



Spring 2023

**INSTRUCTOR:** Dr. Reginald B. O'Hara, ACSM-EP  
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Note: \*please send your email to both addresses\*

**CLASS TIME:** Online (asynchronous)  
**OFFICE HOURS:** By appointment only: Friday 3:00 p.m. - 5:00 p.m.  
By appointment only: Saturday 10 a.m. - 12:00 p.m.

### **COURSE DESCRIPTION**

The course is designed to give the student an overview of exercise physiology. Exercise physiology is a specialization within the field of kinesiology. Exercise physiology studies how a single-acute exercise and repeated-chronic bouts affect body tissues, cells, and organ systems. This exercise physiology course will meet online on Blackboard and will focus on the following three learning modules: 1) Physiology of exercise, 2) Physiology of health and fitness, and 3) Physiology of human performance.

### **COURSE OBJECTIVES**

Upon completion of this course, the student should be able to understand:

1. Basic physiological adaptations to oxidative and non-oxidative exercise.
2. Structure and function of skeletal muscle.
3. Physiological adaptations to oxidative and non-oxidative exercise.
4. Temperature regulation in hot and cold environments.
5. Exercise prescriptions for health and fitness.
6. The role of exercise in the prevention and/or treatment of chronic diseases.

### **COURSE STRUCTURE AND DELIVERY**

This class meets online on *Blackboard*. You will find that this class is moderately analogous to a traditional on-campus course in that it will consist of Power Point lecture slides for all assigned chapter readings, which will be uploaded to *Blackboard*. The lecture slides will focus on the key concepts in the assigned readings, course assignments, research article summary assignments, and any course discussions. In contrast to a traditional on-campus course, assignments, quizzes, etc., will be completed **asynchronously**. In other words, there will be **no scheduled meeting times for this course**.

You must access all course assignments via *Blackboard* every **Monday** throughout the semester. I will upload all course assignments, assigned article summaries, and quizzes throughout the semester **every Sunday before midnight**. All course assignment due dates are precisely noted in the **tentative asynchronous course outline**. **Course assignments, research article summaries, or quizzes submitted each hour after their assigned due date will receive a 5-point deduction.**

### **ONLINE BLACKBOARD INSTRUCTIONAL METHODS**

Instructional methods will include power point lecture slides, discussion, and evaluation of exercise physiology articles relevant to the assigned chapter readings. Student activities may include, though may not be limited to: (a) assigned chapter readings; (b) writing assignments on topics and/or research articles related to the assigned module readings; and (c) assigned module quizzes.

### **COURSE COMMUNICATION**

**Course Announcements:** All course announcements will be posted by the professor on Blackboard routinely throughout the semester. Please check these often so you do not miss any essential information relevant to course assignments and other important course announcements.

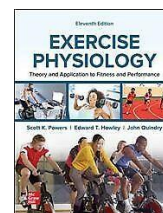
**Email communication:** The best method for contacting me is by email ([reginald.b.ohara.civ@health.mil](mailto:reginald.b.ohara.civ@health.mil)) OR ([keriandreggie@aol.com](mailto:keriandreggie@aol.com)). Keep in mind that I am not full-time faculty at UTEP. Instead, my full-time job is with the Department of Defense (DoD), where I serve as a Sr. Research Scientist. Hence, I will not have access to my UTEP email daily from 7:00 am to 5:30 pm (M-F). If you use only [rbohara@utep.edu](mailto:rbohara@utep.edu) to make contact, I will only have access to this email after 5:30 pm each day. In this case, responding may take 1 to 2 business days. If you have a pressing question, I suggest you send your note/question to [reginald.b.ohara.civ@health.mil](mailto:reginald.b.ohara.civ@health.mil) **AND** [keriandreggie@aol.com](mailto:keriandreggie@aol.com) to ensure I receive your email promptly. When sending an email, ensure that you include KIN 4312-EXERCISE PHYSIOLOGY (use "ALL CAPS") in the subject line. I will make every effort to respond to emails on the same day; however, it may take 1 to 2 business days to respond.

