

KINETIC ANATOMY

APK 4103C/APK 5102

3 CREDITS

SPRING 2019

You should always have enough abdominal tone to take a whack to the belly.

~Kelly Starrett, DPT

- INSTRUCTOR:** **Joslyn Ahlgren, Ph.D.**
Office: FLG 108
Office Phone: 352-294-1728
Email: jahlgren@ufl.edu Prefer email in CANVAS
- LECTURE TIME/ROOM:** T/R Period 2: 8:30-9:20am FLG 225
- LAB TIME/ROOM:** R Periods 4-5: 10:40am-12:35pm FLG 107B
- OFFICE HOURS:** Weekly office hours will be posted in CANVAS. Students can also request a private meeting or a moving meeting (walk and talk) via CANVAS email.
- COURSE WEBSITE:** <https://lss.at.ufl.edu/>

COURSE DESCRIPTION: This is a combined lecture and laboratory course designed to serve as a link between the general aspects of anatomy and biomechanics to specific applications in fitness/sport performance and--to a minor extent—clinical situations. This course will provide an in-depth review of musculoskeletal anatomy as a foundation for learning components of simple and complex motor tasks with an emphasis on proper execution and analysis of exercise technique, muscle balance, and flexibility/mobility.

TEXTBOOK: Content for this course was derived largely from the following four books. I highly recommend purchasing the first book. If you cannot afford that one, get the second one. The other two books are TOTALLY OPTIONAL...I wouldn't necessarily recommend buying them.

Manual of Structural Kinesiology, 19th ed., R.T. Floyd, ISBN: 978-0-07-336929-7.

Kinetic Anatomy, 3rd Ed., Robert S. Behnke, ISBN: 978-1-4504-1055-7.

Dynatomy, Whiting and Rugg, ISBN: 978-1-4504-3717-2.

Becoming a Supple Leopard, Kelly Starrett, ISBN: 978-1-936608-58-4.

If you struggle with memorizing and find flashcards helpful, I recommend the following:

Anatomy and Kinesiology Flashcards, Human Kinetics, ISBN: 978-1-4504-2837-8.

PREREQUISITE KNOWLEDGE AND SKILLS: Students must have taken undergraduate Anatomy or Biomechanics prior to taking this course. Although not necessary, a strong foundation in

musculoskeletal anatomy, muscle physiology, and/or personal experiences with exercise will enhance student success in this course.

PURPOSE OF COURSE: The purpose of this course is to reinforce prior knowledge of musculoskeletal anatomy in an applied setting. Additionally, this course will prepare students to assess joint movements during specific motor tasks and teach proper exercise technique.

GENERAL COURSE GOALS: After taking this course, students should be able to:

- Name and identify all bones, major bone markings, most muscles, joints, and major joint structures below the skull.
- Give the origin, insertion, and action for major muscles below the skull.
- Contrast healthy vs. dysfunctional joint movements at major joints of the body.
- Predict muscular causes for dysfunctional joint movements and propose corrective solutions for common movement errors – especially for common exercises.

TEACHING PHILOSOPHY AND EXPECTATIONS: I am personally very passionate about health and fitness—and I hope that comes across in my teaching. Students can expect of me: energetic lectures, organized and neat course materials, and reasonable availability to meet with them outside the classroom. **I expect students to put their best, most enthusiastic foot forward.** I expect students to put in the time needed to learn the anatomy involved in the movements we'll be discussing in class and participate in all discussions and lab activities.

GENERAL COURSE FORMAT: Tuesdays will be devoted to lecture. Power point slides will be provided in CANVAS. Please print or download those slides and bring them to class for note-taking. Most Thursdays will be devoted to in-class activities and small-group discussions that will provide more active learning. Please come dressed to participate in movement-based activities—announced in CANVAS. Labs will consist of a 2-period block in which students can explore anatomy models and gain a better understanding of the 3-D nature of the structures introduced in lecture. There may also be movement -based activities and presentations in lab.

COURSE POLICIES:

ATTENDANCE POLICY: Attendance will be taken at every lecture and lab. Tuesday lecture attendance is not mandatory, but it is strongly recommended. It is mandatory that students participate in at least 10 of the 11 in-class activities and at least 11 of the 12 labs. ***Students who participate in all 12 labs are eligible for a grade bump if they are within 1% of a higher grade.*** Unexcused lab absences are not permitted. For every *unexcused* lab or class activity absence that is not made-up, the student will receive a grade penalty. For example, if you earned a B+ in the course but have an un-made up lab or class activity, you will receive a B. If you have to miss class for a legitimate reason, please contact the instructor to request a make-up assignment. Documentation of a **valid** reason for missing must accompany the request. Make-up assessments are at the discretion of the instructor.

