

# Master of Science in Counseling (MSC)

# Syllabus MSC 516– Statistics and Research Methods

# **Spring Semester 2020**

3 Credit Hours

Dates:	January 10 – April 29, 2022
Settings:	Online/Distance Learning Asynchronous - Moodle Classroom
Instructor:	Dr. Sachin Jain, PhD, NCC
	Associate Professor & Director of Counseling
Contact:	Sachin.jain@uprovidence.edu
Office:	Online
Office Hours:	By Appointment
Website:	https://www.uprovidence.edu/explore-programs/graduate/ms-in-counseling/

## I. Course Description

- A. Catalog Description: Students will earn to conduct social science research at the graduate level. Students will advance through (1) framing the research question; (2) conducting a relevant literature review; (3) formulating hypotheses; (4) examining various modes of data collections; (5) specifying a methodology and (6) detailing various data analysis techniques. Various types of research designs and methodologies will be presented. There will be an emphasis selecting research methods and writing a research proposal in the field of counseling. By the end of the course, students will have developed a research proposal in their field of study. In addition, the course will provide a thorough grounding in elementary statistical theory and practice. Concepts, principles, and methods of statistics from two perspectives, descriptive and inferential, will be presented. Statistical topics include describing and displaying data, measures of central tendency, correlation, regression, sampling, probability, mean comparisons, analysis of variance, and non-parametric tests.
- B. Methods of Instruction: This course will be taught as an asynchronous graduate course with various settings such as lecture and group discussion, article reviews, presentations, and a research proposal. It is expected that students will have read all readings and be prepared to engage in a conversation regarding major points and application of the readings. Students are expected to be respectful of others' opinions, share perspectives and

engage in critical thinking, integrating information and theories from other disciplines and engage in ethical practices.

#### II. Program Student Learning Objectives

RESEARCH AND PROGRAM EVALUATION

By the end of this program, students will be able to ...

Indicate the importance of research in advancing the counseling profession. Identify evidence-based counseling practices.

Analyze various methods used in research and program evaluation.

# III. Behavioral Objectives for Course / Anticipated Student Competencies / (CACREP Standards)

A. Upon completion of this course, the successful student will be able to:

#### KNOWLEDGE/SKILLS/SCHOLARSHIP

- 1. Identifying appropriate basic research methods and statistical tools to advance the counseling profession, including how to critique research to inform counseling practice. (S2.8.a)
- 2. Applying the terminology and concepts used in reference to research methods and statistics to identify evidence-based counseling practices (S2.8.b)
- 3. Interpreting the statistical results in the literature to evaluate and develop needs assessments (S2.8.c)
- 4. Interpreting the statistical results in the literature to evaluate and develop counseling interventions and programs (S2.8.e)
- 5. Utilizing and applying basic statistical formulas and graphically display statistical results of outcome measures for counseling programs (S2.8.d)
- 6. Identifying qualitative, quantitative, and mixed research methods and designs used in research and program evaluation (S2.8.f) (S2.8.g)
- 7. Identifying statistical methods used in conducting research and program evaluation (S2.8.h)
- 8. Analyzing and using data in counseling (S2.8.i)
- 9. Designing a viable research proposal based on ethically and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation (S2.8.j)

#### CACREP STANDARDS – Section 2 (S2)

#### 8. Research and Program Evaluation

- a. the importance of research in advancing the counseling profession, including how to critique research to inform counseling practice
- b. identification of evidence-based counseling practices
- c. needs assessments
- d. development of outcome measures for counseling programs
- e. evaluation of counseling interventions and programs
- f. qualitative, quantitative, and mixed research methods

- g. designs used in research and program evaluation
- h. statistical methods used in conducting research and program evaluation
- i. analysis and use of data in counseling
- j. ethical and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation

### IV. Prerequisites to this Course and Requirements that the Course Fulfills:

A. This is a **required course for MSC students** and it has **no prerequisites**. Students **must earn** a **B** or **better** in order to proceed to the next semester of coursework.

#### V. Required / Recommended TEXTS:

#### REQUIRED TEXTS

- A. Research Methods in Psychology 4th American Edition, Available for free download at The Open Education Network, University of Minnesota. https://open.umn.edu/opentextbooks/textbooks/75
- B. American Psychological Association (2020). *Publication manual of the American Psychological Association*, Seventh Edition, published by the American Psychological Association. ISBN: 978-1-4338-3216-1

#### ADDITIONAL TEXTS

- C. Salkind, N. J. (2012). *Exploring research*. NJ, Upper Saddle Riber: Pearson Education. ISBN-10: 020521701X ISBN-13: 978-0-205-21701-4
- D. Salkind, N. J. (2013). *Statistics for people who (think they) hate statistics.* CA, Thousand Oaks: Sage Publications.

## VI. Course Requirements and Course Activity Summary

## A. Professional Dispositions

Students will be evaluated on their ability to demonstrate and progress in the following professional dispositions in this course and throughout the program:

- **Mindfulness.** Active, open attention on the present; observing one's thoughts and feelings without judgment
- **Engagement.** Involvement and commitment to one's own and other's personal and professional development
- **Reflexivity.** An awareness and exploration of one's own belief systems and values, and their impact on relationships with self and others
- **Curiosity.** Eagerness to know, discover, and generate; interest leading to inquiry

- **Integrity.** Consistent commitment to professional ethics and values of the counseling profession; holding steadfastly true to one's commitments
- **Empathy.** The action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings and thoughts of another
- Professionalism. Maintaining conduct and qualities that characterize a counseling professional

All students will be expected to model these dispositions during class meetings.

