
KINES 3091- Section 002 (Hybrid)

Fall 2023 Course Syllabus

Meets Tuesdays from 12:25-1:45, S Beh 101

Instructor:	Arwen Fuller, PhD (she/her/hers) (Please feel free to address me as “Dr. Fuller” or “Arwen”) PLEASE use canvas messaging for course-related communication email: arwen.fuller@utah.edu
Office Hours:	Office Hour: 1-2:30pm on Wednesdays (first-come, first-served) or by appointment
Office Location:	256 HPER North, 801-581-7734 (but please use Canvas Messaging to contact me!)
Grad TA:	Jason Thomas Jason.v.thomas@utah.edu

Required Materials:

- Course material including lecture recordings, assessments, and links to external resources will be posted to the course Canvas webpage throughout the term
- Recommended Textbook: Exercise Physiology: Theory and Application to Fitness and Performance, 11th Ed. Scott K. Powers, Edward T. Howley, and John Quindry. ISBN: 978-1-260-81349-4
-the Canvas webpage has a link to the inclusive-access e-textbook option

Course Description:

Movement is a basic human behavior. The primary objective of this course is to examine the physiological basis of human movement. The focus will be on reviewing what exercise physiologists have learned about the diversity of physical activity. Although many physiological responses to activity are predictable, the magnitude and pattern of responses are unique depending on the age, gender, and previous experience of the individual.

- This course is a 3-credit hour course
- Prerequisites: Students must earn a C- or better in BIOL 2325. Students must *also* earn a C- or better in MATH 1050, 1210, or 1080 OR earn a score of 3 or better in AP Calculus AB or AP Calculus BC.
- This course fulfills general education QI credits.

Student Learning Outcomes/ Course Objectives:

By the end of this course, students will be able to:

1. recognize how fundamental concepts from physics, biochemistry, and biology pertain to exercise physiology
2. recognize how cellular, organ, and systems-level physiology concepts are the basis for how the body responds to exercise
3. recall specific physiological mechanisms responsible for the body's systemic and cellular adjustments to acute and chronic exercise
4. employ SI units of measure to solve algebraic problems related to mechanical work and power, mechanical efficiency, human energy expenditure, estimates of oxygen consumption and caloric expenditure, cardiac output and the arterial-venous oxygen difference, estimates of mean arterial blood pressure and systemic vascular resistance, and indirect estimates of myocardial oxygen consumption
5. explain several ways in which exercise physiology concepts are critical to the improvement of human health and fitness and discuss some of the unresolved issues in exercise physiology research
6. interpret and evaluate exercise physiology-related data trends in tables, charts, and figures

Teaching & Learning Methods:

This course is being delivered using a hybrid format. This means that students will be required to come to class on Tuesdays while Thursday classes will be reserved for students to review videotaped course lectures. Following the first week of class, students will be expected to view recorded lectures on Thursdays in preparation for in-class work the following week. Tuesdays will be used for instructor-led individual and group work using a problem-based learning approach. Attendance is mandatory on Tuesdays and the in-class work will be submitted in person at the end of class (not via email). During class, students can expect to spend time working with material from the course lectures and any other assigned readings, which will be posted on Canvas. Assessments of the learning objectives will include assignments, quizzes and exams that will be delivered during in-person class time or online via Canvas.

Evaluation Methods & Grade Distribution:

<i>Graded Item</i>	<i>Points Available</i>	<i>% of Total Grade</i>
12 In-class Assignments	10 pts. each (120 total)	2.2% each (26.4% total)
5 Online HW Assignments	10 pts. each (50 total)	2.2% each (11% total)
5 Online Math Assignments	10 pts. each (50 total)	2.2% each (11% total)
3 Online Quizzes	20 pts. each (60 total)	4.4% each (13.2% total)
2 Midterm Exams	50 pts. each (100 total)	11% each (22% total)
1 Cumulative Final Exam	75 pts. total	16.5% total
	455 points	100%

- In-class Assignments: These assignments will be given and **completed during class** and must be submitted before leaving class.
- HW & Math Assignments: These assignments will be posted on Canvas, and students will submit their completed assignments according to the instructions provided. These assignments will not have a time limit, only a due date. **Assignments will be due via Canvas on Mondays before midnight.**
- Quizzes: Quizzes will be delivered online. **Quizzes will be due via Canvas on Mondays before midnight.**
- Midterm & Final Exams: **Midterms 1 and 2 will be given in class** on September 26th and November 14th, respectively. **The final exam will be given on Canvas** on Wednesday 12/13 from 10:30am-12:30pm.

