

University of North Texas
College of Public Affairs and Health Sciences
Department of Kinesiology, Health Promotion, and Recreation
KINE 4050, Section 1, Summer 2026
Quantitative Analysis in Kinesiology

Catalog Description:

A study of measurement theory, instruments used to collect data and procedures for data analysis specific to exercise and sports. The use of computers for data analysis is included. Prerequisite(s): MATH 1680. Kinesiology majors must have passed KINE 3080 and KINE 3090 with a minimum grade of C and have a 2.5 overall GPA or higher.

Please see the instructor immediately if you have not completed the prerequisites for this course.

Professor Information: Myungjin Jung, Ph.D.

- Class times: Monday–Thursday, 12:00 – 1:50 PM
- Classroom: Chilton Hall 255
- Office: PEB 210E; (940) 369-7494 or (940) 565-2651 (Main Office)
- Outlook e-mail: myungjin.jung@unt.edu
- Office Hours: Mon & Wed, 9:00 – 11:00 AM, other times by appointment only

Course Information:

1. Recommended Texts

- Morrow, J.R., Jr., Mood, D. P., Zhu, W., & Kang, M. (2023) *Measurement and Evaluation in Human Performance*, (6th ed.) Champaign, IL: Human Kinetics.
- Supplementary materials may be used throughout the course and will be made available via Canvas.

2. Canvas

- All course materials, announcements, and assignments will be available on Canvas.

3. Internet Access

- Students must have reliable Internet access, preferably high-speed Internet, throughout the duration of the course.

4. Microsoft Office Programs (Excel) and Statistical Software (SPSS)

- Students must have access to a computer with Microsoft Excel installed.

- Please refer to the UNT UIT Student Help Desk for instructions on installing Microsoft Office on your personal device: <https://it.unt.edu/instaloffice365>
- Students must also have consistent access to a professional word processor and presentation/PDF software.
- SPSS statistical software must be downloaded from: <https://aits.unt.edu/software/spss.html>
 - Detailed installation instructions are provided in the “SPSS Download” PDF file available on Canvas.

Course Description:

Quantitative Analysis in Kinesiology is a course designed to teach students the importance of proper measurement and evaluation procedures in the collection, analysis, and interpretation of data. The course covers measurement theory, statistical concepts and applications, hypothesis testing, data collection instruments, and data analysis procedures specific to the affective, cognitive, and psychomotor domains. Note that this course includes hands-on data analysis activities using computer applications.

Course Structure:

This course will be conducted fully in-person. Class sessions will include both lecture-based instruction and hands-on applications of course concepts using statistical software such as SPSS and Microsoft Excel. Topics covered in class will include measurement theory, hypothesis testing, data analysis procedures, and interpretation of statistical results.

Canvas will still be used to provide supplementary course materials, announcements, assignments, and occasional learning resources. Students are expected to regularly check Canvas and complete assigned coursework by the posted deadlines.

Because this course includes hands-on data analysis activities, students are required to bring a laptop capable of running both Microsoft Excel and SPSS to class. If you do not have access to such a device, you may rent one from the UNT Library (<https://library.unt.edu/services/laptop-checkout/>) or the UIT Help Desk (<http://www.unt.edu/helpdesk/index.htm>).

Course Objectives:

The objective of this course is to introduce students to the fundamental concepts of measurement and evaluation used in Exercise and Sport Science.

Upon successful completion of this course, students will be able to:

- Understand statistical concepts related to measurement and evaluation.
- Distinguish between reliability and validity in measurement.
- Collect and analyze human performance and health-related data using appropriate

- statistical procedures.
- Evaluate and interpret data analysis results and communicate findings effectively.

Course Expectations:

- **Keeping up with course materials and announcements:** It is your responsibility to stay current with course materials, assignments, and announcements throughout the semester. Students are expected to regularly check the Canvas course page and their UNT email for important course-related updates. Please check the Announcements section first, as important information will be posted there.
- **Academic performance concerns:** If at any point during the semester you are unhappy with your performance in this class, please contact the instructor as soon as possible—do not wait until after the final exam. No additional regular or extra credit opportunities will be available at that time.
- **Accommodations:** If you have any special learning needs, please inform the instructor as soon as possible and provide the appropriate documentation from the Office of Disability Accommodation.
- **Academic integrity:** Academic dishonesty—including copying, plagiarism, and cheating—will not be tolerated. Such actions will result in a failing grade for the course and may be reported to the Dean of Students for further disciplinary action.

