



Statistics and Research for Health Science and Human Service Professionals

The University of Toledo
College of Health and Human Services
HSHS 6000-041
CRN: 38003
3 CR HRS

Instructor: Rachel Jacoby, PhD, LPCC-S, NCC, CFLE, CTP

Office Hours: By appointment

Office Location: Zoom Office see BB

Office Phone: 419-740-1027

Email: Rachel.Jacoby2@rockets.utoledo.edu

Term: Summer 2021

Class Location: Health Sciences and Human Services Building 2300

Time: Mondays, 4:00 - 7:40p

COURSE/CATALOG DESCRIPTION

An interdisciplinary course covering basic statistics and related research design with specific applications in various health science and human service professions. This course will consider issues and problems related to counseling research and program evaluation. Students will be expected to critique existing counseling research. Material covered in this seminar should provide the student with the skills necessary to be a competent consumer as well as producer of research. Students will gain skills in the preparation of research problems, design and implementation of quantitative and qualitative research and methodology in the fields of counseling.

COURSE OVERVIEW

Student Learning Outcomes	CACREP (2016) Standard	Evidence	Method of Assessment
Students will understand the importance of research in advancing the counseling profession, including how to critique research to inform counseling practice.	F.8.a. the importance of research in advancing the counseling profession, including how to critique research to inform counseling practice;	Class 1 and Class 1 Readings (CH 1: Current Issues in Counseling Research)	1) Quantitative Article Critique 2) Qualitative Article Critique
Students will be able to identify evidenced-based counseling practices.	F.8.b. identification of evidence-based counseling practices;	Class 2 and Class 2 Readings (CH 3: Reviewing Literature; CH 4: Methodological Issues)	1) Quantitative Article Critique 2) Qualitative Article Critique
Students will understand the development of outcome measures for counseling programs.	F.8.d. development of outcome measures for counseling programs;	Class 10 and Class 10 Readings (CH 16: Program Evaluation)	1) Quiz

Students will understand the evaluation of counseling interventions and programs.	F.8.e. evaluation of counseling interventions and programs;	Class 10 and Class 10 Readings (CH 16: Program Evaluation)	1) Quiz
Students will be able to identify and differentiate between qualitative, quantitative, and mixed methods designs.	F.8.f. qualitative, quantitative, and mixed research methods;	Classes 4, 5, 6, 7, 8, and 9 and Class 4, 5, 6, 7, 8, and 9 Readings (CH 5 Basic Statistical Concepts; CH 6 Experimental Designs; CH 7 Predictive Designs; CH 13 Survey Designs; CH 8 Single Case Designs; CH 9 Case Study; CH 10 Grounded Theory; Ch 11 Phenomenology; CH 12 Narrative Research; CH 15 Action Research)	1) Quantitative Article Critique 2) Qualitative Article Critique
Students will be able to identify and apply designs used in research and program evaluation.	F.8.g. designs used in research and program evaluation;	Classes 4, 5, 6, 7, 8, and 9 and Class 4, 5, 6, 7, 8, and 9 Readings (CH 5 Basic Statistical Concepts; CH 6 Experimental Designs; CH 7 Predictive Designs; CH 13 Survey Designs; CH 8 Single Case Designs; CH 9 Case Study; CH 10 Grounded Theory; CH 11 Phenomenology; CH 12 Narrative Research; CH 15 Action Research)	1) Quiz
Students will be able to identify and apply statistical methods used in conducted counseling research and program evaluation.	F.8.h. statistical methods used in conducting research and program evaluation	Classes 4, 5, and 6 and Class 4, 5, and 6 Readings (CH 5 Basic Statistical Concepts; CH 6 Experimental Designs; CH 7 Predictive Designs; CH 13 Survey Designs)	1) Research Proposal
Students will be able to understand the importance of data and analysis and the use of data in the counseling profession.	F.8.i. analysis and use of data in counseling;	Classes 4, 5, 6, 7, 8, and 9 and Class 4, 5, 6, 7, 8, and 9 Readings (CH 5 Basic Statistical Concepts; CH 6 Experimental Designs; CH 7 Predictive Designs; CH 13 Survey Designs; CH 8 Single Case Designs; CH 9 Case Study; CH 10 Grounded Theory; CH 11 Phenomenology; CH 12 Narrative Research; CH 15 Action Research)	1) Quantitative Article Critique 2) Qualitative Article Critique 3) Research Proposal
Students will be able to identify and	F.8.j. ethical and culturally relevant	Class 1 and Class 1 Readings (CH2: Ethics	1) Quantitative Article Critique

communicate ethical and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation.	strategies for conducting, interpreting, and reporting the results of research and/or program evaluation.	in Counseling Research & AARC Standards for Multicultural Research)	2) Qualitative Article Critique
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TEACHING STRATEGIES

This course will be taught in an in-person format. Content will be delivered in person and weekly in modules via blackboard. Using an engaged pedagogy approach, students are expected to be invested co-creators of their learning environment. Due to the abbreviated summer semester, the online nature of this course, and the topics covered in this course, it will be necessary for you to stay current with readings and assignments in order for you to be successful in this course. Students should come to classes prepared and have completed the readings.