## B. Assignments:

### 1. Moodle Participation (10%)

Discussions on Moodle (250-750 words) will be run with a seminar focus where students engage in active learning and learn from each other. Studies have shown that students with high participation records get better grades and comprehend more about a given subject. Please be sure to read, contemplate, and respond to the postings provided by other students because reading, thinking and discussing what other students have to say will deepen your learning of the material. Points are mostly based on your presentation of factual material from the textbooks for this course so citing is important (APA style).

- 2. **Quizzes** (15%): Exams will be given covering material from our textbook. The format will be Multiple Choice questions that evaluates your knowledge. I do not require completion of specific chapters at a particular date. I want you to use the whole electronic source as your learning platform during this semester. For the full 150 points completion of a quiz on each of the 13 chapters with a score of 90% or above is required. Grade on the Quizzes will be added on Moodle after April 22nd. Please use the answer sheet in the excel file on the start page for a=1, b=2, c=3, d=4.
- 3. **Statistics Assignment** (10%): A statistics assignment will be completed based on the learning material.
- 4. **Annotated Bibliography** (5%): A Bibliography will be completed (10 peer-reviewed articles) for a specific research area that is relevant to the student's research proposal topic in the field of counseling. The bibliography should facilitate the literature review within the proposal. Please check this link: <a href="https://owl.purdue.edu/owl/general\_writing/common\_writing\_assignments/annotated\_bibliographies/index.html">https://owl.purdue.edu/owl/general\_writing/common\_writing\_assignments/annotated\_bibliographies/index.html</a>

for Annotated Bibliography Samples in the APA format.

5. **Article Reviews** (20 % - each 10%): Two research article reviews will be completed (2-3 pages each). These reviews should be relevant to the student's research proposal topic in the field of counseling and should facilitate the literature review within the proposal. At least one of the reviews will be a quantitative article.

Your work will be evaluated on the **Quality of Article Review** based on evaluating major elements described in the rubric below. Structure your paper according to the rubric. If your research article is missing a subsection, you should still address it in your critique. For example, if your article does not discuss certain sources of measurement error you believe the authors might have encountered in a study, you should indicate and discuss this. The content should clearly demonstrate that you understand relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation, including how to critique research to inform the counseling practice. Your evaluation will be based on the rubric below.

#### **Rubric – Article Reviews**

Criteria	Emerging	Progressing	Proficient	Exemplary
Criteria SOURCES/ QUALITY of Article 20%  Acknowledging the Importance of Research in advancing the counseling profession, including how to critique research to inform counseling practice (S2.8.a)  20%	Used a non-academic source for the review.  Addressed none of the issues below: INTRODUCTION -Problem Statement -Source of the problem -Significance of study -Feasibility of study -Scope of literat. review -Theoretical context of the problem -Hypotheses/research	Used a related Internet links for review of research in counseling, but not an academic journal.  Addressed at least 5 of the issues below but not precisely and clear: INTRODUCTION -Problem Statement -Source of the problem -Significance of study -Feasibility of study -Scope of literat. review -Theoretical context of the problem	Used a good quality academic peer-reviewed article for review of research in counseling.  Addressed all of the issues below but not precisely and clear. INTRODUCTION -Problem Statement -Source of the problem -Significance of study -Feasibility of study -Scope of literat. review -Theoretical context of the problem	Used a high-quality academic peer-reviewed article for review of research.in counseling.  Addressed all of the issues below in a precise & clear manner: INTRODUCTION -Problem Statement -Source of the problem -Significance of study -Feasibility of study -Scope of literat. review -Theoretical context of the problem
	Questions -Variables of interest METHODOLOGY -Description of design -Control of extraneous variables -Assessing internal and external validity -Sampling design -Measurements -Reliability and validity -Sources of measurement error -Ethical considerations	-Hypotheses/research Questions -Variables of interest METHODOLOGY -Description of design -Control of extraneous variables -Assessing internal and external validity -Sampling design -Measurements -Reliability and validity -Sources of measurement error -Ethical considerations	-Hypotheses/research Questions -Variables of interest METHODOLOGY -Description of design -Control of extraneous variables -Assessing internal and external validity -Sampling design -Measurements -Reliability and validity -Sources of measurement error -Ethical considerations	-Hypotheses/research Questions -Variables of interest METHODOLOGY -Description of design -Control of extraneous variables -Assessing internal and external validity -Sampling design -Measurements -Reliability and validity -Sources of measurement error -Ethical considerations
Acknowledging the Importance of Research, including how to critique research to inform counseling practice (\$2.8.a)	Addressed none of the issues below: DATA ANALYSIS -Data analysis Procedures -Presentation of results -Use of tables, figures -Interpretation of results COMMUNICTING FINDINGS -Discussion of findings -Limitations -Alternative explanations -Implications for practitioner	Addressed at least 3 of the issues below but not precisely and clear: DATA ANALYSIS -Data analysis Procedures -Presentation of results -Use of tables, figures -Interpretation of results COMMUNICTING FINDINGS -Discussion of findings -Limitations -Alternative explanations -Implications for	Addressed all of the issues below but not precisely and clear. DATA ANALYSIS -Data analysis Procedures -Presentation of results -Use of tables, figures -Interpretation of results COMMUNICTING FINDINGS -Discussion of findings -Limitations -Alternative explanations -Implications for	Addressed all of the issues below in a precise & clear manner: DATA ANALYSIS -Data analysis Procedures -Presentation of results -Use of tables, figures -Interpretation of results COMMUNICTING FINDINGS -Discussion of findings -Limitations -Alternative explanations -Implications for

