 21 at 5 PM MST

Class 4: Friday, September 27

Quiz 3 in class

Assignments due:
1st draft of research proposal

Readings:
Ch. 12: Ex Post Facto Research
Ch. 13: Correlational Research
Ch. 14: Survey Research

Activities:
Discuss how to provide feedback on proposal drafts

Class 5: Saturday, September 28

Quiz 4 in class

Assignments due:
Peer review of research proposal (complete in-class and submit by 5 PM MST)

Readings:
Ch. 15: Defining and Designing Qualitative Research
Ch. 16: Types of Qualitative Research
Ch. 17: Analyzing and Reporting Qualitative Research

Activities:
Discuss differences between quantitative and qualitative research
Discuss how research questions drive the methodology
Group critique of methods

Class 6: Sunday, September 29

Assignments due:
Presentation of Research Proposal (in-class)
Journal article critique (qualitative) due at 4 PM MST (complete during class)

Activities:
Discuss what we have learned
Talk to professor about research proposals

Research Proposal due on Saturday, October 12 at 5 PM MST
University Guidelines and Resources

Academic Integrity
You are expected to practice academic honesty in every aspect of this course. Students who engage in academic misconduct are subject to grading consequences with regard to this course and/or university disciplinary procedures through the Office of Community Standards and Conflict Resolution. Academic dishonesty includes but is not limited to: presenting others’ ideas or works as his/her/their own; submitting the same work for credit in more than one class; submitting work that previously counted towards credit in a different class; submitting work based on other students’ current or previous materials. Plagiarism, including self-plagiarism, is not allowed. Properly cite all intellectual materials. I recommend you use a citation management software such as Mendeley. Cheating on tests is not allowed.

Equity and Inclusion Statement
The University of Northern Colorado embraces the diversity of students, faculty, and staff, honors the inherent dignity of each individual, and welcomes their unique perspectives, behaviors, and world views. In this course, people of all races, religions, national origins, sexual orientations, ethnicities, genders and gender identities, cognitive, physical, and behavioral abilities, socioeconomic backgrounds, regions, immigrant statuses, military or veteran statuses, size and/or shapes are strongly encouraged to share their rich array of perspectives and experiences. Course content and campus discussions will heighten your awareness to each other’s individual and intersecting identities. If you would like to report an incident or learn more about identity-based discrimination/harassment, please visit www.unco.edu/institutional-equity-compliance

Title IX
The University of Northern Colorado is committed to providing a safe learning environment for all students that is free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. UNC has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

Please be aware all UNC faculty and most staff members are “responsible employees,” which means that if you tell a faculty member about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, they must share that information with the Title IX Coordinator, Larry Loften. Larry or a trained staff member in the Office of Institutional Equity and Compliance (OIEC) will contact you to let you know about accommodations and support services at UNC as well as your options for pursuing a process to hold accountable the person who harmed you. You are not required to speak with OIEC staff regarding the incident; your participation in OIEC processes are entirely voluntary.

If you do not want the Title IX Coordinator notified, instead of disclosing this information to your instructor, you can speak confidentially with the following people on campus and in the
community. They can connect you with support services and help explore your options now, or in the future.

- UNC’s Assault Survivors Advocacy Program (ASAP): 24 Hr. Hotline 970-35-4040 or www.unco.edu/asap
- UNC Counseling Center: 970-351-2496 or www.unco.edu/counseling
- UNC Psychological Services: 970-351-1645 or www.unco.edu/cebs/psych_clinic

If you are a survivor or someone concerned about a survivor, or if you would like to learn more about sexual misconduct or report an incident, please visit www.unco.edu/sexual-misconduct or contact the Office of Institutional Equity and Compliance (970-351-4899). OIEC is located on the third floor of the University Center in room 3060.

Disability Resources
It is the policy and practice of the University of Northern Colorado to create inclusive learning environments. If there are aspects of the instruction or design of this course that present barriers to your inclusion or to an accurate assessment of your achievement (e.g. time-limited exams, inaccessible web content, use of videos without captions), please communicate this with your professor and contact Disability Resource Center (DRC) to request accommodations.
Office: (970) 351-2289, Michener Library L-80. Students can learn more here: www.unco.edu/disability-resource-center

Note that quizzes and/or exams may be administered as part of this class. If you believe you may need accommodations, contact DRC as soon as possible. Please do not come to me the week before Finals Week telling me you need differential treatment (e.g., extra time, open-book)— these requests are almost always not granted, in order to maintain fairness for all students who must take the exam under the usual circumstances.

Food Insecurity and Basic Needs
Research shows that college students experience food insecurity at higher rates than the American household rate, and that food insecurity can negatively impact academic performance and persistence. In recognition of this problem, UNC offers assistance to students facing food insecurity through an on-campus food pantry. The Bear Pantry is located in University Center 2166A and is open for regular hours throughout the semester. Please visit www.unco.edu/bear-pantry for more information.

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is also urged to contact Student Outreach and Support (SOS) for assistance. SOS can assist students during difficult circumstances which may include medical, mental health, personal or family crisis, illness or injury. SOS can be reached at sos@unco.edu or via phone at 970-351-2796.

Class Expectations

Attendance
Attendance is mandatory. Attendance is part of your grade and missing class may affect your final grade. Please inform me via email in advance if you are unable to attend class. However, missed attendance and missed in-class activities cannot be made up; there are no “excused” absences. If students would like to Zoom or Skype into class, this must be arranged with a classmate. The professor is not obligated to meet individually with students to cover the same material covered during a class for which the student was absent. Students are expected to arrive to class on time and stay until class is dismissed. Arriving late or leaving early is disruptive to others and may affect your grade. Students will not be penalized due to observances of their religious beliefs. Please notify the professor of these situations.

**Deadlines**
Students are expected to meet deadlines for assignments. Late assignments will be penalized one full grade level for each day after the due date (A-level work to a B if turned in after the specified time on the due date, B to a C if more than 24 hours late). *Unless otherwise specified, all written assignments are due at 11:59 PM Mountain Standard Time on the due date listed, to be submitted via Canvas.* If you find that you are running low on time as you complete an assignment, it is usually best (from a purely grading perspective) that you turn in the work on time “as is”, rather than using an extra day to work on your assignment and incurring the grading penalty. Thus, plan ahead to give ample time to complete the assignments. I maintain this because as students and professionals, we all must meet deadlines (e.g., for conference proposals, job applications).

**Academic Responsibilities**
You are responsible for your own learning. Students should come to class prepared and having done the readings. Active participation is encouraged and expected in a graduate-level class. Additionally, be mindful of your level of participation and provide enough opportunities for others to contribute.

**Technology Policy**
Cell phone usage is not allowed in class. Calls and texting are prohibited. Phones must be turned on silent. Be sure to download readings and other class materials onto your laptop before class, instead of reading them on your phone. If you must answer an emergency call, step outside the classroom as to not distract others. Twitter, Facebook, Instagram, Snapchat, and all other social media, blogging, and internet hipster activities are prohibited. Laptops are allowed in class for specific activities relevant to the topic at hand. The professor may designate times when laptops are not allowed. Students must not prepare for previous or future assignments during class. Texting on laptops is also prohibited. Students found abusing technology policies may be dismissed from class. Repeated abuse of technology policies may result in an “F” in the class.

**Expectations Summary**
Your registration for this class and receipt of this syllabus signifies your understanding and acceptance of all policies and timelines outlined. As the professor, I reserve the right to modify the syllabus at any time, particularly in response to speed at which material is covered. Note that any modifications will be communicated to you in a timely manner. I typically solicit student input on modifications to assignments and readings.