

## NUIP 3020-001

Nutrition for Exercise and Sport

Fall 2023

3 credit hours

**Instructor:** Katherine Beals, PhD., RD, FACSM, CSSD  
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**Class days/times:** Tuesday and Thursday 3:40-5:00 pm  
**Class Location:** Gardner Commons 2675 (GC 2675)  
**Office hours:** Tuesdays 2:00-3:30 pm and by appointment.  
**Course Website:** Canvas: <https://utah.instructure.com>  
(class notes & assignments found here!)

**Course Description:** Designed for students in nutrition, exercise and sport science, health education, and other fields. This course will integrate nutrient metabolism, nutrition science, and exercise physiology as it applies to sport performance, exercise and health.

**Course Prerequisites:** Successful completion of this course requires that you have taken a **basic nutrition class**. Recommended Prerequisite: NUTR 1020 or 4440 and either ESS 3091 or 4300/3094.

### Required Materials:

- Dunford M & Doyle JA. *Nutrition for Sport and Exercise 5<sup>th</sup> ed.* Cengage Learning. 2022.
- Additional readings, handouts and assignments will be made available on Canvas.

**Student Learning Outcomes:** By the end of this course you will be able to:

- Identify specific nutrient needs of individuals who engage in physical activity/sport.
- Describe human energy metabolism and substrate utilization (i.e., carbohydrate, fat, protein metabolism) at rest and during exercise.
- Provide carbohydrate, protein and fat intake recommendations for before, during and after exercise.
- Describe the changes that occur in micronutrient metabolism as a result of exercise and explain how these changes may impact the nutrient needs of physically active individuals.
- Identify fluid needs for exercise and provide fluid intake recommendations to maintain optimal hydration.
- Describe the components of the female athlete triad; identify risk factors, physiological complications, prevention and treatment strategies.
- Interpret/analyze scientific research pertaining to sports nutrition.
- Evaluate sports nutrition information, nutritional supplements, and ergogenic aids and distinguish between scientifically sound information and nutritional quackery.

### Teaching and Learning Methods

The instructor will employ a combination of teaching methods for this course including lectures, small and large group discussions, student presentations and demonstrations and role-playing. The goal is to appeal to and engage a variety of learning styles in order to better meet the needs of a diverse group of students.

## Grading Criteria

Point Breakdown	
Midterm Exams (3)	300
Final Exam	100
Supplement Evaluation	60
Sport Nutrition Profiles	80
Misc Homework Assignments	<u>40</u>
<b>Total Points Possible:</b>	<b>580</b>

Grading Scale*			
A	100 % to 92.5%	C	77.4 % to 72.5%
A-	92.4 % to 89.5%	C-	72.4 % to 69.5%
B+	89.4 % to 87.5%	D+	69.4 % to 67.5%
B	87.4 % to 82.5%	D	67.4 % to 62.5%
B-	82.4 % to 79.5%	D-	62.4 % to 59.5%
C+	79.4 % to 77.5%	E	< 59.4 %

### Assignments:

- The assignments in this class (e.g., sport nutrition profiles/case studies, supplement evaluation and miscellaneous homework assignment) are designed to provide students with practical experience, i.e., the opportunity to “apply” the information learned in class. Detailed information and instructions for each assignment will be posted on Canvas under the “assignments” icon. **ALL ASSIGNMENTS MUST BE TURNED IN on or before the day/time they are due.**

### Make-up Policy

- It is the student’s responsibility to obtain missed class information (notes, assignments, etc) from classmates.
- Assignments are due on the due dates as noted on the assignment instructions or as designated by the instructor. Late projects ( $\leq 1$  week late) will automatically receive 1/2 credit. Assignments turned in **> 1 week late WILL NOT RECEIVE CREDIT!**
- No make-up exams will be given without previous arrangements with the instructor or **Examples of unusual circumstances include a death in the family or illness that requires medical treatment (documentation will be requested). Computer and/or printer error on the day an assignment is due is NOT considered an unusual circumstance. Students are NOT encouraged to rely upon the College of Health Computer Center for printing assignments on the day they are due because of frequent virus- related problems encountered in the past. University-sponsored trips and/or functions ARE considered excused absences that require advanced notice to the instructor.**

