**Biomechanics of Sport Injury KINE 7660 Summer 2025**

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| Professor | Gretchen D. Oliver PhD, FACSM, ATC, LAT, CES |
| Meeting Times | 11:30-12:50 |
| Office | KINESIOLOGY Building 105 |
| E-mail Address | goliver@auburn.edu |
| Office Hours | By Appointment |
| Credit Hours | 3 semester hours |

# REQUIRED/Recommended TEXTBOOKs

Nordin, M. & Frankel, V.H. (2012). Basic Biomechanics of the Musculoskeletal System. Philadelphia, PA: Lea & Febiger. ISBN-13:978-1-60913-335-1

# COURSE DESCRIPTION & INSTRUCTIONAL OBJECTIVES

Study of biomechanical properties of the human body, and force-motion relationships within the musculoskeletal system; pathomechanics and tissue properties that define the tolerance of the human body to the forces and torque developed in sport and daily activities; techniques for prevention of injuries in sport and daily activities.

# COURSE REQUIREMENTS

You will be assessed through exams, assignments, and a poster. All of the class material will be available via Canvas. It is your responsibility to make sure you are staying up to date with the lectures and communicating with Dr. Oliver at goliver@auburn.edu if you have any problems or concerns. It will be difficult to be successful in this class if you do not view all class lectures and follow up on recommended readings.

# GRADING SCALE

The grading scale for this course is as follows:

# A = 90 – 100% Poster: 15%

**B = 80 – 89% Assignments:** 10%

**C = 70 – 79% Exams:** 75%

**D = 60 – 69% Total: 100%**

**F = Under 59%**

**STATEMENT of STUDENT ACCOMMODATION**

Students who need accommodations are asked to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternative time can be arranged. To set up this meeting, please contact me by e-mail.

Bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have an Accommodation Memo but need accommodations, make an appointment with the Program for Students with Disabilities at 1244 Haley Center, 844-2096 (V/TT). https://fp.auburn.edu/disability/faculty/syllabus.asp.

# CONTINGENCY PLAN

If regular classes are disrupted due to many students experiencing illness or an emergency or crisis, the syllabus and other course plans and assignments may be modified to allow course completion. If this occurs, an addendum to your syllabus and/or course assignments will replace the original materials.

# HONESTY CODE

The University Academic Honesty Code and the **Student Policy eHandbook**

[[w](http://www.auburn.edu/studentpolicies)w[w.auburn.edu/studentpolicies]](http://www.auburn.edu/studentpolicies) pertaining to cheating and plagiarism will apply to this class.

# CLASS POLICY STATEMENTS

It is your responsibility to contact Dr. Oliver **PRIOR** to missing ANY assignment. Any missed work due to university-approved excuses MUST be made up within 3 working days.

**Attendance/ Absences:** This class is taught in person and will be recorded via Panopto and uploaded to Canvas daily.

If you miss an exam, a make-up exam will be given only for University-approved excuses as outlined in the **Student Policy eHandbook**. Arrangements to take the make-up exam **must be made in advance** and the exam taken within 5 days of the missed exam. If you miss an exam because of illness should inform Dr. Oliver prior to deadline.

*I strongly suggest that you communicate with me any problems or concerns immediately so that I can assist you. If you communicate on the front end of an issue then I will do all that I can to assist you so that your class performance is not at risk.*

**No late assignments or quizzes will be accepted outside of extreme circumstances noted by Dr. Oliver.** Please carefully adhere to established assignment deadlines. In such a case Dr. Oliver will have the discretion of **lowering the assignment a percentage of the overall grade for each day that it is late.**

**Questions/ Help:** You are encouraged to ask questions and seek extra help on a regular basis. Please do not wait until the day before an exam.

**Professionalism:** As faculty, staff, and students interact in professional settings, they are expected to demonstrate professional behaviors as defined in the College’s conceptual framework. These practices are still expected in this remote online delivery of the class. These professional commitments or dispositions are listed below:

* Engage in responsible and ethical professional practices
* Contribute to collaborative learning communities
* Demonstrate a commitment to diversity
* Model and nurture intellectual vitality

# TENTATIVE SCHEDULE

ALL COURSE MATERIALS WILL BE POSTED ON CANVAS: It is expected that you check the course on CANVAS regularly as well as email. Announcements will be sent via canvas to individual emails.

# POSTER PRESENTATION

You are to submit a .pdf of a poster you created regarding the kinetic chain and injury. You can create your poster in any software you choose. Typically, we create posters in PowerPoint and the following are directions in PowerPoint. However, you are welcome to use Adobe Creative Cloud or any other platform. The product you turn in should be in .pdf format.

The poster should be 18 inches in Width and 30 inches in Height (if using PowerPoint click on *Themes* then *page setup, select the drop down of page setup* enter 18 inches Width and 30 inches Height).

PURPOSE:

1. To provide the student the opportunity to synthesize and apply the information presented in this course.
2. To provide the student the opportunity to interact with the information in greater detail.
3. To develop critical thinking skills and critical analysis of research relevant to the course.
4. To develop and practice presentation skills.

SCORING:

1. Design your poster layout with the following sections:
	1. Title, Authors, Institution
	2. Background of the Injury
	3. Kinetic Chain Rational for Injury
	4. Treatment
	5. Conclusion
2. The text should be kept to a minimum and should be broken up by the inclusion of figures, drawing and/or photos.
3. Did you present the point clearly and did you make a case for why it is important and relevant information?
4. Is it aesthetically pleasing?

The poster should be informative. After viewing the poster, one should have an idea of the injury; understand the role of the kinetic chain with the injury; how to address the injury based on the kinetic chain influence; and how to prevent the injury based on the kinetic chain influence.