PRDV 70325 Sweet Solutions | Summer 2023

# COURSE INFORMATION

Instructor Name:

Instructor Phone:

Instructor Email:

Office Hours:

Course Dates & Location:

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Please Email

July 10-August 4; Online

# DESCRIPTION

An overview of sugar and non-nutritive sweeteners including guidelines and recommendations for children and adolescents. Topics include: types of sugar and non-nutritive sweeteners, including information about safety; the use of these products in the current food supply; updates on food marketing to children as it relates to sugar; and efforts to reduce sugar consumption in the US and the school environment. The course is intended for school nutrition professionals, teachers, administrators, and school nurses.

# LEARNING OUTCOMES

At the end of the course, successful students will be able to:

1. Identify types of sugar and non-nutritive sweeteners, their safety and use in the US food supply.
2. Describe the current sugar guidelines and recommendations for the US and schools.
3. Critically evaluate food products to determine their relative nutritional value, and place in their overall diets, as well as in the school setting.
4. Explain the current recommendations and practices around food marketing to children, as it relates to sugar and non-nutritive sweeteners.
5. Implement strategies for reducing sugar in foods sold in schools to improve access to nutritious foods.

# COURSE MATERIALS

There are no required textbooks for this course. Weekly readings and resources are available online or for download, including:

* [A Background on Carbohydrates and Sugars](https://foodinsight.org/background_on_carbohydrates_sugars/). Food Insight, 2021. Focuses on the different types of added sugar.
* [Dietary Guidelines for Americans, 2020-2025](https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf#page=31). Explains recommended sugar intake.
* [Added Sugars on the New Nutrition Facts Label](https://www.fda.gov/food/new-nutrition-facts-label/added-sugars-new-nutrition-facts-label). FDA, 2022. Focuses on nutrition facts labeling for sugar.
* [Be Sugar Smart: Limiting Added Sugars Can Improve Health](https://www.cdc.gov/nutrition/data-statistics/be-sugar-smart.html). CDC, 2022. Explains the effects of added sugar and strategies to reduce intake.
* [Know Your Limit for Added Sugars](https://www.cdc.gov/healthyweight/healthy_eating/sugar.html). CDC, 2022. Focuses on the recommended sugar intake.
* [Added Sugar Is Not So Sweet](https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/sugar/added-sugar-is-not-so-sweet-infographic). American Heart Association, 2019. Focuses on sources of added sugar.
* [Sugar: Too Much of a Sweet Thing](http://cspinet.org/new/pdf/combined_infographic.pdf). Center for Science in the Public Interest. Infographic on sources of added sugar and effects.
* [High Fructose Corn Syrup Questions and Answers](https://www.fda.gov/food/food-additives-petitions/high-fructose-corn-syrup-questions-and-answers). FDA, 2018. Provides information on high fructose corn syrup.
* [What Is High Fructose Corn Syrup?](https://foodinsight.org/what-is-high-fructose-corn-syrup/) Food Insight, 2020.
* [Fast Facts about High-Fructose Corn Syrup](https://foodinsight.org/wp-content/uploads/2011/04/HFCS-FACT-SHEET-FINAL.pdf). Food Insight.
* [The Question of Sugar](https://www.ars.usda.gov/plains-area/gfnd/gfhnrc/docs/news-2012/the-question-of-sugar/#:~:text=Can%20sugar%20really%20be%20addictive,of%20addictive%20drugs%20like%20cocaine). USDA, 2019. Explains the effects of sugar and provides information on whether or not it is addictive.

* [Artificial Sweeteners and Other Sugar Substitutes.](http://www.mayoclinic.com/health/artificial-sweeteners/MY00073) Mayo Clinic, 2023. Provides information on FDA approved sugar substitutes.

* [Position of the Academy of Nutrition and Dietetics: Use of Nutritive and Nonnutritive Sweeteners](https://www.andeal.org/vault/2440/web/JADA_NNS.pdf). Journal of Academy and Dietetics, 2012. Provides information about sweeteners and their effect on health.

* [Low-Calorie and Artificial Sweeteners](https://www.hsph.harvard.edu/nutritionsource/healthy-drinks/artificial-sweeteners/). Effects of low calorie and artificial sweeteners. Harvard School of Public Health, 2023.