### Additional Course Policies/Information

- Attendance will not be taken during lecture; however, students are strongly encouraged to attend all class meetings as exam material will come almost exclusively from the lectures.
- Lecture notes will be available on Canvas at least one day before the lecture. It is the students’ responsibility to download the lecture notes and bring them to class. If a student misses a lecture, it is his/her responsibility to get any missing information from a fellow classmate. The instructor will not provide notes for students missing lectures.
- Students are responsible for knowing the registration, drop and withdrawal dates for the semester.
- Students must turn off cell phones and pagers while in class.
- The Code of Student Rights and Responsibilities is provided in detail on the University of Utah web page ([www.admin.utah.edu/ppmanual/8/8-10.html](http://www.admin.utah.edu/ppmanual/8/8-10.html)). Students have specific rights in the classroom as detailed in the code. The code also specifies proscribed conduct that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully to become aware of these issues. Students may receive sanctions for violating one or more of these proscriptions. The instructor of this course will enforce the Code in the course; cheating and plagiarism will result in appropriate penalties, such as a failing grade on a specific exam or in the course and/or expulsion from the course. Students have the right to appeal such action to the Student Behavior Committee.

## University Policies

1. **COVID-19 Campus Guidelines.** Please refer to the University's COVID-19 Central website for the latest information and guidelines.

**Please note that students in clinical programs should remain in close contact with their program director about the latest guidelines pertaining to COVID-19.**

### COVID-19 Central @ The U

801-213-2874

[coronavirus.utah.edu](http://coronavirus.utah.edu)

1. **The Americans with Disabilities Act.** 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 this class, reasonable prior notice needs to be given to the Center for Disability & Access (CDA; <http://disability.utah.edu/>; 162 Olpin Union Building; 801-581-5020). CDA will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the CDA.
2. **Addressing 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, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or 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 the police, contact the Department of Public Safety, 801-585-2677(COPS).
3. **The Code of Student Rights and Responsibilities.** The code, which specifies student rights as well as conduct involving cheating, plagiarism, collusion, fraud, theft, etc., is provided at <http://regulations.utah.edu/academics/6-400.php>.
4. **Wellness Statement.** Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness, <http://wellness.utah.edu/>; 801-581-7776.
5. **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)
6. **Veterans Center.** If you are a student veteran, I want you to know that the U of Utah has a Veterans Support Center on campus. They are located in Room 418 in the Olpin Union Building. Hours: M-F 8-5pm. Please visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: <http://veteranscenter.utah.edu/>. Please also let me know if you need any additional support in this class for any reason.
7. **LGBT Resource Center.** If you are a member of the LGBTQ community, I want you to know that my classroom is a safe environment. Additionally, please know that the U of Utah has an LGBT Resource Center on campus. They are located in Room 409 in the Olpin Union Building; their hours are M-F 8-5 pm. You can visit their website to find more information about the support they can offer, a list of events through the center and links to additional resources: <http://lgbt.utah.edu/>. Please also let me know if there is any additional support you need in this class.
8. **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 Writing Center (<http://writingcenter.utah.edu/>); the Writing Program

(<http://writing-program.utah.edu/>); the English Language Institute (<http://continue.utah.edu/eli/>). Please let me know if there is any additional support you would like to discuss for this class.

9. **Lauren’s Promise.** The following statement discusses interpersonal violence that has occurred on our campus and resources available. It may evoke feelings of distress or past trauma by individuals who have experienced situations involving interpersonal violence. We wanted to acknowledge as well that this situation does not describe every victim’s experience and certain communities may be at a higher risk for these experiences.

**Lauren’s Promise—I will listen and believe you if someone is threatening you.**

Lauren McCluskey, a 21-year-old honors student athlete, was murdered on October 22<sup>nd</sup> 2018, by a man she briefly dated on the University of Utah campus. ***We must all take actions to ensure that this never happens again.*** If you are in urgent need of support, call 911 and/or the Utah crisis line at 800.273.8255. If you are experiencing interpersonal violence, sexual assault, domestic violence, and/or stalking, please report it to me and I can connect you to resources. **Here are additional sources of support and help:**

