

KINE 4050

Quantitative Analysis in Kinesiology - Summer 2014

Credit: 3 Semester Hours

Professor: Dr. Tao Zhang

- Class times: MTWR, 12:00 - 1:50 PM
- Classroom: PEB 216
- Office: PEB 210B; (940) 565-3415 or (940) 565-2651 (Main Office)
- Outlook e-mail: Tao.Zhang@unt.edu
- Office Hours: MW 4:00-5:00 PM, all other times by appointment only

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Text

Morrow, J. R., Jr., Jackson, A. W., Disch, J. G., & Mood, D. P. (2011). *Measurement and evaluation in human performance* (4th ed.). Champaign, IL: Human Kinetics. Bring your book to class **EVERY DAY** because we will be referencing tables, figures, charts, etc. nearly every day in class.

You are provided with a “key code” if you purchase a new copy of the book. If you purchase a used copy of the text, you will also need to ALSO purchase a “key code”. The “key code” permits you to access many student resources. You can purchase a Key Code online at:

<http://www.humankinetics.com/products/all-products/Measurement-and-Evaluation-in-Human-Performance-4th-Edition-wWeb-Study-Guide>

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 1100 and CECS 1100 or the equivalent, or consent of instructor.

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

Course Delivery

This course will be offered in a “blended/flipped” format. Dr. James Morrow has been supported by a Next Generation Course Redesign (NextGen) grant to substantially modify how the course material is presented and the activities in which students engage. See more about NextGen at <http://clear.unt.edu/NextGen>.

It is your responsibility to complete the textbook and online activities PRIOR to coming to class each week.

Course Content

Reliability and validity are the MOST IMPORTANT issues in kinesiology, sport, and exercise science. We will relate all of our work to these issues so that you can make valid decisions in kinesiology, exercise and sport science, and athletics.

Course Objectives

- 1) Students will demonstrate knowledge and abilities to utilize formative and summative fitness, skill, cognitive, and affective measurement and evaluation techniques appropriate for assessing participants in kinesiology/physical activity programs.
- 2) Students will demonstrate abilities to assess individual achievement of psychomotor, cognitive, and affective objectives.
- 3) Students will demonstrate understanding of the principles involved in assessment of groups and effective physical activity programs.
- 4) Students will demonstrate knowledge and understanding of the statistical procedures used in the measurement and evaluation process.
- 5) Students will demonstrate appropriate use of statistical procedures, including the use of Excel and/or SPSS/PASW.
- 6) Students will be able to utilize descriptive and inferential statistics to make decisions.
- 7) Students will demonstrate understanding of the principles of reliability, objectivity, and validity when making evaluative decisions about individuals and groups.

- 8) Students will demonstrate understanding of the principles associated with cognitive test development, utilization, and revision.
- 9) Students will demonstrate sound decisions when choosing fitness tests for adults and children.
- 10) Students will demonstrate understanding of the use of sound psychometric principles when using measurement in the psychomotor domain.
- 11) Students will demonstrate understanding of the use of sound psychometric principles when using measurement in the affective domain.

Unit 1 – Introduction to Tests and Measurements in Human Performance and Descriptive Statistics

Why are you studying this content? For whom is it important? Why?

What are the tools that I need to have during this course?

- First Class Day
- Class overview and responsibilities
- Concepts in Tests and Measurements (1)
- Using Technology in Measurement and Evaluation (2)
 - SPSS/PASW
- TREST data collection activity
- Descriptive Statistics and the Normal Distribution (3)
 - Central tendency
 - Variability
 - Standard Scores & the z-Table (page 51)

Exam # 1 – July 15

Unit 2 – Correlation, Prediction, & Inference

This is NOT a “statistics” course. There is much more “logic” in this course than statistics. Nevertheless, you need to learn some basic statistical procedures that we will use throughout the course.

- Correlation and Prediction (4)
- Inferential Statistics (5)

Exam #2 – July 22

Unit 3 – Reliability and Validity Theory

The CORE components to this course are “reliability and validity.” Making decisions that are accurate is important to you, regardless of the career path you choose. Reliability and validity theory provides you the basic understanding for making accurate decisions.

