



The University of Texas at Tyler
Department of Kinesiology
KINE 5301:
Research Methods and Analysis
Fall 2026

Course Title: Research Methods and Analysis

Course Number: KINE 5301.060

Credits: 3.00

Course Structure & Meeting Times

Date: 08/24/2026 – 12/12/2026

Date & Time: online Canvas (<http://www.uttyler.edu/canvas/>)

Instructor Information

Name and Title: Jing Chen, Ph.D., Associate Professor of Kinesiology

Office location: HPC 3051 (Located within HPC 3050)

Phone number: 903-730-3890

Email address: jingchen@uttyler.edu

Office hours: Tuesday & Thursday 9:00 AM to 11:00 AM or by appointment (Zoom meetings available)

Textbook: Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.

ISBN-10: 1071817949; ISBN-13: 978-1071817940

(Lower-cost previous editions are available and may also be used for this course. Having a textbook will greatly support your success, so I strongly recommend obtaining one.)

Course description:

This course introduces the fundamental principles and practices of research design and methodology. Students will explore quantitative, qualitative, and mixed methods approaches to conducting research, with emphasis on developing research questions, selecting appropriate research designs, collecting and analyzing data, and interpreting research findings.

The course also introduces basic statistical concepts, research ethics, and strategies for evaluating the quality of research. Through course activities and assignments, students will develop the skills needed to understand, evaluate, and apply research evidence in academic and professional settings.

Student Learning Objectives: after completion of this course, the student will be:

- Explain fundamental concepts, terminology, methods, and applications of research.
- Develop clear, focused, and researchable questions based on a specific research problem or topic.
- Differentiate between quantitative, qualitative, and mixed methods of research approaches.
- Select an appropriate research design and methodology to address specific research questions.
- Apply basic statistical methods to organize, summarize, and analyze research data.
- Interpret research findings and draw appropriate conclusions based on data analysis.
- Evaluate research studies by identifying strengths, limitations, and the appropriateness of the methods used.
- Apply research findings and data-based evidence to inform decision-making and professional practice.

Method of Instruction

This is an online course, and the student learning experience includes, but is not limited to, the following activities:

- Lectures for each chapter will be delivered face to face.
- Assignments will be posted on the canvas following each chapter.

- I will use the online discussion board to address common questions that students send by email. When several students ask similar questions, I will post a shared response so everyone can access the information. Please check the discussion board regularly for updates and clarifications.
- Weekly office hours will be available.
- Tests will be administered approximately every four weeks through canvas.
- All tests will be administered using Respondus LockDown Browser through Canvas. Please download, install, and test the software before the scheduled test date. If you are unfamiliar with Respondus LockDown Browser, address any issues early—do not wait until the day of the test. Any academic integrity flags or issues resulting from not properly setting up the Respondus Lockdown Browser may result in a score of “0.”
- A research project will also be completed as part of the course requirements.

Assessment and Measurement

Students will be evaluated based on their performance on assignments, tests, and the research project as below:

Post-Chapter Quizzes	50%
Quiz 1	10%
Quiz 2	10%
Quiz 3	10%
Quiz 4	10%
Quiz 5	10%
Research Proposal Writing Assignment	50%
Part I: Introduction	12.5%
Part II: Methods	12.5%
Final Research Proposal	25%
Total	100%

The final grading will be determined by the percentage of total points earned on tests and the research proposal writing assignment.

90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

Course Schedule

Week	Topic	Assignments
1	The Use of Theory: Quantitative	Textbook Reading: Chapter 3 – 1 Quantitative Theory Assignment: Proposal Writing: Research question, research topic, and proposal title Due Sunday @11:59pm
2	The Use of Theory: Qualitative	Textbook Reading: Chapter 3 – 2: Qualitative Theory

		Statistics Study: Independent vs. Dependent Variables Assignment: 1. Quiz 1 (Chapter 3: The Use of Theory) 2. Proposal Writing: Submit revised research question, research topic, and title of study Due Sunday 11:59pm
3	The Introduction Background of the proposed research	Textbook Reading: Chapter 5 Statistics Study: Effect Size Assignment: 1. Quiz 2 (Chapter 5: The Introduction) 2. Proposal Writing: Introduction + Significance and Innovation Due Sunday 11:59pm
4	Proposal Writing Revision: 1. Introduction 2. Significance and Innovation	Assignment: 1. Submit revised Title, Introduction, Significance, and Innovation Due Sunday 11:59pm
5	The Purpose Statement Study Aims	Textbook Reading: Chapter 6 Statistics Study: Non-Parametric Assignment: 1. Quiz 3 (Chapter 6: The Purpose Statement) 2. Proposal Writing: Overall objective, hypothesis, and specific aims (the one summary paragraph before listing the specific aims) Due Sunday 11:59pm
6	Research Questions and Hypotheses How to narrow down the purpose statement to the predictions about what will be answered?	Textbook Reading: Chapter 7 Statistics Study: Linear Regression Assignment: 1. Quiz 4 (Chapter 7: The Questions and Hypotheses) 2. Proposal Writing: Specific aims (two specific aims of your study) Due Sunday 11:59pm