**Individual phone appointments (Directions for scheduling an appointment):** Individual phone appointments occur in 20-minute blocks. Please follow the below noted instructions to schedule an appointment with Dr. O'Hara.

- 1) Access and click on the following link: [calendly.com/reggieohara](https://calendly.com/reggieohara)
- 2) Once you access My Calendly, find the box titled, "KIN 4312- Exercise Physiology."
- 3) Next, under "Additional Options" click on "Invitee Questions (fill in your name, and email address).
- 4) Next, under "please share anything that will help prepare for this meeting" type in your question(s) as follows, (Example: "KIN 4312- EP Question about assignment #1 or "Question about mitochondrial functions" etc.).
- 5) Lastly, ensure that you click on "Save & Close."

### **COURSE MATERIAL**

Required Textbook: Exercise Physiology Powers, S.K., Howley, E.T. and John Quindry 11<sup>th</sup> Edition. New York, NY: McGraw Hill, 2021; ISBN: 978-1-260-23776-4.



## Supporting Readings

Pardede, P. (2012). Scientific article's structure. In *Scientific Writing Workshop* (Vol. 16), 1-15. <https://www.researchgate.net/publication/260453687>

Brooks, G. A. (2011). Bioenergetics of exercising humans. *Comprehensive physiology*, 2(1), 537-562.

Nelson, N. L., & Churilla, J. R. (2016). A narrative review of exercise-associated muscle cramps: Factors that contribute to neuromuscular fatigue and management implications. *Muscle & nerve*, 54(2), 177-185. DOI: 10.1002/mus.25176

Frontera, W. R., & Ochala, J. (2015). Skeletal muscle: a brief review of structure and function. *Calcified tissue international*, 96(3), 183-195. DOI: 10.1007/s00223-014-9915-y.

O'Hara, R., Eveland, E., Fortuna, S., Reilly, P., & Pohlman, R. (2008). Current and future cooling technologies used in preventing heat illness and improving work capacity for battlefield soldiers: review of the literature. *Military medicine*, 173(7), 653-657.

Holloszy, J. O. (1967). Biochemical adaptations in muscle: effects of exercise on mitochondrial oxygen uptake and respiratory enzyme activity in skeletal muscle. *Journal of biological chemistry*, 242(9), 2278-2282.

Cleak, M. J., & Eston, R. G. (1992). Delayed onset muscle soreness: mechanisms and management. *Journal of sports sciences*, 10(4), 325-341.

Burke, L. M., Jeukendrup, A. E., Jones, A. M., & Mooses, M. (2019). Contemporary nutrition strategies to optimize performance in distance runners and race walkers. *International journal of sport nutrition and exercise metabolism*, 29(2), 117-129.

O'Hara, R., Serres, J., Dodson, W., Wright, B., Ordway, J., Powell, E., & Wade, M. (2014). The use of dexamethasone in support of high-altitude ground operations and physical performance: review of the literature.

## ASSESSMENT METHODS AND EVALUATION

GRADING BREAKDOWN	POINTS	GRADING SCALE**
Course Assignments (10 x 40 pts each)	400	A = 90 -100%
Quiz # 1	100	B = 80 - 89.99%
Quiz # 2	100	C = 70 - 79.99%
Quiz # 3	100	D = 60 - 69.99%
Research Article Summaries (5 x 60 pts each)	300	F = below 60%
<b>Total Points</b>	<b>1,000</b>	

(Please see detail description of each section, later in the syllabus) \*Course Instructor reserves the right to change the grading criteria, if needed. \*\* Grading will not be rounded for any of the online quizzes or course assignments and there are no final grading curves for this course. To calculate your percentage (letter grade) simply divide the points your earned by total points (1,000).