	-Implications for future	practitioner	practitioner	practitioner
	research	-Implications for future	-Implications for future	-Implications for future
		research	research	Research
Acknowledging the	Addressed none of the	Addressed at least 3 of	Addressed all of the	Addressed all of the
Importance of Research	issues below:	the issues below but not	issues below but not	issues below in a
in advancing the	Your CONCLUSION	precisely and clear:	precisely and clear.	precise & clear manner:
counseling profession,	-Did you like the article?	Your CONCLUSION	Your CONCLUSION	Your CONCLUSION
including how to	-Would you recommend	-Did you like the article?	-Did you like the article?	-Did you like the article?
critique research to	It?	-Would you recommend	-Would you recommend	-Would you recommend
inform counseling	-General strengths and	It?	lt?	It?
practice (S2.8.a)	Weaknesses?	-General strengths and	-General strengths and	-General strengths and
	-What would you have	Weaknesses?	Weaknesses?	Weaknesses?
20%	added or done	-What would you have	-What would you have	-What would you have
	differently?	added or done	added or done	added or done
		differently?	differently?	differently?
ORGANIZATION,	The information appears	Information is organized,	Information is organized	Information is very
MECHANICS and	to be disorganized.	but paragraphs are not	with well-constructed	organized with well-
Academic LANGUAGE	Many grammatical,	well constructed.	paragraphs. Almost no	constructed paragraphs
APA STYLE - citations	spelling, or punctuation	A few grammatical,	grammatical, spelling, or	and subheadings. <b>No</b>
	errors. Use of slang and	spelling, or punctuation	punctuation errors. Use	grammatical, spelling or
20%	informal language.	errors. Use of slang and	of slang and informal	punctuation errors.
	Some sources are not	informal language.	language.	Appropriate use of
	accurately documented	All sources (information	All sources (information	formal and objective
	in text and reference list.	and graphics) are	and graphics) are	academic language.
		accurately documented,	accurately documented,	All sources (information
		but many are not in the	but a few are not in the	and graphics) are
		desired APA format.	desired APA format.	accurately cited in the
				desired APA format.

6. Voice enabled Presentation - Research Proposal (10%): At the end of the semester, each student will prepare a 15 - 20 slides voice enabled Power Point Presentation that illustrates the research proposal to the class (submitted on onedrive and Moodle). Your presentation will be evaluated on Quality of Information and Power Point Slides and should be limited to 20 slides. Obviously you will not be able to discuss all the sections of your paper and therefore, you must judiciously select the material you present so that someone who is not a member of the course would clearly understand what is your research proposal topic, including rationale, method, and statistical analysis. Please remember that power point slides present the content in a simplified manner and thus, full sentences should not appear on your slides. The content is meant to be presented in "bullet points" and should clearly demonstrate that you understand relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation. At least 4 references should be cited in APA format on the last page of your PowerPoint. The presentation should be submitted by 4/17. Your evaluation will be based on the provided rubric.

**MSC516 - Rubric - Research Proposal / Power Point Presentation** 

Criteria	Emerging	Progressing	Proficient	Exemplary
SOURCES / QUALITY of Information  Understanding the importance of research in advancing the counseling profession (S2.8.a) 30%	Content demonstrated weakness in understanding about conducting, interpreting, and reporting the results of research and/or program evaluation.	Content demonstrated understanding for conducting, interpreting, and reporting the results of research and/or program evaluation. Represented some weaknesses related to design of the study.	Content demonstrated understanding of relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation as evidenced by appropriate design of the study.	Content demonstrated exemplary understanding of relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation as evidenced by appropriate design of the study.
SOURCES / QUALITY of Information  Ethical and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation (S2.5.j) '30%	Content demonstrated weakness in understanding how ethical considerations impact the design of a study (population, measurements, culture).	Content demonstrated understanding how ethical considerations impact the design of a study (population, measurements, culture) but represented few weaknesses related to ethics.	Content demonstrated understanding of relevant strategies for applying ethical considerations into the design of a study (population, measurements, culture).	Content demonstrated exemplary understanding of relevant strategies for applying ethical considerations into the design of a study (population, measurements, culture).
POWERPOINT presentation SLIDES 40%	Insufficiently outlines: Slides had spelling, grammatical or punctuation errors. Font size and design was not professional and accurate.	Sufficiently outlines: Slides had almost no spelling, grammatical or punctuation errors. Font size and design was partially professional and accurate.	Successfully outlines: Slides were without grammatical spelling but few punctuation errors. Font size was too small or too big and design was professional and accurate.	Exemplary outlines: Slides were without grammatical spelling but few punctuation errors. Font size was too small or too big and design was professional and accurate.

7. **Research Proposal – Academic Paper** (30%): At the end of the course, each student must have formed her/his own research proposal related to the counseling field. This research proposal is an opportunity to design a study that could serve you for your thesis in the MSC program or the proposal to apply for funding. The paper should articulate your current research approach to counseling based upon your experiences in the course. Make sure you address significant issues described in the provided rubric. You can see the outline for a research proposal at:

https://www.westminster.ac.uk/study/postgraduate/research-degrees/entry-requirements/how-to-write-your-research-proposal

Students will be expected to develop a research proposal defining and describing the research design and based on the structure of methods process (7-10 pages without title page, reference pages, appendices ...).