7	Proposal Writing: Introduction & Background + Research Questions & Hypotheses	Assignment: 1. Proposal Writing: Submit revised Overall objective, Hypothesis, and Specific Aims Due Sunday 11:59pm
8	Statistical Analysis for Quantitative Research Design	Assignment: Proposal Writing: Justification and feasibility, experimental design, participants, and overview of methods (*step-by-step experimental process and *equipment for each measurement) Due Sunday 11:59pm
9-10	Quantitative Methods: Measurement and Data Analysis Plan	Textbook Reading: Chapter 8 – 2 Statistics Study: ANOVA Assignment: 1. Quiz 5 (Chapter 8: Quantitative Methods) 2. Proposal writing: Define primary outcomes (dependent variables) and the statistical analysis plan for each variable Due Sunday 11:59pm
11-12	Proposal Writing: Methods	Assignment: 1. Proposal Writing: Submit revised Approach Due Sunday 11:59pm
13-15	Proposal Writing: Final Draft	Assignment: Proposal Writing: Submit revised Final Draft (Final Revision) Due 14th week Sunday 11:59pm

“As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course”. – Jing Chen, Ph.D.

Course Policies:

This is an online course. All assignments, tests, and exams will be administered through Canvas. Please make sure you have reliable access to Canvas and check your university email regularly to stay up to date with course announcements, assignments, and other important information.

Email Communication Policy

All course-related communication must be conducted through your official university email account. To ensure that messages are properly identified and receive a timely response, please follow these guidelines:

- Use your **university-issued email address** for all correspondence.
- Include the **course title “KINE 5301”** in the subject line of your message.
- Include your **full name** in the body of the email.
- Write emails using professional and respectful language.
- I will typically respond within **24–48 hours** on weekdays; emails sent on weekends or holidays may be answered on the next business day.

Emails that do not follow these guidelines may result in delayed responses. If you do not receive a reply from me within 48 hours, please assume that I did not receive your message and resend it.

Assignment Submission Policy

- All assignments must be submitted through Canvas by the posted deadline (**Each Sundays at 11:59 PM**).
- Late submissions will not be accepted unless prior arrangements have been made and supported by an approved university excuse.
- Extension may be granted for documented emergencies if requested **before** the deadline whenever possible.

Tests or Exams Policy

- All tests and exams must be completed **in the classroom during the scheduled class time**.
- Students who miss a test or exam due to illness, emergencies, or other approved university excuses must notify the instructor within 24-48 hours ahead of the scheduled test and provide appropriate documentation. Makeup tests must be completed **within one week of the original test date**.
- Make-up tests may be offered at the instructor's discretion and may differ in format from the original exam.

University Policies and Information

Withdrawing from Class

Students may [withdraw](#) (drop) from this course using the [Withdrawal Portal](#). Withdrawing (dropping) this course can impact your Financial Aid, Scholarships, Veteran Benefits, Exemptions, Waivers, International Student Status, housing, and degree progress. Please speak with your instructors, consider your options, speak with your advisor, and visit the One-Stop Service Center (STE 230) or email enroll@uttyler.edu to get a complete review of your student account and the possible impacts to withdrawing. We want you to make an informed decision. UT Tyler faculty and staff are here for you and often can provide additional support options or assistance. Make sure to carefully [read the implications for withdrawing from a course and the instructions](#) on using the [Withdrawal portal](#).

Texas law prohibits students from dropping more than six courses during their entire undergraduate career*. The six courses dropped includes those from other 2-year or 4-year Texas public colleges and universities. Consider the impact withdrawing from this class has on your academic progress and other areas, such as financial implications. We encourage you to consult your advisor(s) and Enrollment Services for additional guidance. **CAUTION #1:** Withdrawing before census day does not mean you get a full refund. Please see the [Tuition and Fee Refund Schedule](#). **CAUTION #2:** All international students must check with the [Office of International Programs](#) before withdrawing. All international students are required to enroll full-time for fall and spring terms. **CAUTION #3:** All UT Tyler Athletes must check with the Athletic Academic Coordinator before withdrawing from a course. **CAUTION #4:** All veterans or military-affiliated students should consult with the [Military and Veterans Success Center](#).

* Students who began college for the first time before 2007 are exempt from this law.

Incomplete Grade Policy

If a student, because of extenuating circumstances, is unable to complete all of the requirements for a course by the end of the semester, then the instructor may recommend an Incomplete (I) for the course. The "I" may be assigned in

place of a grade *only when **all** of the following conditions are met:* (a) the student has been making satisfactory progress in the course; (b) the student is unable to complete all coursework or final exam due to unusual circumstances that are beyond personal control and are acceptable to the instructor, and (c) the student presents these reasons before the time that the final grade roster is due. The semester credit hours for an Incomplete will not be used to calculate the grade point average.