## DESCRIPTION OF COURSE REQUIREMENTS AND EVALUATION

### Research Article Summary

There are five research article summaries worth a total of 300 points. You must summarize the assigned article(s) in your own words (**do not copy and paste directly from the article into your summary**). Each summary should be no more than two pages, typed, and double-spaced using 1" margins with a 12-point- Times New Roman Font. You must include headings for each section of the assigned article that you summarize.

For example, Introduction (summarize **in your own words** the Introduction section of the assigned article in the Introduction section of your article summary), Methods (summarize **in your own words** the methodology section of the assigned article in the methods section of your article summary), Results (summarize **in your own words** the results section of the assigned article in the results section of your article summary), Discussion (summarize **in your own words** the discussion section of the assigned article in the discussion section of your article summary), Conclusion (summarize **in your own words** the conclusions section of the assigned article in the conclusion section of your article summary). Additionally, List 3 to 5 keywords (should be bold and italicized) for your article summary directly under the introduction section of your article summary. Lastly, choose a minimum of 5 critical references from the assigned article you summarized and transcribe those citations after the conclusions section of your article summary.

### Course Assignments

There are ten-course assignments worth a total of 400 points. All the course assignments are detailed in the tentative asynchronous course outline. Course assignments will be uploaded to Blackboard every Sunday before midnight. You will be able to access the details of the course assignments every Monday morning throughout the semester. Course assignments are **due every Friday** before midnight unless otherwise noted in the tentative course outline or on Blackboard.

### Course Quizzes

There will be three quizzes worth a total of 300 points. The lowest quiz score will be dropped and replaced with the highest one. It would be best if you had an extensive understanding of all the key concepts in the lecture PowerPoint slides for the assigned chapter readings. The quiz questions will assess your knowledge of key concepts rather than memorization skills.

Specific questions on the quizzes that are missed by a high percentage (>50%) of students will not be counted, and students will receive total points for the question(s) missed. In other words, if >50% of students answer a particular quiz question(s) incorrectly, then the professor will consider that the question could have been better constructed and understood by most students. Hence, total points will be awarded for the specific question(s) missed.

## **COURSE REQUIREMENT AND POLICIES**

- Students must check the Blackboard site and emails for the course daily for announcements and assignments.
- Students must check their emails daily. Student must use their UTEP email ID, put their full name, course name and be professional over email. Emails without this information will not be acknowledged.
- Take all quizzes at designated times. There will be no make-up quizzes. For the following documented circumstances, please contact your professor: 1) illness/hospitalization; 2) death of family member; 3) official university business; 4) legal matter.
- Review of grades and any discrepancies/mistakes in grades can be done within a week from the grade posted. After the one-week period, assignments cannot be reviewed.
- The course material posted are subject to the copyright law of the United States (Title 17 U.S. Code) and is for the use of students in KIN 4312 only. Further reproduction or distribution is prohibited.
- Complete and send all assignments on time. Late assignments will not be accepted, except in unusual circumstances at the discretion of the instructor (to be arranged well in advance).
- Students are expected to be familiar with and adhere to the UTEP Handbook of Operating Procedures.

***\*Failure to follow any of these rules may result deduction of points and/or in disciplinary action, including an instructor-initiated drop from the course.***

## **TECHNOLOGY REQUIREMENTS**

All of the course content will be delivered via the Internet through the Blackboard learning management system (LMS). The professor will alert you when any of the course content is delivered through the Blackboard. However, most of the course material is noted in the tentative class outline section. Ensure your UTEP e-mail account is working and that you have access to the Web. You may use any of the primary Web browsers—Explorer, Google Chrome, Firefox, Safari, etc. When having technical difficulties, try switching to another browser.

You will need to have or have access to a functional computer/laptop. Check that your computer hardware and software are up-to-date and able to access all parts of the course. **If you encounter technical difficulties of any kind, contact the [Help Desk](#).**

## **ONLINE COURSE GUIDELINES**

- Always consider your audience. Remember that members of the course and the instructor will read any postings.
- Respect and courtesy must be provided to classmates and the professor. No harassment or inappropriate postings will be tolerated.
- When reacting to someone else's message, address the ideas, not the person. Post only what anyone would comfortably say in a face-to-face situation.
- A course brings together a group of diverse individuals with various backgrounds. Students are influenced and shaped by ethnicity, gender, sex, physical abilities, religious and political beliefs,

national origins, and sexual orientations. We expect to learn from each other in an atmosphere of positive engagement and mutual respect. Students are responsible for treating others courteously and respectfully and should promote group cohesion to create a safe learning environment.

