

[DOWNLOAD PDF OF SYLLABUS](#)

CLASS TIME, LOCATION, & CREDIT HOURS

- **Lecture:** Monday (CSC 10-12)
 - 11:50-1:45 pm
- **Lab:** Wednesday (DHPEB, 520 Wakara Way, 2nd Floor)
 - 12:55-3:55 pm

INSTRUCTOR INFORMATION

Course Director

K. Bo Foreman, PT, PhD

801-581-3496

bo.foreman@hsc.utah.edu (<mailto:bo.foreman@hsc.utah.edu>)

HPEB, 520 Wakara Way, Suite 240

Lab Director

"Chaus" (David Chaus)

<mailto:david.chaus@hsc.utah.edu> david.chaus@hsc.utah.edu (<mailto:david.chaus@hsc.utah.edu>)

COLLEGE OF ENGINEERING GUIDELINES

<https://www.coe.utah.edu/students/current/semester-guidelines/> (<https://www.coe.utah.edu/students/current/semester-guidelines/>)

COURSE DESCRIPTION

This course is intended to familiarize engineers with the structure and function of the human musculoskeletal and nervous systems. Lecture will be in-person. Lectures on Monday are followed on Wednesday by in-person laboratory cadaver dissections dealing with the specific musculoskeletal structure discussed in the lecture. Topics include functional anatomy of the abdominal wall, abdomen, back, spine, arm, forearm, hand, thigh, leg, foot, and associated joints.

Groups of four to five students will be assigned a cadaver that they will dissect during the course during the weekly three-hour lab periods.

REQUIRED MATERIAL

Required: Any anatomy atlas (check half.com etc.). Good options include:

- Atlas of Anatomy, Gilroy, McPherson, Lawrence et al.
- Atlas of Human Anatomy, Frank H. Netter

A textbook is not required for the didactic portion of the course. All lecture handouts are available on Canvas for you to use electronically or print. If you find a textbook is necessary, I would recommend:

- Gross Anatomy: The Big Picture 2nd ed. Morton, Foreman, Albertine

Each dissection team will receive one copy of the lab manual to share between lab members during the semester. Additional copies are available electronically or can be printed from Canvas. If lost, a replacement fee will be charged to all members of your team.

STUDENT LEARNING OUTCOMES

Upon completion of this course, students will:

1. Become familiar with the human musculoskeletal and nervous systems, particularly the abdominal wall, abdomen, back, spine, arm, forearm, hand, thigh, leg, foot, and associated joints.
2. Develop basic skills in cadaver dissection.
3. Gain a rare perspective on muscle and joint function by observing the relative positions, sizes, and consistencies of actual muscles and bones.
4. Have a greater understanding and appreciation for how ergonomic risk factors affect various body tissues and biomechanical modeling.
5. Become familiar with modeling techniques.
6. Work in interdisciplinary teams to identify various nerves, muscles, bones, and joints of interest to engineers and ergonomists.

LEARNING METHODS

This course will be taught using a combination of both lecture and laboratory experiences.

ASSIGNMENTS

Practical Exam 1 ("Tag Test")	100
Written Exam 1	100
Practical Exam 2 ("Tag Test")	100
Written Exam 2	100
Practical Exam 3 ("Tag Test")	100
Written Exam 3	100
<u>Quizzes (3-6 quizzes @ 10 pts, 1 drop)</u>	<u>20-50</u>
Total Points:	620-650

GRADING CRITERIA

Your cumulative score will be multiplied by 1.0 for full participation in laboratory sessions. Lack of participation will result in a lower cumulative score (i.e. multiplied by 0.9 or less depending on your amount of participation).

Grades will be determined on the standard scale in relation to your percentage out of the total points, after multiplied by your participation score

The following grading standards will be used in this class:

Grade	Range
A	100 % to 93%
A-	< 93 % to 90%
B+	< 90 % to 87%
B	< 87 % to 83%
B-	<83 % to 80%
C+	< 80 % to 77%
C	< 77 % to 73%
C-	< 73 % to 70%
D+	<70 % to 67%
D	< 67 % to 63%
D-	< 63 % to 60%
F	< 60 % to 0.0%

- Arrive on time to lecture and laboratory sessions.
- You are **not** required to attend lecture. If you choose not to attend lecture, do not expect to borrow your classmates' notes unless extenuating circumstances exist.
- You **are** required to attend lab unless extenuating circumstances exist. The lab director or course director will review the extenuating circumstances. Attendance in the laboratory is mandatory and class role will be taken during each laboratory session.
- You will be required to wear the following:
 - A lab coat or old clothing (NOT PROVIDED)
 - Closed toe shoes (NOT PROVIDED)
 - Dissecting gloves (provided)
 - A surgical mask (we will do our best to supply surgical masks depending on supply)
 - Safety glasses (you will be provided with one pair of safety glasses)
 - Have a dissection guide (provided or in lab use only) and an atlas in the anatomy lab. We will do our best to find old atlases for in lab use only but cannot guarantee that we have enough.
 - Dissecting tools (provided).
- Participate regularly in lab dissection as observed by the instructors and your lab cohorts.

