

COUN / PSYC 5301-110 RESEARCH METHODS (CRN 10312/10313)

Spring 2020

Texas A&M University-Central Texas

COURSE DATES, MODALITY, AND LOCATION

This course is a 100% online course and uses the [TAMUCT Canvas Learning Management System](https://tamuct.instructure.com) [https://tamuct.instructure.com]. The course is offered in the spring 2020 16-week semester, and the course date range spans January 13 through May 8, 2020 (inclusive). All course deadlines are based on the time zone of the physical location of the university, which is in the Central Standard Time (CST) zone, but Central Daylight Time (CDT) is observed in the summer.

INSTRUCTOR AND CONTACT INFORMATION

Instructor

Dr. Andria Schwegler

Office

WebEx, linked on left menu bar in the course

Phone

VoIP via WebEx; schedule an appointment to receive connection information

Email

Preferred email is through Canvas "Inbox" for course-related information. If correspondence is not related to the course, [contact the professor via TAMUCT email](mailto:schwegler@tamuct.edu) (schwegler@tamuct.edu).

Office Hours

The professor is available to meet with students via WebEx by appointment. Students should email the professor to schedule a time. Appointment times are very flexible, and frequent interaction with the instructor is highly encouraged.

Student-Instructor Interaction

The professor will logon to the course in Canvas every week day (Monday through Friday) and will reply to email within two business days.

If students have course-related questions, these should be posted in Study Hall (discussion board) instead of sending the professor an email/message. When posted in Study Hall, a classmate may be able to reply to questions faster than the professor, and all students will have access to the information.

Students are expected to logon to the course in Canvas daily to review and post assignments, read discussion boards, review Study Hall, check messages, etc.

The professor will provide feedback on assignments by marking grading rubrics and/or posting comments as needed in the Submission box or on attached documents. Students should review all assignments in the Grade Center when grades are posted to examine and apply the feedback on subsequent assignments.

Students can message the professor to schedule an appointment to talk via video-

teleconference when needed.

WARRIOR SHIELD

Emergency Warning System for Texas A&M University-Central Texas

Warrior Shield is an emergency notification service that gives Texas A&M University-Central Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media. All students are automatically enrolled in Warrior Shield through their myCT email account.

Connect to Warrior Shield by [911Cellular](https://portal.publicsafetycloud.net/Account/Login) [https://portal.publicsafetycloud.net/Account/Login] to change where you receive your alerts or to opt out. By staying enrolled in Warrior Shield, university officials can quickly pass on safety-related information, regardless of your location.

COURSE INFORMATION

Course Overview and Description

Study scientific methods of research, types of research and research design. Review, analyze and interpret research findings in major field and develop a research project with the assistance of the instructor. Prerequisite(s): COUN/PSYC 5300 or equivalent graduate statistics course.

Student Learning Outcomes

Course Learning Outcomes and Assessments

1. *Demonstrate comprehension and application of fundamental principles, generalizations, or theories regarding research methods.* Students will read and write about information regarding conducting research and types of research designs including research ethics, research hypotheses, validity, reliability, correlational research, survey research, experimental research, independent and repeated measures designs, and writing research proposals and reports. Students will demonstrate their ability to comprehend and apply these concepts on weekly discussions, human subjects in research training, ethical writing quiz, chapter quizzes, needs assessment/program evaluation activity, article summaries, research proposal assignments, proposal peer reviews, and the final exam. Students will also identify and summarize information learned in content area specialization courses to their research projects.
2. *Analyze and critically evaluate ideas, arguments, and points of view.* Students will respond to others' work (including that of peers and experts in the field) on research topics and substantiate their points of view with theory and research on weekly discussion posts and replies, the needs assessment/program evaluation activity, peer reviews of research proposals, article summaries, and the rationale to justify the research project. Students will also write research hypotheses that are supported by existing research on research proposal assignments.
3. *Integrate course material to improve thinking, problem solving, and decision making.* Students will apply the course material to authentic research contexts. Students will

develop and design a novel research proposal supported by existing empirical research to address a self-identified problem, issue, or gap in knowledge. In addition, students will demonstrate their ability to apply information from the course on the APA style quiz, needs assessment/program evaluation activity, IRB Protocol Form, and proposal peer reviews.

4. *Demonstrate skill in expressing oneself in writing.* Using appropriate APA style, students will write a variety of assignments including weekly discussion posts and replies, summaries of existing research, a series of assignments related to the research proposal in addition to the final, properly formatted research proposal manuscript, and final exam essays.

Standards for Clinical Mental Health Counseling and School Counseling

In accordance with CACREP best practices standards for all counselors-in-training development, the following areas will be promoted in this course:

Table 1 CACREP Standards

CACREP Standard Common Core for All Students	Activity	Assessments	SLOs
1. Importance of research in advancing the counseling profession, including how to critique research to inform counseling practice (IIF8a);	Assigned Readings Research for Proposal Peer Reviews	Article Summaries Research Proposal Peer Reviews Final Exam	1, 2, 4, 6
2. Identification of evidence-based counseling practices (IIF8b)	Assigned Readings Research for Proposal	Article Summaries Research Proposal	1, 2, 4
3. Needs assessments (IIF8c)	Assigned Readings Needs Assessment/Program Evaluation Activity	Needs Assessment/Program Evaluation Activity	5
4. Development of outcome measures for counseling programs (IIF8d)	Assigned Readings Needs Assessment/Program Evaluation Activity	Needs Assessment/Program Evaluation Activity	5
5. Evaluation of counseling interventions and programs (IIF8e)	Research for Proposal Needs Assessment/Program Evaluation Activity	Needs Assessment/Program Evaluation Activity	1, 5, 6