- Blackboard is not a public internet venue; all postings should be private and confidential. Whatever is posted in these online spaces is intended for classmates and professors only. Please do not copy documents and paste them to a publicly accessible website, blog, or other area. If students wish to do so, they have the ethical obligation first to request the permission of the writer(s).

### **ACCOMODATIONS POLICY**

The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the [UTEP Center for Accommodations and Support Services](#) (CASS). Contact the Center for Accommodations and Support Services at 915-747-5148, or email them at [cass@utep.edu](mailto:cass@utep.edu), or apply for accommodations online via the [CASS portal](#).

### **DEADLINES, LATE WORK, AND ABSENCE POLICY**

Deadlines for all the assignment are outlined in the asynchronous tentative course outline. Students are strongly recommended to complete all course assignments at least a day ahead of deadline to accommodate any unforeseen challenges with internet, technology etc. Students will not be allowed to make-up a missed assessment without **prior** arrangement made in case of emergency.

Make-up work will be given *only* in the case of a *documented* emergency. Note that make-up work may be in a different format than the original work, may require more intensive preparation, and may be graded with penalty points. If you miss an assignment and the reason is not considered excusable, you will receive a **zero**. Hence, it is very important to reach out to me—in advance if possible—and explain with proper documentation why you missed a given course requirement. Once a deadline has been established for make-up work, no further extensions or exceptions will be granted.

### **TITLE IX STATEMENT**

The University of Texas at El Paso is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in any federally funded educational programs or activities. Title IX protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination including sexual misconduct, sexual harassment, and acts of sexual violence. Sexual violence may include rape, sexual assault, sexual battery, sexual coercion,

stalking, and relationship violence. Title IX prohibits institutions from excluding, separating, denying benefits, or otherwise treating individuals differently on the basis of sex. Sex based discrimination is prohibited at UTEP both by law and by University and UT System policies.

### **SCHOLASTIC INTEGRITY**

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports.

Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the [Office of Student Conduct and Conflict Resolution \(OSCCR\)](#) for possible disciplinary action. To learn more, please visit [HOOP: Student Conduct and Discipline](#).

### **COPYRIGHT STATEMENT FOR COURSE MATERIALS**

All materials used in this course are protected by copyright law. The course materials are only for the use of students currently enrolled in this course and only for the purpose of this course. They may not be further disseminated.

### **COURSE RESOURCES: Where you can go for assistance**

UTEP provides a variety of student services and support:

#### Technology Resources:

- [Help Desk](#): Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

#### Academic Resources:

- [UTEP Library](#): Access a wide range of resources including online full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- [University Writing Center \(UWC\)](#): Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
  - [RefWorks](#): A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.

#### Individual Resources:

- [Military Student Success Center](#): Assists personnel in any branch of service to reach their educational goals.
- [Center for Accommodations and Support Services](#): Assists students with ADA-related accommodations for coursework, housing, and internships.
- [Counseling and Psychological Services](#): Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.

