Required Objectives:

**Professional Counseling Identity (CACREP 2016 Standards)**

7g. statistical concepts, including scales of measurement, measures of central tendency, indices of variability, shapes and types of distributions, and correlations.

8a. the importance of research in advancing the counseling profession, including how to critique research to inform counseling practice.

8b. identification of evidence-based counseling practices

8c. needs assessments

8d. development of outcome measures for counseling programs

8e. evaluation of counseling interventions and programs

8f. qualitative, quantitative and mixed research methods

8g. designs used in research and program evaluation

8h. statistical methods used in conducting research and program evaluation

8i. analysis and use of data in counseling

8j. ethical and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation
### Key Required Assignments/Student Learning Outcomes

These assignments are required for the course, but will not be the only requirements/expectations. The chart below lists the assignment, method of submission, and benchmark score/grade. These assignments are set up for upload to Taskstream and/or instructor provides rating for assignment. See syllabus for details.

<table>
<thead>
<tr>
<th>Goal</th>
<th>Proficient (A)</th>
<th>Benchmark (B)</th>
<th>Emerging (C)</th>
<th>Inadequate/F fail</th>
<th>As evidenced by:</th>
<th>Program Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students summarize and critique research relevant to counseling, addictions, and/or clinical mental health</td>
<td>90-100% Assignment scores</td>
<td>80% -89% Assignment scores</td>
<td>70% -79 Assignment scores</td>
<td>MHC 535: Qualitative Article Critique</td>
<td>9. Research and Assessment (2 of 7)</td>
<td></td>
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<td>9. Research and Assessment (2 of 7)</td>
<td></td>
</tr>
<tr>
<td>Students understand models and methods of program evaluation</td>
<td>90-100% Assignment scores</td>
<td>80% -89% Assignment scores</td>
<td>70% -79 Assignment scores</td>
<td>MHC 535: Program Evaluation Article Summary/Review</td>
<td>9. Research and Assessment (3 of 7)</td>
<td></td>
</tr>
<tr>
<td>Demonstrate an understanding of various types and designs of research relevant to counseling.</td>
<td>90-100% Assignment scores</td>
<td>80% -89% Assignment scores</td>
<td>70% -79 Assignment scores</td>
<td>MHC 535: Research Presentation: Development of a hypothetical mixed methods research proposal</td>
<td>9. Research and Assessment (4 of 7)</td>
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</table>
“If we knew what it was we were doing, it would not be called research, would it?”

Albert Einstein

Required Text:

Suggested Text:

Catalog Description: Foundations of psychological research. Students are introduced to qualitative and quantitative research processes and basic concepts. Topics include (1) elements of the research process; (2) types of designs, program evaluation; (3) ethical considerations of research: informed consent, research with diverse and vulnerable populations, research with children, human subjects review; (4) basic measurement concepts: validity, reliability, norms, score interpretation; and (5) basic statistical concepts: frequency distributions, central tendency, measures of variability, correlation, normal curve, hypothesis testing, significance tests. Students read and evaluate examples of published research. Reviews Web-based resources for conducting research.

Course Description: This course covers the essential concepts related to research design and methodology that practitioners need to become critical evaluators of research and prepare for conducting research in their practices. Focus is on understanding each component of the research process, qualitative and quantitative designs, program evaluation, measurement issues, and data analysis.

Course Goals and Objectives: The primary goal of this class is to have students gain a more complete understanding of the research process which would allow them to critically analyze published research and/or be able to conduct independent research. It is assumed that this knowledge and skill will in turn allow students to evaluate research in their field(s) of expertise from a critical and informed perspective. The objectives of this class will be to provide opportunities to learn and apply the skills necessary for critiquing and conducting research. Emphasis will be on the following components of the research process: research questions and hypotheses, research design including qualitative research, action research and program evaluation, definition and operationalization of variables, and measurement issues. The impact of culture on research design and analysis will additionally be addressed. By the end of the semester students will be able to:
• Identify various paradigms for conducting research
• Identify each of the steps involved in the development of a research project
• Write research questions and hypotheses
• Understand the ethical issues involved in working with human participants
• Identify and describe various types of quantitative research designs
• Identify and describe various types of qualitative research designs
• Identify the components and models of program evaluations, including needs assessments
• Identify and describe validity issues inherent in different types of designs
• Discuss the use of research findings for program change
• Discuss the issues involved in conducting real world research
• Discuss the impact of culture on various aspects of the research process
• Critically evaluate published research articles
• Design a proposal for research project

Attendance requirements: Class attendance is expected and required. **Any missed class time will be made up by completing extra assignments designed by the instructor.** If you do not complete the makeup assignment 10% will be deducted from your participation grade. Missing more than ten percent of class time may result in failure to complete the class. This would be 4.5 hours of a 45 hour class (3 credits), 3.0 hours for a 30 hour class (2 credits) or 1.5 hours for a 15 hour class (1 credit.) In case of extreme hardship and also at the discretion of the instructor, a grade of incomplete may be given for an assignment or the entire course. In such cases, the work to be submitted in order to remove the incomplete must be documented appropriately and stated deadlines met. Students are expected to be on time to class and tardiness may be seen as an absence that requires make-up work.