CACREP Standard Common Core for All Students	Activity	Assessments	SLOs
6. Qualitative, quantitative, and mixed research methods (IIF8f);	Assigned Readings Discussions	Chapter Quizzes Research Proposal Final Exam	4, 6
7. Designs used in research and program evaluation (IIF8g);	Assigned Readings Qualtrics Survey	Chapter Quizzes Research Proposal Final Exam	4, 6
8. Statistical methods used in conducting research and program evaluation (IIF8h);	Assigned Readings Discussions	Chapter Quizzes Discussion Research Proposal	4, 6
9. Basic concepts of analysis and use of data in counseling (IIF8i);	Discussions Research for Proposal	Discussion Research proposal	6
10. Ethical and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation (IIF8j)	CITI Training Ethical Writing Activities	CITI Certificate Ethical Writing Quiz IRB Protocol Form	3, 4
11. Multicultural competencies (IIF2c)	Discussions Research for Proposal	Discussions Research proposal	3, 6
12. Impact of heritage, attitudes, beliefs, understandings, and acculturative experiences on an individual's views of others (IIF2d).	Discussions Research for Proposal	Discussions Research proposal	3, 6
13. Basic concepts of standardized and non-standardized testing, norm-referenced and criterion-referenced assessments, and group and individual assessments. (IIF7f)	Assigned Readings	Chapter Quizzes Needs Assessment /Program Evaluation	1, 5

CACREP Standard Common Core for All Students	Activity	Assessments	SLOs
14. Reliability and validity in the use of assessment (IIF7h).	Assigned Readings Discussions	Chapter Quizzes Needs Assessment/Program Evaluation	1, 3, 5, 6

Table 2 CACREP Learning Outcomes

Student Learning Outcomes: Students will be able to...	Foundational Knowledge Required (CACREP Standards IIF8)	Assessment
1. Read, interpret, and evaluate empirical writing	a, b	Article Summaries Research Proposal Peer Reviews
2. Conduct a focused review of empirical literature	a, b	Article Summaries Research Proposal
3. Design an ethically appropriate research project appropriate for the scientific evaluation of human behavior	j	Research Proposal CITI Ethics Training IRB Protocol Form
4. Write a research proposal using professional language consistent with the guidelines presented in the <i>Publication Manual of the American Psychological Association</i>	a, b, f, g, h, j	Research Proposal Ethical Writing Quiz APA Style Quiz
5. Design tools for conducting needs assessments and program evaluations	c, d, e	Needs Assessment/Prog ram Evaluation Activity

Student Learning Outcomes: Students will be able to...	Foundational Knowledge Required (CACREP Standards IIF8)	Assessment
6. Identify how choices in research design impact the conclusions that can be drawn from the findings in a study	a, e, f, g, h	Research Proposal Final Exam Essays

Required Reading and Textbook(s)

- American Psychological Association. (2020). *Publication manual of the American psychological association* (7th ed.). Washington, DC: Author. (ISBN: 978-1-4338-3216-1)
- Gravetter, F. J., & Wallnau, L. B. (2017). *Statistics for the behavioral sciences* (10th ed.) Belmont, CA: Wadsworth. (ISBN: 978-1305504912) **OR** comparable textbook from PSYC 5300
- Stangor, C. (2015). *Research Methods for the Behavioral Sciences* (5th ed.). Stamford, CT: Cengage. (ISBN: 978-1-285-07702-4)

Research articles retrieved from the University library.

A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer (Sec. 51.9705).

COURSE REQUIREMENTS

Course Sequence of Instruction

This course is organized into weekly learning modules (on the “Modules” link on the left menu bar). Each module requires students to perform the following actions. Complete these actions in the following order for each module.

- 1) When first logging on to Canvas, read the module learning objectives for each module before completing any course assignments.**
 - a. The learning objectives for each module should serve to direct students’ attention to important course content and describe the alignment between learning outcomes, assignments, and assessments of the learning outcomes.
- 2) Participate in Study Hall by posting and responding to questions at any time as you study** (on the “Discussions” tab on the left menu bar).
 - a. In the spirit of student-led study groups, the professor created a virtual space for informal, student-to-student (and student-to-professor) communication concerning matters related to this class. All questions related to the academic

content of this class should be asked in Study Hall. Students are expected to respond to their classmates' questions/comments with helpful explanations. Students who can answer a posted question or provide assistance should not wait for the professor to respond. Student led discussion of academic content is expected in Study Hall just as it is in the Concept Application Discussion forums; however, the professor will monitor Study Hall and will respond to any post that is not adequately addressed by peers (e.g., posts that are unanswered, posts that include inaccurate information, etc.). While students should provide accurate information in their posts, Study Hall posts are ungraded and present a low threat way of interacting with classmates to help each other learn.

- b. Study Hall is designed to bring students together for mutual support and problem solving in a low threat environment. In addition, this online environment allows your personal information to remain private; you do not have to share personal emails or phone numbers with classmates.
 - c. To use Study Hall effectively, students should check the forum each time they log on to the class and perform the following actions:
 - i. Ask for explanations by creating a new thread in the Study Hall forum. It is acceptable to ask for assistance on any topic in the course **except specific items that are graded** (e.g., questions on exams).
 1. Please note: There are NO graded group projects in this class. All graded assignments must be completed individually with no assistance from classmates, tutors, or other people. **While learning is not a solo endeavor, assessment is!** If you cannot understand this distinction or if you are unsure what acts constitute academic dishonesty, ask the professor before engaging in the behavior.
 - ii. Offer explanations to other students by replying to a question thread.
 - iii. Read old Q&A threads as a study tool and reference. Peer explanations are another source of examples and clarifications in addition to your textbook, readings, and your communications with the professor.
 - iv. Network! Don't lose sight of the fact that your classmates are (or will soon be) your colleagues in your profession. Establish professional contacts now that you can rely upon later.
 - d. Students should know that Study Hall is a public forum, and all students in the course can access and read all postings; therefore, **private information should not be discussed in Study Hall** (e.g., personal problems or events, confidential information including grades and disability accommodations, and other issues that should be kept between the student and professor only). If students have a personal or confidential topic to discuss, the student should send an email addressed to the professor only via the Inbox tool.
- 3) **Read/work through the assigned chapter(s) in the Stangor and APA Manual textbooks.** These texts provide the primary content for the course. They introduce students to specific research designs, issues to consider when conducting research, and APA style.