Blackboard will be used as an instructional tool. Students should have a computer or access to a computer running Windows XP, Vista, or 7, or a Macintosh with the latest system software and the ability to play audio and video. A high-speed Internet connection with latest versions of either Chrome, Firefox, Safari, or Internet Explorer are recommended as these browsers appear to work best with Blackboard. If you have a problem accessing, reading, displaying, or playing any of the content on the Blackboard site, DO NOT contact your instructor. Instead, contact Learning Ventures (419.530.8835) for assistance.

PREREQUISITES

Admission to a master's degree program in the School of Intervention and Wellness in Counselor Education or School Psychology.

REQUIRED TEXTS AND MATERIALS

Sheperis, C. J., Young, J. S., & Daniels, M. H. (2017). *Counseling research: Quantitative, qualitative, and mixed methods* (2nd ed.). Boston, MA: Pearson.

*Additional Readings as required, listed on the course schedule and posted to blackboard.

COURSE AND INSTITUTIONAL POLICIES

Nondiscrimination on the Basis of Disability

The University is an equal opportunity educational institution. Please read [The University's Policy Statement on Nondiscrimination on the Basis of Disability – Americans with Disabilities Act Compliance](#).

Diversity and Inclusion

In concert with the University of Toledo's values and expectations, the students, faculty and staff within the College of Health and Human Services uphold the tenets pledged by the University to respect and value personal uniqueness and differences. Specifically, we will actively participate in the initiatives of the University to attract and retain diverse students, faculty and staff; to challenge stereotypes; and to promote sensitivity toward diversity and foster an environment of inclusion in all curricular and extra-curricular activities. Hence, all students enrolled in this course will be expected to:

- Be considerate of the thoughts and ideas of others
- Demonstrate accountability, integrity and honor in all course-related activities
- Promote a collaborative and supportive educational environment
- Treat every individual with kindness, dignity, and respect regardless of:
 - o Gender
 - o Race / Ethnicity
 - o Religion
 - o Sexual Orientation, Gender Identity (including pronouns), Gender Expression
 - o Impairment(s) / Disability(ies)
 - o Political Views

- o Social Class / Socioeconomic Status
- o Linguistic Diversity
- o Nationality / Country of Origin
- o Other Element(s) of Uniqueness

Academic Dishonesty

Academic dishonesty will not be tolerated. Please read [The University's Policy Statement on Academic Dishonesty](#).

Copyright Notice

The materials in the course website are only for the use of students enrolled in this course for purposes associated with this course, and may not be retained or further disseminated.

GRADING POLICIES

Learners will be assessed as follows. Specific guidelines and grading criteria will be provided with each assignment. Grades and instructor feedback for each assignment will be posted to the Grade Book within one week, if not earlier, after each assignment has been completed.

Assignments/Assessments	Total Points
Quantitative Article Critique	15
Qualitative Article Critique	15
Quizzes (3 @ 5 points each)	15
Research Questions/Hypotheses Assignment	5
Background & Problem Statement Assignment	5
Literature Review Outline Assignment	5
Research Design and Methods/Data Collection Assignment	5
Data Analysis and Implications Outline/Draft	5
Implications/Limitations Outline/Draft	5
Final Research Proposal	25
Total	100

Learners are expected to complete and submit all assignments by the due date listed in the Course Schedule. **Late assignments and make-up assessments will not be permitted unless arrangements are discussed and approved well before the required due date.** Ask questions as soon as possible by email or in our online class if you do not understand an assignment. Due to the nature of this course, no extra credit will be offered.

The grading scale for this course is as follows:

A	94-100	C	73-76.9
A-	90-93.9	C-	70-72.9
B+	87-89.9	D+	67-69.9
B	83-86.9	D	63-66.9
B-	80-82.9	D-	60-62.9
C+	77-79.9	F	59.9 or less

AMERICANS WITH DISABILITIES ACT

The University of Toledo is committed to providing equal access to education for all students. If you have a documented disability or you believe you have a disability and would like information regarding academic accommodations/adjustments in this course, please contact the [Student Disability Services Office](#) at 419-530-4981 (voice) or 419-530-2612 (TDD).

