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**Nutrition 130H**  
**Nutrition and a Healthy Lifestyle**  
Fall 2021

**Lecture:** Tuesday and Thursday, Sec01: 1:00-2:15; Sec02: N/A

**Office Hours:** Thursday 4:00-5:00pm by appointment.

**Course Description:** This course fulfills the biological sciences (**BS**) requirements of General Education. It provides an introduction to the science of nutrition as it applies to a healthy lifestyle. The emphasis in this course will be on the physiological roles that nutrients (carbohydrates, lipids, proteins, vitamins, minerals, and water, as well as dietary bioactive components) play in the body. This course also provides descriptions and discussions of current controversies in nutrition and health. You will learn the fundamental aspects of nutrition science and discuss the relationship of diet to health and diseases.

**Objectives:** Upon completion of this introductory nutrition course, you will be able to

- Learn the basic knowledge of scientific concepts in the field of nutrition for health;
- Describe the six major nutrients and their roles in the body;
- Describe the processes of nutrients in the body (ADME: Absorption, Distribution, Metabolism and Excretion);
- Learn the dynamic nature of nutrition and health;
- Explain the nutrition standards and guidelines;
- Understand the concepts of energy balance and weight control;
- Understand how nutrition that affects your health;
- Apply critical thinking skills to current nutrition controversies;
- Apply your nutrition knowledge to evaluate your food intake for your own health.

**Teaching Assistant:** TA serves as liaisons between the instructor and students. The TA leads the debates/discussions, is in charge of the essay assignment, grades quizzes/exams, and keeps a record of attendance. TA also helps with the Moodle website and general administration of the course. Important: Record your TA's office and email address.

**Required Text:** **Nutrition, An Applied Approach**, 5<sup>th</sup> edition by Thompson and Manore. ISBN: 0134516230. A schedule of reading assignments can be found on the course website. Reading assignments from the textbook should be completed prior to coming to class.

**Course Grading:** Nutrition 130H Grading follows University of Massachusetts grading guidelines. Grade points are earned throughout the semester through exams, quizzes, presentation and essay, debate and discussion, as well as attendance and active participation. No extra work for extra points.

Grading Details:

Mid Term and Final Exams:	40%
Quizzes (4 quizzes in total):	20%

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Project: Presentation and Essay (Group):	15%+10% (1-credit work)
Debate/Discussion of Current Controversies (Group):	5%
Active Participation:	5%
Attendance:	5%

Final course grades-Numeric to letter Grade (tentative):

		<b>B+</b>	87%	<b>C+</b>	77%	<b>D+</b>	67%	<b>F</b>	<60%
<b>A</b>	93%	<b>B</b>	83%	<b>C</b>	73%	<b>D</b>	63%		
<b>A-</b>	90%	<b>B-</b>	80%	<b>C-</b>	70%	<b>D-</b>	60%		

**Exams and Quizzes:**

Exams: (2 exams X 20% = **40%** of the total 100 pts): Exams are given to assess what has been learned and are directed to the points outlined in the learning objectives. One exam will be scheduled during the middle of the semester and the second one will be given at the end of the semester. Students arriving late for an exam (after any student has left the exam room) may be given an alternate form of the test. A review session may be scheduled prior to each examination.

Quizzes: (4 quizzes in total, 4 X 5% = **20%** of the total 100 pts): Quizzes are given to allow both the students and the instructor to track what has been learned in each scientific section. The quizzes will focus on information presented in slides (available online at Moodle) and textbook unless otherwise noted. There will be 4 quizzes with 5% for each.

Make-up exams and quizzes will **only** be scheduled for those students presenting a valid excuse for missing the examination (as outlined in "Academic Regulations"), such as a medical note or signed note from the department head. Schedule conflicts of final exams must be verified by the Registrar's Office and must be presented and documented at least 1 week prior to the exam. Make-up exams and quizzes will not be available before the scheduled time.

**Project: Presentation and Essay (Group):**

(**25%** of the total 100 pts): The textbook is primarily organized by nutrients and dietary strategies. To systematically apply the knowledge that you learn about individual nutrients from lectures and the textbook into the prevention of diseases and the promotion of a healthy lifestyle, students (in groups) are requested to prepare a presentation and write an essay on the prevention of a specific type of chronic disease (assigned by the instructor/TA). With the TA's assistance, students should work on their presentations and essays using off-class time considering this is a 4-credit course. The presentation and essay will account for 25% of the total 100 pts.