Resource	Phone #	Hours	Affiliation
McCluskey Center for Violence Prevention:	TBD	TBD	University
Center for Student Wellness, Victim Survivor Advocate:	801.581.7776	8-5	University
Office of Equal Opportunity:	801.581.8365	9-5	University
University Department of Public Safety:	801.585.2677	24 hrs	University
University of Utah Neuropsychiatric Institute	801.587.3000	24 hrs	University
Utah Domestic Violence Coalition:	800.897.5465	24 hrs	State
<u>Rape Recovery Center 24-hour Crisis Line:</u>	801.467.7273	24 hrs	State
<u>Domestic Violence Link Line:</u>	800.897.5465	24 hrs	State
<u>Stalking Helpline:</u>	800.621.4673	24 hrs	State
Rape Recovery Center Crisis Line:	801.467.7272	24 hrs	State

Mandatory reporters are university employees, including students in paid leadership positions, who are required to report sexual misconduct to the Office of Equal Opportunity and Affirmative Action per university regulations. Examples of mandatory reporters include:

- Professors and other faculty
- Administration and staff (non-mental health)
- Resident advisors
- Student employees
- Campus police or campus security officials
- Athletic coaches/assistants

Confidential resources are employees not required to report any identifying information regarding an incident of sexual violence to the university. Survivors of sexual misconduct can speak openly to confidential resources about their experiences without their names or extensive details about their experience being reported to the Title IX coordinator or law enforcement.

- University Counseling Center:
- University Hospitals Chaplin
- Student Athlete Support Services
- Center for Student Wellness Victim Advocates
- Women’s Resource Center

## Tentative Class Schedule\*\*

Date	Topic	Readings
Aug 22	Introduction to Sport Nutrition	Chapter 1 (section 1.1 & 1.6)
Aug 24	Review of Nutrient Recommendations-- Applications to the physically active individual	Chapter 1 (section 1.2 & 1.3)
Aug 29	Nutrition assessment in active individuals	Chapter 1 (section 1.2 & 1.3) <i>*Assigned reading</i>
Aug 31 Sep 5	Energy Metabolism & Substrate Utilization	Chapter 2 ( section 2.1 & 2.2) Chapter 3
Sep 7, 12 & 14	Carbohydrate metabolism at rest and during exercise— Carbohydrate recommendations	Chapter 4
<b>Sep 19</b>	<b>EXAM 1</b>	
Sep 21	<i>Speical Topic: Low Carb/Keetogenic Diets and Athletes</i>	<i>*Assigned reading</i>
Sep 26 & 28 Oct 3	Fatty acid metabolism at rest and during exercise Fatty acid recommendations <i>Special Topic: Fat Burning Supplements</i>	Chapter 6 <i>*Assigned reading</i>
Oct 5, 17 & 19	Amino acid metabolism/utilization during exercise Protein recommendations	Chapter 5
<b>Oct 9-15</b>	<b>Spring Break—No Class</b>	
Oct 24	<i>Special Topic: Protein Supplements</i>	<i>*Assigned reading</i>
<b>Oct 26</b>	<b>EXAM 2</b>	
Oct 31 Nov 2	Fluid Balance at rest and during exercise Fluid & electrolyte requirements for optimal performance <i>Special Topic: Sports Drinks</i>	Chapter 7 <i>*Assigned Reading</i>
Nov 7	Evaluating Nutritional Supplements & Ergogenic Aids	Chapter 1 (section 1.5)
Nov 9 & 14	Energy Balance & Weight Management in Athletes	Chapter 2 (section 2.3) Chapter 10 & 11
<b>Nov 16</b>	<b>EXAM 3</b>	
Nov 21 & 28	Micronutrient needs of athletes/active individuals Antioxidant vitamins (vitamins C and E) and exercise	Chapter 8 <i>*Assigned reading</i>
Nov 30	Micronutrient needs of athletes/active individuals B vitamins and exercise	Chapter 8 <i>*Assigned reading</i>
Dec 5	Micronutrient needs of athletes/active individuals Vitamin D and exercise	Chapter 8 <i>*Assigned reading</i>
Dec 7	Minerals and exercise <i>Special Topic: Iron Deficiency in Athletes</i>	Chapter 9
<b>Dec 11</b>	<b>FINAL EXAM</b>	<b>3:30-5:30</b>

*\* Assigned readings will be available on Canvas.*

**\*\*Note: Course content may vary from the above outline to meet the needs of this group of students. Any updates will be made available to students through Canvas.**