GENERAL ACCESSIBILITY STATEMENT ON COURSE TECHNOLOGY

In conjunction with The University's commitment to ensuring equal access to all technology-based information, this course contains technologies that learners can use regardless of age, ability or situation. The course's platform, [Blackboard Learn](#), is a certified web-accessible platform, satisfying Level AA conformance criteria of Web Content Accessibility Guidelines (WCAG 2.0). External sites used in the course, such as [Echo360](#), are compliant with Section 508 standards, and the media players used in the course support closed captioning, are keyboard operable, and compatible with screen reading software.

If any accommodations, beyond what is provided, are needed for equal access to any of this course content, please contact the instructor as soon as possible. The University of Toledo's [Office of Student Disability Services](#) processes closed captioning requests for videos and other media from the instructor, which may take up to four (4) business days to complete.

COMMUNICATION GUIDELINES

Email:

Students are expected to check their UT email account frequently for important course information. If you are having trouble understanding any aspect of this class, please let me know. I am here to help, and will do my best to respond to email within 24 to 48 hours.

Netiquette:

It is important to be courteous and civil when communicating with others. To ensure your success when communicating online, take time to familiarize yourself with the "dos" and "don'ts" of [Internet etiquette](#).

LEARNER SUPPORT

The University of Toledo offers a wide range of academic and student support services that can help you succeed:

eTutoring Services

[The Ohio eTutoring Collaborative](#), in partnership with The University of Toledo, now provides online tutoring support for all UT students. eTutoring Services are offered in a wide array of subjects, including Writing, Math, Calculus, Statistics, Accounting, Biology, Chemistry, and Anatomy and Physiology.

eLibrary Services Portal

The [eLibrary](#) is a customized gateway to UT Libraries for online students. It was designed to help you locate the best online library resources without leaving Blackboard.

Student Disability Services

[Student Disability Services](#) provides accommodations and support services to students with disabilities.

Counseling Center

[The Counseling Center](#) is The University's primary facility for personal counseling, psychotherapy, and psychological outreach and consultation services. The Counseling Center staff provide counseling (individual and group), mental health and wellness programming, and crisis intervention services to help students cope with the demands of college and to facilitate the development of life adjustment strategies.

Military Service Center

UT's [Military Service Center](#) recognizes the sacrifices of our service members and their families and is dedicated to helping them achieve continued success in life. They provide accessible educational and degree completion opportunities and a wide range of customized support services, including educational benefit processing, mentoring, advocacy, and networking.

COURSE ASSIGNMENTS

- 1) Two (2) Article Critiques: One quantitative (due 6/28) and one qualitative (due 7/12; 15 points each). Due by 11:59p on the dates above on Blackboard.**

Students will critique ONE qualitative and ONE quantitative research publication. For guidelines in this process see (Coughlan, Cronin, & Ryan, 2007; Kazdin, 1995; Maher, 1978; Ryan, Coughlan, & Cronin, 2007, resources on Blackboard, and course texts/articles). These critiques are worth 15 points each (see rubric below).

- a. The articles do not have to be journal articles from a counseling discipline, but they should be mental health related. Articles must be published *no earlier* than 2009.
- b. Read each article to get the big picture and develop a general overall opinion of the article.
- c. Imagine that you have been given these articles to read and review for publication in a journal. Your job is to critically evaluate each article and provide feedback to the journal editor regarding each articles' strengths and weaknesses. The editor will use your feedback to determine whether or not to publish the articles and to provide feedback to the papers' author(s).
- d. You may wish to organize your thoughts along the following four domains: (a) introduction, (b) methods, (c) results, and (d) discussion. The assigned readings provide you with some guideline questions that will help you determine whether or not you think that the authors' efforts were sufficient in each of these four areas. Equally important, try to explain what the authors were attempting to prove and how the results apply to actual clinical practice.
- e. You **do** need an APA title page and a reference section (no abstract needed). Write up your reaction to the papers in a word document, likely between three and five pages (excluding cover page and reference list) in length for each analysis. Submit your critique on blackboard along with a PDF of the article.

Article Critique Rubric

Item	Value
Strengths & Weaknesses of the Introduction	/2
Strengths & Weaknesses of the Methods	/3
Strengths & Weaknesses of the Results	/3
Strengths & Weaknesses of the Discussion	/2
Multicultural/Diversity Strengths & Weaknesses	/2
APA Format with a cover page, reference section (correctly formatted)	/2
Inclusion of a copy of the article reviewed	/1
Total	/15

2) Quizzes (throughout the semester, 5 points each, 15 points total)

Throughout the semester students will be given quizzes to assess levels of student engagement and learning. Each quiz is worth 5 points. These quizzes are embedded in Modules 1, 2, and 11.