Mandatory Reporter:

As a University representative, most faculty, staff, and teaching assistants (other than professional mental health counselors) are required to report information learned about instances of sexual misconduct, discrimination, and/or immediate threats to safety to the University of Utah Office of Equal Opportunity and Affirmative Action and/or the Office of the Dean of Students.

If you do choose to disclose instances of sexual misconduct, discrimination, or violence to me, please be aware that I am a mandatory reporter and am required by University policies to notify the appropriate Office.

UNIVERSITY POLICIES

COVID-19 Campus Guidelines

Important: Updated Spring 2022 Instructional Guidelines

University leadership has urged all faculty, students, and staff to **model the vaccination, testing, and masking behaviors** we want to see in our campus community. These include: • Vaccination • Masking indoors • If unvaccinated, getting weekly asymptomatic coronavirus testing • Quarantining after exposure

Vaccination

- **Get a COVID-19 vaccination and the booster shot recommended for pairing with your vaccine** if you have not already done so. Vaccination is proving highly effective in preventing severe COVID-19 symptoms, hospitalization, and death from coronavirus. Vaccination is the single best way to stop this COVID resurgence in its tracks.
- University of Utah students are required (as of August 27, 2021) to complete a cycle of COVID-19 vaccination and booster shot with an approved vaccine, or complete an exemption form. The university provides three convenient vaccination options:
 - Attend one of the regularly scheduled **vaccine events** (<https://www.cns-cares.org/covid19>) at the Student Union on campus.
 - Schedule an appointment with **Student Health** (<https://utah.medicatconnect.com/login.aspx>).
 - Visit **My Chart** (<http://mychart.med.utah.edu/>), **Vaccine Information** (<https://alert.utah.edu/covid/vaccine/>), or **CDC Vaccine.gov** (<http://vaccines.gov/>) to schedule your vaccination.

Masking

- While masks are not required outside of Health Sciences facilities, UTA buses, and campus shuttles, **CDC guidelines now call for everyone to wear face masks indoors.**
 - Check the **CDC website** (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated-guidance.html>) periodically for masking updates
 - With high transmission rates in Salt Lake County, the CDC recommends: "Everyone should wear a mask in public indoor settings."
 - Treat masks like seasonal clothing (i.e. during community surges in COVID transmission, masks are strongly encouraged indoors and in close groups outside).
 - In cases of classroom exposure, masks should be worn for the quarantine period (see details below).

Testing

- **Online scheduling** [\(https://alert.utah.edu/covid/testing/\)](https://alert.utah.edu/covid/testing/)
 - Saliva test (no nasal swabs)
 - Free to all students returning to campus (required for students in University housing)
 - Results often within 24 hours
 - Visit **Testing and Vaccine Information** [\(https://alert.utah.edu/covid/\)](https://alert.utah.edu/covid/). Campus Alert
- Remember: **Students must self-report if they test positive for COVID-19** via the **Campus Covid Response** [\(https://coronavirus.utah.edu/\)](https://coronavirus.utah.edu/) webpage.

Student Mental Health Resources

- Rates of burnout, anxiety, depression, isolation, and loneliness have noticeably increased during the pandemic. If you need help, reach out for campus mental health resources, including counseling, training, and other support.
- Consider participating in a **Mental Health First Aid** [\(https://studentaffairs.utah.edu/mental-health-first-aid.php\)](https://studentaffairs.utah.edu/mental-health-first-aid.php) or other **wellness-themed training** [\(https://wellness.utah.edu/workshops-training/\)](https://wellness.utah.edu/workshops-training/) provided by our Center for Student Wellness and sharing these opportunities with your peers, teaching assistants, and department colleagues.

Students are required to self-report if they test positive for COVID-19. To report, please contact:

COVID-19 Central @ The U

📞 801-213-2874

🌐 [coronavirus.utah.edu \(https://coronavirus.utah.edu/\)](https://coronavirus.utah.edu/)

Drop/Withdrawal Policies

Students may drop a course within the first two weeks of a given semester without any penalties.

