

# **University of Texas at Arlington**

## KINE 3325 – Undergraduate Research Methods

## Summer II - 2014

**Instructor Information:**

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*Office hrs:* By appointment

**Course content:**

*[Catalog Description]* Current practices in the conduct of quantitative research, measurement, and evaluation processes applied to programs related to exercise science, pedagogical kinesiology, athletic training and related fields will be examined. Enrolled students will develop and conduct a research project based on their declared discipline. Prerequisite: KINE 1400, KINE 3315, MATH 1302, MATH 1308, or permission of department.

**Course Information:**

*Class meeting:* MTWR 10:30am – 12:30pm, SH 332

*Texts (not required): Research Methods in Physical Activity, 6th Ed (Thomas, Nelson, and Silverman)*

*Measurement and Evaluation in Human Performance, 10th Ed (Morrow, Jackson, Disch, and Wood)*

*Website: Blackboard*

**Course Objectives**:

This course has several objectives. By the completion of this course, you should:

1. Be able to read published research and evaluate article contents within one or several areas of Kinesiology
2. Explain the role of research methodology in informing practices in Kinesiology
3. Understand the different types of research (qualitative, quantitative) within the field of Kinesiology
4. Understand IRB procedures
5. Develop a logical, testable research problem.
6. Create hypotheses based on the research problem
7. Identify and select appropriate research designs for different research questions.
8. Understand and perform basic statistics
9. *To provide athletic training students with the knowledge of techniques related to evidence based practice that are necessary for effective performance as an athletic trainer (Athletic Training Education Competencies [5th ed.] – EBP 4.0, 5.0, 6.0, 7.0, and 8.0).*

* *EBP-4.0 - Describe a systematic approach (e.g., five step approach) to create and answer a clinical question through review and application of existing research*
* *EBP-5.0 - Develop a relevant clinical question using a pre-defined question format (e.g., PICO= Patients, Intervention, Comparison, Outcomes; PIO = Patients, Intervention, Outcomes)*
* *EBP-6.0 - Describe and contrast research and literature resources including databases and online critical appraisal libraries that can be used for conducting clinically-relevant searches.*
* *EBP-7.0 - Conduct a literature search using a clinical question relevant to ...athletic training practice using search techniques (e.g., Boolean search, Medical Subject Headings) and resources appropriate for a specific clinical question.*
* *EBP-8 - Describe the differences between narrative reviews, systematic reviews, and meta-analyses.*

Several assignments will be used to meet these objectives. Your semester project consists of a well-crafted **research proposal**. Throughout the semester you will deliver key components including several rough drafts and a final proposal. You will deliver components of the project on specified dates to ensure satisfactory progress and so that you may get feedback at each important stage. To enhance the quality and reality of your proposal, you will be guided by round-table discussions and reflective writing assignments to apply this knowledge to your proposals and gain a broader perspective on research as it might apply to your professional development. ***The due dates for all assignments are firm. Plan accordingly. Late projects are not accepted.***

Class Attendance is EXPECTED. You will be working individually and with peers. There will be several in class assignments that require that you are present. Class participation IS a major part of your learning experience. Be prepared to contribute so that your peers have an opportunity to learn from your ideas.

Exams: There will be two exams that comprise 30% of the final grade. There will be no make-ups for missed major exams, except for university excused absences that must be turned in one week prior to the exam. However, in cases of extreme emergencies contact the instructor before the exam and your situation will be *considered* for approval or denial. Without notification, your absence on exam day gives you a zero grade for the exam. Unless you have a university excused absence, even with notification there is no guarantee that you will be allowed to make up the exam. You will need your UTA ID, a Scantron (882-E) and a #2 pencil for each of the major exams.

Plagiarism tutorial: Because this class will involve a major research proposal, it is most important to understand how to cite/acknowledge sources. Please take the UTA library tutorial on the topic (found on <http://library.uta.edu/plagiarism/>), print your results, and turn it in on the assigned date.

**Important Information:**

E-Mail Policy: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

You may email me at any time if you need information. I will communicate with you through class email. You are responsible for all the content and messages that I send through your UTA e-mail account, even if you don’t check it. NOTE: I will not respond to emails sent after 5:00 pm on the day before an assignment is due.

Drop policy:Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/ses/fao>).

Americans with disabilities act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. According to the UT System Regents’ Rule 50101, §2.2, "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts."

*\* The Department of Kinesiology has zero-tolerance policy regarding dishonesty.*

Student Support Services Available: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may contact the Maverick Resource Hotline by calling 817-272-6107, sending a message to [resources@uta.edu](mailto:resources@uta.edu), or visiting [www.uta.edu/resources](http://www.uta.edu/resources).