- Norm-Referenced Reliability and Validity (6)
- Criterion-Referenced Reliability and Validity (7)

Exam #3 – July 29

Unit 4 – Human Performance Applications

Now that you know why it is important to assess, have the tools mastered, and understand reliability and validity theory, it is time to focus on the application of the why, tools, and theory for assessment in the cognitive, psychomotor, and affective domains. **You will need to read these chapters EARLY in the semester because they will relate to your Group Projects.** These chapters are the applications of what you have learned throughout the semester so you will need to think about the concepts presented in chapters 1-7 and how they relate to these specific applications.

- Developing Written Tests and Surveys (8)
- Physical Fitness and Activity Assessment in Adults (9)
- Physical Fitness and Activity Assessment in Youth (10)
- Assessment of Sport Skills and Motor Abilities (11)
- Psychological Measurements in Sports and Exercise (12)
- Classroom Grading: A Summative Evaluation (13)
- Performance-Based Assessment: Alternative Assessments for Measurement and Evaluation (14)

Group Project Submission – August 6 (NOT accepted if late- score is zero)

Exam #4 – August 7

General

This course is non-traditional in that you are expected to read and conduct online activities PRIOR to coming to class. You will meet in the classroom three times per week. During that time, we will discuss what you have read and completed PRIOR to coming to class. The nature of this class places a HEAVY BURDEN on students to prepare BEFORE coming to class. Failure to do so will result in your being LOST during class activities!

You are expected to complete online activities PRIOR to coming to class. All lectures are available online. Do not plan on missing any classes. We will cover new material EVERY day. It is important that you attend class. You are expected to be in class on time at each meeting. You can do best in this class if you conduct the online activities, attend class, take notes, do the homework activities/problems, study with your classmates, and speak with the instructor if you have questions about your class progress. I am attempting to set you up for success, not failure.

Please remove your hats/caps as you enter the classroom. You may not wear a hat/cap of any type (including, but not limited to, baseball, Easter, sombrero, bonnet, cowboy, bandera, nylons, etc.) during any class period. Please see me personally if you have a religious- or medically-based matter to discuss related to this policy.

Homework is available on the textbook Internet site. Your instructor will inform you if a homework assignment is to be submitted to the instructor. Your instructor will NOT generally collect the homework problems available to you on the textbook Internet site. If anything is to be collected, it will be collected at the BEGINNING OF CLASS at the next class meeting. The instructor will not accept it if you come to class late. It will be helpful if you complete the homework (practice) materials. If your grade is borderline at the end of the semester, the instructor will also consider your attendance, assignments, class participation, etc. to assign the final grade. However, you should not expect this to greatly influence your grade. You should work hard to earn grades in this class and not depend on a “gift” at the end of the semester. No gift will be forthcoming! **Do not ask for extra credit – NONE will be provided** other than the possible 10-point attendance bonus (and others possibilities that the instructor might create for the ENTIRE class). **Begin thinking about your course grade TODAY!**

There may be days when we will not hold class in the classroom – you will be informed ahead of time when these occur. You may have a guest lecturer, an Internet-based activity, Blackboard assignment, and/or outside assignment during these times. You are to follow the class expectations even if your course instructor is not personally in the room. You will be expected to go to Blackboard and conduct work related to the portion of the course that we are completing at that time. Do NOT think of this time as a “walk” but rather an opportunity to forego the drive to the UNT campus, to work on your own or in a group, to complete homework and/or computer assignments, complete a group assignment, etc. You should think of this time as class time and not “free” time. You may or may not be required to complete an assignment to be turned in following such days. If an individual or group assignment is due, you will be so informed prior to the due date.

Arriving late, leaving early, or stepping out of class to use your cell phone is distracting to other students in class. Cellular phones and other electronic devices can be distracting if used inappropriately. Turn cell phones to vibrate or off when entering the classroom. **If your cell phone rings during class, you will be asked to leave the class and counted absent.** You are not to have earphones of any type in during class. All electronic devices are to be turned off prior to entering the classroom. You may use audio to record the lectures or have your computer on for taking notes. Students found to have computers on for purposes other than THIS class will be asked to leave the room for that day and counted absent. During “mini-tests,” tests, or other examination activities cell phones and other electronic devices must be turned off and placed out of sight. Failure to do so may result in you: (a) being asked to leave the classroom; and/or (b) receiving a “zero” on the activity (“mini-test”, test, etc.).

