

SPORTS NUTRITION

Department of Health & Kinesiology
The University of Texas at Tyler

Course Syllabus

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**Course:** KINE 5341 – Sports Nutrition

**Classroom:** Section 001: Th 10:00 – 11:20 a.m. in HPC 2185  
Section 060: Online via *Canvas* ([www.uttyler.edu/canvas](http://www.uttyler.edu/canvas))

**Instructor:** Scott A. Spier, Ph.D.  
Associate Professor  
Department of Kinesiology

**Office:** Herrington Patriot Center (HPC) 2186  
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Email: [sspier@uttyler.edu](mailto:sspier@uttyler.edu)

**Office hours:** W 2:00 – 5:00 p.m., or by appointment (Zoom available)

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COURSE PREREQUISITES

Although there is no official prerequisite for this course, it is assumed that every student has successfully completed courses in *Anatomy & Physiology* and in *Exercise Physiology* at the undergraduate level. Though not required, ideal preparation for this class would also include other undergraduate science courses such as physics, chemistry, and/or biochemistry.

MATERIALS

Textbook: For most modules, I will provide review articles that discuss the general topic of that particular module. However, for further clarification of basic concepts as well as more in-depth explanations of various topics, you may want access to a sports nutrition textbook. The *recommended* textbook is ***Sport Nutrition (3rd edition, Human Kinetics)* by Asker Jeukendrup and Michael Gleeson**. You can probably still find the 2nd edition for about half the price.

Assigned Readings: Readings from review articles and/or original research articles will be assigned in each module. Some of these assigned readings will provide background for the lectures while others will serve to further our discussion of the particular topic of study for that module.

Technical requirements: Minimum technological requirements that must be met in order to complete this course can be found in the **UT Tyler Student Resources** link in the **GETTING STARTED** module in Canvas. If you have technical problems, please refer those to Campus Computing Services.

COURSE OBJECTIVES

The purpose of this course is for students to learn the principles of developing optimal diets for athletes using the practical foods available in the Western diet. This course will identify the nutritional needs of athletes whose skills range from recreational to elite status, while recognizing the role that diet plays in achieving optimal physiological training adaptations. Emphasis will be placed upon understanding of how macronutrients, micronutrients, and water are digested, absorbed, and metabolized by the body. Evaluation of supplements and weight loss/weight gain strategies in athletic populations will also receive intensive study.

This course provides the student with a comprehensive understanding of nutrition as it relates to optimal training and performance of sports activities. Within the course structure, you, as the student, will learn (a) basic concepts of sports nutrition, (b) the optimum intake of macronutrients and micronutrients for optimal sports performance, and (c) the efficacy of nutritional supplementation.

SPECIFIC LEARNING OUTCOMES

Students who successfully complete this course will be able to:

1. Describe basic aspects of general nutrition, exercise physiology, and psycho-social factors that relate to sports nutrition;
2. Describe and be able to apply knowledge of nutrition to performance of acute bouts of strength-activities, including pre-performance and recovery;
3. Describe and be able to apply knowledge of nutrition as it relates to strength training, including consideration of caloric needs, fuel nutrients, and non-fuel nutrients;
4. Describe and be able to apply knowledge of nutrition to performance of acute bouts of endurance activities, including pre-performance and recovery;
5. Describe and be able to apply knowledge of nutrition to performance of endurance training, including consideration of caloric needs, fuel nutrients, and non-fuel nutrients;
6. Describe and be able to apply knowledge of nutrition to performance of acute bouts of high-power activities, including pre-performance and recovery;
7. Describe and be able to apply knowledge of nutrition as it relates to training for high-power activities, including consideration of caloric needs, fuel nutrients, and non-fuel nutrients;
8. Plan meal contents, meal schedules, and fluid intake in relation to training and performance;
9. List and describe putative ergogenic nutritional supplements commonly used by athletes;
10. Describe and be able to apply principles for evaluating efficacy of putative ergogenic nutritional supplements;
11. Describe the need for and design limitations of research related to prevalence of use, efficacy, side-effects, and long-term effects of putative nutritional supplements and ergogenic dietary maneuvers;
12. Have a solid foundation for future study of sports nutrition.

*More specific learning outcomes will be provided in each learning module.

This course addresses these objectives through the following:

1. study of basic facts, concepts and theories of sports nutrition;
2. critically reading and discussing research related to sports nutrition;
3. discussing in writing questions and viewpoints related to sports nutrition, analyzing and supporting viewpoints based on research evidence;
4. applying theoretical concepts in sports nutrition.

