

**Framingham State University**  
**Division of Graduate and Continuing Education**  
**Course Syllabus PRVD.71021**

**Course Information**

Course Title: PRVD.71021 Hydration & Beverages

**Instructor:** Vanessa Cavallaro, MS, RD, LDN

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Available by phone and e-mail to assist students, and will respond to all emails within 24 hours.

**Course Credit:**

One graduate credit

**Course Description:** An overview of hydration including basic requirements and guidelines for children and adolescents, and hydration needs for student athletes. Topics addressed in the course include: the current beverage environment; common ingredients and additives; beverage guidelines for schools; and the role of beverage marketing and beverages in the school environment.

**Learning Outcomes:**

- Students will be able to quantify basic hydration needs for children and adolescents and additional requirements for activity.
- Students will be able to compare and contrast current hydration guidelines and recommendations.
- Using information and guidelines presented, students will be able to critically evaluate popular beverage products (sports/energy drinks, vitamin water, juices with added nutrients/antioxidants) to determine their relative nutritional value.
- Students will critically evaluate how manufacturers market beverages to children and adolescents in order to help them become wise consumers of media and advertising.
- Students will identify strategies that can be used in schools to improve access to nutritious beverages while limiting access to sugar sweetened and caffeinated beverages.

**Massachusetts Comprehensive Health Framework**

1. 3.1 Identify the key nutrients in food that support healthy body systems (skeletal, circulatory) and recognize that the amount of food needed changes as the body grows
2. 3.7 Describe how food choices are influenced by availability, individual and family preferences, media, and background, and identify healthy foods within various social groups
3. 3.8 List the functions of key nutrients and describe how the United States Dietary Guidelines relate to health and the prevention of chronic disease throughout the life span
4. 3.15 Explain the relationships among dietary intake (including nutritional supplements), eating behaviors, physical activity, and emotional health

**Requirements:**

Weekly discussion board participation (1 topic per week, 3 posts to receive full credit); Four homework assignments.

**Texts and Materials:**

There are no required text books for this course. Weekly readings will be available via the Internet or for download. Online readings and resources include, but are not limited to the following articles below.

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The course is updated each time it taught and a complete, updated reading list will be available by unit at the start of the course.

**Week 1/Unit 1: An introduction to hydration:**

- [Water and Nutrition Basics](#): Centers for Disease Control and Prevention, accessed November 2018
- [Get the Facts Drinking Water and Intake](#): Centers for Disease Control and Prevention, accessed November 2018
- [Mayo Clinic Review on Hydration](#): Mayo Clinic, accessed November 2018
- [Water: How much you should drink everyday](#): Mayo Clinic, accessed November 2018
- [Dietary Reference Intakes \(DRIs\): Recommended Dietary Allowances and Adequate Intakes, Total Water and Macronutrients Food and Nutrition Board](#): Institute of Medicine, accessed November 2018
- [Dietary Guidelines for Americans 2015-2020, Beverages](#)

**Week 2/Unit 2: Hydration for sports and exercise**

- [American College of Sports Medicine Position Stand: Exercise and Fluid Replacement \(2007\)](#)
- [National Athletic Trainers' Association Position Statement on Fluid Replacement for Athletes](#)
- [Hydration for Young Athletes](#) Today's Dietitian, April 2015
- [Nutrition for Child and Adolescent Athletes](#) Sports Science Exchange, accessed November 2018
- [Sport Nutrition for Young Athletes](#) Pediatrics & Child Health, April 2013
- [The Risk of Exertional Heat Stroke on Young Athletes](#), NY Times July 20, 2017

**Week 3/Unit 3: The Beverage Industry and Marketing to Children**

- [Sports and Energy Drinks](#), Kid's Health from Nemours, accessed November 2018
- [The Buzz on Energy Drinks](#), Centers for Disease Control and Prevention, accessed November 2018
- [The Buzz on Energy Drinks Infographic](#), Centers for Disease Control and Prevention, accessed November 2018
- [Sports Drinks and Energy Drinks for Children and Adolescents: Are they Appropriate?](#), Pediatrics June 2011
- [Overview of the IOM Report on Food Marketing to Children and Youth: Threat or Opportunity?](#) Institutes of Medicine, 2005