Follow the steps below when beginning each chapter. (For more information on this technique, search “SQ3R” on the web.)

- a. **Survey** – Before reading, spend 2 minutes flipping through the pages of the chapter to get a general idea of the chapter content. During this time, read only titles, headings, subheadings, and captions for pictures, tables, graphs, etc. for the entire chapter.
 - b. **Question** – Next, go back to the beginning of the chapter and flip through it again, turning the title, headings, and subheadings into questions. Guess a plausible answer to each question. Finally, review the section at the beginning of each chapter and consider responses to these questions. Review previous chapters before reading the new chapter, if needed.
 - c. **Read** – Go back to the beginning of the chapter and start reading. Slow down your speed for difficult passages, reread captions for graphs and tables as you encounter them, reread sections that are unclear, and read only a section at a time.
 - d. **Recite** – At the end of each section, stop reading and go back to take notes from the text, writing them in your own words. Do not copy notes verbatim from the text. Use the publisher provided PowerPoint slides to organize the notes you take from each chapter if desired. **The material in this class is cumulative, and you will be expected to apply it, not merely remember it.** As such, you must understand the rationale for techniques as you encounter them because this information will be applied to developing your research proposal as the course progresses.
 - e. **Review** – After reading the text and taking notes, close the book to check yourself regarding how much you can remember. Restate as much content as you can in your own words. To verify that you can remember information from each section, open the text and review only the section headings. Explain the concepts out loud to yourself in that section. Reread and explain any concepts you cannot remember without prompts.
- 4) Use the PowerPoint (PPT) slides for each chapter to take notes from the Stangor text.**
- a. See the ‘Recite’ section of the SQ3R method above for taking notes as you read the text. The use of these slides is optional. Some students prefer to take notes on the slides; others prefer to use only the text. Use the technique that works best for you.
- 5) Make an appointment for virtual office hours (synchronous communication) or email the professor (asynchronous communication) for assistance when needed.**
- a. The professor will log on to the class daily on weekdays (Monday through Friday), unless otherwise announced. The professor will respond as quickly as possible to emails, usually within two business days. All course-related email should be conducted through the “Inbox” tool linked on the left menu bar.
 - b. In addition, the professor will hold synchronous, online office hours as requested by appointment using WebEx. During these office hours, students may log on and interact with the professor in real time. Students will need a headset with

microphone (or speakers and a microphone) to use this option on their computers, or students can dial into the session on their phones. If using a computer, students should use a headset if possible when speaking in the environment to reduce echo and feedback, and students should use a wired (not wireless) internet connection. WebEx is linked on the left menu bar in class.

6) Write the Concept Discussion for each module.

- a. Concepts that are critical to grasp or are typically challenging for students are identified in the Concept Application Discussion prompts. Students are to select any concept of their choice and write an explanatory paragraph about it. Each paragraph should be between 8-12 sentences, should be well-organized, and should fully explain the concept.
- b. Classmates will read and discuss concept explanations in the discussion forums in class after initial posts are submitted. Students should write and review those concepts they find most challenging to get the most learning benefit from the assignment.
- c. Initial posts are due by the end of the day on Thursdays (i.e., 11:59pm CST) prior to the close each Module. Replies to initial posts are due with the remaining assignments on Mondays by 8:00am CST.

7) Take the Chapter Quiz for each module.

- a. A timed multiple choice quiz will accompany each chapter. Complete the quiz only after reading the chapter thoroughly, taking notes, and reviewing the content. Quizzes are available in each Module.

8) Review and complete research process assignments.

- a. Throughout the semester, students will complete activities that underlie the research process. In addition to the chapter quizzes, students will review information pertaining to ethical writing and take a quiz over that content. Students are expected to uphold ethical writing standards in every assignment submitted for the course. Students will also take an APA style quiz on the material presented in the APA Manual and are expected to use correct APA style on all assignments submitted for the course.
- b. To gain exposure to the research process, students will complete CITI training for the protection of human research participants, and students will complete an IRB Protocol Form for their proposals. These forms will NOT be submitted to the IRB.
- c. Students will also perform a needs assessment or program evaluation activity to apply the skills they gain from the course content.

9) Research and write research proposal assignments.

- a. Students will complete a series of writing assignments throughout the semester to develop a research proposal, and students should be actively researching and writing these assignments in every module in the course. Students will engage in all steps of the research process from initial idea development through submission of a full research proposal. Students will not collect data for their projects but will complete the course poised to do so if they desire in future

work provided they obtain IRB review and approval. Any students who are interested in continuing to work on their research should notify the professor for additional information and sponsorship.

10) Comprehensively review course content and take the comprehensive final exam.

- a. The final step of study will be completing a comprehensive final exam. Once the exam is started, it must be completed in the same session. The material in this course is cumulative, and as such, all course content covered prior to the exam is testable material.
- b. When completing the exam, students should use a hardwired internet connection, NOT a wireless connection.**
- c. Links to the exam are available in Canvas on the “Modules” tab.