Grading Procedures:

- **Exams (170 pts total)**

Three exams will be given during the course. The first two exams will be written, in-class exams consisting of multiple-choice, true/false, matching, fill-in-the-blank, and short-answer questions. Each of these exams will be worth 50 points. The final exam will be a take-home assignment worth 70 points and will require data analysis using SPSS and interpretation of results based on course content and lecture materials. If you fail to complete an exam by the due date, you will receive a grade of 0. No make-up exams will be offered unless the absence is university-excused or prior approval has been granted by the instructor.

- **Quizzes (50 pts total)**

Five quizzes will be administered during the course, each worth 10 points. Quizzes

may be completed either during class or online through Canvas and will assess your understanding of lecture materials and course concepts. If you fail to complete a quiz by the assigned due date or class period, you will receive a grade of 0. No make-up quizzes will be offered unless the absence is university-excused or prior approval has been granted by the instructor.

- **Assignments (80 pts total)**

Four assignments will be given during the course, each worth 20 points. These assignments may include computer-based activities, data analysis using SPSS, and interpretation of statistical results based on course lectures and materials. Make-up assignments will not be offered unless prior approval has been granted by the instructor or the absence is university-excused. **If your assignment exactly matches that of another student, you will not receive credit.** If you fail to complete an assignment by the due date, you will receive a grade of 0.

The total number of possible points in the course is **300**. Final grades will be assigned according to the following scale:

Points	Grade
270 – 300	A 90-100%
240 – 269	B 80-89%
210 – 239	C 70-79%
180 – 209	D 60-69%
Below 180	F

Tentative Class Schedule

Week (Dates)	Module Topics	Quizzes & Assignments Due
Week 1 (5/18, Mon)	Concepts in Tests and Measurements	
Week 1 (5/19, Tue)	Measurement Scale and Measures of Central Tendency	Quiz 1
Week 1 (5/20, Wed)	Using Technology in Measurement and Evaluation – online	
Week 1 (5/21, Thu)	Descriptive Statistics / Normal Distribution	Assignment 1 by 5/24
Week 2 (5/25, Mon)	Memorial Day (No Class)	
Week 2 (5/26, Tue)	Norm-referenced / Criterion-referenced Reliability – online	
Week 2 (5/27, Wed)	Norm-referenced / Criterion-referenced Validity – online	Online Quiz 2
Week 2 (5/28, Thu)	Conference (No Class)	
Week 3 (6/1, Mon)	Correlation / Prediction	
Week 3 (6/2, Tue)	Linear Regression	Quiz 3 / Assignment 2 by 6/7
Week 3 (6/3, Wed)	EXAM 1 Review & Preparation Day	
Week 3 (6/4, Thu)	EXAM 1	
Week 4 (6/8, Mon)	Independent Two-Sample T-Test	
Week 4 (6/9, Tue)	Paired Dependent T-Test	Quiz 4 / Assignment 3 by 6/14
Week 4 (6/10, Wed)	One-Way ANOVA	Quiz 5 / Assignment 4 by 6/14
Week 4 (6/11, Thu)	EXAM 2 Review & Preparation Day	
Week 5 (6/15, Mon)	EXAM 2	
Week 5 (6/16, Tue)	SPSS Review & Q&A	
Week 5 (6/17, Wed)	EXAM 3 Review & Preparation Day	
Week 5 (6/18, Thu)	EXAM 3 (Take-Home Assignment by 6/18)	

***This tentative class schedule is subject to change at the instructor's discretion or due to university-related events, including cancellations caused by inclement weather.

Note. All assignments must be uploaded to Canvas by 11:59 PM on the dates listed in the schedule above, unless otherwise indicated in the Canvas Announcements.

Attendance Policy:

Research has shown that students who attend class are more likely to be successful. You should attend every class unless you have a university excused absence such as active military service, a religious holy day, or an official university function as stated in the [Student Attendance and Authorized Absences Policy \(PDF\)](https://policy.unt.edu/policy/06-039) (<https://policy.unt.edu/policy/06-039>). If you cannot attend a class due to an emergency, please let me know. Your safety and well-being are important to me.

