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## KINES 4670- Section 090 (Online)

### Fall 2023 Course Syllabus

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**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!)

**Graduate TA:** Jeanna Ryan, MPAS, PA-C, MS, RDN, MSCIS  
email: [Jeanna.ryan@utah.edu](mailto:Jeanna.ryan@utah.edu)

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#### Course Description:

KINES 4670 addresses demographics of the aging population, theories of aging, heterogeneity of the aging process, and uses a problem-based approach to address physiologic changes associated with aging. The research literature provides examples of evidence-based outcomes of exercise participation among older adults. The ACSM Guidelines reinforce recommended prescriptions for improving and maintaining physical fitness with special consideration for older adults.

- Prerequisites: KINES 3091

#### Teaching & Learning Methods:

Section 090 of this course is being delivered as a fully online, asynchronous course. This means that though students are encouraged to connect with the instructor during weekly virtual office hours, students will not be required to attend any meetings. Students are cautioned to expect to dedicate a substantial amount of time to working independently to learn the material that is presented and to complete the assessments by their due dates. The instructor will make recorded lectures and other supplemental resources available to students via Canvas along with a tentative course timeline/schedule. Assessments of the learning objectives will include assignments, quizzes and an exam that will be delivered and submitted via Canvas.

#### **Students MUST reserve time to take Canvas quizzes or exams at some point on the following dates:**

- |                               |                              |
|-------------------------------|------------------------------|
| 1. Monday 8/28- Syllabus Quiz | 4. Monday 11/20- Quiz #3     |
| 2. Monday 9/11- Quiz #1       | 5. Monday, 12/11- Final Exam |
| 3. Monday 10/23- Quiz #2      |                              |

#### Course Materials:

- American College of Sports Medicine, ACSM's Guidelines for Exercise Testing and Prescription, 11<sup>th</sup> Ed. (2021). Philadelphia: Wolters Kluwer. Denoted “ACSM” in the course/reading schedule. This text is available through the inclusive access program through the U of U Campus Store. Other courses you are taking may also require this text. If that is the case, there is no reason to pay for this resource twice. Please check your other courses and determine whether you should opt out of this option to receive a refund. You have two weeks from the start of the semester to opt out of the inclusive access material for this course.
- Fillit, HM, Rockwood, KM, Young, J. (2017). Brocklehurst's Textbook of Geriatric Medicine and Gerontology, 8<sup>th</sup> Ed. Philadelphia: Elsevier. This is an eBook available online through the University's library system, with no charge when accessing from this link:  
[https://utahprimoprod.hosted.exlibrisgroup.com/permalink/f/dtufc4/UUU\\_ALMA51410976420002001](https://utahprimoprod.hosted.exlibrisgroup.com/permalink/f/dtufc4/UUU_ALMA51410976420002001)
  - The link will require you to login with your uID and password. Denoted “Fillit” in the course/reading schedule. Please note that some information in this text is very technical and some content overlaps. Chapter references should be used in combination with the presentation materials.

- Research articles are available on Canvas. Denoted “Author last name (year)\*” in the course/reading schedule.
- Lecture videos will be available on Canvas.

**Expectations:**

- Of our students – To the extent possible, we anticipate you will actively participate in the learning process and engage in critical thinking. Assignments will require careful attention to detail, problem solving, and well-constructed written responses. Quizzes and assignments must reflect independent work. We encourage respectful behavior with your classmates, teaching assistant and instructor and ask that you engage with us if you have questions or concerns about the course. If our office hours (can be in person or virtually) do not fit with your schedule, we ask that you arrange another time to interact with us. Please do adhere to course policies.
- Of ourselves – Our primary aim is your learning. To the extent possible, we intend to create a positive, respectful, and challenging online environment that invites your participation and facilitates your learning. We will offer standing in person or virtual office hours or will arrange other times to interact with you to answer questions and concerns outside of the classroom. We will prepare course materials in a logical and problem-based format to give context to course material. To be as fair as possible, we will adhere to the course policies stated in this syllabus and evaluate assignments using carefully constructed rubrics.