Each paper must be based upon at least 8 research articles from <u>peer-reviewed</u> journals and professional books in the fields of counseling and/or psychology (this includes the texts). The paper must be written according to the APA style

manual. The paper must be a minimum of 7 pages long (excluding the title page, abstract, reference page(s) and any figures or tables). The <u>grading rubric</u> that provides also a structure for the research proposal is attached <u>below</u>. It is highly recommended to complete a draft of the paper by March 12<sup>th</sup>. Failure to turn in the paper will result in a failing grade for the course. For each calendar day that your paper is turned in late, the grade will be dropped by 5%. The final version of the paper is due **April 3**.

#### **Rubric – Research Proposal (Paper)**

Criteria	0-5 points Emerging	6-7 points Progressing	8-9 points Proficient	10 points Exemplary
SOURCES/ QUALITY of Information 10%	Used zero-three high quality academic peer-reviewed articles for the literature review; other sources as needed to support discussions of the sections below.	Used four-five high quality academic peer-reviewed articles for the literature review; other sources as needed to support discussions of the sections below.	Used six-eight high quality academic peer-reviewed articles for the literature review; other sources as needed to support discussions of the sections below.	Used more than 8 high quality academic peer-reviewed articles for the literature review; other sources as needed to support discussions of the sections below.
Research in advancing the counseling profession (S2.8.a) 10&	Integrated concepts from 0-3 sources in a meaningful way to support this section.	Integrated concepts from 4-5 cited source to support this section.	Integrated concepts from 6-8 cited sources to support this section.	Integrated concepts from more than 8 cited sources to support this section. This integration flowed smoothly and showed vast creativity.
	Addressed none of the issues below: -INTRODUCTION Theoretical concept(s) and previous literature of the particular topic in counseling	Addressed 1 of the issues below but not precisely and clear: -INTRODUCTION Theoretical concept(s) and previous literature of the particular topic in counseling	Addressed 2 of the issues below but not precisely and clear: -INTRODUCTION Theoretical concept(s) and previous literature of the particular topic in counseling	Addressed 3 of the issues below in a precise & clear manner: -INTRODUCTION Theoretical concept(s) and previous literature of the particular topic in counseling
Identification of evidence-based counseling practices (S2.8.b) 10%	Addressed none of the issues below: -INTRODUCTION Previous research and statistics of evidence-based counseling practices related to the particular topic.	Addressed 1 of the issues below but not precisely and clear: -INTRODUCTION Previous research and statistics of evidence-based counseling practices related to the particular topic.	Addressed 1 of the issues below but not precisely and clear: -INTRODUCTION Previous research and statistics of evidence-based counseling practices related to the particular topic.	Addressed 2 of the issues below in a precise & clear manner: -INTRODUCTION Previous research and statistics of evidence-based counseling practices related to the particular topic.
Identification of needs assessments (S2.8.c) 5%	Identified none particular topic and framed the issue confusing.	Identified one particular topic. Framed the issue not clearly and provided some possible solutions. Did not reflect community concerns.	Identified one particular topic but framed the issue not clearly. Avoided naming specific solutions and reflected community concerns.	Identified one particular topic & avoided blame. Framed the issue as either not enough good conditions/behaviors or too many bad conditions/behaviors. Avoided naming specific solutions and reflected community concerns.
	-STATEMENT OF THE PROBLEM Short summary of identified problem	-STATEMENT OF THE PROBLEM Short summary of identified problem	-STATEMENT OF THE PROBLEM Short summary of identified problem	-STATEMENT OF THE PROBLEM Short summary of identified problem
Evaluation of counseling interventions and programs (S2.8.e) 5%	<b>Defined no</b> problem.	<b>Defined</b> the problem by the behaviors and conditions but was	<b>Defined</b> the problem and was specific enough to be measureable.	<b>Defined</b> the problem by the behaviors and conditions that effect it

