

THE UNIVERSITY OF TEXAS AT ARLINGTON – DEPARTMENT OF KINESIOLOGY

KINE 3300: Functional Anatomy (3 credit hours)

FALL 2017 – COURSE SYLLABUS

Course Type: Hybrid (online & face-to-face)

Class Times: LECTURES: **Section 002** – Tuesday / Thursdays – 9:30 AM - 10:50 AM
Section 004 – Tuesday / Thursdays – 8:00 AM - 9:20 AM

See Course Calendar for course meeting dates.

ONLINE ACTIVITIES: various (as scheduled)

Course Meeting

Location: Room 303 – Physical Education Building (PEB)

Instructors: **M. Chad Gann, ABD, MA, MA, MS, LAT, ATC, LP, CPT**

Office: Physical Education Building (PEB) 304

Office Phone: 817-797-7116 (cell)

E-mail: michael.gann@uta.edu

Website/Profile: TBA

Office Hours: By appointment ONLY.

Recommended Texts: Biel, A. (2013). **Trail Guide to the Body** – Revised 5th edition (**TGB**). Books of Discovery.

Biel, A (2015). **Trail Guide to Movement**, Building the Body in Motion. Books of Discovery.

Purdue Online Writing Lab – AMA Style:

<https://owl.english.purdue.edu/owl/section/2/66/>

Supplemental Texts: Thompson, C. & Floyd, R. (2012). **Manual of Structural Kinesiology** – 18th edition (**MSK**). McGraw Hill.

Do Not Purchase! Biel, A. (2010). *Student Handbook Trail Guide to the Body*. Books of Discovery.

Biel, A. (2010). *Flashcards (Muscular and Skeletal)* Trail Guide to the Body. Books of Discovery.

Supplemental Texts/Readings: Supplemental readings and/or activities will be provided at various times during the course.

Prerequisites: Anatomy and Physiology I (BIOL 2457), Introduction to Exercise Science (KINE 1400), or permission of the instructor.

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Course Description: A study of the musculoskeletal anatomy to include bony landmarks, muscle origin, insertion and action, as well as nerve innervation. Knowledge of the functional anatomy is crucial to the understanding of sports performance, the design of strength training programs, and injury prevention.

Student Learning Outcomes: Upon successful completion of this course, the student should be able to:

1. Outline the organization of the major systems of the body that are affected by exercise
2. Define basic anatomical and kinesiological terminology
3. Identify actions, skeletal origins & insertions, & nerve supply of major muscles in the body
4. Identify bony landmarks and palpation sites of various anatomical structures
5. Explain the interaction between anatomical structure, physiological function, mechanisms of injury

This course addresses the following ACSM Objectives:

- 1.1.0 Knowledge of anatomy as it relates to exercise and health.
 - 1.1.0.1 Knowledge of the basic structures of bone, skeletal muscle, and connective tissues.
 - 1.1.0.4 Knowledge of the definition of the following terms: supination, pronation, flexion, extension, adduction, abduction, hyperextension, rotation, circumduction, agonist, antagonist, and stabilizer.
 - 1.1.1.1 Knowledge to identify the plane in which each muscle action occurs.
 - 1.1.1.4 Knowledge of and skill to demonstrate exercises designed to enhance muscular strength and/or endurance of specific major muscle groups.
 - 1.1.1.7 Knowledge to identify the primary action and joint range of motion for each major muscle group.
- 2.1.0 Knowledge of functional anatomy and biomechanics.
 - 2.1.0.1 Knowledge of the structure and ability to describe movements for the major joints of the body.
- 1.8.6 Knowledge of the following terms: progressive resistance, isotonic/isometric, concentric, eccentric, atrophy, hypertrophy, sets, repetitions, plyometrics, Valsalva maneuver.
- 1.1.0.3 Ability to identify the major bones and muscles. Major muscles include, but are not limited to, the following: trapezius, pectoralis major, latissimus dorsi, biceps, triceps, < rectus abdominis, internal and external obliques, erector spinae, gluteus maximus, quadriceps, hamstrings, adductors, abductors, and gastrocnemius.
 - 1.1.1.3 Ability to describe the following curvatures of the spine: lordosis, scoliosis, and kyphosis.
- 1.8.2 Ability to describe exercises designed to enhance muscular strength and/or endurance of specific major muscle groups.

