

George Mason University
College of Education and Human Development
Kinesiology
KINE 420-C01– Sport and Exercise Nutrition
3 Credits, Summer 2021
Asynchronous Online

Faculty

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Prerequisites/Corequisites

KINE 310^C and KINE 320^C

^C requires minimum grade of C

University Catalog Course Description

Explores the fundamental biochemical and physiological rationale for optimal nutrient intake for health, physical fitness, and athletic performance. Specific attention is focused upon the relationship nutrition has with exercise, physical fitness, health, and athletic performance.

Course Overview

The course focuses on the advanced principles of nutrition and its application in sport and exercise. It will be video lecture based to elicit thought provoking discussion to help emphasize key components of the content. Current topics and cases will be presented and discussed throughout the course to help students translate theory into practice.

The first part of the course will build on the components of a nutritious diet, nutrition standards, macro and micronutrients introduced in Principles of Human Nutrition, with emphasis on activity. The second part of the course will delve further into nutrition and its relationship with supplementation and timing for sport, as well as body composition, health, and disease.

The course is divided into three segments, with a different content expert delivering the video lectures for each. However, you will have one professor who facilitates, leads and grades your course section.

Course Delivery Method

This course will be delivered online (100%) using asynchronous format via the Blackboard learning management system (LMS) housed in the MyMason portal. You will log in to the Blackboard course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on **June 20, 2021**.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with standard up-to-date browsers. To get a list of Blackboard's supported browsers [click here](#).
To get a list of supported operation systems on different devices [click here](#).
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- Purchasing and access to [Cengage's MindTap software](#) for assignments.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
 - [Respondus Lockdown Browser and Monitor](#)
 - [Adobe Acrobat Reader](#)
 - [Windows Media Player](#)
 - [Apple Quick Time Player](#)

Expectations

- Course Week:
Asynchronous courses do not have a "fixed" meeting day. However, the modules and assignments for this course are set to start on MONDAY and finish on FRIDAY.
- Log-in Frequency:
Students should actively check the course Blackboard site and their Mason email for communications from the instructor, class discussions, and/or access to course materials on a daily basis.
- Participation:
Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence:
Students are expected to demonstrate competence in the use of course technology. Students who are struggling with technical components of the course should seek assistance from Mason Information Technology Services: <https://its.gmu.edu/service/its-support-center/>.
- Technical Issues:
Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload:
Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student's responsibility to keep track of the course schedule of topics, readings, activities and assignments due.

- **Instructor Support:**
Students may schedule a one-on-one meeting to discuss course requirements, content, or other course-related issues. Please refer to information provided in the syllabus in order to schedule a time to meet with the instructor, whether via telephone, web conference, or face to face. Students should email the instructor to schedule a one-on-one session.
- **Netiquette:**
The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students should re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words.* Remember that you are not competing with classmates but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.
- **Accommodations:**
Online learners who require effective accommodations to ensure accessibility must be registered with George Mason University Disability Services (<https://ds.gmu.edu/>) and provide notification of such to the course instructor.

Learner Outcomes or Objectives

This course is designed to enable students to do the following:

1. Recognize the breadth of Nutritional Sciences.
2. Define common terms associated with Nutritional Sciences.
3. Explain basic nutrient, digestion, and absorption.
4. Describe energy systems, fuels, and nutrients supporting physical activity and how nutrition impacts human movement.
5. Differentiate and assess what to eat and nutrient timing to enhance human movement.
6. Explain the role of nutritional and sport ergogenic aids to enhance human movement.
7. Relate basic principles of bodyweight regulation and body composition.
8. Evaluate the influence of nutritional manipulations on immune function in physically active individuals.

Required Text

[MindTap Digital Platform](#) for Nutrition for Sport and Exercise (4th ed. ©2019)

by Marie Dunford & J. Andrew Doyle, Cengage Learning

- Select Digital Platform, OR if you have other classes using Cengage, select Cengage Unlimited.
- This will give you access to the **mandatory MindTap** activity program as well as an electronic copy of the textbook.

This also includes options to purchase/rent a hard textbook.