Student Feedback Survey:At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory will be asked to complete an online Student Feedback Survey (SFS) about the course and how it was taught. Instructions on how to access the SFS system will be sent directly to students through MavMail approximately 10 days before the end of the term. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback data is required by state law; student participation in the SFS program is voluntary.

Timeline for grade grievances: Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current undergraduate catalog. The student has one calendar year from the date a grade is assigned to initiate a grievance. The normal academic channels are 1) Department Chair, 2) Academic Dean, and 3) the Provost.

**Assignments/Grading Policy:**

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| --- | --- | --- |
| Item | Description | Points |
| Research proposal | Research introduction, literature review, and experimental methods | 30 |
| Exams (2@15 pts each) | All class content up to exam day | 30 |
| Research letter of intent | Preliminary ideas for research proposal | 5 |
| RP first draft | Introduction, problem statement, hypotheses, and short literature review | 10 |
| RP second draft and Peer Proposal Critique | Each student provides constructive feedback on 3 - 4 student proposals | 10 |
| Class Participation | Participation in lectures/discussions/group discussions | 5 |
| In-class assignments | Most class days will involve assignments and/or quizzes to be done / turned in in class | 10 |
| **Total** | | **100** |

***Grading Scale (in Percent)****:*

|  |  |  |
| --- | --- | --- |
| **Grade** | **Points** | **Descriptor** |
| **A** | 100 – 94 | Superior |
| **A-** | 93.9 – 90.0 | Excellent |
| **B+** | 89.9 – 87.0 | Very good |
| **B** | 86.9 – 84.0 | Good |
| **B-** | 83.9 – 80.0 | Above average |
| **C+** | 79.9 – 77.0 | Average + |
| **C** | 76.9 – 74.0 | Average |
| **C-** | 73.9 – 70.0 | Average - |
| **D** | 69.9-65.0 | Below average |
| **F** | 64.9 and below | Unsatisfactory work |

**Notes: *The grades of A and A- are reserved for overall work of the very highest quality*. Completed work does not automatically constitute an A grade.**

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|  | **Day** | **TOPICS** | **Assignments / Activities** |
| **Week 1** | **July 8**  **Tuesday** | Part 1: Course Overview & Syllabus  Part 2: Intro to Research Methods |  |
| **July 9**  **Wednesday** | Part 1: Research Methods in KINE  Part 2: Developing the problem/ hypothesis |  |
| **July 10**  **Thursday** | Part 1: Literature Review  Part 2: Using the Library | **Plagiarism tutorial results due** |
| **Week 2** | **July 14**  **Monday** | Part 1: Presenting the problem  Part 2: Critiquing research articles |  |
| **July 15**  **Tuesday** | Part 1: Round Table discussion  Part 2: Round Table discussion | **Letter of intent due** |
| **July 16**  **Wednesday** | Part 1: Grant applications  Part 2: Formulating the method |  |
| **July 17**  **Thursday** | Part 1: Formulating the method  Part 2: Ethical Issues and the IRB (Robin Dickey) |  |
| **Week 3** | **July 21**  **Monday** | Part 1: Peer meetings  Part 2: Review | **First draft of research proposal due** |
| **July 22**  **Tuesday** | **Part 1: Exam I**  Part 2: Peer meetings |  |
| **July 23**  **Wednesday** | Part 1: Experimental Design  Part 2: Introduction to Statistics |  |
| **July 24**  **Thursday** | Part 1: Descriptive Stats  Part 2: Descriptive Stats |  |
| **Week 4** | **July 28**  **Monday** | Part 1: Criterion-Referenced Standards  Part 2: Norm-Referenced Standards | **Second draft of research proposal due (6 copies)** |
| **July 29**  **Tuesday** | Part 1: Correlation  Part 2: Prediction | **\* Last day to drop class** |
| **July 30**  **Wednesday** | Part 1: T-tests  Part 2: Analysis of Variance |  |
| **July 31**  **Thursday** | Part 1: Peer meetings to discuss critiques  Part 2: Peer meetings to discuss critiques | **Peer proposal critique forms due** |
| **Week 5** | **August 4**  **Monday** | Part 1: Peer meetings to discuss critiques  Part 2: Peer meetings to discuss critiques |  |
| **August 5**  **Tuesday** | Part 1: Statistics debate  Part 2: Review |  |
| **August 6**  **Wednesday** | **Part 1: Exam II**  Part 2: Final proposal questions/discussion |  |
| **August 7**  **Thursday** | Part 1: Peer grading  Part 2: Final discussion | **Final Proposal due** |

Tentative Course Calendar (subject to change)