**TENTATIVE ASYNCHRONOUS COURSE OUTLINE (subject to change with fair notice)**

Learning Module (LM)	Week (Wk.) & Day	Date	Assigned Reading(s)	All Course Assignment(s) and due dates
LM 1- <i>Physiology of Exercise</i>	Wk. 1- Tues	17 Jan	Chapter 0	<b>First day of asynchronous Exercise Physiology course.</b>  <b>Course Assignment # 1:</b> Critique of Published Peer-Reviewed Research Article. (See assignment details on Blackboard).
LM 1- <i>Physiology of Exercise</i>	Wk. 1- Friday	20 Jan	Chapter 0	<b>Continue working on course assignment # 1.</b> (See assignment details on Blackboard)
LM 1- <i>Physiology of Exercise</i>	Wk. 2- Monday	23 Jan	Chapters 1, 3	<b>Course Assignment # 2:</b> Metabolic calculations and energy expenditures. (See assignment details on Blackboard).
LM 1- <i>Physiology of Exercise</i>	Wk. 2- Friday	27 Jan	Chapters 1, 3	<b>Course Assignments # 1 &amp; 2- due before midnight-</b> (upload and send through Blackboard)
LM 1- <i>Physiology of Exercise</i>	Wk. 3- Monday	30 Jan	Chapters 5,7	<b>Research Article Summary # 1:</b> Summarize the following article: Brooks, G. A. (2011). Bioenergetics of exercising humans. <i>Comprehensive physiology</i> , 2(1), 537-562. (See assignment details on Blackboard).  <b>Refer to the topical review article (referenced below) on Scientific Articles Structure for guidance on how to construct your research article summary.</b> Pardede, P. (2012). Scientific articles structure. In <i>Scientific Writing Workshop</i> (Vol. 16), 1-15. <a href="https://www.researchgate.net/publication/260453687">https://www.researchgate.net/publication/260453687</a>
LM 1- <i>Physiology of Exercise</i>	Wk. 3- Friday	03 Feb	Chapters 5,7  Prepare for quiz # 1	<b>Research Article Summary #1- due before midnight</b> (upload and send through Blackboard).  Review chapters 0,1,3,5, & 7 and then start taking <b>Quiz #1 (Available on Blackboard- Monday, 06 Feb).</b>
LM 1- <i>Physiology of Exercise</i>	Wk. 4- Monday	06 Feb	<b>Quiz #1-</b> available on Blackboard.	<b>Quiz # 1:</b> Chapters 0,1,3,5, & 7.  <b>Course Assignment # 3:</b> Choose 2 or 3 hormones featured in Chapter 5 that influence substrate mobilization during exercise (cortisol, insulin, growth hormone, etc.) and then outline and describe how exercise alters circulating levels of this hormone. (See assignment details on Blackboard).
LM 1- <i>Physiology of Exercise</i>	Wk. 4- Friday	10 Feb	<b>Quiz # 1-</b> continue working	<b>Quiz # 1-due: 2-day extension (if needed)-</b> If you take the 2-day extension Quiz # 1 must be submitted by Sunday, 12 February before midnight.  <b>Course Assignment # 3- due before midnight</b> (upload and send through Blackboard)
LM 1- <i>Physiology of Exercise</i>	Wk. 5- Monday	13 Feb	Chapter 8	<b>Research Article Summary # 2:</b> Summarize the following invited review article: Nelson, N. L., & Churilla, J. R. (2016). A narrative review of exercise-associated muscle cramps: Factors that contribute to neuromuscular fatigue and management implications. <i>Muscle &amp; nerve</i> , 54(2), 177-185. DOI: 10.1002/mus.25176 (See assignment details on Blackboard).
LM 1- <i>Physiology of Exercise</i>	Wk. 5- Friday	17 Feb	Chapter 8	<b>Research Article Summary # 2- due before midnight</b> (upload and send through Blackboard).