* [Added Sugars on the New Nutrition Facts Label](https://www.fda.gov/food/new-nutrition-facts-label/added-sugars-new-nutrition-facts-label). FDA, 2022. Updated food label information for sugar.

* [Stevia and Sugar Substitutes](https://www.webmd.com/diet/stevia-sugar-substitutes). WebMD, 2021.

* [Nutrition for Health and Fitness: Sugar and Other Sweeteners](https://edis.ifas.ufl.edu/publication/FS406). University of Florida Extension, 2020.

* [Sugar 101](https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/sugar/sugar-101). American Heart Association.

* [Sweeteners and Sugar Substitutes](https://www.healthychildren.org/English/healthy-living/nutrition/Pages/Sweeteners-and-Sugar-Substitutes.aspx). American Academy of Pediatrics - Healthy Children, 2019.

* [Trends in added sugars intake and sources among U.S. adults using the National Health and Nutrition Examination Survey (NHANES) 2001–2018](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9434277/). NHANES, 2022. Focus on results of NHANES survey to show trend in sugar consumption.

* [Sugary drinks](https://www.cspinet.org/advocacy/nutrition/sugary-drinks). Center for Science in the Public Interest. 2021. Focuses on the health risks of sugary drinks and how sugary drinks are marketed.

* [Rethink Your Drink | Healthy Weight, Nutrition, and Physical Activity](https://www.cdc.gov/healthyweight/healthy_eating/drinks.html). CDC, 2022. Provides different options to replace sugary beverages.
* [Tips for Cutting Down on Sugar](https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/sugar/tips-for-cutting-down-on-sugar). American Heart Association, 2018. Focuses on strategies to reduce sugar intake.
* [Cut Down on Added Sugars](https://health.gov/sites/default/files/2019-10/DGA_Cut-Down-On-Added-Sugars.pdf). Dietary Guidelines for Americans.
* Strategies to cut down on added sugar intake.
* [Simple Strategies to Reduce Added Sugar](https://healthyschoolrecipes.com/strategies-reduce-added-sugar/?utm_content=bufferc1686&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer&fbclid=IwAR0XsxFik0cbMZaLqkPbrhyMtK_O2jdiAH6VJm8f_ioE-gTRh9CyUZgdvQA). Healthy School Recipes.
* [John C. Stalker Institute of Food and Nutrition](https://johnstalkerinstitute.org/resources/school-snacks/alist/massnets/). Massachusetts Nutrition Evaluation Tool for Schools and A-List Snacks.
* [Nutrition Standards for Competitive Foods and Beverages in Public Schools.](https://www.mass.gov/doc/105-cmr-225-nutrition-standards-for-competitive-foods-and-beverages-in-public-schools/download) Facts on nutrition standards for foods and beverages in schools.

* [Conference Details](https://health.gov/our-work/nutrition-physical-activity/white-house-conference-hunger-nutrition-and-health/conference-details). U.S. Department of Health and Human Services, 2022. Provides insight on plans to end hunger, improve nutrition and physical activity, and close the disparities surrounding them.
* [A Guide to Smart Snacks in School](https://www.fns.usda.gov/tn/guide-smart-snacks-school). USDA, 2022.
* [Healthy Kids Collaborative](https://www.ciahealthykids.com/). Focuses on culinary insights and actions around K-12 foodservice.
* [School Nutrition Association](https://schoolnutrition.org/). Professional organization for school nutrition staff.
* [Best Practices for Reducing Added Sugars at School Breakfast](https://fns-prod.azureedge.us/sites/default/files/resource-files/BestPracticesReducingAddedSugars.pdf). USDA, 2022. Resource for reducing added sugar in school breakfast.
* [Healthy Students, Healthy Schools](https://www.mass.gov/doc/healthy-students-healthy-schools-guidance-for-implementing-massachusetts-school-nutrition/download). 2012. Resource for implementing the Massachusetts School Nutrition Standards for Competitive Foods and Beverages.
* [Added Sugars in School Meals and Competitive Foods](https://www.fns.usda.gov/cn/added-sugars-school-meals-and-competitive-foods). USDA, 2022.
* [Proposed Updates to the School Nutrition Standards](https://www.fns.usda.gov/cn/proposed-updates-school-nutrition-standards). USDA, 2023. Provides insight on possible changes in school meal regulations regarding sugar.