COURSE STRUCTURE

This class meets online on **Canvas**. You will find that this class is very similar to a traditional on-campus class in that it will consist of recorded lectures, readings, review of research literature, discussions, written assignments, quizzes, and/or exams. In contrast to a traditional on-campus class, assignments in this course can be completed *asynchronously*. In other words, there will be no scheduled meeting times in this class. You may access course content and complete assignments at your convenience, though you still must meet assignment and testing deadlines.

The content of this course is organized into modules and will be accessed in the **Modules** tab in Canvas. Within each *module*, you will find learning objectives, assigned readings, recorded lectures and/or videos associated with the reading assignments, discussion topics, and/or a quiz over the assigned content. The first module, **Getting Started**, will explain the different Canvas functions you will use in this class.

INSTRUCTIONAL METHODS

Instructional methods will include lecture, discussion, and evaluation of research articles. Student activities will include, though may not be limited to: (a) required readings; (b) writing assignments on topics and/or research articles related to sports nutrition; (c) participating in small-group and whole-class discussions; and (d) completing quizzes and exams.

**Students are required to take an active role in the learning process. This includes reading assigned articles, taking notes, studying to prepare for quizzes/exams (note that individuals only retain about 20% of material without studying), asking questions when material is confusing, finding and reading additional credible resources and peer-reviewed literature, using extra materials posted on Canvas, and seeking help from the professor and/or other students when studying.*

COURSE REQUIREMENTS AND EVALUATION

Exams: There will be four timed exams (see Course Schedule). Exams may consist of *multiple choice*, *short answer* (one-word answers), and/or *essay questions* over material assigned in lectures, assigned readings, research articles, and discussions. Although the exams mostly focus on the content covered up to that time, they are cumulative in the sense that understanding of content presented earlier in the semester is necessary for comprehending content later in the semester.

Discussions and Written Assignments: Each group of modules will require you to complete an assignment and/or participate in a discussion of a topic related to the group or to a particular module. These assignments allow you to demonstrate your comprehension of the course material and your ability to express that comprehension through written and/or oral communication.

Online quizzes: Each weekly lesson will contain a short online quiz to assess your understanding of the material. You may use your textbook and reading assignments to complete the quizzes; however, I ask that you take these quizzes by yourself. You may take each quiz twice during the time they are available and only your highest score will be recorded. Each weekly quiz will be available through the end of that week's module. Do not wait until the last minute to complete these (in case of computer problems, power outages, etc.).

Evaluation: Points for the above assignments will be allocated as follows:

Exams	40%
Assignments	40%
Quizzes	10%
Discussions	10%

Grading will be based on a modified 10-point scale as detailed below:

89.5 – 100%	A
79.5 – 89.49%	B
69.5 – 79.49%	C
59.5 – 69.49%	D
< 59.5%	F

TENTATIVE COURSE OUTLINE

Getting Started Module

Module 1 - Nutrients

Module 2 - Regulation of Gastrointestinal Function

Module 3 - Energy and Exercise Metabolism

EXAM 1 (Modules 1-3) - Monday, Sept 18

Module 4 - Carbohydrate

Module 5 - Fat

Module 6 - Protein

EXAM 2 (Modules 4-6) - Monday, Oct 9

Module 7 - Fluids & Electrolytes

Module 8 - Vitamins & Minerals

Module 9 - Dietary Supplements

EXAM 3 (Modules 7-9) - Monday, Oct 30

Module 10 - Nutrition & Training

Module 11 - Nutrition & Immune Function

Module 12 - Weight/Energy Issues in Sports

Module 13 - Personalized Sport Nutrition

EXAM 4 (Modules 10-12) - Friday, December 8

**Due dates for additional assignments will be provided in Canvas*

COURSE POLICIES

Professionalism: Students are expected to display a professional attitude in all aspects of the course, including discussions in Canvas and FlipGrid and communication with the instructor and classmates.

Quality of work: All assignments, including exams, presentations, participation, and projects, will be graded with rigor appropriate for graduate course work. All written assignments should incorporate correct grammar, spelling, and a logical flow of ideas. I have little tolerance for bad grammar and spelling mistakes. Please use the Spelling and Grammar tool in your word processing software.

Policy regarding late submission of an assignment: No assignments or discussion posts will be accepted past their deadlines. Since completion of some assignments in this course depends on the completion of previous assignments (e.g., discussion posts), it is imperative that you submit your assignments on time.