Use of technology in class:
Laptops and cell phones are prohibited during class time. Building an engaged and learning community is an important aspect of this course and these technologies can be distractions to the learning process. If you need a laptop for notetaking purposes, please talk with the professor. There will be times during class to work on the group project. During these times laptop use is allowed. If you need to send a text or make a time sensitive phone call, please do so outside of the classroom as to not disrupt the learning environment.

Accommodations for students with special needs and/or disabilities:
*If you have a disability that may impact your academic performance, you may request accommodations by submitting documentation to the Student Support Services Office in the Albany Quadrangle (x7156). After you have submitted documentation and filled out paperwork there for the current semester requesting accommodations, staff in that office will notify me of the accommodations for which you are eligible.* Please notify me of any special learning considerations that I should be aware of so that we can work together to make the appropriate accommodations.

Turning in Assignments:
All assignments will be turned in using Moodle. All assignments must be in a word document, any assignments turned in in a pdf or other format will receive a 10% reduction in grade.

Late papers and assignments: Any assignments turned in late (without previous permission) or incomplete will automatically receive a 10% reduction in grade.
Course Assignments:

1. **Completion of all required readings and active participation in class discussions, groups, and role-plays (75 points)**
   
   All assigned readings must be completed in advance of the class in which they are to be discussed. Every student is responsible for coming to class prepared to participate in a meaningful discussion. Classroom group, discussions and role-plays are opportunities to bring up questions about the assigned readings, further your understanding of the concepts under study, and integrate course material into your understanding of research, and integrate material into your clinical practice.

   
   Each pair will be responsible for one research presentation guide. This assignment is designed to help you with your research presentation. Requirements for the research presentation guide is included at the end of the syllabus. **Due Feb 7th.**

3. **Program Evaluation Article Summary (25 points)**
   
   Each student will pick an article of a program evaluation. Requirements for the article critiques is included at the end of the syllabus. **Due February 21st.**

4. **Article Critique (100 points- 50 each)**
   
   Each student will review and critique two journal articles. Students will be required to critique one quantitative research article, and one qualitative research article. Requirements for the article critiques are included at the end of the syllabus. **Quantitative article critique due March 14th; Qualitative article critique due April 18th.**

5. **Research and Stats Game! (25 points)**
   
   You and your group will be responsible for creating a research methods and statistics related game. Using concepts and vocabulary learned during the course, you will create a game to be played on the last day of the course. This is a very open ended assignment and it is up to you and your group members what kind of game you want to create. Get creative! You will be given some time in class to work with your groupmates on this assignment. We will play the games the last day of the course. **Due April 18th.**

6. **Research Presentation (100 points)**
   
   The research presentation is a power point presentation of a research proposal. The research proposal must be a mixed methods project containing both quantitative and qualitative components. Along with your partner, you will design a research proposal pertaining to an issue relevant in your field. The proposal is a detailed description of a study designed to investigate a given problem in your field. The study you design should contain both quantitative and qualitative methods, however it is assumed that it will have one primary focus with additional-supplementary information gathered using the other approach.

   Your grade will be partially determined by your inclusion and discussion of each element of a proposal. Each person is expected to participate equally and fully in the completion of this project. However, that does not mean that each person must
participate equally in each aspect of the task. Working out an equitable distribution of work is part of the process for your group.

A more detailed explanation of the assignment is included in at the end of the syllabus. **Due April 11th.**

**Overview of Assignments:**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>75</td>
</tr>
<tr>
<td>Group Project Guide</td>
<td>25</td>
</tr>
<tr>
<td>Evaluation Article Summary</td>
<td>25</td>
</tr>
<tr>
<td>Article Critique (2)</td>
<td>100</td>
</tr>
<tr>
<td>Glossary Game</td>
<td>25</td>
</tr>
<tr>
<td>Research Presentation</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>350</strong></td>
</tr>
</tbody>
</table>

**Final Grading (%)**

- A = 93-100
- A- = 90-92
- B+ = 88-89
- B = 83-87
- B- = 80-82
- C+ = 78-79
- C = 73-77
- C- = 70-72
Course Schedule
This course schedule is subject to change.