LM 1- <i>Physiology of Exercise</i>	Wk. 6- Monday	20 Feb	Chapter 9	<b>Research Article Summary # 3:</b> Summarize the following article: Frontera, W. R., & Ochala, J. (2015). Skeletal muscle: a brief review of structure and function. <i>Calcified tissue international</i> , 96(3), 183-195. DOI: 10.1007/s00223-014-9915-y. (See assignment details on Blackboard).
LM 1- <i>Physiology of Exercise</i>	Wk. 6- Friday	24 Feb	Chapter 9	<b>Research Article Summary # 3- due before midnight</b> (upload and send through Blackboard)
LM 1- <i>Physiology of Exercise</i>	Wk. 7- Monday	27 Feb	Chapter 12, 13	<b>Research Article Summary # 4:</b> Summarize the following article: O'Hara, R., Eveland, E., Fortuna, S., Reilly, P., & Pohlman, R. (2008). Current and future cooling technologies used in preventing heat illness and improving work capacity for battlefield soldiers: review of the literature. <i>Military medicine</i> , 173(7), 653-657. (See assignment details on Blackboard)
LM 1- <i>Physiology of Exercise</i>	Wk. 7- Friday	03 March	Chapter 12, 13	<b>Research Article Summary # 4 - due before midnight</b> (upload and send through Blackboard).  Review chapters 8, 9, 12, & 13 and then start taking <b>Quiz # 2</b> (Available on Blackboard- Monday, 06 March).
LM 1- <i>Physiology of Exercise</i>	Wk. 8- Monday	06 March	<b>Quiz # 2-</b> available on Blackboard	<b>Quiz # 2:</b> Chapters 8, 9, 12, &13.  <b>Course Assignment # 4:</b> How does exercise training improve VO <sub>2</sub> max? Access and download the following article to help answer the assignment questions: Holloszy, J. O. (1967). Biochemical adaptations in muscle: effects of exercise on mitochondrial oxygen uptake and respiratory enzyme activity in skeletal muscle. <i>Journal of biological chemistry</i> , 242(9), 2278-2282. (See assignment details on Blackboard)
LM 1- <i>Physiology of Exercise</i>	Wk. 8- Friday	10 March		<b>Quiz # 2-due: 2-day extension (if needed)-</b> If you take the 2-day extension, Quiz # 2 must be submitted by Sunday, 12 March before midnight.  <b>Course Assignment # 4- due before midnight</b> (upload and send through Blackboard).
LM 2- <i>Physiology of Health and Fitness</i>	Wk. 9 (No class)	13-19 March (M-F)	<b>SPRING BREAK (No class)</b>	<b>Enjoy your Spring Break.</b>  Please remember to check Blackboard on <b>20 March</b> for Learning Module (LM) #2 asynchronous course assignment(s).
LM 2- <i>Physiology of Health and Fitness</i>	Wk. 10 Monday	20 March	Chapter 14	<b>Course Assignment # 5:</b> Physiological adaptations to resistance training. Using one of the scientific search engines (e.g., PubMed, SPORTDiscus, etc.) perform a search of the literature and then answer the assigned questions on both nervous system and increases in skeletal muscle mass on training-induced increases in muscular strength. <b>You may need to refer to Chapter 0 in your Exercise Physiology textbook on how to perform a search of the literature using Boolean operators.</b> (See assignment details on Blackboard).
LM 2- <i>Physiology of Health and Fitness</i>	Wk. 10 Friday	24 March	Chapter 14	<b>Course Assignment # 5- due before midnight</b> (upload and send through Blackboard).
LM 2- <i>Physiology of Health and Fitness</i>	Wk. 11 Monday	27 March	Chapter 16	<b>Course Assignment # 6:</b> Describe two submaximal and two maximal oxidative (aerobic) exercise tests that may be administered in the laboratory setting and, in the field setting that are considered <u>valid</u> and <u>reliable</u> in the scientific literature for measuring oxidative (aerobic) fitness. (See assignment details on Blackboard).  <b>Friday, 31 March is an observed holiday at UTEP.</b> Hence, all students have a 2-day extension on course assignment # 6. Assignment # 6 is due by Tuesday, 04 April before midnight.