Students may officially withdraw (W) from a class or all classes after the drop deadline through the midpoint of a course. A “W” grade is recorded on the transcript and appropriate tuition/fees are assessed. The grade “W” is not used in calculating the student’s GPA.

For deadlines to withdraw from full-term, first, and second session classes, see the U’s **Academic Calendar** [\(https://registrar.utah.edu/academic-calendars/index.php\)](https://registrar.utah.edu/academic-calendars/index.php).

Plagiarism and Cheating

It is assumed that all work submitted to your instructor is your own work. When you have used the ideas of others, you must properly indicate that you have done so.

Plagiarism and cheating are serious offenses and may be punished by failure on an individual assignment, and/or failure in the course. Academic misconduct, according to the University of Utah Student Code,

“...Includes, but is not limited to, cheating, misrepresenting one’s work, inappropriately collaborating, plagiarism, and fabrication or falsification of information...It also includes facilitating academic misconduct by intentionally helping or attempting to help another to commit an act of academic misconduct.”

For details on plagiarism and other important course conduct issues, see the U’s **Code of Student Rights and Responsibilities** [\(http://regulations.utah.edu/academics/6-400.php\)](http://regulations.utah.edu/academics/6-400.php).

Course Materials Copyright

The Content is made available only for your personal, noncommercial educational, and scholarly use. You may not use the Content for any other purpose, or distribute, post or make the Content available to others unless you obtain any required permission from the copyright holder. Some Content may be provided via streaming or other means that restrict copying; you may not circumvent those restrictions. You may not alter or remove any copyright or other proprietary notices included in the Content.

Please see the **Code of Student Rights and Responsibilities** [\(https://regulations.utah.edu/academics/6-400.php\)](https://regulations.utah.edu/academics/6-400.php), Section III.A.5 regarding the **use and distribution of class Content** [\(https://regulations.utah.edu/academics/6-400.php\)](https://regulations.utah.edu/academics/6-400.php) and materials. Section III.A.5. prohibits the following: Sale or distribution of information representing the work product of a faculty member to a commercial entity for financial gain without the express written permission of the faculty member responsible for the course. (“Work product” means original works of authorship that have been fixed in a tangible medium and any works based upon and derived from the original work of authorship.)

Safety at the U

The University of Utah values the safety of all campus community members. You will receive important emergency alerts and safety messages regarding campus safety via text message.

Campus Police & Department of Public Safety

☎ 801-585-COPS (801-585-2677)

🌐 dps.utah.edu (<https://dps.utah.edu>)

📍 1735 E. S. Campus Dr.
Salt Lake City, UT 84112

Wellness at the U

Your personal health and wellness are essential to your success as a student. Personal concerns like stress, anxiety, relationship difficulties, depression, or cross-cultural differences can interfere with a student's ability to succeed and thrive in this course and at the University of Utah.

Please feel welcome to reach out to your instructor or TA to handle issues regarding your coursework.

For helpful resources to manage your personal wellness and counseling options, contact:

Center for Student Wellness

☎ 801-581-7776

🌐 wellness.utah.edu (<http://wellness.utah.edu>)

📍 2100 Eccles Student Life Center
1836 Student Life Way
Salt Lake City, UT 84112

Women's Resource Center

☎ 801-581-8030

🌐 womenscenter.utah.edu (<https://womenscenter.utah.edu>)

📍 411 Union Building
200 S. Central Campus Dr.
Salt Lake City, UT 84112

Addressing Sexual Misconduct

Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status, or genetic information.

If you or someone you know has been harassed or assaulted, you are encouraged to report it to university officials:

Title IX Coordinator & Office of Equal Opportunity and Affirmative Action

☎ 801-581-8365

🌐 oeo.utah.edu (<https://oeo.utah.edu>)

📍 135 Park Building
201 Presidents' Cir.
Salt Lake City, UT 84112

Office of the Dean of Students

☎ 801-581-7066

🌐 deanofstudents.utah.edu (<https://deanofstudents.utah.edu>)

📍 270 Union Building
200 S. Central Campus Dr.
Salt Lake City, UT 84112

To file a police report, contact:

Campus Police & Department of Public Safety

☎ 801-585-COPS (801-585-2677)

🌐 dps.utah.edu (<https://dps.utah.edu>)

📍 1735 E. S. Campus Dr.
Salt Lake City, UT 84112

If you do not feel comfortable reporting to authorities, the U's Victim-Survivor Advocates provide **free, confidential, and trauma-informed** support services to **students, faculty, and staff** who have experienced interpersonal violence.

To **privately** explore options and resources available to you with an advocate, contact:

Center for Student Wellness

☎ 801-581-7776