**Student Learning Outcomes:**

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

1. demonstrate knowledge of the basic concepts of aging, including demographic shifts within the US population, primary and secondary aging, selected theories of aging, life expectancy, and factors thought to slow the aging process and
2. discriminate these concepts (e.g., primary and secondary aging; theories of aging, etc.) from one another
3. demonstrate knowledge of the aging-related changes to the cardiovascular, pulmonary, skeletal muscle, skeletal, neurological, and sensory systems in a problem-based context and
4. discriminate these changes from one another
5. apply knowledge of aging phenomena to physiologic function in the contexts of performance assessment and exercise participation
6. analyze the appropriateness of physical activity and/or exercise programming components for a variety of aging scenarios and desired outcomes (e.g., muscle strength and power, improved physical function, weight loss, aerobic fitness, fall prevention)
7. articulate the importance of empathy while engaging with older adults, particularly in exercise or other settings that require physical activity
8. utilize new knowledge of aging to improve your aging process and/or to relate to older citizens

**Evaluation Methods & Grade Distribution:**

Assessment	Points Available	Percentage of Final Grade
Quizzes (4)	130 total	39.4%
Assignments (2)	140 total	42.4%
Final Exam	60 total	18.2%
	330 total points	100%

Assignments

The intent of assignments is to help you better understand the aging population, to engage you in experiential learning from the perspective of older adults, and/or to encourage you to improve your own aging process. Both assignments are due by 11:59 PM on the Monday dates given below and must be uploaded to Canvas as

attachments as a PDF. Late assignments will NOT be accepted for any reason (including computer, Canvas, and Internet issues) and will receive “0” points. To avoid these issues, complete the assignments with ample time to upload your document from a computer (NOT a mobile device), and double check that the correct document has been successfully uploaded prior to the due date/time. This means you should upload the document, log out of Canvas, then log on to Canvas to check that your assignment was successfully uploaded and visible.

- **Assignment #1: Parade Magazine Aging Poll & Utah Responses Due 10/2:** This assignment asks students to 1) review a popular poll on aging, 2) collect similar responses by interviewing an older adult, and 3) compare the answers from the poll to those from the interviewee. Detailed instructions are available on Canvas. Assignment #1 must be submitted on Canvas as a .pdf file by 11:59 PM on Monday, 10/2. (70 Points)
- **Assignment #2: Busy Intersection Evaluation Due 12/4:** This assignment requires students to visit and study a busy intersection during a period of high traffic. With the class material in mind, students will then evaluate the intersection and describe how it might be experienced by an older person and the challenges they may face. Detailed instructions are available on Canvas. Assignment #2 must be submitted on Canvas as a .pdf file by 11:59 PM on Monday, 12/4. (70 points)

### Quizzes

Quizzes will be administered online through Canvas. They will open at 12:01 AM on the scheduled Monday and close by 11:59 PM the same day for the dates indicated below. You will have 3 attempts, each 60 minutes, to complete the quizzes in the time frame of 24 hours. Although the content addressed will be the same for each attempt, the questions will likely be different on successive attempts. Quizzes must be completed individually without outside assistance from others.

- **Syllabus Quiz** (10 points): This quiz will address key elements of the KINES 4670 syllabus and policies and must be completed between 12:01 AM and 11:59 PM Monday, 8/28.
- **Quiz 1** (40 points): This quiz will address content from “Module 1: Introduction to Aging” and must be completed between 12:01 AM and 11:59 PM Monday, 9/11.
- **Quiz 2** (40 points): This quiz will address content from “Module 2: Cardiopulmonary Changes with Aging” and must be completed between 12:01 AM and 11:59 PM Monday, 10/23.
- **Quiz 3** (40 points): This quiz will cover content from “Module 3: Musculoskeletal Changes with Aging” and must be completed between 12:01 AM and 11:59 PM Monday, 11/20.

### Final Exam

- **The Final Exam (60 points):** The final exam will be cumulative and comprehensive. It will open at 12:01 AM and close at 11:59 PM on Monday, December 11, 2022. Unlike the quizzes, you will only have a single attempt of 90 minutes to complete the Final Exam. Exams must be completed individually without outside assistance from others.

### **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:**

Homework, quizzes, and exams must be completed and submitted by their due dates. Late assignments will NOT be accepted except in very unusual circumstances. 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 that require documentation. ***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 friends) 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. Unexcused late submissions will receive a score of "0". 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. Students are expected to log-on to Canvas frequently in order to be aware of all announcements, available course materials, course progression, assignment due dates, grades, etc.