The student and the instructor must submit an Incomplete Form detailing the work required and the time by which the work must be completed to their respective department chair or college dean for approval. The time limit established must not exceed one year. Should the student fail to meet all of the work for the course within the time limit, then the instructor may assign zeros to the unfinished work, compute the course average for the student and assign the appropriate grade. If a grade has yet to be assigned within one year, then the Incomplete will be changed to an F, or NC. If the course was initially taken under the CR/NC grading basis, this may adversely affect the student's academic standing.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA), the University of Texas at Tyler offers accommodations to students with learning, physical, and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler/> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with the Assistant Director Student Accessibility and Resources/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <https://www.uttyler.edu/disability-services>, the SAR office located in the Robert Muntz Library, LIB 460, email saroffice@uttyler.edu, or call 903.566.7079.

Military Affiliated Students

UT Tyler honors the service and sacrifices of our military-affiliated students. If you are a student who is a veteran, on active duty, in the reserves or National Guard, or a military spouse or dependent, please stay in contact with your faculty member if any aspect of your present or prior service or family situation makes it difficult for you to fulfill the requirements of a course or creates disruption in your academic progress. It is important to make your faculty member aware of any complications as far in advance as possible. Your faculty member is willing to work with you and, if needed, put you in contact with university staff who are trained to assist you. The [Military and Veterans Success Center \(MVSC\)](#) has campus resources for military-affiliated students. The MVSC can be reached at MVSC@uttyler.edu or via phone at 903.565.5972.

Students on an F-1 Visa

To remain in compliance with Federal Regulations requirements you must do the following:

- Traditional face-to-face classes: Attend classes on the regular meeting days/times.
- Hybrid Classes: Attend all face-to-face classes convened by the instructor according to the schedule set for your specific course.
- Online course: Only one online course can count toward your full-time enrollment. Students are expected to be fully engaged and meet all requirements for the online course.

Academic Honesty and Academic Misconduct

The UT Tyler community comes together to pledge that "Honor and integrity will not allow me to lie, cheat, or steal, nor to accept the actions of those who do." Therefore, we enforce the [Student Conduct and Discipline policy](#) in the Student Manual Of Operating Procedures (Section 8).

FERPA

UT Tyler follows the Family Educational Rights and Privacy Act (FERPA) as noted in [University Policy 5.2.3](#). The course instructor will follow all requirements to protect your confidential information.

Absence for Official University Events or Activities

This course follows the practices related to [Excused Absences for University Events or Activities](#) as noted in the Catalog.

Absence for Religious Holidays

This course follows the practices related to [Excused Absences for Religious Holy Days as noted in the Catalog](#).

Absence for Pregnant Students

This course follows the requirements of Texas Laws SB 412, SB 459, SB 597/HB 1361 to meet the needs of pregnant and parenting students. Part of the supports afforded pregnant students includes excused absences. Faculty who are informed by a student of needing this support should make a referral to the Parenting Student Liaison.

NOTE: Students must work with the Parenting Student Liaison in order to receive these supports. Students should reach out to the Parenting Student Liaison at parents@uttyler.edu and also complete the [Pregnant and Parenting Self-Reporting Form](#).

Campus Carry

We respect the right and privacy of students who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.

Student Resources:

Resources to assist you in the course

- [UT Tyler Student Accessibility and Resource \(SAR\) Office](#) (provides needed accommodations to students with document needs related to access and learning)
- [UT Tyler Writing Center](#)
- [The Mathematics Learning Center](#)
- [UT Tyler PASS Tutoring Center](#)
- [UT Tyler Supplemental Instruction](#)
- [Upswing \(24/7 online tutoring\) - covers nearly all undergraduate course areas](#)
- [Robert Muntz Library and Library Liaison](#)
- [Canvas 101 \(learn to use Canvas, proctoring, Unicheck, and other software\)](#)
- Digital Support Toolkit (for supported courses only. Students are automatically enrolled in the toolkit for supported courses)
- [LIB 422 -- Computer Lab where students can take a proctored exam](#)
- [The Career Success Center](#)
- [UT Tyler Testing Center](#)
- [Office of Research & Scholarship Design and Data Analysis Lab](#)

Resources available to UT Tyler Students

- [UT Tyler Counseling Center](#) (available to all students)
- [MySSP App](#) (24/7 access to Student Support Program counseling through phone or chat and online wellness resources available in a variety of languages)
- [Student Assistance and Advocacy Center](#)
- [Military and Veterans Success Center](#) (supports for our military-affiliated students)
- [UT Tyler Patriot Food Pantry](#)
- [UT Tyler Financial Aid and Scholarships](#)
- [UT Tyler Student Business Services](#) (pay or set up payment plans, etc.)
- [UT Tyler Registrar's Office](#)
- [Office of International Programs](#)
- [Title IX Reporting](#)
- [Patriots Engage](#) (available to all students. Get engaged at UT Tyler.)