Course Assignments

Concept Discussions (14.0% of Overall Course Grade) (10 points each, 14 assignments due). Active online participation in diverse learning activities that are delivered throughout the learning process is expected in this course. One of these activities is the class-wide, concept discussion forums. Students are expected to write an explanation (approximately one page, double-spaced, 12 point font) of one of the critical concept prompts or activities provided by the professor in the **student’s own words** (quoting or closely paraphrasing from any source will not receive credit), and submit the explanation of the concept each week in the corresponding module’s discussion forum in Canvas. The professor identified concepts and learning activities in each module that are critical for students to understand. Researching the topic, writing, reading others’ posts, and discussing these concepts will help students recognize and clarify their understanding of concepts as they progress through the course. In addition to including information from the course textbook, students should research reputable information on the internet to include in the discussion to extend explanation of the concepts for classmates. The following rubric will be used to grade discussion forum participation and concept explanations.

Post Content:

0 = no post; or post is not explicitly related to an assigned prompt

1 = concept is stated in post; relevant terms are not defined; concept is not explained

2 = concept is stated in post and relevant terms are defined but a clear explanation of the concept is missing; or concept is stated in post and a clear explanation of the concept is provided but relevant terms are not defined

3 = concept is stated in post; relevant terms are defined; a clear explanation of the concept is provided; and reputable information that extends the discussion in the textbook is summarized and cited

4 = concept is stated in post; relevant terms are defined; a clear explanation of the concept is provided; reputable information that extends the discussion in the textbook is summarized and cited; and illustrative examples or applications of

the concept are provided

Reply Content (two required):

0 = no reply; reply merely states agreement with post content or indicates “good job;” reply contains inaccurate information

1 = reply merely restates content of the original post but adds no new information

2 = reply adds new information and extends the consideration of the concept beyond what has already been posted

Writing Standards (Post and Replies):

0 = no post; several writing and usage errors interfere with comprehension of the explanation

1 = some grammatical errors distract the reader and slow comprehension of the explanation

2 = few grammatical errors if any; errors do not interfere with comprehension or distract reader

Chapter Quizzes (14% of Overall Course Grade) (14 quizzes worth 10 points each).

Quizzes covering content from the assigned chapters in the Stangor text will be given at regular intervals during the semester (see Course Calendar for dates and chapters). Quizzes will consist of questions in multiple-choice format, and questions will be drawn from textbook readings, PowerPoint information, and class activities and projects. These exams are timed and must be completed independently in the same session they are begun. Students may not seek assistance from other students on quizzes. Direct all questions to the professor.

Research Process Assignments (23% of Overall Course Grade) (40 points each, 5 assignments due; 10 points each, 3 assignments due).

Students will engage in assignments that provide instruction on the foundation underlying research. Students will review ethical writing materials and take a quiz on the information in addition to using it in all writing assignments. Students will read and study the APA Manual and take a quiz on the information in addition to using it in all writing assignments. Students will complete CITI training regarding the use of human participants in research, and students will complete an IRB Protocol Form for their research proposals based on the information learned from CITI training. Students will experience the peer review process both as a reviewee and reviewer by providing a peer review of at least 3 peers’ proposals. At the end of the semester, students will apply information obtained in the course to develop a needs assessment or program evaluation activity.

Research Article Summaries (12.0% of Overall Course Grade) (30 points each, 4 assignments due).

Students will read first-hand reports of empirical research on their research proposal topics that are published in peer-reviewed journals. In addition to discussing this research on other assignments, students will submit summaries of these articles that include a critical analysis of the content. Students should upload a copy of

the original research article with each article summary assignment. Each Research Article Analysis will be grading using the following rubric.

Introductory Paragraph of Article Summary

Thesis statement for article summary explains the purpose of the research

0 = none present, or thesis statement does not explain purpose of research summarized

1 = thesis statement explains the purpose of the research without referring to the summary assignment itself; thesis statement focuses on importance of variables not on fact of writing a summary

Explanation of the variables in the research [i.e., independent variable (IV) being manipulated and dependent variable (DV) being measured]

0 = none present, or variables are not correctly identified

2 = at least one variable is accurately identified and explained

3 = all variables (independent and dependent) are correctly identified and explained

Statement of Research Questions/Hypotheses

0 = no description of research questions/hypotheses addressed in the summary

1 = description of research questions/hypotheses addressed in the summary

Summary of Introduction

0 = no description of background research is addressed in the summary

2 = description of background research includes some relevant information to justify study but omits important information

3 = description of background research includes necessary information to justify study (e.g., rationale explains how research contributes new information to the area, rationale clarifies why replication is important)

Summary of Method

Description of participants

0 = no description of research participants

1 = description of participants omits relevant characteristics (e.g., *n*, age, experience)

2 = description of participants includes all relevant characteristics

Description of procedure

0 = no description of procedure or research design

1 = description of procedure omits relevant characteristics (e.g., missing measure or step)

2 = description of procedure includes all relevant characteristics

Description of assessments

0 = no description of assessments or how data was recorded to use for analysis

1 = description of assessments includes all relevant characteristics

Summary of Results

Description of how the data were used to test hypotheses

0 = no description of analyses, or names of statistical tests replace description of analyses

2 = description of analyses includes some relevant information but omits relevant characteristics (e.g., tests of group means are not related to study manipulations/groups)

3 = description of analyses includes all relevant information

Explanation of how the observed data relates to the research questions/hypotheses

0 = no explanation of outcomes, or output of statistical tests replace explanation of outcomes

2 = description of observed outcomes includes some relevant information but omits relevant characteristics (e.g., statistically significant results are not distinguished from nonsignificant ones)

3 = description of observed outcomes includes all relevant information

Summary of Discussion

Explanation of conclusions

0 = no description of conclusions/generalizations of research

2 = description of conclusions includes some relevant information but omits relevant characteristics or makes overstated claims

3 = description of conclusions includes all relevant information

Limitations of study

0 = no description of limitations regarding research design or generalizability

1 = description of limitations includes some relevant information but omits relevant characteristics (e.g., important cautions are ignored)