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times. See <https://cehd.gmu.edu/students/polices-procedures/>

Professional Standards

This course meets the Commission on Accreditation of Allied Health Education Programs (CAAHEP) requirements and covers the following American College of Sports Medicine's Knowledge-Skills-Abilities (KSA's):

Upon completion of the course, students will have met the following professional standards:

| KSA | Description |
|------------|--|
| | GENERAL POPULATION/CORE: NUTRITION AND WEIGHT MANAGEMENT |
| 1.8.3 | Knowledge of the relationship between body composition and health. |
| 1.8.4 | Knowledge of the effects of diet, exercise, and behavior modification as methods for modifying body composition. |
| 1.8.5 | Knowledge of the importance of an adequate daily energy intake for healthy weight management. |
| 1.8.7 | Knowledge of the importance of maintaining normal hydration before, during, and after exercise. |
| 1.8.8 | Knowledge of the USDA MyPlate and Dietary Guidelines for Americans. |
| 1.8.9 | Knowledge of the importance of calcium and iron in women's health. |
| 1.8.10 | Knowledge of the myths and consequences associated with inappropriate weight loss methods (e.g., fad diets, dietary supplements, over-exercising, starvation diets). |
| 1.8.12 | Knowledge of the number of kilocalories equivalent to losing one pound of body fat and the ability to prescribe appropriate amount of exercise to achieve weight loss goals. |
| 1.8.13 | Knowledge of the guidelines for caloric intake for an individual desiring to lose or gain weight. |
| 1.8.14 | Knowledge of common nutritional ergogenic aids, the purported mechanism of action, and any risk and/or benefits (e.g., carbohydrates, protein/amino acids, vitamins, minerals, herbal products, creatine, steroids, caffeine). |
| 1.8.15 | Knowledge of nutritional factors related to the female athlete triad syndrome (i.e., eating disorders, menstrual cycle abnormalities, and osteoporosis). |
| 1.8.16 | Knowledge of the NIH Consensus statement regarding health risks of obesity, Nutrition for Physical Fitness Position Paper of the American Dietetic Association, and the ACSM Position Stand on proper and improper weight loss programs. |
| 1.8.17 | Ability to describe the health implications of variation in body fat distribution patterns and the significance of the waist to hip ratio. |
| 1.8.18 | Knowledge of the nutrition and exercise effects on blood glucose levels in diabetes. |

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor on Blackboard. No MindTap assignments will be accepted late. Assignments submitted within Blackboard will receive **half** credit for up to 24-hours after the due date and **no** credit thereafter.

Assignments and Examinations

MindTap Assignments (36 assignments at 10 pts each; 360 points total):

Each chapter will include three assigned interactives to complete within the Cengage MindTap program. The date each chapter is covered is the day the MindTap assignments are due, at 11:59 pm. It is recommended that activities be completed as you progress through the module.

Discussion Forum (140 points total):

Discussion post and replies (50 pts) Each student will sign up for one ISSN Position Stand that they will be responsible for reading and providing a *thorough* summary that will be beneficial to the rest of the class. The post will be due on Wednesday (with the exception of the final week; due Monday) and should be at least 450 words in length. By the Sunday night following the post,

the author will respond to each student who replied to their post in order to finalize the discussion.

Forum Responses (9 @ 10 pts each; 90 points total):

There are 10 additional discussion forums; students must read at least one post for each discussion and add to the conversation with additional information, a question, or an interesting point. The response should be at least 150 words in length.

Sport Nutrition Prescription Project (140 points total):

Throughout the course, you will learn about the energy demands and nutrient needs for a variety of sports and activity levels, to include nutrient timing and supplementation.

Part 1 (50 pts) of the project will include creating an excel spreadsheet to perform a variety of caloric and macronutrient calculations, as well as a reference list regarding macronutrient timing pre-, during-, and post-exercise.

Part 2 (90 pts) gives you the opportunity to build a scenario athlete and create a nutrition prescription utilizing the information from Part 1. This assignment also requires a one-day sample food log to demonstrate your prescription.

3 Exams (3 @ 120 points each; 360 points total):

Exams are non-cumulative and will be administered covering information based on the lectures, assigned readings, interactive assignments, and videos. Exams may include multiple-choice and short answer. Exams will be timed and open/available for a 24-hour window. You will have 75 minutes to complete the exams. Once you complete a question, you will not be able to return to it. You will be required to install and utilize the [Respondus LockDown Browser](#) and Monitor during all exams. EXAMS WILL BE GRADED FOR HALF-CREDIT if an ID is not provided and/or a thorough environment scan is not completed. Further, no one is permitted in the area when you are taking the exam.