**January 10**
Course Overview

**January 17**
Ethics and Literature Review

Readings:
Mertens:
   - Chapter 3 (edition 3: 115-121;
     edition 4: 116-125)

Article:

**January 24**
Paradigm
Qualitative and Quantitative overview

Readings:
Mertens: Ch 1

**January 31**

No Class. Meet with your groups to complete your Group Project Guide.

**February 7**
Overview of Quantitative Research
Experimental Design, Ex Post Facto Research

Readings:
Mertens: Ch 4

*Research Presentation Guide Due*

**February 14**

Program Evaluation
Time in class to find a Program Evaluation
Readings:
Mertens ch 2

**February 21**

Descriptive Statistics, Sampling, and Everyday uses of Statistics

Readings:

*Program Evaluation Article Summary Due*

**February 28**

Inferential Statistics
Structural equation modeling
Measurement, Validity and Reliability

Readings:

**March 7**

Review of Quantitative Research Methods
Quantitative article critique review
Research Presentation review

Readings:
Find an article to write your article critique on. Read and bring to class.

**March 14**

Qualitative Research Methods

Readings:

*Quantitative Article Critique Due*
Focus groups/Interviews/observations
Readings:

March 28

Spring Break- No Class

April 4

Analyzing & Interpreting Qualitative Data
Quality of Data Collection
Readings:
Ch 13 (edition 3: 423-431; edition 4: 438-446)

April 11

Research Presentations

April 18

Qualitative Critique Due
Game Day!
Last Day of Course
Please answer the following questions. Answer in paragraph form, using the overall topics as your headings (i.e. Statement of the problem should be your first heading). Keep in mind that I am not asking you to design your research project yet, this assignment is about figuring out your topic and providing a justification for your study. Due February 7th.

**Statement of Problem**

- What is the overall topic you are interested in researching?
- What variables are you using? How will you define them?
- What paradigm will you be working from?

**Justifying the Study (Getting a Start on the so what?)**

- Provide a rationale for your study. Provide clear claim reason and evidence for why your study is important.
- How is your study clinically important? Provide clear clinical implications for your study.
- What is the relevance of the study to your group?

**Research Question**

- Come up with a few (2-3) potential research questions. These can (and probably will) change over the course of the semester. If you are struggling with this, take a look at a few research articles. These should give you a good idea about the scope of a research question.
Program Evaluation Article Summary

Pick an article that is a Program Evaluation. Make sure to answer all of the questions and to use APA. Upload your Program Evaluation Article Summary to Moodle in a word document. Due Feb 21st.

1. Write a short paragraph summarizing the design of the evaluation.

2. What is the article's approach to evaluation? (ie. Postpositive frame, theory based evaluation, empowerment evaluation, consumer based approach, inclusive evaluation). Provide evidence of how you determined the approach.

3. Who are the stakeholders that are included in the evaluation? Who is not included?

4. Pick an approach to evaluation that was not used in your article. Redesign the program evaluation that you read about using your chosen approach.
Quantitative Article Critique

The purpose of this assignment is to critically evaluate the current research in your area of interest. Below are questions that you are required to answer. Make sure to answer all of the questions. The questions in the parenthesis are examples of ways you might answer the question.

Please upload the article you used when you submit your article critique. Upload your article in a word document (no Pdfs). Make sure to follow APA guidelines. Use the same heading provided below. Critique should be at least 4 pages no more than 8.


Literature Review

1. What are your thoughts about the author’s use of argument? (ie. Do the authors provide a convincing line of argument? Do they make a case as to why this area of research is important? Did they provide claims and evidence? etc.)
2. How could the authors have made the argument more convincing?
3. How well do the authors set the stage for the research question they are studying?
4. How will this study advance the knowledge in the field?

Methods and Procedures

1. How do the authors describe their sampling strategies? (i.e. do they give enough information? What is missing? What could be done to strengthen their sampling strategy?)
2. What are potential strengths or weaknesses to their sampling strategy? How could it impact the results?
3. What detail do they provide about the measures they use? (i.e. reliability and validity) Do they provide enough detail? What is missing?
4. What statistical analysis do the authors use? Do they give adequate justification for using that analysis?

Results

1. In your own words, what are the results of the study?
2. What are your thoughts about the way the results are presented? How could the author improve the presentation of the results?
3. What are your thoughts about the tables and figure provided? (ie. Can they be read easily or should there be additional information provided?)