If you are on a traveling squad of any type, you are to submit your travel schedule to the instructor as soon as possible.

Blackboard

Blackboard is used to report test scores to you. Numerous course learning activities are available to you on Blackboard. You should remember to check Blackboard regularly.

All e-mails sent to the instructor should go directly to tao.zhang@unt.edu. Any e-mail communication with the instructor should come from your UNT Eagle Connect account as other e-mails may go directly into “spam.” The instructor’s e-mail address is tao.zhang@unt.edu and that is the communication avenue you should use. It is recommended that you put “KINE 4050 [and whatever else is appropriate]” in the subject line of your e-mail communication so that the instructor is aware that this is communication about KINE 4050.

Class Participation

All students are expected to arrive on time, have completed the class Internet activities, have read material PRIOR to coming to

class, and be prepared to participate in class activities. Students are NOT 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 may be referred to the Dean of Students.

Class Outlines

Class Outlines and homework problems are available through the textbook Internet site. You will need a Key Code to enter the textbook site. The Key Code is provided to you when you purchase the textbook. Alternatively, you can purchase a Key Code for use with a used book. You should go to the Internet and locate the outlines and have them printed and bring them with you to class.

Examinations

All regularly scheduled examinations are multiple choice. Read the directions before starting each examination. You will be permitted to have 60 minutes to complete each of the four examinations. No make-up examinations will be given (unless there are EXTREME circumstances). Any make-up examination will generally **NOT** be multiple choice in nature.

You may use a ONE-PAGE CHEAT SHEET for each examination. You may write anything you want on both sides of a sheet of paper (8.5 x 11 inches). When you turn in your test, you must also turn in your cheat sheet. **You are not to share or copy cheat sheets. Your cheat sheet MUST be UNIQUE and in ink and/or computer generated.**

The instructor will provide a Scantron sheet for you for each examination. You are to do **ALL of your work in the test booklet and mark your answer on the answer sheet provided for you.** You must complete the examination in pencil. You may use a calculator on each examination. You may **NOT** share calculators with classmates during an examination. You may **NOT** have your cell phone on or out during tests nor are you permitted to use a cell phone or tablet calculator on tests.

You are expected to be present for each examination. Take care of all of your personal matters prior to starting the test (e.g., going to the bathroom, getting water, having tissue available, pencils, etc.). Do **NOT** ask for an exception to take an examination at some other time. If you arrive late for an examination, you have only until the allotted end time to complete the examination. If you arrive late for the start of an examination and any student has already completed the examination, you will **NOT** be permitted to take the examination and your grade will be zero on that examination.

Permission to take an examination at a time other than the scheduled time will **ALMOST NEVER** be granted. Failure to take the examination at the scheduled time will result in a zero for that examination. Excuses such as oversleeping, car problems, etc. are **ALMOST NEVER** granted. You need to plan ahead and be ready to take the examination as scheduled. Should you miss an examination and be granted the opportunity to take a make-up examination, you will take an examination much like the students in class but multiple choice items may be changed to short answer essay or completion. Any make-up examination will be conducted at the instructor's convenience and not necessarily the student's most convenient time. Consider the fact that there are many students in class and all might have different "convenient" times. **Best advice – take the examination as scheduled.**

Attendance and Extra Credit

It is impossible for the instructor to differentiate between "excused and unexcused" absences. Thus, an absence is an absence. Two students might be equally ill and one may go to the physician and the other chooses not to do so. One may have medical insurance and the other not. One student has "child care issues" and another does not. One student has a reliable car and the other depends on a car pool. All of these different issues result in making different and difficult decisions about the adequacy of your absence excuse. Thus, 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 absent.**

Do **NOT** simply stop coming to class without taking formal steps to drop the course. The instructor will drop you "passing" (WP) until that 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.