2 = description of limitations includes all relevant information

Independent Critical Analysis of Research

0 = no independent suggestions, or description restates authors' analysis

2 = novel description of study flaws or design improvements are present but are simplistic (e.g., suggests replication on a different sample) but suggestions do not address a documented gap in knowledge

3 = novel suggestions extend beyond the authors' analysis and contribute to increasing knowledge in the area (e.g., identification of flaws, suggestions for improvement that are linked to theory)

Independent Synthesis of Research with Existing Literature

0 = no integration, or summary is not correctly placed in broader context of the field

2 = novel suggestions link the summary to the broader research context in the field but are not fully described

3 = novel suggestions extend beyond the author(s)' integration and contribute to improving knowledge in the area

APA Style Citation

0 = none present or does not conform to APA style

1 = citation is present and includes all information in proper APA style

Proposal for a Research Project (30.0% of Overall Course Grade). In addition to research article summaries, students will submit several cumulative assignments as they develop a proposal for an empirical research project including a description of their topic ideas (10 points), the proposal research question description (40 points), an outline of the entire proposal (40 points), a critical review and reflection on the proposal outline (40 points), a draft of the full proposal (70 points), and a fully revised written manuscript of the research proposal (100 points). Each assignment will help students create explanations that should be integrated into the final manuscript. All feedback from the professor must be integrated into the final paper.

Comprehensive Final Examination (7.0% of Overall Course Grade) (70 points each, 1 assignment due). A comprehensive final examination that includes all content discussed in the course will be given during final exam week. Students may use textbooks, notes, and other resources they have created when completing the exam. However, all exams must be completed independently. Direct all questions to the professor of the course. **Students should use a hard wired internet connection when taking any exam in Canvas.** Wireless connections “blink,” and when they do, students will be logged out of the exam and not permitted to resume. If using a laptop, turn off the wireless switch. Computers should be physically plugged into the internet port on the wall with an internet cable for exams.

Grading Criteria Rubric and Conversion

Table 3 Assignments and Point Values

<u>Assignment</u>	<u>Number Due</u>	<u>Points Each</u>	<u>Points Total</u>	<u>Percentage</u>
Concept Discussions	14	10	140	14.0
Chapter Quizzes	14	10	140	14.0
Ethical Writing Quiz	1	40	40	4.0
APA Style Quiz	1	40	40	4.0
CITI Training Certificate	1	40	40	4.0
Article Summaries	4	30	120	12.0
Proposal Topic	1	10	10	1.0
Proposal Research Question	1	40	40	4.0
Proposal Outline	1	40	40	4.0
Proposal Outline Reflection	1	40	40	4.0
Proposal Draft	1	70	70	7.0
Proposal Final Version	1	100	100	10.0

<u>Assignment</u>	<u>Number Due</u>	<u>Points</u> <u>Each</u>	<u>Points Total</u>	<u>Percentage</u>
Peer Review of Proposals	3	10	30	3.0
IRB Protocol Form	1	40	40	4.0
Needs Assessment/Program Eval	1	40	40	4.0
Comprehensive Final Exam	1	70	<u>70</u>	<u>7.0</u>
			1000	100%

Posting of Grades

Grading Scale:

Grades are not 'given' in this course; they are earned. Students earn grades by actively utilizing course content to learn the material and by demonstrating their grasp of subject-matter content on written assignments and exams. Grades are determined based on the percentage of points earned on each assignment and the assignment's weight toward the overall course grade.

Table 4 Grades

<u>Grade</u>	<u>University Definition</u>	<u>Percentage</u>
A	Excellent	90-100
B	Good	80-89
C	Fair	70-79
D	Not Passing	60-69
F	Failing	59 or below

Grade Posting:

All students' grades will be posted in the Canvas Grade Center after the assignment due date has passed. On the writing assignments, the professor will begin reading, grading, and recording grades on the Monday they are due and will have all grades posted within one week. Students should regularly monitor their grades in the Canvas Grade Center, and *students should not hesitate to ask the professor about any grade or concern.*

Grading Policies

Students are responsible for meeting the course requirements as scheduled for each module in the course calendar. **Assignments submitted after the due date will not be credited.** Students who are excused from coursework due to medical issues or military training must provide a written excuse documenting the dates of the absence, which must coincide with the work to be made up, provided by physicians, military supervisors, or law enforcement officers.

All assignments must be written in a student's own words. No credit will be awarded for quoted or plagiarized material on any assignment. **Quoting or paraphrasing that closely mirrors the source (textbook or other reference material) will receive no credit even if properly cited.**

Students must write original sentences conveying the information they have learned to the reader (i.e., paraphrasing) and properly cite the source of the information to receive credit for writing.

All assignments should be written in proper APA style. Students must follow the APA style guidelines provided in the *Publication Manual* and use online style resources provided by the [American Psychological Association](http://www.apastyle.org) at www.apastyle.org