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Development of outcome measures for counseling programs (S2.8.d)	-STATEMENT OF THE PROBLEM Succinct and on target rationale of "Why does this research need to be conducted?"  Addressed none of the issues below: -PURPOSE of the Study Describes the goals and objectives that are the desired outcomes of your study to find answers to the problemDEFINITIONS of key terms -SIGNIFICANCE of the Study – Shows how this project is significant to developing a body of knowledge.	specific enough to be measureableSTATEMENT OF THE PROBLEM Succinct and on target rationale of "Why does this research need to be conducted?"  Addressed the issue below but confusing: -PURPOSE of the Study Describes the goals and objectives that are the desired outcomes of your study to find answers to the problemDEFINITIONS of key terms -SIGNIFICANCE of the Study – Shows how this project is significant to developing a body of knowledge.	-STATEMENT OF THE PROBLEM Succinct and on target rationale of "Why does this research need to be conducted?"  Addressed 2 of the issues below but not precisely and clear: -PURPOSE of the Study Describes the goals and objectives that are the desired outcomes of your study to find answers to the problemDEFINITIONS of key terms -SIGNIFICANCE of the Study – Shows how this project is significant to developing a body of knowledge.	and was specific enough to be measureableSTATEMENT OF THE PROBLEM Succinct and on target rationale of "Why does this research need to be conducted?"  Addressed all 3 of the issues below in a precise & clear manner: -PURPOSE of the Study Describes the goals and objectives that are the desired outcomes of your study to find answers to the problemDEFINITIONS of key terms -SIGNIFICANCE of the Study — Shows how this project is significant to developing a body of knowledge.
Development of outcome measures for counseling programs (S2.8.d)	Addressed none of the issues below and used 0-3 sources: -LITERATURE Review Reviewing the literature develops broad ideas of what is already known in the counseling field, and what questions are still unanswered.	Addressed the issues below but confusing and using 4-5 sources:  -LITERATURE Review Reviewing the literature develops broad ideas of what is already known in the counseling field, and what questions are still unanswered.	Addressed the issues below but not precisely and clear and using 6-8 sources: -LITERATURE Review Reviewing the literature develops broad ideas of what is already known in the counseling field, and what questions are still unanswered.	Addressed the issue below in a precise & clear manner using more than 8 sources: -LITERATURE Review Reviewing the literature develops broad ideas of what is already known in the counseling field, and what questions are still unanswered.
Research in advancing the counseling profession (S2.8.a) 10%	Failed to develop questions/hypothesis to the design of the study.  -Research QUESTIONS or HYPOTHESIS Deciding whether to use research questions of hypothesis depends on facts related to the purpose of study, the methodology, and the expected audience for the research proposal.	Developed 1 or 2 research questions /hypothesis but not appropriate to the design of the studyResearch QUESTIONS or HYPOTHESIS Deciding whether to use research questions of hypothesis depends on facts related to the purpose of study, the methodology, and the expected audience for the research proposal.	Developed 2 research questions/hypothesis thoroughly & appropriate to the design of the study.  -Research QUESTIONS or HYPOTHESIS Deciding whether to use research questions of hypothesis depends on facts related to the purpose of study, the methodology, and the expected audience for the research proposal.	Developed 3 research questions/hypothesis thoroughly & appropriate to the design of the study.  -Research QUESTIONS or HYPOTHESIS Deciding whether to use research questions of hypothesis depends on facts related to the purpose of study, the methodology, and the expected audience for the research proposal.
Qualitative, quantitative, and mixed research methods (S2.5.f) 5%	Addressed none of the issues below: -METHODOLOGY Reviewing various approaches, designs, procedures, & methods for investigating your area of research.  Specific tools will be described & evaluated to determine which ones will help you to meet research goals.  Addressed none of the	Addressed 1 of the issues below but not precisely and clear: -METHODOLOGY Reviewing various approaches, designs, procedures, & methods for investigating your area of research. Specific tools will be described & evaluated to determine which ones will help you to meet research goals. Addressed 1 of the	Addressed 2 of the issues below but not precisely and clear: -METHODOLOGY Reviewing various approaches, designs, procedures, & methods for investigating your area of research. Specific tools will be described & evaluated to determine which ones will help you to meet research goals. Addressed 2 of the	Addressed all of the issues below in a precise & clear manner: -METHODOLOGY Reviewing various approaches, designs, procedures, & methods for investigating your area of research. Specific tools will be described & evaluated to determine which ones will help you to meet research goals. Addressed all of the
research and program evaluation (S2.5.g)	issues below:	issues below but	issues below but presented them not	issues below and presented them clearly

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5%		presented them not clearly and logically.	clearly and logically. Developed subsections according to the topic.	and logically. Developed subsections according to the topic. Material was organized by topic from most to least important.
Statistical methods used in conducting research and program evaluation (S2.8.h) 5%	-DESIGN APPROACH Describe the overall design / method of your research project consisting of its methods & procedures (Quantitative, qualitative or mixed method). Describe the specific method used (historical or ethnographic research, case study) Describe used procedures (interviews survey, measurements)  Addressed none of the issues below:  -DATA COLLECTION & ANALYSIS procedures Describe Sampling and	-DESIGN APPROACH Describe the overall design / method of your research project consisting of its methods & procedures (Quantitative, qualitative or mixed method). Describe the specific method used (historical or ethnographic research, case study) Describe used procedures (interviews survey, measurements) Addressed the issues below but confusing:  -DATA COLLECTION & ANALYSIS procedures Describe Sampling and	-DESIGN APPROACH Describe the overall design / method of your research project consisting of its methods & procedures (Quantitative, qualitative or mixed method). Describe the specific method used (historical or ethnographic research, case study) Describe used procedures (interviews survey, measurements)  Addressed the issues below but not precisely and clear: -DATA COLLECTION & ANALYSIS procedures Describe Sampling and	-DESIGN APPROACH Describe the overall design / method of your research project consisting of its methods & procedures (Quantitative, qualitat., or mixed method). Describe the specific method used (historical or ethnographic research, case study) Describe used procedures (interviews survey, measurements)  Addressed the issues below in a precise & clear manner: -DATA COLLECTION & ANALYSIS procedures Describe Sampling and
	Instrumentation	Instrumentation	Instrumentation	Instrumentation
Analysis and use of data in counseling (S2.5.i) 5%	Addressed none of the issues below: -DATA COLLECTION & ANALYSIS procedures Describe Reliability and Validity of Methods and Results	Addressed 1 of the issues below but not precisely and clear: -DATA COLLECTION & ANALYSIS procedures Describe Reliability and Validity of Methods and Results	Addressed 2 of the issues below but not precisely and clear: -DATA COLLECTION & ANALYSIS procedures Describe Reliability and Validity of Methods and Results	Addressed all of the issues below in a precise & clear manner: -DATA COLLECTION & ANALYSIS procedures Describe Reliability and Validity of Methods and Results
Ethical and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation (S2.5.j) 5%	Addressed none of the issues below: -ETHICS Describe the following: Ethical considerations related to your study (diversity, culture,)  Limitations of study Cost information References Appendices	Addressed 3 of the issues below but not precisely and clear: -ETHICS Describe the following: Ethical considerations related to your study (diversity, culture,) Limitations of study Cost information References Appendices	Addressed all of the issues below but not precisely and clear: -ETHICS Describe the following: Ethical considerations related to your study (diversity, culture,) Limitations of study Cost information References Appendices	Addressed all of the issues below in a precise & clear manner: -ETHICS Describe the following: Ethical considerations related to your study (diversity, culture,) Limitations of study Cost information References Appendices
ORGANIZATION and PARAGRAPH CONSTRUCTION, ACADEMIC LANGUAGE 5%	The information appears to be disorganized. Paragraphing structure was not clear and sentences were not related within the paragraphs. Mainly use of slang and informal language. reference pages)	Information is organized, but paragraphs are not well constructed. Paragraphs included related information but were typically not constructed well. Some use of informal and subjective language.	Information is organized with well-constructed paragraphs. Most paragraphs include introductory sentence, explanations or details, and concluding sentence. Almost no use of informal language.	Information is very organized with well-constructed paragraphs and subheadings. All paragraphs include introductory sentence, explanations or details, & concluding sentence. Appropriate use of formal and objective academic language.
MECHANICS, APA STYLE 10%	Many grammatical, spelling, or punctuation errors. Some sources	A few grammatical spelling or punctuation errors. All sources	Almost no spelling, grammatical or punctuation errors. All	<b>No</b> grammatical, spelling or punctuation errors. All sources (information and