<b>LM 2- Physiology of Health and Fitness</b>	<b>Wk. 11</b> Friday	31 March	Chapter 16	<b>Course Assignment # 6 (extension)- due before midnight on 04 April (Tuesday)</b> (upload and send through Blackboard).
<b>LM 2- Physiology of Health and Fitness</b>	<b>Wk. 12</b> Monday	03 April	Chapter 17	<b>Course Assignment # 7:</b> Prescribing exercise for special populations. Choose one of the special populations in Chapter 17 and write an exercise prescription for two distinct types of individuals. <b>(See assignment details on Blackboard).</b>
<b>LM 2- Physiology of Health and Fitness</b>	<b>Wk. 12</b> Friday	07 April	Chapter 17	<b>Course Assignment # 7- due before midnight</b> (upload and send through Blackboard).  Review chapters 14, 16, 17, & 18 and then start taking <b>Quiz # 3</b> <b>(Available on Blackboard- Monday, 10 April).</b>
<b>LM 2- Physiology of Health and Fitness</b>	<b>Wk. 13</b> Monday	10 April	Chapter 18	<b>Quiz # 3:</b> Chapters 14, 16,17, & 18.  <b>Course Assignment # 8:</b> List and then describe a minimum of three valid and reliable methods for assessing body composition in human subjects. For example, discuss the <u>advantages</u> and <u>disadvantages</u> between the three different types of body composition assessment methods you chose for predicting body fat percentage in human subjects. <b>(See assignment details on Blackboard).</b>
<b>LM 2- Physiology of Health and Fitness</b>	<b>Wk. 13</b> Friday	14 April	Chapter 18	<b>Course Assignment # 8- due before midnight</b> (upload and send through Blackboard).  <b>Quiz # 3-due: 2-day extension (if needed)-</b> If you take the 2-day extension Quiz #3 must be submitted by Sunday, 16 April before midnight.
<b>LM 3- Physiology of Performance</b>	<b>Wk. 14</b> Monday	17 April	Chapter 20	<b>Course Assignment # 9:</b> Describe the various types of exercise modalities that can induce delayed onset muscle soreness (DOMS), elucidate the theories of DOMS, and expound on the various types of therapeutic treatments that may ameliorate DOMS. Access and download the following article to help answer the assignment questions: Cleak, M. J., & Eston, R. G. (1992). Delayed onset muscle soreness: mechanisms and management. <i>Journal of sports sciences</i> , 10(4), 325-341.
<b>LM 3- Physiology of Performance</b>	<b>Wk. 14</b> Friday	21 April	Chapter 20	<b>Course Assignment # 9- due before midnight</b> (upload and send through Blackboard).
<b>LM 3- Physiology of Performance</b>	<b>Wk. 15</b> Monday	24 April	Chapter 22	<b>Research Article Summary # 5:</b> Summarize the following article: Burke, L. M., Jeukendrup, A. E., Jones, A. M., & Mooses, M. (2019). Contemporary nutrition strategies to optimize performance in distance runners and race walkers. <i>International journal of sport nutrition and exercise metabolism</i> , 29(2), 117-129.
<b>LM 3- Physiology of Performance</b>	<b>Wk. 15</b> Friday	28 April	Chapter 22	<b>Research Article Summary # 5- due before midnight</b> (upload and send through Blackboard).
<b>LM 3- Physiology of Performance</b>	<b>Wk. 16</b> Monday	01 May	Chapter 23	<b>Course Assignment # 10:</b> Elucidate why physical performance declines at high altitude and clarify the <u>advantages</u> and <u>disadvantages</u> of using Dexamethasone in preventing high altitude sickness. Access and download the following article to help answer the assignment questions: O'Hara, R., Serres, J., Dodson, W., Wright, B., Ordway, J., Powell, E., & Wade, M. (2014). The use of dexamethasone in support of high-altitude ground operations and physical performance: review of the literature.

<b>LM 3-</b> <i>Physiology of Performance</i>	<b>Wk. 16</b> Friday	05 May	Chapter 23	<b>Course Assignment # 10- due before midnight</b> (upload and send through Blackboard).
<b>LM 3-</b> <i>Physiology of Performance</i>	<b>Wk. 17 (M-F)</b>	08-12 May	<i>Final Exams</i>	<b>There is <u>no final exam</u> for this asynchronous course.</b>  <b>The last assignment is due on 05 May.</b>