3. Students are expected to engage with the class. 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.
  - 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 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 online via Canvas. Assignments will not be accepted via email except in very unusual circumstances and according to the policies discussed above
6. Students may not negotiate course grades. Students will be graded according to their performance on the assessments. Letter grades will correspond to the course percentages below, 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 email me 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 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 (i.e. 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, and 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 post course content online (i.e Quizlet or YouTube). 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 Assistant Dean of Students or the 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](http://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](http://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 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

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>

## Tentative Course Schedule:

	Week	Date	Topic	Reading	Assessments	
Section 1	Week 1	8/21-8/27	Intro. to Aging & Exercise Sample Case Center for Disease Control & Prevention Report	Syllabus CDC slide set Fillit Ch. 3		
	Week 2	8/28-9/3	Life Expectancy and Population Aging Social Values & Independence Sex, Gender, and Aging Theories of Aging: Psycho, Socio, Bio	Fillit Ch. 2, 3 & 4	Syllabus Quiz Due 8/28	
	Week 3	9/4-9/10	Slowing the Aging Process/Review for Quiz 1 Transition to Cardiovascular Aging	Fillit Ch. 27 & Ch. 99		
Section 2	Week 4	9/11-9/17	Cardiovascular Aging: Overview Cardiovascular Aging: The Heart Cardiovascular Again: The Vessels	Fillit Ch. 16	Quiz #1 Due 9/11	
	Week 5	9/18-9/24	Respiratory Aging: Structure and Function Cardiovascular Aging: Crossing the Intersection Lessons from the Research on Older Male Runners	Fillit Ch. 17 Peterson et al. 2003 Everman et al. 2018 Muster et al. 2010		
	Week 6	9/25-10/1	Assessing Risk for Exercise Participation Practice Cases for CV Risk Screening Exercise Prescription for Aerobic Fitness Adaptations for Older Adults	ACSM, p. 30-39 and p. 177-186		
	Week 7	10/2-10/8	Evidence-Based Approach from the Literature Exceptional Training Practice (HIIT) Practice Cases for Aerobic Exercise Rx	Huang et al. 2016 Storn et al. 2017 Class notes	Assign. #1 Due 10/2	
	Week 8	10/9-10/15	No Classes- Fall Break			
	Week 9	10/16-10/22	Exercise Rx to Improve Crossing the Intersection, Review for Transition to Musculoskeletal Aging	Previous readings and class notes		
Section 3	Week 10	10/23-10/29	Skeletal Muscle Aging: Tissue, Neuromuscular, Mass Assessment: Strength, Power, Function Sarcopenia: Potential Causes and Treatments	Fillit Ch. 72 & Ch. 102	Quiz #2 Due 10/24	
	Week 11	10/30-11/5	Exercise Prescription for Muscular Fitness Adaptations for Older Adults Lessons from Research: Strength and Muscle Power Neuromuscular Aging: Crossing the Intersection	ACSM, p. 162-167 & 188-194 Fiatarone et al. 1990 Bassey et al. 1992 Fillit Ch. 103		
	Week 12	11/6-11/12	Skeletal Aging: View from 3 Generations of Women Skeletal Health, Fall and Fracture Prevention: The Role of Exercise	Fillit Ch. 20 & Ch. 103 Karinkanta et al. 2015 Stubbs et al. 2015		
	Week 13	11/13-11/19	Lessons from the Research Review for Quiz 3 Transition to cognitive aging	Kemmler et al. 2016 Watson et al. 2018 Straight et al. 2016		
Section 4	Week 14	11/20-11/26	Cognitive Aging: CNS and Related Changes Affective Changes: Depression and Anxiety Sensory Aging: Vision, Vestibular, Somatosensory, Hearing, Taste	Fillit Ch. 18 & 28 Fillit Ch. 102 & 103	Quiz #3 Due 11/21	
	Week 15	11/27-12/3	Obesity and Weight Loss Cognitive & Sensory Aging & Crossing the Intersection	Fillit Ch. 80 Villareal et al. 2011 ACSM p. 177-186		
	Week 16	12/4-12/10	Flexibility and Neuromotor Exercise Prescriptions Review for Final Exam	ACSM p. 177-186	Assign. #3 Due 12/4	