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Evaluation:

Attendance	10%
Exam 1 (Online)	15%
Exam 2 (In-Class: Written and Practical)	20%
Exam 3 (In-Class: Written and Practical)	20%
Quizzes	20%
Biomechanical & Exercise Analysis Project	15%

Grading Scale:

A = 90% of total points
B = 80% of total points
C = 70% of total points
D = 60% of total points
F = <60% of total points

Total 100%

COURSE ACTIVITY DESCRIPTIONS:

Exams: Exam 1 will be administered online. The same rules apply for Exam 1 as they do for all quizzes. All exams thereafter will be administered in class. Because Exam 1 is more of a review of prerequisite material, it is not worth as much as Exam 2 and 3. Exam 2 and 3 will consist of similar content as the quizzes. However, they will also consist of a practical portion in which students will identify specific labeled anatomy landmarks on anatomical models. The instructor reserves the right to modify the practical portions of the exam as needed.

Quizzes: Each quiz will be taken online via Blackboard. Quizzes will be open immediately following the lab portion of the class that pertains to each quiz and will remain open until midnight before the following lecture. Each quiz will be timed and time limits will vary based on the number of questions.

Quizzes are to be taken independently. **Use of partners are prohibited.** The purpose of the quizzes is for the student to apply knowledge gained from lecture and lab portions of the course. Failure to work independently will only hinder students' success on in class written and practical exams.

Please note: You must submit all questions before the time the quiz is due, so be sure to allow plenty of time (in other words, if you start a quiz or exam before the cut-off time, but go over the due date / time, the system will not allow you to submit the quiz). You will also need to take the quiz in a browser with pop-ups and JavaScript enabled.

Each quiz may contain multiple choice, true/false, matching, and pin-point anatomy questions (hot spots) taken from the chapters in your book, lecture presentations, and/or labs. This makes attendance to all scheduled classes essential to your success in this course.

Course Project: The purpose of these analysis projects is to assist students in actively applying the knowledge gained from this course, and to be able to share with someone in a brief, detailed manner how knowledge of the functional anatomy is crucial

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to the understanding of sports performance, the design of strength training programs, and injury prevention.

Cover Page
Assess Form 1
BAP 1
Assess Form 2
BAP 2

The **Biomechanical Analysis Project** will consist of the student performing a basic functional assessment on 3 different subjects (you will choose 2 of the 3 subjects for the report). As instructed in class the student will use assessment tools and knowledge to assess subjects performing a functional overhead squat assessment.

Upon completion of the project the following will be submitted:

The final assessment form for the 2 subjects (form will be provided) and 1-page analysis (double space, 12 font, normal margins) breaking down in detail what the assessment means (check points, dysfunctions, causes, etc.) for both subjects. This will be a total of 4 pages (2 subject assessment forms along with the 2 one-page analysis documents).

EAP 1
EAP 2

The **Exercise Analysis Project** will consist of students being present the day of the analysis. Two exercises will be performed (recorded only for those in attendance).

Each student is to write a **1-page analysis**, per exercise (double spaced, 12 point font, normal margins).

The **Exercise Analysis** should include:

- the muscles used in the movement
- primary action of each muscle
- the agonists, antagonists, stabilizers, synergists and neutralizers
- the plane in which the primary movement(s) take(s) place (if there are multiple planes of movement, list them and explain.
- if room permits also include primary origins and insertions. 2 total pages will be submitted for the weight room lift analysis (1 for the 2 chosen lifts).

Total Pages: 7

Both projects should equal a total of 7 pages (no more/no less) including a cover page. Submission instructions are listed with the assignment on Blackboard. Anything after the date listed in BlackBoard will not be accepted. Rough drafts may be emailed prior to the deadline and will be reviewed by the professor as time permits. Projects will not be reviewed within 1 week of the assignment due date.

For maximum credit, you must:

1. **Be thorough**, but to the point.
2. **Be precise**. Spell everything correctly and use the correct terminology.
3. **Be correct**. Don't make mistakes. Proof and recheck your work.

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4. **Be smart.** You can turn these projects in early and I will take a look at it and comment, so that you can get feedback before your final submission. Remember, I will not review projects within 1 week of the project due date.

Bonus Points: Bonus points will be randomly awarded in various forms throughout the semester. However, you must earn these points. **All the more reason to attend class!**

Bonus points will be awarded to an exam grade based on the material that is being covered at the time.

Expectations for Out-of-Class Study Time:

“You only get out what you put in.” As a general rule, beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least 9 additional hours per week outside of class completing course-related activities, reading required materials, completing assignments, preparing for exams, etc.

COURSE CALENDAR / OUTLINE:

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.

See Course Outline / Calendar provided in a separate document.

