

NTR 306: Fundamentals of Nutrition
Summer 2020 | Unique Course Number: 85088
Department of Nutritional Sciences | University of Texas at Austin

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Time: Mon/Wed/Fri: 9:30-10:45am

Location: Online - live (synchronous) and pre-recorded lectures

Instructor's Office Hours: Online Zoom meetings by appointment

TA's Office Hours: Online Zoom meetings by appointment

Course Description

Fundamentals of Nutrition provides an overview of the science of nutrition. It is an introductory course that covers food and its relationship to health, development, and disease. Topics covered include components of food (carbohydrates, fats, proteins, vitamins and minerals), their digestion, absorption, transport, and metabolism, their sources in foods, effects of deficiency or excess, and the biological roles they play in the body. Students learn the vital role of scientific inquiry in addressing currently pressing problems such as the growing epidemic of obesity and chronic illnesses, including diabetes, coronary heart disease, and cancer. Other nutrition-related conditions, such as eating disorders and osteoporosis are also covered. This course conveys knowledge and skills that are relevant and applicable to students' lives both now and in the future. One example is the application of current nutritional research findings to making informed choices about dietary supplements.

This course may be used to fulfill the Natural Science and Technology (Part II) component of the Common Core Curriculum and addresses the following four core objectives established by the Texas Higher Education Coordinating Board: communication skills, critical thinking skills, teamwork, and empirical and quantitative skills.

The content of this course will be communicated by online synchronous and pre-recorded lectures, assigned readings, videos, projects, activities, and online discussion groups. In addition, the instructor will engage the class in discussions of current theories and empirical research in nutrition, and will answer questions raised by students. Quantitative methods are widely used in a variety of contexts. Students will learn formulas for determining major constructs in nutrition such as body mass index, basal metabolic rate, and total energy needs. Students will become familiar with making calculations related to nutrient proportions in their diet and in the foods they eat. A major class assignment is to perform an analysis of students' own diet, evaluate the degree to which it meets established dietary guidelines, and determine how it could be improved.

Course Objectives

Upon completion of this course, students will be able to:

1. Demonstrate fundamental nutrition knowledge related to macronutrients, micronutrients, digestion and absorption, nutrient function, dietary recommendations, food composition, and nutritional health.
2. Apply basic dietary principles of adequacy, balance, variety, and moderation in planning healthy menus.
3. Critically evaluate food and nutrition information in the popular media and scientific literature.
4. Assess nutritional status and make recommendations to improve dietary habits and promote health of self and other individuals.

Required Texts:

Textbook: Whitney, EN, Rolfes SR. Understanding Nutrition, 14th or 15th edition

Electronic version of the text is available for rental or purchase at:

<https://www.cengage.com/unlimited> (unlimited access to all Cengage textbooks and resources) or <https://www.cengage.com/c/understanding-nutrition-15e-whitney> (eBook only)

Note: Students are required to use a dietary analysis tool (such as software, online website or an app) to complete the Dietary Analysis Project (See “Assignments” below). You may use one of the following to complete the assignment:

- **Option 1:** Diet & Wellness Plus (Cengage) online tool. This accompanies the e-textbook, which must be purchased. Subscription options and steps to access the dietary analysis software can be found on Canvas. This software comes with a mobile app. To access the e-textbook and Diet & Wellness Plus software online, use the URL below:
<https://www.cengage.com/dashboard/#/course-confirmation/MTPQGKXPTWV/initialcourse-confirmation>
- **Option 2:** www.MyFoodRecord.com (free)
- **Option 3:** www.cronometer.com (free)

Technical Requirements:

Required internet-enabled device: All students are required to have access to an internet-enabled laptop or desktop computer. Tablets and smartphones are not supported. Your computer should have enough battery life to last an entire class period and meet the following requirements:

- Laptop or desktop computer
- Modern and updated operating system (MacOS or Windows)
- Chrome (highly recommended), Safari or Firefox
- 5Mbps internet connection speed ([check your speed here](#))
- Ensure your microphone and webcam work properly if your course requires them

Tips for the best class experience:

- Close all unnecessary browser windows and tabs and programs:
 - Streaming music (Pandora, Spotify, etc.)
 - Social media sites
 - Youtube or other video sites

- Online/Offline Gaming
- Clear the browser's cache before class ([here's how](#))
- Check your computer is free of viruses, malware, and spyware ([UT recommendations](#))

Need additional help? Look for "Online Course Tech Support" in the left navigation menu of your Canvas course.