are not acc	urately (information a	nd sources (information	on and graphics) are accurately
documente	d in text and graphics) are a	accurately   graphics) are accu	rately cited in the desired APA
reference li	st. documented, l	but many   documented, but a	few format.
	are not in the	desired are not in the desir	red
	APA format.	APA format.	

#### VII. Grading

# A. Grade Calculation

1. There are 1000 points available for this course:

1)	100 points - Moodle Participation (10%)	
2)	150 points – <b>Quizzes</b> (15%)	Due Apr 17
3)	100 points - Statistics Assignment (10%)	Due Apr 10
4)	50 points - Annotated Bibliography (5%)	Due Jan 30
5)	100 points – <b>1. Article Reviews</b> (10%)	Due Feb 13
	100 points – <b>2. Article Reviews</b> (10%)	Due Mar 06
6)	100 points - Voice enabled Presentation -	
•	Research Proposal (10%)	Due Apr 17
7)	300 points – Research Proposal - Paper (30%)	Due Apr 3

- 2. At the end of the quarter, grades will be assigned as follows:
  - A: 100-90%
  - B: 89-80%
  - C: 79-70%
  - D: 69-60%
  - F: 59-0%
- **B.** Late or missed work policy: For each calendar day that your assignment is turned in late, the grade will be dropped by 5%.
- **C.** Completion of a **quiz** on each of the 13 chapters with a score of 85% or above. It is an open book quiz.

#### VIII. Attendance Policy

• UP Policy:

"Students are expected to attend all classes and complete all assigned work. Attendance includes at-tending on-campus classes and logging on a minimum of 3 times per week for on-line courses. The specific attendance and grading policy for each class is de-termined by the instructor and is listed in the course syllabus. Students who miss classes due to participa-tion in University sanctioned events are required to make up any work or assignments they have missed in an equitable manner determined by the instructor and should not have their grade affected by the absence itself. In isolated cases involving family or medical emergencies, students are

encouraged to speak with their instructors. Instructors may require documentation of family or medical emergencies." (University of Providence Catalog: "Academic Policies")

Students have to follow UP Academic Policies - Website:

https://www.uprovidence.edu/become-a-student/academic-information/academic-policies/

#### IX. Academic Misconduct

#### UP Policy:

Students are expected to exhibit high standards of academic conduct. All acts of dishonesty in academic work constitute academic misconduct.

#### Such acts include:

#### Cheating

Use or attempted use of unauthorized material or the work of another student in any academic assignment, paper, or examination.

#### **Plagiarism**

Intentional representation of another's work as one's own. This includes the unauthorized and unacknowledged use of the phrases, sentences, paragraphs, ideas, illustrations, drawings, photographs, or computer programs of another.

The course instructor is the initial judge of whether a student is guilty of academic misconduct. Should a student disagree with an instructor's judgment, the student may appeal the instructor's decision by following the "Academic Related Appeals Process" on page xxi of the University of Providence catalog.

The minimum penalty for an act of academic misconduct shall be a grade of "F" (failure) on the paper, assignment or examination involved. More severe penalties may be may be enforced by individual instructors, provided that such penalties are identified in the course syllabus. The maximum penalty for plagiarism that may be levied is a grade of "F" (failure) for the course. Copies of plagiarized work will be placed on file with the Coordinator of Student Faculty Relations. Severe or repeated instances of academic misconduct will result in more severe sanctions up to and including expulsion. (University of Providence catalog: "Academic Policies")

"Students should exhibit high standards of academic conduct. All acts of dishonesty in academic work constitute academic misconduct.