COURSE OUTLINE AND CALENDAR

Table 5 Course Outline and Calendar

Week	Module	Instructional Activities	Assignments Due
January 9 (12:30pm) through January 12 (12:30am)	Getting Started (Complete before the semester begins.)	Log on to Canvas Establish library access from home Create a quiet study environment Resolve all computer difficulties Find 2 'back-up' computers w/internet	All assignments are due by 8:00am CST on Mondays except for initial discussion posts which are due by the end of the day on Thursdays (i.e., 11:59pm CST) prior to the close of the Module.
January 13 (12:30am) through January 20 (8:00am)	Module 1: Introduction to Research	Read Stangor Chapter 1 Write Concept Discussion Research and Write Proposal Topic Read APA Chapter 1	Chapter 1 Quiz Concept Discussion Proposal Topic
January 17 (12:30am) through January 27 (8:00am)	Module 2: Developing the Research Hypothesis	Read Stangor Chapter 2 Write Concept Discussion Read Ethical Writing Articles Read APA Chapter 8	Chapter 2 Quiz Concept Discussion Ethical Writing Quiz
January 24 (12:30am) through February 3 (8:00am)	Module 3: Ethics in Research	Read Stangor Chapter 3 Write Concept Discussion Complete CITI Training Research Proposal Topic Read APA Chapter 5	Chapter 3 Quiz Concept Discussion CITI Certificate
January 31 (12:30am) through February 10 (8:00am)	Module 4: Measures	Read Stangor Chapter 4 Write Concept Discussion Research Proposal Topic Write Article Summary 2	Chapter 4 Quiz Concept Discussion Article Summary 1
February 7 (12:30am) through February 17 (8:00am)	Module 5: Reliability and Validity	Read Stangor Chapter 5 Write Concept Discussion Write Proposal Research Question Read APA Chapter 3	Chapter 5 Quiz Concept Discussion Proposal Research Question
February 14 (12:30am) through February 24 (8:00am)	Module 6: Surveys and Sampling	Read Stangor Chapter 6 Write Concept Discussion Write Article Summary 2 Read APA Chapter 4	Chapter 6 Quiz Concept Discussion Article Summary 2

Week	Module	Instructional Activities	Assignments Due
February 21 (12:30am) through March 2 (8:00am)	Module 7: Naturalistic Methods	Read Stangor Chapter 7 Write Concept Discussion Write Article Summary 3 Read APA Chapter 6	Chapter 7 Quiz Concept Discussion Article Summary 3
February 28 (12:30am) through March 9 (8:00am)	Module 8: Hypothesis Testing and Inferential Statistics	Read Stangor Chapter 8 Write Concept Discussion Write Article Summary 4 Read APA Chapter 7	Chapter 8 Quiz Concept Discussion Article Summary 4
March 9 through March 13	SPRING BREAK		
March 13 (12:30am) through March 23 (8:00am)	Module 9: Correlational Research Designs	Read Stangor Chapter 9 Write Concept Discussion Read APA Chapter 9, 10, 11	Chapter 9 Quiz Concept Discussion APA Quiz
March 20 (12:30am) through March 30 (8:00am) Graduation Application for Ceremony Participation Deadline March 27	Module 10: Experimental Research: One-Way Designs	Read Stangor Chapter 10 Write Concept Discussion Read Stangor Appendix A Write Proposal Outline	Chapter 10 Quiz Concept Discussion Proposal Outline
March 27 (12:30am) through April 6 (8:00am)	Module 11: Experimental Research: Factorial Designs	Read Stangor Chapter 11 Write Concept Discussion Critically review proposal outline	Chapter 11 Quiz Concept Discussion Proposal Outline Critical Reflection
April 3 (12:30am) through April 13 (8:00am)	Module 12: Experimental Control and Internal Validity	Read Stangor Chapter 12 Write Concept Discussion Write full draft of proposal	Chapter 12 Quiz Concept Discussion Draft of Proposal
April 10 (12:30am) through April 20 (8:00am)	Module 13: External Validity	Read Stangor Chapter 13 Write Concept Discussion Create Needs Assessment and Program Evaluation	Chapter 13 Quiz Concept Discussion Needs Assessment / Program Evaluation

Week	Module	Instructional Activities	Assignments Due
April 17 (12:30am) through April 27 (8:00am)	Module 14: Quasi-Experimental Research Designs	Read Stangor Chapter 14 Write Concept Discussion Revise Proposal Based on Feedback	Chapter 14 Quiz Concept Discussion Final Proposal
April 4 (12:30am) through May 4 (8:00am)	Module 15: Permission, Peer Review, and Publication	Read TAMUCT IRB Handbook Complete Peer Review of Proposals Read APA Chapter 12 Review Course Material	IRB Protocol Form Peer Review of Proposals
May 4 (8:00am) through May 8 (11:59pm)	Module 16: Final Exam	Take Comprehensive Final Exam (Chapters 1-14)	Comprehensive Final Exam

The professor reserves the right to amend this syllabus at any time. If revisions are necessary, the professor will make every effort to provide as much advanced notice as possible.

Important [University Dates](https://www.tamuct.edu/registrar/academic-calendar.html): <https://www.tamuct.edu/registrar/academic-calendar.html>

TECHNOLOGY REQUIREMENTS AND SUPPORT

Technology Requirements

Students must be able to perform basic computer skills such as access the internet; log on to websites that require usernames and passwords; navigate tabs and links on web pages; open and send emails; create and send attachments; download and view attachments including Microsoft Word documents and PowerPoint slideshows; open and view streaming video; input and save information entered into online questionnaires; create, save, and upload files in widely-accessible formats (e.g., .rtf, .pdf, or .docx); copy, paste, and insert textboxes onto documents, and create folders on personal computers to organize and save completed work. Students will need reliable and frequent access to a computer and to the Internet. Students will also need a headset with a microphone (or speakers and a microphone) to listen to online resources and conduct other activities in the course.

This course will use the A&M-Central Texas Instructure Canvas learning management system. Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com/>] or access Canvas through the TAMUCT Online link in myCT [<https://tamuct.onecampus.com/>]. You will log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password

Canvas Support

Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select “Chat with Canvas Support,” submit a support request through “Report a Problem,” or call the Canvas support line: 1-844-757-0953.

For issues related to course content and requirements, contact your instructor.

Other Technology Support

For log-in problems, students should contact Help Desk Central.

24 hours a day, 7 days a week:

Email: helpdesk@tamu.edu

Phone: (254) 519-5466

[Web Chat](http://hdc.tamu.edu): [<http://hdc.tamu.edu>]

Please let the support technician know you are an A&M-Central Texas student.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Drop Policy

If you discover that you need to drop this class, you must complete a [Drop Request Form](https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf) [https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf].