Each group is expected to write a PPT presentation (30~45 slides) and an essay (~3 page limit not including references, 11 or 12 font size, Times New Roman or Arial, single space, 0.5-1.0 inch margins) on the topic assigned by the instructor/TA. Topics will be posted on Moodle. The presentation slides (PPT) should be named as "*Disease\_Your group (section if applicable), e.g. Cardiovascular Disease\_Group C (Section 01)*" and must be submitted to a designated folder in Moodle **48** hours before their presentation. Late submission will be penalized for **5** pts. The presentation accounts for **15 pts**. The essay (word file) should also be named as "*Disease\_Your group (sec#, if applicable), e.g. Cardiovascular Disease\_Group C (Sec01)*" and submitted to the

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designated folder in Moodle by **midnight of the last day of classes**. Similarly, late submission will be penalized for **5 pts**. The essay accounts for **10 pts**.

**Debate/Discussion of Current Controversies (Group):**

(5% of the total 100 pts): Group (not individual) evaluation will be conducted by the instructor and/or the TA. The discussion/debate will focus on an assigned topic of current controversies related to nutrition and health. Carefully prepare questions for the debate/discussion, and actively participate the in-class Debate/discussion.

**Active Participation:**

(5% of the total 100 pts): Students are encouraged to actively participate in the learning process. This includes attentive listening, active participation in asking questions and answering questions, as well as active participation in the discussion during debate. Disruptive students will be asked to leave the class room and will only be invited to return at the discretion of the instructor. Each student are expected to ask or answer at least 2 questions of the instructor, TA or other students in the class (except for Debate/Discussion sections) to receive the 5 points for Active Participation. In addition to the 5 pts, students with highly active participation in class will receive up to **5 pts** of extra credits.

**Attendance:**

(5% of the total 100 pts): Attendance in class is mandatory and will be an important part of your grade. You are expected to attend all classes. One absence simply with an email notification (before the class) to the instructor is allowed for the entire semester (*Note: please make sure you receive a confirmation email from the instructor to make sure your email is not missed*). If you only has one absence with notification, you will automatically receive the 5 points for Attendance. However, you may face penalty (**2.5 pts/absence** for the first 2 absences, and **5 pts/absence** for the rest absences) for more than one absence unless you have a note from Health Services or your department's office regarding an illness or other major personal issue.

**Academic Honesty Policy Statement**

Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University. Academic dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. For more information about what constitutes academic dishonesty, please see the website: [http://www.umass.edu/dean\\_students/academic\\_policy](http://www.umass.edu/dean_students/academic_policy)

**Disability Statement**

The University of Massachusetts Amherst is committed to making reasonable, effective and appropriate accommodations to meet the needs of students with disabilities and help create a barrier-free campus. If you are in need of accommodation for a documented disability, register with Disability Services to have an accommodation letter sent to your faculty. It is your responsibility to initiate these services and to communicate with faculty ahead of time to manage accommodations in a timely manner. For more information, consult the Disability Services website at <http://www.umass.edu/disability>

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### **Valuing, Recognizing, and Encouraging Diversity**

Promoting and valuing diversity in the classroom enriches learning and broadens everyone's perspectives. Inclusion and tolerance can lead to respect for others and their opinions and is critical to maximizing the learning that we expect in this course. Our own closely held ideas and personal comfort zones may be challenged. The results, however, create a sense of community and promote excellence in the learning environment. Diversity includes consideration of (1) the variety of life experiences others have had, and (2) factors related to "diversity of presence," including, age, economic circumstances, ethnic identification, disability, gender, geographic origin, race, religion, sexual orientation, social position. This class will follow principles of inclusion, respect, tolerance, and acceptance that support the values of diversity.

### **Covid-19 Compliance**

For the health and safety of all members of our campus community, students are expected to follow all COVID-related policies on campus. At the start of the Fall 2021 semester, there are two policies in effect that deserve special mention. First, students are required to follow the [COVID-19 Daily Self-checklist](#). Students who are ill must not attend class, and they will be offered reasonable accommodations for missed work. Second, students must follow the masking policy while it remains in effect. Your instructor will remind you to wear a mask that securely covers your mouth and nose, and direct you to a nearby mask station if you do not have one. If you are unwilling to mask, you will be asked to leave the class. If you do not leave the class, the instructor will end the class, and the Dean of Students office will be informed that you have disrupted class and violated the [Guidelines for Classroom Civility and Respect](#). Anyone with a mask exemption must provide prior written notice to the instructor and must maintain at least six feet of distance from faculty and other students at all times.