Make-up work: Make-up exams and assignments will be given only according to University policy. On rare occasions (and for a valid reason), make-up exams can be scheduled by pre-arrangement with the instructor *before* the date of the exam. If any exam is missed due to illness, injury, or family emergency, the instructor should be notified prior to or within 24 hours of the missed exam.

Feedback on exams/assignments: I will strive to give timely feedback on all assignments. You should expect feedback on discussion posts within a couple of days and feedback on papers and exams within 1 week (I will notify you if I expect feedback to take a little longer for a particular assessment).

Getting help: If you find yourself struggling in the class (especially if you fail an exam), you should meet with me as soon as possible so that we can determine what steps you need to take to succeed in the class. I'm available during my office hours or by appointment. I also have an open door policy.

If you have trouble with writing assignments, please contact the Writing Center on campus at 903-565-5995. They have tutors and other resources available to assist you with your written assignments.

TIME REQUIREMENTS

Successful on-line learning is highly student-initiated. Because of the format of the course, the student will be required to exercise initiative and diligence in completing the course. In general, you should expect to spend a similar amount of time completing the requirements of this online course as you would spend on the same course taught in the traditional classroom format. An advantage of the online format is that the lecture material is there for you to review whenever you want. In an online course, more time must be devoted to participation in discussions than is traditionally spent in classroom discussions. Time for completion of assignments, readings and other materials, reviewing for comprehension, and preparing for exams should be similar in this online course as in any other course. As a guide, you should plan to spend approximately 10-15 hours per week on this course in a traditional 15-week semester (adjust your time requirements for 7-week semesters or 5-week summer courses). The actual amount of time required will, of course, vary from one person to another. It is absolutely essential that you do not fall behind.

Although this is an asynchronous course, this is not an individually paced course. Access to course materials, assigned discussions, assignments, exams, and the like will follow a schedule spread out over the semester (similar to a class in the traditional format). There will be set dates for exams and deadlines by which you must complete all unit assignments. Deadlines for assignments are listed in the **Course Schedule** in the *Syllabus* link.

If you encounter any unforeseen circumstances (family emergency, jury duty, etc.) that greatly compromise your coursework, contact the instructor immediately. Alternatives for missed time may be arranged at the discretion of the instructor. Note: Vacation time does not count as an excused "absence". Please plan your vacations around assignment due dates or submit your assignments early.

COURSE COMMUNICATION

Course Announcements: Announcements will be posted periodically during the semester. You will be able to see these announcements on your course portal page and in your Patriots email account. Please check these frequently so you do not miss any important information.

E-mail communication: Instructors are required to use your Patriots account e-mail address for e-mail correspondence. Therefore, any e-mail message originating from me will be sent to your Patriots account. However, if you send me e-mail from another personal account, I will reply back to that address. You may want to set up your personal e-mail account so that it pushes your Patriots account e-mail to your personal inbox. Due to

teaching and research loads, it may take 1 to 2 business days to respond to e-mail; however, I'll make every effort to respond to e-mail on the same day. Please note that e-mails received on the weekends (late Friday through early Monday) will generally be responded to on the following Monday.

In all e-mail correspondence, please include the course number in the subject line (e.g., "KINE 5306 question" or "EEP assignment"). Failure to do so reduces the likelihood of me reading the e-mail. Please use correct grammar and punctuation. If your e-mail address doesn't contain your name, please sign your e-mail with your name at the end of the correspondence.

ACADEMIC DISHONESTY

At The University of Texas at Tyler students and faculty are responsible for maintaining an environment that encourages academic integrity. Students and faculty members are required to report an observed or suspected case of academic dishonesty immediately to the faculty member in charge of an examination, classroom or laboratory research project, or other academic exercise.

Since the value of an academic degree depends on the absolute integrity of the work done by the student for the degree, it is imperative that students maintain a high standard of individual honor in scholastic work. Scholastic dishonesty includes but is not limited to cheating, plagiarism, and collusion:

"Cheating" includes:

1. Copying from the paper of another student, engaging in written, oral or any other means of communication with another student, or giving aid to or seeking aid from another student when not permitted by the instructor;
2. Using material during an examination or when completing an assignment that is not authorized by the person giving the examination or making the work assignment;
3. Taking or attempting to take an examination for another student, or allowing another student to take an examination for oneself;
4. Using, obtaining, or attempting to obtain by any means, the whole or any part of, an unadministered examination or work assignment.

"Collusion" includes the unauthorized collaboration with another person in preparing written work that a student offers for credit.