Course Performance Evaluation Weighting

| REQUIREMENTS | PTS |
|---|-------------|
| Discussion Forum | |
| Initial Post and Replies | 50 |
| 9 Discussion Responses (10 pts x 9) | 90 |
| Assignments | |
| MindTap Activities (10 pts x 36 activities) | 360 |
| Sport Nutrition Prescription Project (Part 1 & 2) | 140 |
| Exams | |
| Exam 1 (Chapters 1-4) | 120 |
| Exam 2 (Chapters 5-9) | 120 |
| Exam 3 (Chapters 10-13) | 120 |
| TOTAL | 1000 |

• **Grading**

| | | | |
|----------------|----------------|----------------|---------------|
| A = 940-1000 | B+ = 880-899.5 | C+ = 780-799.5 | D = 600-699.5 |
| A- = 900-939.5 | B = 840-879.5 | C = 740-779.5 | F = 0-599.5 |
| | B- = 800-839.5 | C- = 700-739.5 | |

Assessment Rubric(s)

Rubrics for each assignment can be found attached to the assignment descriptions within Blackboard.

KINE 420 Class Schedule Summer 2021
All coursework is due by 11:59 pm on the date stated.

| WEEK | TOPIC | MON | TUES | WED | THUR | FRI |
|------|-----------------------|--|--|--|--|---|
| | | 6/21 | 6/22 | 6/23 | 6/24 | 6/25 |
| 1 | Intro – Chapter 1 - 3 | Introduction to Course Video Syllabus Contract Quiz | Ch. 1 <i>Intro to Sports Nutrition</i> Lecture Assignment: Sign Up for Article Review | Ch. 2 <i>Defining and Measuring Energy</i> | Ch. 3 <i>Energy Systems and Exercise</i> Lectures | ISSN Article Reviews 1, 2: Caffeine and Performance Creatine Supplementation and Exercise |
| | | 6/28 | 6/29 | 6/30 | 7/1 | 7/2 |
| 2 | Chapters 4 & 5 | Ch. 4 <i>Carbohydrates</i> Lecture | CHAPTERS 1-4 EXAM REVIEW | EXAM 1 CHAPTERS 1-4 | Ch. 5 <i>Proteins</i> Lecture | ISSN Article Reviews 3, 4: Protein and Exercise HMB |
| | | 7/5 | 7/6 | 7/7 | 7/8 | 7/9 |
| 3 | Chapters 6 - 9 | Ch. 6 <i>Fats</i> Lecture | Ch.7 <i>Water and Electrolytes</i> Lecture | Sport Nutrition Prescription Project Part A | Ch. 8 <i>Vitamins</i> and Ch. 9 <i>Minerals</i> Lectures | ISSN Article Reviews 5, 6: Exercise and Fluid Replacement Energy Drinks |
| | | 7/12 | 7/13 | 7/14 | 7/15 | 7/16 |
| 4 | Chapters 10 & 11 | CHAPTERS 5-9 EXAM REVIEW | EXAM 2 CHAPTERS 5-9 | Ch. 10 <i>Diet Planning: Food First, Supplements Second</i> Lecture | Ch. 11 <i>Weight & Body Composition</i> Lecture and | ISSN Article Reviews 7, 8: Meal Frequency Nutrient Timing |
| | | 7/19 | 7/20 | 7/21 | 7/22 | 7/23 |
| 5 | Chapters 12 & 13 | Ch.12 <i>Disordered Eating & Exercise Patterns</i> | Ch. 13 <i>Diet & Exercise for Lifelong Fitness & Health</i> Lectures | Sport Nutrition Prescription Project Part B & ISSN Article Reviews 9, 10: Beta Alanine Diets and Body Comp | CHAPTERS 10-13 EXAM REVIEW | EXAM 3 CHAPTERS 10-13 |

Core Values Commitment

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <https://catalog.gmu.edu/policies/honor-code-system/>).
- Students must follow the university policy for Responsible Use of Computing (see <https://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students **solely** through their Mason email account.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <https://ds.gmu.edu/>).
- Students must silence all sound emitting devices during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking:

As a faculty member, I am designated as a “Responsible Employee,” and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason’s Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason’s confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason’s Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students/> .