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DEPARTMENT OF KINESIOLOGY AND UNIVERSITY ACADEMIC POLICIES

Attendance: At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I have elected to take attendance. Students are expected to be in attendance for each class meeting. If a student has a university-approved excuse, arrangements may be made prior to the missed day. If a student is sick, then a doctor's note must be provided.

Make-up Exams: I understand that life happens and things come up. However, it is the student's responsibility to make the instructor aware ahead of time, if not able to take a scheduled in-class exam at the allotted time and date. Also, the student must have a relevant excuse (i.e. family death, illness, etc.). No make-up opportunities will be afforded for Exam 1 and Quizzes as they are online and have several days allotted to complete. If you anticipate missing an exam due to a university approved absence, then prior arrangements must also be made.

Expectations for Out-of-Class Study: A general rule of thumb is: for every credit hour earned, a student should spend 3 hours per week working outside of class. Hence, a 3-credit course might have a minimum expectation of 9 hours of reading required materials, completing assignments, preparing for exams, etc.

<p>Emergency Phone Numbers: In case of an on-campus emergency, call the UT Arlington Police Department at 817-272-3003 (non-campus phone), 2-3003 (campus phone). You may also dial 911.</p>

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Department of Kinesiology – Drop Policy: It is the responsibility of the student to add or drop classes or withdraw from school within the appropriate time frame established by the University Registrar. (The departments are not allowed nor obligated to add or drop students from classes.) Deadlines can be found in the current Schedule of Classes. Deadlines may differ for Graduate Students and Undergraduate Students.

Department of Kinesiology Grade Requirement: As stated in the undergraduate catalog, you are required to earn a “C” or better in ALL Kinesiology and Health courses to maintain your status as a Kinesiology major. Therefore, in the future, you will be required to retake any Kinesiology course in which you earned a “D” or “F”. These classes must be taken at UTA. If a “D” or “F” grade is earned you will need to contact your academic advisor, since you will need permission to continue to take Kinesiology and Health courses until the grade is replaced with a “C” or better grade. If you have any questions regarding this policy, please contact your academic advisor.

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 University Catalog. For undergraduate courses, see <http://catalog.uta.edu/academicregulations/grades/#undergraduatetext>; for graduate courses, see <http://catalog.uta.edu/academicregulations/grades/#graduatetext>.

Disability Accommodations: UT 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)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. 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 disability. Students are responsible for providing the instructor with official notification in the form of a **letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

Non-Discrimination Policy: *The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.*

Title IX Policy: The University of Texas at Arlington (“University”) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit*

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www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.

Academic Integrity: Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University. Additional information is available at <https://www.uta.edu/conduct/>.

Electronic Communication: 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>.

Campus Carry: Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

Student Feedback Survey: At the end of each term, students enrolled in face-to-face and online classes categorized as "lecture," "seminar," or "laboratory" are directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback via the SFS database is aggregated with that of other students enrolled in the course. Students' anonymity will be protected to the extent that the law allows. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week: For semester-long courses, a period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review

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Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located outside the PH 103 hallway (either through the north emergency egress or south to the main hallway). When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Student Support Services: 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 visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at <http://www.uta.edu/universitycollege/resources/index.php>.

Writing Center: The Writing Center Offers free tutoring in 20-, 40-, or 60-minute face-to-face and online sessions to all UTA students on any phase of their UTA coursework. Our hours are 9 am to 8 pm Mon.-Thurs., 9 am-3 pm Fri. and Noon-6 pm Sat. and Sun. Register and make appointments online at <http://uta.mywconline.com>. Classroom Visits, workshops, and specialized services for graduate students are also available. Please see www.uta.edu/owl for detailed information on all our programs and services.

Kinesiology Librarian to Contact and Library Resources:

Peace Ossom Williamson	817-272-6208	peace@uta.edu
Library Home Page	http://www.uta.edu/library	
Subject Guides.....	http://libguides.uta.edu	
Subject Librarians	http://www.uta.edu/library/help/subject-librarians.php	
Database List	http://www.uta.edu/library/databases/index.php	
Course Reserves	http://pulse.uta.edu/vwebv/enterCourseReserve.do	
Library Tutorials	http://www.uta.edu/library/help/tutorials.php	
Connecting from Off- Campus	http://libguides.uta.edu/offcampus	
Ask A Librarian.....	http://ask.uta.edu	

The following URL houses a page where we have gathered many commonly used resources needed by students in online courses: <http://www.uta.edu/library/services/distance.php>.

The subject librarian for your area can work with you to build a customized course page to support your class if you wish. For examples, visit <http://libguides.uta.edu/os>

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