* [Food Marketing](https://uconnruddcenter.org/research/food-marketing/). UConn Rudd Center for Food Policy and Health, 2017. Focuses on type of food marketing and its impact on health.

* [Why We Need a More Equitable Food Marketing Environment](https://stateofchildhoodobesity.org/equitable-food-marketing/). State of Childhood Obesity, 2023.

* [Marketing of sugar‐sweetened children's drinks and parents' misperceptions about benefits for young children](https://media.ruddcenter.uconn.edu/PDFs/MCN.13338.pdf)**.** UConn Rudd Center for Food Policy and Health, 2021. Discusses the effect of food marketing on children and parents.

* [Food Marketing to Children: A Wolf in Sheep's Clothing?](https://www.obesityaction.org/resources/food-marketing-to-children-a-wolf-in-sheeps-clothing/) Obesity Action Coalition, 2015. Facts about food marketing and its impact.

* [Obesity: Complex but Conquerable Infographic](https://nap.nationalacademies.org/resource/13275/APOP_infographic%20(2).png). Institute of Medicine.

* [Limits on marketing to kids](https://www.healthyfoodamerica.org/limits_on_marketing_to_kids). Healthy Food America. Focuses on reducing sugar exposure and marketing to kids and changing the food maker industry.

* [Fast Food FACTS](https://www.fastfoodmarketing.org/). **F**ood **A**dvertising to **C**hildren and **T**eens **S**core, 2021.

* [Food marketing in schools](https://www.foodmarketing.org/resources/food-marketing-in-schools/). Food Marketing Workgroup.

* [Campaign for a Commercial Free Childhood](http://www.commercialfreechildhood.org/). Fairplay.

* [Protecting children from the harmful impact of food marketing: policy brief](https://www.who.int/publications/i/item/9789240051348). World Health Organization, 2022. A call to put restrictions on food marketing for children.

* [Food marketing to kids](https://www.cspinet.org/advocacy/nutrition/food-marketing-kids). Center for Science in the Public Interest, 2021. Focuses on how companies are marketing to kids and what we can do to put an end to it.

* [Public Health Law Center](https://www.publichealthlawcenter.org/). Resource on many different public health issues and topics.

*Additional readings may be posted in Canvas.*

This is an online course and is not self-paced. Students are expected to work online each week in Canvas 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.

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.

# MASSACHUSETTS CURRICULUM FRAMEWORKS

## Standard 1: Growth & Development

1. Describe the influence of health habits on growth and development (1.8)

## Standard 3: Nutrition

1. Describe the components of a nutrition label and how to use the information from labels to make informed decisions regarding food (3.10)
2. Describe how food choices are influenced by availability, individual and family preferences, media, and background, and identify healthy foods within various social groups (3.14)
3. Explain the relationships among dietary intake (including nutritional supplements), eating behaviors, physical activity, and emotional health (3.15)
4. Identify how social and cultural messages about food and eating influence nutrition choices (3.21)

# COURSE EXPECTATIONS & REQUIREMENTS

You will need a computer with a reliable internet connection. This course uses FSU [Canvas](https://framingham.instructure.com/), which requires the most recent version of your web browser. All course material will be available via Canvas. Any changes to the schedule or other announcements will be emailed to students using Canvas, so it is vital that all students enroll and verify that an appropriate email account is being used.

**This is an online course and is NOT self-paced. Weekly course modules will run Monday through Sunday, with the exception of Week 4 which ends on Friday.** Students are expected to work online each week to complete the readings, assignments, and discussions for the weekly module according to the course deadlines. Assignments must be submitted by the due dates listed in the course schedule, as late assignment submissions interrupt the online learning process. Late submissions will result in a 5% deduction of the total value of the assignment each day that it is late without instructor approval.

Discussion posts each week will require an initial post in response to the prompt, as well as responses to at least 3 peer postings for full credit.

Active participation and constructive peer-to-peer feedback are essential for the course to run smoothly and effectively. Regular participation is crucial to the success of the student and the quality of discussion. Thoughtful responses, reflections, and constructive comments are expected. Students are also expected to treat their classmates with respect. Comments and class discussions should remain on topic, with appropriate language used at all times. Additionally, the personal information (email addresses, photos, etc.) of other students may not be used or shared outside of the class without permission.

In lieu of exams, students will be expected to complete a final report to be submitted during the last week of the class.