3) Research Proposal (due 8/5, 25 points):

This is the summative course assignment and is worth 25 points. Students are required to provide a written proposal that addresses the following points:

- A: Statement of the problem to include research questions and hypotheses.
- B: Thorough literature review.
- C: Outline of research design
- D: Data collection methods
- E: Data analysis procedures
- F: Study limitations and implications

Papers will be APA formatted to include a cover page, abstract, and reference list. Papers should be at least 12 pages of content (excluding cover, abstract, references), but no more than 20 pages. Students will work on the assignment over the course of the semester via smaller assignments (see below) and receive instructor feedback for integration into the assignment.

Students will establish a research question that relates to professional counseling in a variety of ways. This research question could be a program evaluation, an establishment of evidence-based practices, a qualitative design, or quantitative design. Please select a research question/topic that you are passionate about and want to invest your time in learning more throughout the semester.

As this is a large project, components of the project will be turned in as drafts throughout the semester to encourage you to continually work on the project and so you may receive feedback from the instructor on the strengths and weaknesses components of the project. It is expected that students will turn in drafts on-time and include the feedback received into their final draft.

Draft items and various due dates are listed on the course schedule below. Their point values are articulated in the table above.

Research Proposal Rubric

Item	Value
Background and statement of the research problem. This will include relevant demographic information and/or background data and the rationale for this research in counseling/counselor education.	/2
Clear research question(s) and hypotheses (if applicable for quantitative designs).	/2
A thorough literature review to include counseling and other related literature to student's research question. This literature review should follow the "funnel" format and logically support student research question.	/4
Outline of the research design (such as qualitative or quantitative) and rationale for such method.	/2
Clear presentation of data collection methods (sampling/sampling strategies and locations, procedures [such as interviews, surveys, etc.], and instruments and/or interview protocols used).	/4
Clear articulation of data analysis procedures following the appropriate steps of the quantitative or qualitative method selected.	/2
Study Implications in counseling/counselor education and possibly other related fields.	/2
Study Limitations (validity, reliability, internal consistency limits).	/2
Clear writing with appropriate grammar, mechanics, and punctuation, etc.	/2
Correct APA7 format to include cover page, abstract, and references.	/2
>11 but <20 pages in length	/1
Total	/25

Course Outline

Module	Date	Assigned Reading/Topic/Assignments Due (Bold)
1	5/17	Quiz 1 CH1: Current Issues in Counseling Research CH2: Ethics in Counseling Research O'Hara et al., 2016 (on BB) ACA Code of Ethics, 2014 (on BB) <i>Standards F8a, F8j</i>
2	5/24	RQs/Hypotheses Assignment Quiz 2 CH3: Reviewing Literature CH4: Methodological Issues CH5: Basic Statistical Concepts Pt.1 <i>Standards F7g, F7h, F8a, F8j</i>
3	5/31	Memorial Day – No class
4	6/7	Background/Problem Assignment CH5: Basic Statistical Concepts Pt.2 <i>Standards F7g, F7h</i>
5	6/14	Literature Review Outline Assignment CH6: Experimental Designs CH 7: Predictive Designs <i>Standards F8b, F8d, F8f, F8g, F8h, F8i</i>
6	6/21	*Online Week – Discussion Boards due by 11:59PM * Quantitative Article Critique Assignment CH13: Survey Designs CH8: Single Case Designs <i>Standards F8b, F8d, F8f, F8g, F8h, F8i</i>
7	6/28	Research Design/Methods/Data Collection Assignment CH9: Case Study Qualitative 101 (on BB) <i>Standards F8b, F8d, F8f, F8g, F8h, F8i</i>

Module	Date	Assigned Reading/Topic/Assignments Due (Bold)
8	7/5	Independence Day Observed – No Class
9	7/12	Qualitative Article Critique CH10: Grounded Theory CH11: Phenomenology <i>Standards F8b, F8d, F8f, F8g, F8h, F8i</i>
10	7/19	Data Analysis Assignment CH12: Narrative Research CH15: Action Research <i>Standards F8b, F8d, F8f, F8g, F8h, F8i</i>
11	7/26	Implications/Limitations Assignment Quiz 3 CH16: Program Evaluations CH18: Writing a Research Report <i>Standards F8b, F8c, F8d, F8e, F8f, F8g, F8h, F8i</i>
12	8/2	No Class Meeting- Research Proposal Due by 11:59p on BB

****The above schedule and procedures are subject to change at the discretion of the instructor.**