(UP Catalog: "Academic Policies") - Website:

https://www.uprovidence.edu/become-a-student/academic-information/academic-policies/

## X. Provision for Special Needs

XI. Accommodation for documented disabilities: If you have a documented disability and would like the professor to make accommodations, visit with Kay Seilstad, Disability Counselor, in the Sullivan Hall, Phone: 406-791-5212.s syllabus

#### XII. Policy on Diversity:

University-level education is about broadening horizons and looking at academic issues from a variety of perspectives. With this in mind, the participants in this class are encouraged to bring their own life experiences and viewpoints to accept on classroom discussions and assignments. Along with the freedom to express one's own view comes the responsibility of welcoming of a diverse student body with no respect to race, sex, color, religion, national origin, age, disability, or veteran status. Kindness is required and intolerance not acceptable.

## XIII. Student Responsibilities and Tips for How to Do Well

- The "rule of thumb" for graduate courses is 3 or 4 hours of out of class work for each credit hour assigned to the course. For this 3-hour course, you should <u>allocate at least 9 hours</u> per week for reading, participating in the Moodle portion of the course, and writing papers.
- Please be sure to read the assigned chapters prior to answering the discussion board questions. Remember, points are earned based on your presentation of factual material.
- Some of the lecture time for this course comes from participating in the discussion boards. Please make sure that you allocate at least 3 hours/week to reading the assigned chapters, and to participating in the discussion boards.
- At a minimum, log into the Moodle component of the course every other day. This is one of the ways that you "come to class". I encourage you to ask questions and voice your opinions! Treat this class as a live seminar with an online component. Sign in, think deeply, participate, and always be kind in your interactions with others. Remember, written words are much more likely to be misconstrued because of all of the non-written cues that are missing. Please be careful and considerate.
- If you are not doing as well as you would like: please make an appointment to consult with the instructor about how you can excel in this course. I welcome constructive feedback from students to improve their learning outcomes.

### **Academic Support Centers**

This is a great, FREE resource for students.

- Mathematics Center here
- Writing & Critical Thinking Center
- Disability Services
- Academic Success Center

I encourage you to check out their website for more information. https://www.uprovidence.edu/?s=academic+success+center&submit=%EF%80%82

## **Counseling Service**

To promote the growth and mental well-being of MSC students, the University of Great Falls has contracted with mental health service providers at the YWCA to provide mental health counseling for any MSC students regardless of their ability to pay for services. Counseling services can be access by calling (406) 252-1315. The University of Great Falls also provides counseling services by two licensed professional mental health counselors at the Academic Success Center in the Library Building on campus to provide students free support.

#### **About the Instructor**

Diversity is appreciated and welcome in this classroom. I define myself as a global citizen and I believe in a collaborative learning environment and embrace diversity. It is my concern to meet each student's individual need. You may email me with any questions or concerns. I look forward to working with you!

# I. The Grid - Goals & Objectives from the University:

Master degree requirement	Competency objectives CACREP Standards	MSC 516 (Research in Counseling: Behavioral/course objectives	Assessment / Measurements
Reflective Learning: To apply major theoretical perspectives in their field of study to real- life cases and to reflect on these applications	To gain an understanding Research and Program Evaluation Implementation of research in advancing the counseling profession, including how to critique research to inform counseling practice (S2.F.8.a)	Identifying appropriate basic research methods and statistical tools to advance the counseling profession, including how to critique research to inform counseling practice (S2.F.8.a)	Readings in textbooks Moodle forum participation Annotated Bibliography ARTICLE REVIEWS (2 papers)  RESEARCH PROPOSAL Paper that outlines student's proposed research in the field of counseling. PP Presentation that represents student's proposed study in the field of counseling.
	Identification of evidence- based counseling practices (S2.F.8.b)	Applying the terminology and concepts used in reference to research methods and statistics to identify evidence-based counseling practices (S2.F.8.b)	RESEARCH PROPOSAL Paper that outlines student's proposed research in the field of counseling. ARTICLE REVIEWS (2 papers)
	Evaluate and implement needs assessments (S2.F.8.c)	Interpreting the statistical results in the literature to evaluate and develop needs assessments (S2.F.8.c)	RESEARCH PROPOSAL Paper that outlines student's proposed research in the field of counseling.
	Evaluation of counseling interventions and programs (S2.F.8.e)	4.Interpreting the statistical results in the literature to evaluate and develop counseling interventions and programs (S2.F.8.e)	RESEARCH PROPOSAL Paper that outlines student's proposed research in the field of counseling.
Reflective Practice: To reflect and act on one's own ideas,	Development of outcome measures for counseling programs (S2.F.8.d)	5. Utilizing and applying basic statistical formulas and graphically display statistical results of outcome measures for counseling programs (S2.F.8.d)	RESEARCH PROPOSAL Paper that outlines student's proposed research in the field of counseling.
analyses, values, and personal and organizational interests in relation to one's field of	Analyze qualitative, quantitative, and mixed research methods (S2.F.8.f) Evaluate designs used in research and program evaluation (S2.F.8.g)	6. Identifying qualitative, quantitative, and mixed research methods and designs used in research and program evaluation (S2.F.8.f) (S2.F.8.g)	RESEARCH PROPOSAL Paper that outlines student's proposed research in the field of counseling.
study	Identifying statistical methods used in conducting research and program evaluation (S2.F.8.h)	7.Identifying statistical methods used in conducting research and program evaluation (S2.F.8.h)	RESEARCH PROPOSAL Paper that outlines student's proposed research in the field of counseling.
Reflective Scholarship: Understand the major theoretical	Analysis and use of data in counseling (S2.F.8.i)	8. Analyzing and using data in counseling (S2.F.8.i)	RESEARCH PROPOSAL Paper that outlines student's proposed research in the field of counseling.
perspectives within their field of study	Developing ethical and culturally relevant strategies for conducting, interpreting, & reporting the results of research and/or program evaluation (S2.F.8.j)	Designing a viable research proposal based on ethically and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation (S2.F.8.j)	RESEARCH PROPOSAL Paper that outlines student's proposed research in the field of counseling.