Professors cannot drop students; this is always the responsibility of the student. The Registrar’s Office will provide a deadline on the Academic Calendar for which the form must be completed, signed and returned. Once you return the signed form to the Registrar’s Office, you must go

into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar's Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

Academic Integrity

Texas A&M University -Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Academic integrity is defined as a commitment to honesty, trust, fairness, respect, and responsibility. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. Academic misconduct is any act that improperly affects a true and honest evaluation of a student's academic performance and includes, but is not limited to, cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student's work, collusion, and the abuse of resource materials. All academic misconduct concerns will be reported to the university's Office of Student Conduct. Ignorance of the university's standards and expectations is never an excuse to act with a lack of integrity. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more [information regarding the Student Conduct process](https://tamuct.campuslabs.com/engage/organization/tamuct-student-conduct-panel),
[https://tamuct.campuslabs.com/engage/organization/tamuct-student-conduct-panel].
If you know of potential honor violations by other students, you may [submit a report](https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0),
[https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0].

Academic Accommodations

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Office of Access and Inclusion is responsible for ensuring that students with a disability receive equal access to the university's programs, services and activities. If you believe you have a disability requiring reasonable accommodations please contact the Office of Access and Inclusion, WH-212; or call (254) 501-5836. Any information you provide is private and confidential and will be treated as such.

For more information please visit our [Access & Inclusion](https://www.tamuct.edu/student-affairs/access-inclusion.html) web page
[https://www.tamuct.edu/student-affairs/access-inclusion.html].

Important information for Pregnant and/or Parenting Students

Texas A&M University-Central Texas supports students who are pregnant and/or parenting. In accordance with requirements of Title IX and related guidance from US Department of

Education's Office of Civil Rights, the Dean of Student Affairs' Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit the [Student Affairs](https://www.tamuct.edu/student-affairs/index.html) web page [https://www.tamuct.edu/student-affairs/index.html]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these [requirements and guidelines online](http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf), please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex and gender—including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Associate Dean in the Division of Student Affairs at (254) 501-5909 to seek out assistance. Students may also contact the University's Title IX Coordinator.

Tutoring

Tutoring is available to all A&M-Central Texas students, both on-campus and online. Subjects tutored on campus include Accounting, Advanced Math, Biology, Finance, Statistics, Mathematics, and Study Skills. Tutors are available at the Tutoring Center in Warrior Hall, Suite 111.

If you have a question regarding tutor schedules, need to schedule a tutoring session, are interested in becoming a tutor, or have any other question, contact Academic Support Programs at (254) 501-5836, visit the Office of Student Success at 212F Warrior Hall, or email studentsuccess@tamuct.edu .

Chat live with a tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive FREE online tutoring and writing support. This tool provides tutoring in over 40 subject areas. Access Tutor.com through Canvas.

University Writing Center

Located in Warrior Hall 416, the University Writing Center (UWC) at Texas A&M University—Central Texas (TAMUCT) is a free workspace open to all TAMUCT students from 10:00 a.m.-5:00 p.m. Monday thru Thursday with satellite hours in the University Library Monday thru Thursday from 6:00-9:00 p.m. This semester, the UWC is also offering online only hours from 12:00-3:00 p.m. on Saturdays.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance

and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-on-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours (both half-hour and hour sessions are available) or by making an appointment via [WCOOnline](#). In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC and/or need any assistance with scheduling.

University Library

The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 250,000 eBooks and 82,000 journals, in addition to the 85,000 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place on Skype or in-person at the library. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our [Library website](#) [<http://tamuct.libguides.com/index>].

Sexual Violence at A&M-Central Texas

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit the [Title IX webpage](https://www.tamuct.edu/departments/compliance/titleix.php) [https://www.tamuct.edu/departments/compliance/titleix.php].

INSTRUCTOR POLICIES

Course Calendar

Carefully examine the Course Calendar. Note that each Module will be available to students for 10 days with the exception of Module 1, which opens on the first day of the semester. Each Module (except Module 1) opens on a Friday at 12:30am CST, and Module assignments are due 10 days later on Monday morning by 8:00am CST. Students should have all assignments submitted for each Module well before the deadlines. **No assignments will be accepted for credit after the deadline without a written excuse documenting the dates of the absence, which must coincide with the work to be made up, provided by physicians, military supervisors, or law enforcement officers (late work policy, make up policy).**

When planning study time, students should realize that the upcoming Module opens before the current Module closes, so a portion of the 10 days that each Module is available overlaps with another Module. Students should plan accordingly and realize they do not have 10 days to devote to each Module exclusively. However, a 10-day period of availability, instead of a one-week period, allows students greater flexibility to plan their coursework and still complete their assignments on time should an unexpected emergency arise.

Students should also realize that the professor will not be available on the weekends to answer questions. Therefore, students should not plan to complete and submit work on the weekend before it is due. Instead, students should begin each Module the first weekend it opens so that students can seek the professor's assistance during the week and submit accurate assignments well before the deadline.

Recommended Academic Strategies

1. Complete the 'Getting Started' tasks on the course calendar before the first day of class. Students should have two 'back-up' computers located before the course begins so they can concentrate on completing coursework even in the event of technical difficulties.
2. Be realistic about the time you must devote to the course. You should set aside a **minimum of 9 hours each week for the next 16 weeks to devote to this course.**
 - a. According to the federal definition of a credit hour and our [accreditation requirements](http://www.sacscoc.org/subchg/policy/CreditHours.pdf), students should spend "not less than one hour of classroom or direct faculty instruction and a minimum of two hours out of class...for one semester hour of credit" (http://www.sacscoc.org/subchg/policy/CreditHours.pdf). Because this is a

3-credit hour class, students should be spending at least 9 hours on coursework per week. Bear in mind that this guideline is for an average class. Many students find research methods to be a difficult course, so you may require *significantly more time* to grasp the concepts and complete the assignments.