Course Grades – The date to begin thinking about your course grade was July 7, 2014

The general guidelines for course grades are:

85%	=	lowest A
70%	=	lowest B
60%	=	lowest C

I will add the total number of points that you accumulate throughout the course from 1) all four examinations (maximum of 400), 2) all points from activities in online content in all units (maximum of 20), INDIVIDUAL Experiential Project points (maximum of 80), and possible bonus points (e.g., 10 points for attendance). This total will be divided by the total number of possible points. This is illustrated below. You should be able to determine your grade at any time during the semester based on this strategy. The above grading guidelines are then used.

Determine your total points from: Examination #1 score + Examination #2 score + Examination #3 score + Examination #4 score + Activities in online content in all units + INDIVIDUAL Experiential Project points This TOTAL is the NUMERATOR for calculating your course grade	Divide the total on the left by: Examination #1 possible points + Examination #2 possible points + Examination #3 possible points + Examination #4 possible points + 20 (Highest possible online engagement points) + 80 (Highest possible Experiential points) This TOTAL is the DENOMINATOR for calculating your course grade
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Academic Dishonesty

Cheating will not be tolerated in the class. You are not to receive information from another student or give information to another student during an examination. You are to use only your memory, your cheat-sheet, and calculator during examinations. Work submitted is to be yours alone and unique. Students caught cheating during an examination or assignment will be charged under the University's Code of Student Conduct and Discipline. Among other punishments, 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.

You are not to give other students enrolled in any other section of this class any information about forthcoming tests or homework assignments. You are, of course, encouraged to study and practice together. However, students who are enrolled in a section that has completed a specific activity, assignment, or examination are not to give any information to other students about the content of such activities. Students doing so will be charged under the University's Code of Student Conduct and Discipline and run the risk of earning a score of zero, grade of "F" for the course, or being dismissed from the University.

Acceptable Student Behavior

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunities 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

Academic Integrity

Academic Integrity is defined in the UNT Policy on Student Standards for Academic Integrity. Any suspected case of Academic Dishonesty will be handled in accordance with the University Policy and procedures. Possible academic penalties range from a verbal or written admonition to a grade of "F" in the course. Further sanctions may apply to incidents involving major violations. You will find the policy and procedures at: <http://vpaa.unt.edu/academic-integrity.htm>

Instructor Office Hours & Contacting the instructor

Your instructor will GENERALLY be around his PEB office before and after class. The instructor will attempt to be available during posted office hours. However, "Office Hours" does NOT mean that the instructor sits in his office and waits for people to

come and see him. If you want to meet with the instructor about something specific, it is best to make an appointment. Given the amount of time that students and the instructor spend on campus, it should not be too difficult to arrange a convenient time for both parties. If you are not able to make a previously scheduled appointment, common courtesy suggests contacting the person ahead of time.

American with Disabilities Compliance:

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking 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 an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of 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 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 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. The designated liaison for the Department of Kinesiology, Health Promotion and Recreation is Ms. Doryce Judd (Doryce.Judd@unt.edu). 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 this class, the instructor must advise you of regarding collection and distribution of test results, "mini-test" scores, homework assignments, roll sheets, 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.

SETE (Student Evaluation of Teaching Effectiveness)

The Student Evaluation of Teaching Effectiveness (SETE) 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 SETE to be an important part of your participation in this class.

Access to outlines, homework, practice problems, etc. on the WWW

Class will be delivered with "slide" presentations based on graphics presentations that are directly related to the online content you were to complete that week. You are EXPECTED to do the following before coming to class:

- 1) Complete the online videos, lectures, readings and activities available on Blackboard.
- 2) Read the chapters that we will be discussing in class. Work the MIs, do the various computer assignments, homework assignments, etc., as appropriate.
- 3) You will be immediately taken to my Internet site. Click on the link for "**KINE 4050 – Quantitative Analysis in Kinesiology**", and then click on "**Link to Student Resources**". You will need a Key Code to enter the textbook resources site. The Key Code is provided when you purchase the textbook.
- 5) The textbook site has many practice problems, answers, and ancillaries for each chapter. You should use all of these as you complete this course. If you attend class, do the Mastery Items, complete the homework assignments, review the ancillaries, complete the Blackboard activities, do the computer work, etc., there is no reason to do poorly in this class.