EXAM MAKE-UP POLICY: Unexcused, missed assessments will result in a zero on the assessment (this includes contacting the instructor **after** the assessment if you are ill). Make-up assessments will be given at the discretion of the instructor. To schedule a make-up assessment, please fill out the **make-up exam request form** posted in CANVAS and submit it to your course instructor as soon as possible. Documentation will be required. If you have a serious emergency or life event, please contact the Dean of Students Office (www.dso.ufl.edu) and they will contact your instructor so that you do not have to provide documentation of the emergency/death in order to get a make-up assessment.

Requirements for class attendance and make-up exams, assignments, and other work are consistent with the university policies that can be found at <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

PERSONAL CONDUCT POLICY: You are expected to treat your fellow classmates, TAs, and the instructor with respect and politeness. Things that will not be tolerated include (1) inappropriate use of technology during class or lab, (2) disrespectful language or actions, and (3) honor code violations. Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the **recently revised UF Student Honor Code** at <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>. Honor code violations of any kind will not be tolerated and sanctions will be determined by the course instructor for first-time violators. Any use, access, or handling of technology during an exam will result in a zero on the exam **and** potential failure of the course. All allegations, regardless of the severity, will be reported to the Dean of Students Office for University-level documentation and processing.

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

Students registered with the DRC: Practical exams and lab exams will be administered in the lab, *not at the DRC* – thus, no testing request is required. Please just notify your course instructor of your approved accommodations so that an appropriate solution can be agreed upon. For any in-class assessments, please make sure to make arrangements directly with the course instructor prior to the assessment date. For the final exam, you may take that at the DRC. Please submit your request early in the semester to ensure it is approved on time.

UNIVERSITY POLICY ON COURSE EVALUATIONS: Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu> or directly in CANVAS. Evaluations are typically open

during the last two or three weeks of the semester, but students will be given specific times when they are open.

NETIQUETTE - COMMUNICATION COURTESY: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats.

<http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf> *The instructor for this course will provide constructive feedback on less than professional emails received—heads up.*

GETTING HELP:

For issues with technical difficulties for CANVAS, please contact the UF Help Desk at:

- helpdesk@ufl.edu or (352) 392-HELP - select option 2
- <https://at.ufl.edu/service-teams/uf-computing-help-desk/>

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from Helpdesk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are also available for you:

- Disability resources <https://www.dso.ufl.edu/drc/>
- Ask-a-Librarian <http://cms.uflib.ufl.edu/ask>
- Counseling and Wellness <https://counseling.ufl.edu/>

GRADING POLICIES:

The following table outlines the point-accruing components of the course for both undergraduate and graduate students. The total points earned from each component will be summed and divided by the total points possible in the course.

Undergraduate Evaluation Criteria

Evaluation Components (n)	Points Per Component	Approx. % of Total Grade
Class Participation (10)	4 pts each = 40 pts	40/300 = 13%
Weekly Assessments (11)	10 pts each = 110 pts	110/300 = 37%
Final OIA Exam (1)	50 pts each = 50 pts	50/300 = 17%
Lab Exams (2)	50 pts each = 100 pts	100/300 = 33%

Graduate Evaluation Criteria

Evaluation Components	Points Per Component	Approx. % of Total Grade
Class Participation (10)	4 pts each = 40 pts	40/330 = 13%
Weekly Assessments (11)	10 pts each = 110 pts	110/330 = 33%

Final OIA Exam (1)	50 pts each = 50 pts	50/330 = 15%
Lab Exams (2)	50 pts each =100 pts	100/330 = 30%
Presentation (1)	30 pts each = 30 pts	30/330 = 9%

Class Participation – Students must participate in at least 10 of the 11 in-class activities for full points. Some of these activities will require whole-body movements, so athletic attire is strongly advised. The following rubric will be employed to assign participation points. If you do not receive full credit for participation, a note will be made in the gradebook explaining the deduction. If you disagree with your deduction, please email the instructor to respectfully request a meeting. *Simply showing up to class will not earn you full participation points. If you are introverted, shy, and/or struggle with social interaction, please notify the instructor so a game plan can be generated to help ensure you are successful in the course from day one.*

Preferred (4 pts)	Acceptable (3 pts)	Won't ask you to leave (2 pts)	May ask you to leave (1 pt)	Will ask you to leave (0 pts)
Arrives on time Comments are relevant and reflect understanding and good preparation Clear enthusiasm	Arrives no more than 5 min late Comments are mostly relevant, but understanding may be slightly lacking Not overly enthusiastic, but positive	Arrives more than 5 min late Comments are minimal (“yeah”, “uh huh”) and demonstrate poor preparation Demeanor is sluggish	Arrives more than 10 min late No comments are made Sleeping, texting, disengaged	Absent Disruptive or rude comments are made Drawing others into disrespectful behaviors (showing texts, passing notes, etc.)