**NUTR\_130H: Nutrition and a Healthy Lifestyle schedule**  
(Tentative lecture schedule, subject to change)

#		Date	Topics	Reading / Assignments	Note
1	Thurs	09/02	Course Overview: Class Expectations, Grading Scheme, Schedules Overview of Nutrition and Nutrition Science		First class
2	Tues	09/07	The role of nutrition in health: Nutrition and Wellness	Chapter 1	
3	Thurs	09/09	The role of nutrition in health: DRI	Chapter 1	
4	Tues	09/14	Gastrointestinal System: Food to Body	Chapter 3	
5	Thurs	09/16	Gastrointestinal System: Functions of GI organs	Chapter 3	TA introduction; Debate Format
6	Tues	09/21	Carbohydrates: Plant-Derived energy nutrients	Chapter 4	<b>Quiz #1</b> (Lect#1, 2, 3)
7	Thurs	09/23	Carbohydrates: Plant-Derived energy nutrients	Chapter 4	
8	Tues	09/27	<b>Debate:</b> Are there such things as good foods and bad foods? Reading: Animal Products are good or bad? (The Lancet Paper) ( <b>Yes: Group 1, 2, 3 vs No: Group 4, 5, 6</b> )	Article: The Lancet. 2017. 390: 2050-2062	<b>Debate<sup>1</sup></b> (TA/Instructor)
9	Thurs	09/30	Fats: Essential Energy-supplying nutrients	Chapter 5	
10	Tues	10/05	Fats: Essential Energy-supplying nutrients	Chapter 5	
11	Thurs	10/07	Proteins: Crucial components of all body tissues	Chapter 6	<b>Quiz #2</b> (Lect#6, 7, 9, 10)
12	Tues	10/12	Proteins: Crucial components of all body tissues	Chapter 6	Mid-Term Exam Review
13	Thurs	10/14	Mid-Term Exam (Lect#1-12)		<b>Mid-Term Exam</b>

**Note:**

\* First day of class: 00/01; Add/Drop deadline with no record: 09/08; Thanksgiving break: 11/24-11/28; Last day of class: 12/08; Final Exam: 12/10-12/16; Final grade: 12/22.

\* 5~10 minutes in some lectures will be reserved for students to discuss the progress of final projects (Presentation and Essay) within their groups.

<sup>1</sup> Topics for debate/current controversial topics are subjected to be changed.

<sup>2</sup> Presentation progress checkpoints, no paperwork needs to be submitted to the Instructor/TA.

#			Topics	Reading Assignments	Note
14	Tues	10/19	Presentation and Essay guidelines (TA)		
15	Thurs	10/21	Overview of Micronutrients Vitamins and minerals involved in energy metabolism, one-carbon metabolism and epigenetics	Chapter 6.5 (In Depth) Chapter 8	<b>Presentation<sup>2</sup>:</b> Outlines & Components
16	Tues	10/26	Vitamins and minerals involved in energy metabolism, one-carbon metabolism and epigenetics; Vitamins and minerals involved in blood health and electrolyte balance in fluid	Chapter 8 Chapter 9&7	
17	Thurs	10/28	Vitamins and minerals involved in blood health and electrolyte balance in fluid	Chapter 9&7	
18	Tues	11/02	<b>Current controversies:</b> Vitamin Supplements: What are the Benefits and risks? Reading: Risks of Folic acid fortification: a double-edged sword? <b>(Benefits: G4,5,6 vs Risks: G1, 2,3)</b>	Article: Curr Opin Clin Nutr Metab Care. 2009. 12:555-64	<b>Debate</b> (TA/Instructor) <b>Presentation:</b> Draft
19	Thurs	11/04	Vitamins and minerals involved in bone health	Chapter 9	<b>Quiz #3</b> (Lect# 15, 16, 17)
20	Tues	11/09	Vitamins and minerals involved in bone health Vitamins and minerals with antioxidant function	Chapter 9 Chapter 8	
*	Thurs	11/11	<i>Holiday – Veterans' Day</i>		
21	Tues	11/16	Vitamins and minerals with antioxidant function	Chapter 8	<b>Presentation:</b> Completion
22	Thurs	11/18	Weight management	Chapter 10	<b>Quiz #4</b> (Lect#19, 20, 21)
23	Tues	11/23	Final Presentation		Group#1, 2
*	Thurs	11/25	<i>Thanksgiving</i>		
24	Tues	11/30	Final Presentation		Group#3, 4
25	Thurs	12/02	Final Presentation		Group#5, 6
26	Tues	12/07	Final Exam Review & Wrap-up		Last class
*			Nutrition through the life cycle* Nutrition and physical activity* Food Safety and Security*	Chapter 14&15 Chapter 11 Chapter 12&13	
Final			Final Exam (Lect#15-22)		<b>Final Exam</b>