Discussion

1. How do the authors present their finding? (ie. Concisely, accurately, misleading etc.)
2. How do the authors address the limitations of their study? What are the limitations that you identified in the article that the authors did not address?
3. What are the clinical implications of this article? How would you use the finding of this article in the clinical room?
4. Overall what are your thoughts about this article?
Qualitative Article Critique

The purpose of this assignment is to critically evaluate the current research in your area of interest. Below are questions that you are required to answer. Make sure to answer all of the questions. The questions in the parenthesis are examples of ways you might answer the question.

Please upload the article you used when you submit your article critique. Make sure to follow APA guidelines. Use the same heading provided below. Critique should be at least 4 pages no more than 8.


**Literature Review**
1. What are your thoughts about the author’s use of argument? (ie. Do the authors provide a convincing line of argument? Do they make a case as to why this area of research is important? Did they provide claims and evidence? etc.)
2. How could the authors have made the argument more convincing?
3. How well do the authors set the stage for the research question they are studying?
4. How will this study advance the knowledge in the field?

**Methods and Procedures**
1. What research paradigm are the researchers using? How do you know?
2. What qualitative approach do the researchers use?
3. Do the authors clearly describe their data collection strategies? If not, how could it be more clear?
4. Do they present sufficient detail about the sample from which they have collected data? If not, what details are missing?
5. What justification for the methods do the authors provide? Does this appear to be adequate?

**Results**
1. Does the results section answer the research questions posed in the literature review?
2. What are your thoughts about how they have displayed their results? (Do they display their results clearly and succinctly? If not, what are your suggestions to make it easier to read and understand?)
3. What evidence or examples do the authors provide (ie quotes)?
4. Are the findings credible? Why or why not? Give examples of strategies the author(s) used to increase the credibility of the study (see page 268 (4th edition) or 256 (3rd edition)). How could the authors have increased the credibility of their study?
5. In what ways are the findings transferable to your group project and the context of your study? What about the study may not be transferable to your study?

**Discussion**
1. How do the authors present their finding? (ie. Concisely, accurately, misleading etc.)
2. How do the authors address the limitations of their study? What are the limitations that you identified in the article that the authors did not address?
3. What are the clinical implications of this article? How would you use the finding of this article in the clinical room?
4. Overall what are your thoughts about this article?
Research Presentation: Proposal Outline

Introduction/Problem Statement
- Area of Study
  - Statement of the problem
  - Significance of problem
    - Identify the gap and why that gap is important to clinical work
- Paradigm
  - Why did you pick this paradigm? How does the paradigm assumptions fit with your research project?
- Relevance to you and to the field
  - Why did you pick your topic?
  - How will this topic impact your work as clinicians?

Review of Related Literature
- Current Literature (pick three articles that pertain to your topic)
- A critical analysis of strengths and weakness of previous research
  - Give a brief explanation of the article
  - Using concepts we learned about credibility, transferability, dependability and confirmability, talk about the strengths and weakness of the article
  - Make a case for why the article points to the need of your research project

Methodology
- Statement of research questions
  - Quantitative: Statement of the hypothesis- including operationalization of variables and population.
  - Qualitative: Presentation of initial questions or objectives that will focus the study
- Design (walk us through the design of your study, ie. What will the participants actually be doing?)
  - Quantitative approach and specific design
  - Qualitative approach and design
- Researcher Bias
  - Describe researcher(s) role in terms of relationship to topic, values, etc. How might your relationship to the topic effect the way you collect and analyze the data? What aspects of your lived experience might affect the way you interpret the results? What aspects of the topic will be the most difficult for you to be unbiased about? How will you mediate these effects?

Sample
- Who is your population of interest?
- How many people are you looking to recruit?
- What are the possible barriers to recruiting this sample?
Data Collection Procedures

- Quantitative: describe the procedure
- Qualitative: describe the procedure
  - How will you incorporate credibility, transferability, dependability and confirmability into your study?

Measures

- Quantitative:
  - Provide examples for questions
  - Provide reliability and validity of measures
- Qualitative:
  - Provide interview questions or observation protocol

Data Analysis Procedures

- Quantitative:
  - Description of statistical analyses
- Qualitative:
  - Description of data analysis strategies

Institutional review board (IRB)

First person scenario
- A statement describing everything participants do in the research study. (Pro-tip: do this early, it will help you figure out the details of your study)

Risk/benefit analysis
- What are the possible risks for someone participating in your research? What are the proposed benefits?

Limitations
- Give limitations of your study

Clinical Implications
- Give clinical implications of your study
- How do you see yourself using the potential finding in the clinical room?

Tentative Time Line

Reference page