"Plagiarism" includes the unacknowledged incorporation of the work of another person in work that a student offers for credit.

If you have any questions regarding plagiarism, please consult [Chapter 8 of the Student Affairs Manual of Policy and Procedures](#).

This class will be conducted in full compliance with the UT Tyler "no tolerance" policies concerning documented cases of plagiarism and/or academic dishonesty. Any act of cheating or plagiarized work submitted will result in a grade of zero for that assignment and further disciplinary action may be taken. Please make use of the UT Tyler Writing Center if you have concerns about plagiarism.

COPYRIGHT

All handouts used in this course, including those delivered via Canvas, are copyrighted. The term "handouts" refers to all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, assignment sheets, recorded lectures, outlines, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.

UNIVERSITY POLICIES (From the *Handbook of Operating Procedures* and the UT Tyler Website)

STUDENT RIGHTS AND RESPONSIBILITIES

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

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- b. Using material during an examination or when completing an assignment that is authorized by the person giving the examination or making the work assignment;
- c. Taking or attempting to take an examination for another student, or allowing another student to take an examination for oneself;
- d. Using, obtaining, or attempting to obtain by any means, the whole or any part of, any unadministered examination or work assignment.

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GRADE APPEAL PROCEDURE A student who wishes to contest a grade given by an instructor must initiate the procedure by contacting the instructor who assigned the grade. The instructor and the student should informally review the criteria for assignment of grades and the student's performance. The instructor may affirm the grade or revise the grade. If the student is not satisfied after the informal discussion with the instructor, then the student may initiate a formal grade appeal by completing a Grade Appeal Form that may be obtained from the Office of Student Records. Normal grade appeals should be filed at the earliest date possible, but no later than six months from the final date of assignment. The instructor and the student should complete the appropriate parts of the form clearly indicating the instructor's rationale for the grade given and the student's basis for the grade appeal. At each administrative level of the appeal process, an attempt will be made to resolve the issue. If the instructor holds one of the administrative positions used in the appeal process, then that level is omitted. If no resolution is reached at a particular level, then the appeal is forwarded with the recommendation of the administrator at that level with all documentation. If the appeal is to be considered by the vice president for academic affairs, then a copy of the Grade Appeal Form shall be forwarded by the academic dean of the students. The Office of the President is the final step in the appeal process at The University of Texas at Tyler.

Campus Carry

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>

UT Tyler a Tobacco-Free University

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, quit lines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

CLASS ATTENDANCE Responsibility for class attendance rests with the student. When a student has a legitimate reason for being absent, the instructor has the option of permitting make-up work. The university reserves the right to consider individual cases of nonattendance. In general, students are graded on the basis of intellectual effort and performance. In many cases, class participation is a significant measure of performance, and nonattendance can adversely affect a student's grade. When, in the judgment of the instructor, a student has been absent to such a degree as to jeopardize success in the course, the instructor informs the Office of Student Records that the student is to be dropped from the course.

APPROVED STUDENT ABSENCES Students who anticipate being absent from class due to a *religious observance* are requested to inform the instructor of such absences by the second class meeting of the semester. Student Absence for *University-Sponsored Events and Activities* If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed. On those occasions when it may be necessary for students to miss a regularly scheduled class in order to participate in an official university event or activity, faculty sponsors and program directors are requested to observe the following procedures:

- a. Faculty sponsors or program directors should draft a memorandum to the vice president for academic affairs. This memorandum should include information concerning the nature of the event, the date(s) on which students would be absent from class, and the names of the students involved.
- b. Copies of the memorandum addressed to the vice president should be given to each of the students listed on the memorandum.
- c. Students should be directed to communicate with their instructor(s) prior to the date of the planned absence. It is expected that students will not abuse the privilege of being absent from class for authorized university activities, and that make-up assignments will be made at the discretion and convenience of the instructor.

GRADE REPLACEMENT/FORGIVENESS AND CENSUS DATE POLICIES Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract. The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the 12th day of class. Failure to file an intent to use grade forgiveness will result in both the original and repeated grade being used to calculate your overall grade point average. A student will receive grade forgiveness (grade replacement) for only three (undergraduate student) or two (graduate student) course repeats during his/her career at UT Tyler (2006-2008 Catalog, P. 35).

DISABILITY/ACCESSIBILITY SERVICES: In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible a diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

STATE-MANDATED COURSE DROP POLICY Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

SOCIAL SECURITY AND FERPA STATEMENT: It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

EMERGENCY EXITS AND EVACUATION: Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.