**Week 4/Unit 4: Beverages in the School Environment**

- [Captive Kids: Selling Obesity at Schools. An Action Guide to Stop the Marketing of Unhealthy Foods and Beverages in School](#), California Project Lean 2017
- [Increasing Access to Drinking Water in Schools](#), Centers for Disease Control and Prevention
- [Model Wellness Policy Language for Water Access in Schools](#) Change Lab Solutions, 2012
- [Healthy Students, Healthy Schools: Revised Guidance for Implementing the Massachusetts School Nutrition Standards for Competitive Foods and Beverages](#), June 2012

**Course Content/Outline:**

- **Week 1/Unit 1: An introduction to hydration:** The first week of the course will provide an overview of hydration. Commonly used fluid requirement guidelines will be presented and a

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discussion on the evidence behind current recommendations. Dehydration signs/symptoms/consequences will also be reviewed.

- Current guidelines and recommendations
- Maintenance fluids
- Dehydration signs/symptoms/consequences
  
- **Week 2/Unit 2: Hydration for sports and exercise:** Topics for Week 2 include hydration needs for sports, activity and exercise. Fluid replacement guidelines for athletes will be reviewed included types and amounts.
  - American College of Sports Medicine (ACSM) position paper
  - Hydration during activity and exercise
  - Fluid replacement
  - Sports beverages
  
- **Week 3/Unit 3: The Beverage Industry and Marketing to Children**
  - Overview of common ingredients (sugar, caffeine, sugar substitutes and electrolytes)
  - The Beverage industry
  - Marketing to children
  
- **Week 4/Unit 4: Beverages in the School Environment**
  - Pouring contracts
  - School Beverage Guidelines
  - School-based Practices and Initiatives

**Grading Criteria:**

Class participation (assessed through weekly discussion board participation) is worth 20% of the final grade. The four homework assignments make up the remaining 80% (each worth 20%).

**Course Expectations:**

Students will need computer access to log into FSU Blackboard (BB) to participate in this course. This is an online course and is not self-paced. Students are expected to work online each week to complete readings, assignments, and discussions according to the course deadlines. Homework assignments are due at the end of each of the four weeks, please refer to the 'Course Documents' folder for specific due dates.

If a student is unable to complete an assignment on-time, the instructor should be contacted prior to the due date to align on a plan moving forward. Active, consistent and regular participation and constructive peer-to-peer feedback are essential for a positive course experience. In addition, it helps course efficiency and effectiveness.

**Federal Definition of Credit Hour:** FSU adheres to the following definition of credit hour as published in the Code of Federal Regulations (CFR), Title 34, Part 600.2:

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*“Credit Hour: Except as provided in 34 CFR 688.8(k) and (l), a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than—*

- (1) One hour of classroom or direct faculty instruction and a minimum of two hours out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or*
- (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.”*

**Academic Honesty Policy:**

Please refer to the FSU student handbook for the Academic Honesty policy posted for 2018-2019. All students are expected to generate materials and thoughts that are their own.

**Accommodation Statement:**

“Framingham State University offers equal opportunities to all qualified students, including those with disabilities and impairments. The University is committed to making reasonable accommodations as are necessary to ensure that its programs and activities do not discriminate, or have the effect of discriminating, on the basis of disability. The [Disability/Access Services Office](#) serves students with learning and psychiatric disabilities as well as students with visual, mobility and hearing impairments. For further information about this, please contact Dr. LaDonna Bridgges, Associate Dean of Academic Success and Dean of CASA (Center for Academic Success and Achievement) at 508-626-4906 or [lbridges@framingham.edu](mailto:lbridges@framingham.edu).”