# COURSE CONTENT, ASSIGNMENTS & GRADING CRITERIA

Course Content:

Unit 1/Week 1: Sugar

* Naturally occurring sugars and added sugars
* Dietary sources and common types of sugar found in foods
* Corn syrup, fructose, glucose, high fructose corn syrup, lactose, maltose, and sucrose
* Current guidelines and recommendations
* Current US intake
* Risks of a high sugar diet
* Reading food labels
* Food label claims and guidelines
* High fructose corn syrup controversy
* Is sugar addictive?

Unit 2/Week 2: Sugar Substitutes/Non-Nutritive Sweeteners

* FDA Approved Sugar Substitutes
* Saccharin, Aspartame, Acesulfame K, Sucralose, Neotame
* Sugar Alcohols
* Isomalt, Maltitol, Mannitol, Sorbitol, Xylitol
* Others
* Stevia
* Reading food labels
* Use of non-nutritive sweeteners in the US food supply
* Are there risks?

Unit 3/Week 3: Sugar and Sugar Substitutes in Schools

* Decreasing sugar in the US food supply, have reduction efforts worked?
* State and federal guidelines for school foods that target sugar and sugar substitutes.
* Massachusetts Competitive Food and Beverage Regulations
* USDA Smart Snack
* Food preparation strategies to reduce sugar
* Implementing and selling the changes in your school
* Resources to use in schools
* Proposed updates on school meals

Unit 4/Week 4: Food Marketing to children as it relates to sugar and non-nutritive sweeteners

* What is food marketing?
* Does food marketing to children affect their diet and behaviors?
* Types of food marketing to children
* Current campaigns and recommendations

Assignments:

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%).

Grading Criteria:

Points for each assignment are listed above. Assignments will be assessed using corresponding grading rubrics which you can find on Canvas. See course expectations for information on late submissions for assignments. The following scale will be used to determine final letter grades (based on 100%):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| A | 94-100% | B+ | 87-89% | C+ | 77-79% |
| A- | 90-93% | B | 84-86% | C | 74-76% |
|  |  | B- | 80-83% | C- | 70-73% |

# ACADEMIC HONESTY POLICY

Integrity is essential to academic life. Consequently, students who enroll at Framingham State University agree to maintain high standards of academic honesty and scholarly practice. They shall be responsible for familiarizing themselves with the published policies and procedures regarding academic honesty. Academic honesty requires but is not limited to the following practices: appropriately citing all published and unpublished sources, whether quoted, paraphrased, or otherwise expressed, in all of the student’s oral and written, technical and artistic work. Please refer to the academic honesty policy in the [FSU Graduate Catalog](https://www.framingham.edu/Assets/uploads/academics/graduate-studies/_documents/graduate-student-handbook.pdf), Student Conduct section on page 21.

# 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](https://www.framingham.edu/academics/center-for-academic-success-and-achievement/disability-access-services/index) 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 Bridges, 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).

# U.S. COPYRIGHT LAW

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# FSU NOTICE OF NON-DISCRIMINATION AND DIVERSITY

Framingham State University is committed to a policy of non-discrimination, equal opportunity, diversity and affirmative action. The University is dedicated to providing educational, working and living environments that value the diverse backgrounds of all people.   Furthermore, the Massachusetts Civil Rights Act ("MCRA," [M.G.L. c. 12, §§ 11H](https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter12/Section11H), [11I](https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter12/Section11I), [11J](https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter12/Section11J)) protects the rights of all residents and visitors to Massachusetts to be free from bias-motivated threats, intimidation, and coercion that interfere with their civil rights. The MCRA protects the right to attend school, live peacefully, and enjoy other basic rights.

# MY COMMITMENT TO CULTIVATE AN ANTIRACIST CLASSROOM

At Framingham State University, faculty, staff, and students work together to sustain a learning, working, and living community free from hate, discrimination, harassment, and intolerance. We recognize the damaging effects of systemic racism—including policies, structures, and historic practices—on the experience and success of communities of color. Coming from different backgrounds and different levels of privilege, we can all affirm and engage in antiracist work.

Diversity of voices, and of minds, strengthens our ability to solve problems and to ask and answer questions about the world we share. As your instructor, I commit to upholding community values of inclusion, civility, accessibility, and mutual respect. I expect this class to commit to creating a community that affirms and welcomes all persons from diverse backgrounds and experiences and supports the realization of everyone’s potential.