Attendance will be taken at the BEGINNING of the class hour and/or at other times during the class. If you are absent when attendance is taken, you ARE ABSENT. Even if you were in class a few minutes later (or earlier), you will be counted absent if you are not present when attendance is taken. If you need to arrive at a specific class later than normal or leave earlier than normal, please let the instructor know. Arriving late or leaving early is NOT to be a general practice. If this is your practice, you will simply be counted absent. We need you in class to participate and engage in class activities. It is impossible for the instructor to differentiate between “excused and unexcused” absences. Thus, an absence is an absence. To be fair to all, the instructor does NOT DIFFERENTIATE AMONG ANY TYPE OF ABSENCES. If you are absent on military orders, please provide a copy of your orders to the Instructor PRIOR to your leaving. If you are traveling on University of North Texas business, you MUST complete the required form from the Office of the Dean of Students to not have the absence count against you. This form MUST be turned in within 2 class periods of your return to class. Otherwise, you will be counted as absent. **Attendance may be checked randomly, and any student who has missed more than FOUR CLASSES FOR ANY REASON by the day attendance is checked will receive a grade of F in this course.**

All students are expected to arrive on time, have reviewed the class Internet site, have read material and watched presentation slides video PRIOR to coming to class, and be prepared to participate in class activities. Students are NOT allowed to read the newspaper, conduct other work, sleep, or otherwise be non-participating in class. Such student actions are unprofessional and disrespectful to fellow classmates and to the instructor. Such actions disturb your classmates and/or the professor. Students who behave in any of these inappropriate manners will be asked to leave the classroom and will be counted absent for that period. Do NOT simply stop coming to class without taking formal steps to drop the course. The instructor will drop you “passing” (WP) until the point in the semester where this is no longer possible. Students who simply stop coming to class and do not go through the formal drop procedure will be assigned a grade of “F” at the end of the semester.

Late Assignments:

A 25% deduction per day late will be applied to all assignments submitted after the posted due date (i.e., 1m-24h late= -25%, 24-48h late= -50%, 48-72h late= -75%, >72 hours late= 0). If you experience extenuating circumstances that may warrant an extension, please speak with the instructor prior to the assignment deadline.

Syllabus Change Policy:

The instructor reserves the right to amend this syllabus in Canvas as necessary.

UNT Policies

Academic Integrity Policy:

According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. Students found guilty run the risk of having their score changed to a zero, receiving a grade of F for the course, and/or dismissal from the University. Students should be familiar with the academic dishonesty policy at UNT. Please review the student rights and responsibilities information online.

Academic Success Resources:

UNT strives to offer you a high-quality education and a supportive environment, so you learn and grow. As a faculty member, I am committed to helping you be successful as a student. To learn more about campus resources and information on how you can be successful at UNT, go to unt.edu/success and explore unt.edu/wellness. To get all your enrollment and student financial-related questions answered, go to scrappysays.unt.edu.

American with Disabilities Compliance:

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Office of Disability Accommodation website at <http://www.unt.edu/oda>. You may also contact them by phone at 940.565.4323.

Family Educational Rights and Privacy Act (FERPA Information):

Students have the right to expect their grades will be kept confidential. There are a few things, because of the size and/or nature of the class, the instructor must advise you of

regarding collection and distribution of test results, quiz scores, assignments, projects, etc. During this class, it may be necessary for you to pass your assignments forward to the instructor or it may be necessary for the instructor to call your name and then return your completed assignment to you by passing it across the room. The instructor, under the reasonable assumption guidelines, assumes students are collecting ONLY their own materials. Every attempt will be made to keep your information confidential. Neither your course grades nor grades for any assignment will be posted in a way that could result in your being identified by other students or faculty members.

Acceptable Student Behavior:

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at www.unt.edu/csrr.

Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004):

The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

Emergency Notification & Procedures:

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials [Campus Closures Policy \(https://policy.unt.edu/policy/15-006\)](https://policy.unt.edu/policy/15-006).

SPOT (Student Perceptions of Teaching):

The Student Perceptions of Teaching (SPOT) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SPOT to be an important part of your participation in this class. Completion of the SPOT evaluation will add 10 points to your final grade. To receive credit for the SPOT evaluation, please complete

the evaluation and submit a screen print of your receipt to me.

Email Etiquette:

Please feel free to contact me via email or by attending office hours. During busy times, my inbox can become quite full. If you contact me and do not receive a response within three business days, please follow up with a gentle reminder—it's always appreciated.

The only email address to be used for this class is your official UNT email address, so please check it regularly. I will use Canvas for general announcements and email for urgent or emergency communication.

1. Keep emails to a minimum! Ask general questions in class whenever possible.
2. The instructor's e-mail address is myungjin.jung@unt.edu, and this is the primary communication method you should use.
3. It is recommended that you include "KINE 4050" (along with a brief description of the topic) in the subject line of your e-mail so that I can easily identify it as related to this course. Please ensure that your full name is included somewhere in the email.
4. Do not include your UNT ID number or social security number in any email.
5. Questions about grades or specific exam questions will not be answered via email.