Weekly Assessments – Mini “exams” will be administered in the first 15 minutes of each lab. The course instructor will let you know in class on Tuesday of that week what you can expect to see on the assessment that week (i.e., which specific learning objectives to focus on). Generally speaking, the assessment will cover lecture material from that week. Students are expected to engage in independent study prior to lab to prepare for these assessments – which are intended to be brief, but somewhat challenging. Unexcused lab absences will result in a zero on the weekly assessment for that day. Make-up assessments are available to students with excused lab absences.

Final OIA Exam – A final exam will be administered to assess your knowledge of the origins, insertions, and actions of certain muscles (list posted in CANVAS). The format of this exam will consist of incomplete tables that you will be responsible for filling in, some drawing of muscles onto pictures of skeletons, and analysis of images of people moving or in a specific position.

Lab Exams – Students will have two bell-ringer style lab exams in which they will identify structures pointed out on anatomy models. These exams will be free-response (not multiple choice). Illegible answers will be marked as incorrect. Slight latitude will be given regarding spelling. Each exam will be worth 50 points. There will be 50 structures labeled—two questions per station. Students will have one minute at each station.

Graduate Student Presentations - Grad students will give a 15-20 minute presentation on a topic of their choice that is in some way related to class content. **Heavy emphasis should be placed on detailed functional anatomy.** The presentation should be accompanied by a handout for students which should summarize the presentation, list resources used in the making of the presentation, and suggest further reading should students want to explore the topic further. Topics must be approved by the course instructor no later than the first lab meeting. The course instructor will coordinate scheduling with you upon consent of the topic. The rubric below will be used to assess presentations. Any deductions will be explained in the CANVAS gradebook or on a hard copy of this grading rubric to be handed back to the student.

	Excellent (8-10 pts)	Good (5-7 pts)	Fair (2-4 pts)	Poor (0-1 pts)
Scholarly	Includes analysis or synthesis of course materials, personal experiences, and/or scholarly works. Includes citations to external materials of high academic quality (e.g., peer-reviewed). Thoughtful, academic, stimulating. Pertinent to the course.	Usually includes analysis or synthesis of course materials, personal experiences, and/or scholarly works. Citations are of mixed quality (some academic, some less academic). Pertinent to the course.	Significant amount of course material copied or repeated from the course OR copied from external sources without condensing through analysis or synthesis. Citations are of mixed quality—high dependence on corporate websites or the like. Loosely pertinent to the course.	No evidence of cognitive processing of course material or analyzing own experience through the lens of the course content. Not directly relevant to the course. Poorly organized. Poor or no citations given.
Handout	Clear, accurate, concise summary. Clear and organized list of resources. At least 3 appropriate suggested readings. Creative and neatly presented – evident the student went the extra mile.	Summary was clear and accurate, but overly verbose. Clear and organized list of resources. Only 2 appropriate suggested readings. Neatly presented, but no evident enthusiasm or creativity.	Summary was mostly accurate, but may have missed one major point; was unorganized and/or overly verbose. Clear list of resources used, but slightly disorganized. Only 1 appropriate suggested reading. Neatly presented, but no evident enthusiasm or creativity.	Summary was poorly organized, lengthy, and did not cover major points presented. List of resources was poor or not present. Handout was not neat or organized and lacked any enthusiasm or creativity.
Presentation	Correct time (15-20 min). Enthusiastic and clear. PPT slides were not overly wordy. Included good images and excellent examples that added significant value to the presentation. Vocal intonation was good from start to finish.	Time was at least 15 min, but no more than 25 min. PPT slides were not overly wordy. Included somewhat generic images and examples that added moderate value to the presentation. Vocal intonation was mostly good—some lulls.	Time was less than 15 min or more than 25 min. PPT slides were fairly wordy. Included somewhat generic images (or no images) and examples that added little to no value. Mostly monotone speaking	Time was less than 10 min. PPT slides were wordy, unorganized, dull, and overall unnecessary for the presentation. Vocal intonation was entirely monotone and unenthusiastic.