Letter Grade Distribution:

<u>Course Percentage</u>	<u>Grade</u>	<u>Course Percentage</u>	<u>Grade</u>
92.5% and above	A	72.5-76.4%	C
89.5-92.4%	A-	69.5-72.4%	C-
86.5-89.4%	B+	66.5-69.4%	D+
82.5-86.4%	B	62.5-66.4%	D
79.5-82.4%	B-	59.5-62.4%	D-
76.5-79.4%	C+	59.4% or lower	E

Students may not negotiate course grades. Students will be graded according to their performance on the assessments given in class (which may or may not reflect the student's effort). Students should not ask for extra credit. The ONLY basis for a change in a letter grade is a grading error. **If a student suspects a grading error has been made, they must notify the instructor via Canvas within 1 week of getting the grade.**

Policy on Late or Missed Assessments:

Assignments, quizzes, and exams must be completed and submitted by their due dates. Late assignments will NOT be accepted except in very unusual circumstances. Unexcused late submissions will receive a score of "0". Make-ups for missed assessments will only be allowed under the following conditions:

- Officially sanctioned University activities: Examples of these include band, debate, student government, intercollegiate athletics, and government or religious obligations. In these cases, students must provide the instructor with official documentation **in advance** of the absence.
- Absences caused by other compelling reasons beyond the student's control: Examples of these include physical or mental illness, injury, and death or illness in the family or of a significant other, and the birth of *your* child. In these cases, **authentic official documentation (signed and dated) of the extenuating circumstance is required.**
 - Work-related absences will not be excused except in the case of unforeseen *employment* changes. ***Work schedule changes do not constitute employment changes. Students are expected to arrange with their employer to be available to meet the course requirements.***
 - Vacations are NOT an extenuating circumstance. ***Please share this with family members who may be prone to make travel plans for you without consulting you first.***
 - Weddings (yours or a friend's) do not qualify as excused absences.
 - You should inquire ***at the start of the semester*** if you are unsure if a specific absence qualifies as an excused absence

Computer, Canvas, and internet issues are not grounds for a late assignment submission. To avoid these issues, students are encouraged to allow ample time to complete & submit their assignments prior to the due date/time. Canvas users are encouraged to use the web browser Google Chrome or Firefox as the platform upon which to run Canvas.

Procedures for arranging to make up an assessment: Except in unforeseen circumstances (i.e. sudden illness, etc.), students *must* notify the instructor about the circumstances requiring rescheduling of an assessment prior to the absence. **Notification should be given to the instructor by Canvas Message.** Make-ups should be completed within 3 days of the missed assessment whenever possible. **Assessments can only be made up *after* the due date.**

Additional Course Policies:

1. ***All class members must behave in a respectful manner.*** Quality teaching and learning occurs when there is little concern for harassment or ridicule. As such, *all* members of this class (instructor, TAs and students alike) must treat each other with respect both on and offline. If this is not occurring, please notify me.
2. ***Students are expected to check Canvas regularly.*** Because there is an online element to this course, students are expected to log-on to Canvas frequently to be aware of all announcements, available course materials, course progression, assignment due dates, grades, etc.
3. ***Students are expected to engage with the course.*** As compared with traditional in-person classes, online course delivery methods give students more freedom in deciding how and when to review course material and complete assignments. However, students also have a *much* greater responsibility for ensuring that they engage with the class material in a way that promotes their own success. In addition to participating during in-class activities, students will be expected to review lecture videos, ask questions when concepts are not clear, check Canvas regularly, seek help from me, the TAs and peers, study the information presented, complete assessments on time, etc.