- b. We know from research that spaced practice is better than massed practice when learning new information. Thus, spending 2 hours a day for 5 days a week on coursework is better for your learning and your grade than ‘pulling an all-nighter.’ Adjust your schedule accordingly.
 - c. Begin each module the day it opens. The course requirements are too time-demanding and labor-intensive to wait until the last day assignments are due to begin work.
3. Follow the sequence of instruction. Gaining a full, independent understanding of the content is absolutely critical in an online course, and the sequence of instruction provides diverse activities based on sound educational practice to meet this goal.
 4. Pay attention to the percentage of your grade each assignment is worth. Simply doing well on the exams will not allow you to pass the course. Students must submit all assignments every week to do well in the course.
 5. Complete and submit course assignments on time. Extensions for coursework will not be granted. Find at least two ‘back-up’ computers with internet access if your primary computer “crashes” or you have connection difficulties. Save your work often and on multiple media (e.g., hard drive, jump drive), so you do not lose your work.
 6. Stay focused. Just as in a face-to-face class, reduce as many distractions as possible when working on course assignments. Turn off all electronic devices such as cell phones, music players, gaming equipment, etc. Postpone business not related to the course until you have completed your assignments for the day.
 7. Keep me informed. At the first sign of confusion or difficulty, request assistance in Study Hall. Unless I hear from you, I will not know how to help you.
 8. Be professional and use proper netiquette (i.e., internet etiquette).
 - a. Use standard English in all of your communications, and write all correspondence in complete sentences. Do not abbreviate or use texting shortcuts (e.g., OMG! R U kidding. ROFL!). Spell check, proofread, and revise your messages before sending them.
 - b. Be polite and respectful of others. Do not use all UPPERCASE LETTERS, which is equivalent to shouting. Avoid sarcasm and irony because they are easily misinterpreted by the reader. Do not ‘flame’ others by sending negative or hurtful comments; though the reader cannot see you, you are not anonymous.
 - c. Remember that you are individually accountable for all your messages and online actions. Treat Study Hall and your interactions with others in class as you would in your professional career.

Copyright Notice

Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas' Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.

Clinical Mental Health Counseling Program Student Learning Outcomes Rubrics

Table 6 CMHC Article Summary Rubric

Article Summary (SLO1 Competence)	None	Some	Basic	Above Average	Superior
Importance of research in advancing the counseling profession, including how to critique research to inform counseling practice (IIF8a);					
Identification of evidence-based counseling practices (IIF8b)					

Table 7 CMHC Research Proposal Rubric

Research Proposal (SLOs 2, 3, 4, & 6 Competence)	None	Some	Basic	Above Average	Superior
Importance of research in advancing the counseling profession, including how to critique research to inform counseling practice (IIF8a);					
Identification of evidence-based counseling practices (IIF8b)					
Qualitative, quantitative, and mixed research methods(IIF8f);					
Designs used in research and program evaluation (IIF8g);					
Statistical methods used in conducting research and program evaluation (IIF8h);					

Research Proposal (SLOs 2, 3, 4, & 6 Competence)	None	Some	Basic	Above Average	Superior
Basic concepts of analysis and use of data in counseling (IIF8i);					
Multicultural competencies (IIF2c)					
Impact of heritage, attitudes, beliefs, understandings, and acculturative experiences on an individual's views of others (IIF2d).					

Table 8 CMHC Needs Assessment Rubric

Needs Assessment (SLO5 Competence)	None	Some	Basic	Above Average	Superior
Needs assessments (IIF8c)					
Development of outcome measures for counseling programs (IIF8d)					
Evaluation of counseling interventions and programs (IIF8e)					
Basic concepts of standardized and non-standardized testing, norm-referenced and criterion-referenced assessments, and group and individual assessments. (IIF7f)					
Reliability and validity in the use of assessment (IIF7h).					

CACREP Key Performance Indicator (for CMHC students only)

Students will demonstrate an understanding of the importance of research in advancing the counseling profession, including how to critique research to inform counseling practice, how to conduct a focused review of empirical literature, and how to design an ethically appropriate research project appropriate for the scientific evaluation of human behavior (CACREP Standard IIF8).

1 – No Competence - Candidate has no ability to demonstrate an understanding of the of importance of research in advancing the counseling profession, including how to critique research to inform counseling practice, how to conduct a focused review of empirical literature, and how to design an ethically appropriate research project appropriate for the scientific evaluation of human behavior.

2 – Some Competence - Candidate has limited ability to demonstrate an understanding of the of importance of research in advancing the counseling profession, including how to critique research to inform counseling practice, how to conduct a focused review of empirical literature, and how to design an ethically appropriate research project appropriate for the scientific evaluation of human behavior.

3 – Basic Competence - Candidate has basic ability to demonstrate an understanding of the of importance of research in advancing the counseling profession, including how to critique research to inform counseling practice, how to conduct a focused review of empirical literature, and how to design an ethically appropriate research project appropriate for the scientific evaluation of human behavior.

4 – Above Average Competence - Candidate has above average ability to demonstrate an understanding of the of importance of research in advancing the counseling profession, including how to critique research to inform counseling practice, how to conduct a focused review of empirical literature, and how to design an ethically appropriate research project appropriate for the scientific evaluation of human behavior.

5 – Superior Level Competence - Candidate has superior ability to demonstrate an understanding of the of importance of research in advancing the counseling profession, including how to critique research to inform counseling practice, how to conduct a focused review of empirical literature, and how to design an ethically appropriate research project appropriate for the scientific evaluation of human behavior.