GRADING SCALE: All grades will be posted in the CANVAS gradebook. Any discrepancies with points displayed in the gradebook should be pointed out to the instructor before the last day of class (prior to reading days). There is no curve for this course and grades will not be rounded up unless you qualify for such (see attendance policy). *Any requests for extra credit or special exceptions to these grading policies will be interpreted as an honor code violation (i.e., asking for preferential treatment) and will be handled accordingly.* Minus grades are not assigned for this course. More detailed information regarding current UF grading policies can be found here: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Grade	Percent of Total Points Needed	GPA Impact
A	90.00-100%	4.0
B+	87.00-89.99%	3.33
B	80.00-86.99%	3.0
C+	77.00-79.99%	2.33
C	70.00-76.99%	2.0
D+	67.00-69.99%	1.33
D	60.00-66.99%	1.0
E	0-59.99%	0

TENTATIVE COURSE SCHEDULE:

Dates	Lecture Topic / Book Chapter	Lab
Jan 08	Syllabus review and course introduction	No labs during first week of classes
Jan 10	General Concepts in Musculoskeletal Anatomy	
Jan 15	Levers and General Movement Patterns	Weekly Assessment 1
Jan 17	Muscle Control Formula Introduced	Relearning the skeleton
Jan 22	Core Anatomy (slides 1-24)	Weekly Assessment 2
Jan 24	In-class Discussion and Activity 1 (slides 25-36)	The Core Joints
Jan 29	Core Anatomy (slides 37-55)	Weekly Assessment 3
Jan 31	In-class Discussion and Activity 2 (slides 56-68)	The Core Muscles
Feb 05	Shoulder Anatomy	Weekly Assessment 4
Feb 07	In-class Discussion and Activity 3	The Shoulder
Feb 12	Shoulder Anatomy	Weekly Assessment 5
Feb 14	In-class Discussion and Activity 4	The Shoulder Continued
Feb 19	Elbow/Wrist/Forearm Anatomy	Weekly Assessment 6
Feb 21	In-class Discussion and Activity 5	The Elbow/Wrist/Forearm
Feb 26	Review and prepare for practical exam 1	Practical 1: Core and Upper Extremity
Feb 28	In-class Discussion and Activity 6	
Mar 05	Spring Break	Spring Break
Mar 07		
Mar 12	Hip Anatomy	Weekly Assessment 7
Mar 14	In-class Discussion and Activity 7	The Hip

Mar 19	Knee Anatomy	<i>No lab this week...Doc. A at ACSM Health and Fitness Summit</i>
Mar 21	<i>No class/lab this day – Doc. A out of town</i>	
Mar 26	Knee Anatomy	Weekly Assessment 8
Mar 28	In-class Discussion and Activity 8	The Knee
Apr 02	Ankle Anatomy	Weekly Assessment 9
Apr 04	In-class Discussion and Activity 9	The Ankle/Foot
Apr 09	Review and prepare for practical exam 2	Practical 2: Lower Body
Apr 11	In-class Discussion and Activity 10	
Apr 16	Muscle-Fascia Interface / Stretching	Weekly Assessment 10
Apr 18	In-class Discussion and Activity 11	Last lab: Mobility
Apr 23	<i>No class this day - Doc. A at symposium</i>	<i>No Lab this week...reading day...prepare for your OIA final exam</i>
Apr 25	<i>Reading Day – No Class or Lab</i>	
OIA Final Exam – Thurs., May 2nd – 7:30-9:30am – FLG 225		

STUDY AND SUCCESS TIPS:

- Read and look over the figures BEFORE you come to lecture or lab.
- Snow-ball the lecture notes. Begin studying lecture material immediately after the first lecture. Then, after the second lecture, begin your studies with day one lecture material. Continue this all the way up to the exam.
- Engage your classmates and study as actively as possible. You have a body...USE IT!
- Do not fall behind or procrastinate your studies.
- Check CANVAS announcements/emails daily...just pretend it is Facebook for school. Your course instructor will post important and helpful information as announcements.
- Use the Anatomy Help Center on a weekly basis. A schedule of open hours will be posted in CANVAS. The Help Center opens in the third week of classes.
- Have a positive attitude! THIS STUFF IS COOL!

PERSONAL NOTE FROM INSTRUCTOR: If you are totally overwhelmed by the stresses of your semester and feel like you just can't handle the pressure, please contact me or someone at UF's Counseling and Wellness center. I genuinely care for my students' wellbeing. Without you, I would have no one to teach...and that's uncool. Please take care! ~Doc. A