# TENTATIVE COURSE SCHEDULE

Date	Readings	TOPICS	<b>CACREP Standard</b>
WEEK 1 Jan 10-Jan 16	Chapter 1	The Science of Psychology	(S2.F.8.a.) (S2.F.8.f.)
WEEK 2 Jan 17-Jan 23	Chapter 2	Overview of the Scientific Method	(S2.F.8.b.) (S2.F.8.j.)
WEEK 3 Jan 24 – Jan 30	Chapter 3	Research Ethics	(S2.F.8.c.) (S2.F.8.d.)
Jan 30	Due 01/30	Annotated Bibliography (10%) 01/30	(S2.F.8.a.)
WEEK 4 Jan 31 – Feb 6	Chapter 4	Psychological Measurement	(S2.F.8.e.)(S2.F.8.g.)
WEEK 5 Feb 7 – Feb 13	Chapter 5	Experimental Research	(S2.F.8.e.)(S2.F.8.g.) (S2.F.8.h.)
Feb 13	Due 02/13	<b>1. Article Review</b> (10%) – <b>02/13</b> , 23:55pm	(S2.F.8.a.)(S2.F.8.b.)
WEEK 6 Feb 14 – Feb 20	Chapter 6	Nonexperimental Research	(S2.F.8.a.)(S2.F.8.b.)
WEEK 7 Feb 21 – Feb 27	Chapter 7 Chapter 8	Survey Research Quasi-Experimental Research	(S2.F.8.e.)(S2.F.8.g.) (S2.F.8.h.)(S2.F.8.i.)
WEEK 8 Feb 28 – Mar 06	Chapter 9 Chapter 10	Factorial Designs Single-Subject Research	(S2.F.8.h.)(S2.F.8.i.)
Mar 06	Due 03/06	<b>2. Article Review</b> (10%) – <b>03/06</b> , 23:55pm	(S2.F.8.a.)(S2.F.8.b.)
WEEK 9 Mar 07 –Mar 13		SPRING BREAK	
WEEK 10 Mar 14 – Mar 20	Chapter 11 Chapter 12	Presenting Your Research Descriptive Statistics	(S2.F.8.h.)(S2.F.8.g.) (S2.F.8.a.)
WEEK 11 Mar 21 – Mar 27	Chapter 13	Inferential Statistics	(S2.F.8.h.)(S2.F.8.i.)
WEEK 12 Mar 28– Apr 03	Quality of Research# 1 (Experimental design)	Pivik, J., McComas, J., MaCfarlane, I., & Laflamme, M. (2002). Using virtual reality to teach disability awareness. <i>Journal of Educational Computing Research</i> , 26(2), 203-218.	(\$2.F.8.a.)(\$2.F.8.b.) (\$2.F.8.c.)(\$2.F.8.d.) (\$2.F.8.e.)(\$2.F.8.f.) (\$2.F.8.g.)(\$2.F.8.h.) (\$2.F.8.i.)
Apr 03	Due 04/03	Research Proposal - Paper (30%) – Apr 03, 23:55pm	(\$2.F.8.a.)(\$2.F.8.b.) (\$2.F.8.c.)(\$2.F.8.d.) (\$2.F.8.e.)(\$2.F.8.f.) (\$2.F.8.g.)(\$2.F.8.h.) (\$2.F.8.i.)
WEEK 13 Apr 04 – Apr 10		Unit SPSS Video Tutorials / Unit Research Tutor	
Apr 10	Due 04/10	Statistics Assignment (10%)– 04/10,23:55pm	(S2.F.8.i.)
WEEK 14 Apr 11 – Apr 17	Quality of Research# 2 (Survey Research)	MacDonald, M. G. (2004). Teachers' knowledge of facts and myths about suicide. <i>Psychological reports</i> , <i>95</i> (2), 651-656.	(\$2.F.8.a.)(\$2.F.8.b.) (\$2.F.8.c.)(\$2.F.8.d.) (\$2.F.8.e.)(\$2.F.8.f.) (\$2.F.8.g.)(\$2.F.8.h.)
Apr 17	Due 04/17	Presentation (10%) – 04/17, 23:55pm Multiple choice Quiz Completion (15%) – 04/17, 23:55pm	(\$2.F.8.a.)(\$2.F.8.b.) (\$2.F.8.c.)(\$2.F.8.d.) (\$2.F.8.e.)(\$2.F.8.f.) (\$2.F.8.g.)(\$2.F.8.h.)

			(S2.F.8.i.)
WEEK 15	Quality of	Ethics and Human Subject Protection	
Apr 18 – Apr 24	Research	Certificate of completion Due April 24.	
Apr 25 – May 1		Finals week	