- If you are struggling, **you should ask for help** from me or a TA. Ultimately, YOU are responsible for your own learning. It doesn't make sense to struggle in silence; if I don't know you're struggling, I can't help you.
 - Students are strongly encouraged to establish a weekly schedule early in the semester that will create the structure and routine necessary to succeed. This requires a lot of self-discipline and self-awareness, and you can do it!
4. ***Students are expected to complete all assessments according to their scheduled due dates.*** Students are expected to submit assignments and take quizzes and exams as scheduled. The assessment due dates are listed on Canvas. If any of these dates must be changed, students will be notified in a timely manner on Canvas. Missed assessments may only be made up according to the policies discussed above. Students are responsible for knowing the registration, drop, and withdrawal dates and for tracking their grades throughout the term.
 5. ***Late assignments will not be accepted.*** All work must be submitted on time and according to the instructions.
 6. ***Students may not negotiate course grades.*** Students will be graded according to their performance on the assessments (which may or may not reflect the student's effort). Letter grades will correspond to the course percentages given above, without exception. A student who earns a 72.5% will be awarded a C grade. Likewise, a student who earns a 72.4% will receive a C- grade. The ONLY basis for a change in a letter grade is a grading error so please keep track of your assignments. **If a student suspects a grading error has been made, they must notify the instructor via Canvas within 1 week of getting the assignment, quiz, or exam back.** Asking for a grade that you did not earn based on your performance is not professional, mature, or ethical.
 7. ***Students must demonstrate academic honesty and integrity.*** Students are expected to demonstrate integrity, and in doing so, not endeavor to cheat or misrepresent their circumstances. Examples of misbehavior include but aren't limited to submitting work completed by another student (or from another course section), plagiarizing from textbooks or sources available on the internet, completing another student's assignments, looking at or copying off of a neighbor's quiz or exam, or lying about the circumstances of an absence. These kinds of incidents are classified as academic misconduct and will be handled according to the Student Code. <http://regulations.utah.edu/academics/6-400.php>.

Students are NOT permitted to make course content publicly available online (i.e posting notes to Quizlet or YouTube sites that are publicly available). The content of this course is the intellectual property of the instructor and the University of Utah. Posting content without explicit permission constitutes academic misconduct and it will be treated as such.

With a first offense, students will be given a warning and a "0" for the assessment. If the student is caught a second time, they will be referred to the College of Health's Associate Dean for Faculty and Academic Affairs and they may fail the course. Please keep in mind that these kinds of offenses may result in dismissal from the University.

Non-Contract Note:

This syllabus is not a binding legal contract. Students will be given reasonable notice of any modification.

University Policies:

University Safety Statement

The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important

emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

Student Code

All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. Students have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. Students should read the Code carefully and know they are responsible for the content. <http://regulations.utah.edu/academics/6-400.php>

Americans with Disabilities Act (ADA) Statement

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD), <http://disability.utah.edu/>. CDS will work with you and the instructor to arrange for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

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 on the basis of your sex, including sexual orientation or gender identity/expression, you are encouraged to report it to the University's Title IX Coordinator: Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or to the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to police, contact the Department of Public Safety, 801-585-2677(COPS). Additional information about reporting and victim supportive resources are available at the offices listed above.

University Resources:

Center for Student Wellness

Personal concerns such as relationship difficulties, depression, cross-cultural differences, etc., can interfere with *anyone's* ability to succeed. There are people available who are trained to help you. All you need to do is ask. For helpful resources, please contact the Center for Student Wellness - www.wellness.utah.edu; 801-581-7776.

Veterans Center

If you are a student veteran, please be aware that the University of Utah has a Veteran's Support Center on campus. They are located in Room 161 in the Olpin Union Building. Hours: M-F 8-5pm. Please visit their website for more information: <http://veteranscenter.utah.edu/>.

LGBT Resource Center

If you are a member of the LGBT community, please know that **this class is considered a safe zone**. Additionally, please know that the University of Utah has an LGBT Resource Center on campus. They are located in Room 409 in the Olpin Union Building. Hours: M-F 8-5pm. Please visit their website for more information: <http://lgbt.utah.edu/>.

Learners of English as an Additional/Second Language^{SEP}

If you are an English language learner, please be aware of several resources on campus that will support you with your language development and writing. These resources include: the Department of Linguistics ESL Program (<http://linguistics.utah.edu/esl-program/>); the Writing Center (<http://writingcenter.utah.edu/>); the Writing Program (<http://writing-program.utah.edu/>); the English Language Institute (<http://continue.utah.edu/eli/>).

The Center for Disability and Access

The Center for Disability and Access provides accommodations and services to students at the University of Utah whose condition significantly impacts their ability to function in the academic setting. Specific accommodations that are available to students depend on the documentation of the disability, the essential elements of the course, and the functional limitations created by the student's disability. In order to qualify for accommodation, students must schedule an appointment with CDA. More information about accommodations and services as well as how to qualify for services can be found on their website: <https://disability.utah.edu>

Tips on how to succeed in this class:

- There's no substitute for time. There is a lot of information covered in this course. The most successful students in KINES 3091 usually devote considerable time outside of class to watch lecture videos, read supplemental material, seek out clarification via online resources, and PRACTICE the material. In addition to excellent engagement, repetitious & active review of the class material is nearly always the best strategy for doing well in this class.
- Read the textbook.
- Be an active participant and ask questions! Look for ways to *engage with* the information beyond simply looking at or "reading over" your course notes and textbook chapters. Examples of this kind of learning engagement include hand-writing your notes, using flashcards, re-writing your notes, constructing your own questions to cover class material, taking your own tests & challenging yourself to verbalize the concepts covered. Try teaching the material to your best friend, your roommate, your dog, your partner or your parent...if you can teach it, you likely know it well.
- Finally, seek help early! If you find you are struggling with learning the material or performing on exams, *please don't wait* to contact me or the TAs...we are here to help, but **YOU** must make the first move towards getting assistance.

Week**Class Topics****How to Prepare for Class****SECTION 1**

SECTION 1		
Week 1 (8/21-8/27)	Course Introduction, Introduction to Exercise Physiology, Nervous System	<ul style="list-style-type: none"> • Read the syllabus • Get oriented with the class content on Canvas • Watch & study material in the Week 1 & 2 Modules on Canvas • Recommended reading: Ch. 7 & 8, and pgs. 23-27, 31-34
Week 2 (8/28-9/3)	Nervous System, Skeletal Muscle System	<ul style="list-style-type: none"> • Watch & study material in the Week #3 Module on Canvas • Recommend reading: Ch. 2 & 3
Week 3 (9/4-9/10)	Bioenergetics & Metabolism	<ul style="list-style-type: none"> • Watch & study material in the Week #4 Module on Canvas • Recommend reading: Ch. 4
Week 4 (9/11-9/17)	Bioenergetics & Metabolism	<ul style="list-style-type: none"> • Watch & study material in the Week #5 Module on Canvas • Recommend reading: Ch. 13 (pgs. 315-316, 320-337), ch. 14
Week 5 (9/18-9/24)	Exercise Physiology	<ul style="list-style-type: none"> • Review all Section 1 material
Week 6 (9/25-10/1)	Exam #1	<p style="text-align: center;">EXAM #1 will be given in class on Tuesday 9/26</p> <p><i>After Exam #1:</i></p> <ul style="list-style-type: none"> • Watch & study material in the Week #7 Module on Canvas • Recommend reading: Ch. 9

SECTION 2

SECTION 2		
Week 7 (10/2-10/8)	Cardiovascular System	<ul style="list-style-type: none"> • Watch & study material in the Week #8 Module on Canvas • Recommend reading: Ch. 10
Week 8 (10/9-10/15)	No Class on 10/12 Fall Break	<ul style="list-style-type: none"> • Watch & study material in the Week #9 Module on Canvas • Recommend reading: Ch. 10
Week 9 (10/16-10/22)	Cardiorespiratory System	<ul style="list-style-type: none"> • Watch & study material in the Week #10 Module on Canvas • Recommend reading: Ch. 13 (pgs. 316-320)
Week 10 (10/23-10/29)	Cardiorespiratory Exercise Physiology	<ul style="list-style-type: none"> • Watch & study material in the Week #11 Module on Canvas • Recommend reading: Ch. 12 & 23 (pgs. 586-604)
Week 11 (10/30-11/5)	Environmental Exercise Physiology Concepts	<ul style="list-style-type: none"> • Watch & study material in the Week #12 Module on Canvas
Week 12 (11/6-11/12)	Environmental Exercise Physiology Concepts	<ul style="list-style-type: none"> • Review all Section 2 material

Week 13 (11/13-11/19)	EXAM #2	<p>EXAM #2 will be given in class on Tuesday 11/14</p> <p>After Exam #2:</p> <ul style="list-style-type: none"> • Watch & study material in the Week #14 Module on Canvas • Recommend reading: Ch. 5 (pgs. 102-120)
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SECTION 3		
Week 14 (11/20-11/26)	Endocrine System	<ul style="list-style-type: none"> • Watch & study material in the Week #15 Module on Canvas • Recommend reading: Ch. 5 (pgs. 120-131)
Week 15 (11/27-12/3)	Endocrine Control of Exercise Metabolism	<ul style="list-style-type: none"> • Review all course material
Week 16 (12/4-12/10)	Semester Review	<ul style="list-style-type: none"> • Review all course material
Finals Week (12/11-12/15)	FINAL EXAM	<p>The Final Exam will be available on Canvas from 10:30am- 12:30pm MST on Wednesday 12/13</p>