Grades:

Evaluative Criteria	Points Each	Total Points
6 Content Quizzes	50	300
Midterm and Final Exam	100	200
Dietary Analysis Project	50	50
3 Discussion Boards	10	30
Fad Diet Poster	20	20
TOTAL		600

Grading Scale:

Points	Numerical Grade (%)	Letter Grade
555 - 600	92.5 - 100	A
537 - 554	89.5 - 92.4	A-
519 - 536	86.5 - 89.4	B+
495 - 518	82.5 - 86.4	B
477 - 494	79.5 - 82.4	B-
459 - 476	76.5 - 79.4	C+
435 - 458	72.5 - 76.4	C
417 - 434	69.5 - 72.4	C-
399 - 416	66.5 - 69.4	D+
375 - 398	62.5 - 66.4	D
357 - 374	59.5 - 62.4	D-
0 - 356	0 - 59.4	F

Extra Credit Opportunities: There may be extra credit opportunities throughout the session (e.g. pop quizzes, attendance points for synchronous lectures, etc.), but no "gift points" will be awarded at the end of the course for borderline grades. Please be proactive in addressing your class performance and ask for help early, if needed.

Religious Holy Day and Other Accommodations: By UT Austin policy, students must notify the professor of a pending absence at least fourteen days prior to the date of observance of a religious holy day. Should an assignment be due on one of these days, it must be submitted prior to your absence. Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities. Visit <http://ddce.utexas.edu/disability/> or call (512) 471-6259.

University Health Services Nutrition Services: This course may present material that prompts you to feel the need to speak with a professional about your personal nutrition or to explore your dietary lifestyle further. Please take advantage of the University's on-campus nutrition services available to you, including individual appointments with a registered dietitian, the Mindful Eating Program, and peer

education workshops on a variety of wellness topics. Visit <https://healthyhorns.utexas.edu/dietitian.html> or call (512) 475-8010.

“Classroom” Courtesy: Given the online format of this course, it is tempting to multitask and allow yourself to be otherwise distracted during lectures. For your own benefit, please limit distractions in your environment and on your devices during class time. Disrespectful and disruptive behavior will not be tolerated during synchronous lectures or via electronic communications with the course instructor or your fellow students. Non-compliance with classroom policies will lead to your removal from the online class period, and a record of “absent” attendance for that day. Persistent offenses will lead to dismissal from the course and referral to the Office of the Dean of Students for counseling.

Academic Integrity: All students are expected to conduct themselves in an ethical manner and to have read and understood the sections of the *General Information Catalogue* on scholastic dishonesty. Penalties for instances of scholastic dishonesty in this course will be as outlined in the *General Information Catalogue*. The least severe penalty in this course shall be failure. Taking an article and using it as the basis for one’s original work by tweaking small components is not a satisfactory effort because it does not represent your original work. Questions or concerns about this issue can be addressed with the instructor.

No quiz/exam questions or assignment answers should be preserved through any means whatsoever. Sharing quiz/exam questions, assignments, lecture slides, or any other course material via personal interactions, email, Facebook (or other social media platforms), Google Docs, photographs, course sharing websites (e.g. Course Hero) or any other means is strictly prohibited. No photographs or copies of anything presented on the screen may be made; nor can any material be recorded without consent of the instructor. Violations of these policies will be considered a breach of scholastic honesty and will be penalized as outlined in the *General Information Catalogue*, with the least severe penalty being failure in the course.

Absolute honesty must be practiced in all assignments and activities. Cheating in its various forms such as copying or sharing information on individually assigned projects or examinations, plagiarism or falsification of information or data will not be tolerated and may be grounds for dismissal from the class. Students are encouraged to become familiar with the University policy on academic honesty. Suspected violations of the policy will be reported to the Dean of Students and will appear on your official record.

Electronic Course Management: Canvas is the online learning portal through which this course will be administered. Students will find lecture recordings, quizzes, exams, supplementary readings, assignments, and this syllabus posted on Canvas. Grades will also be posted regularly on Canvas. E-mail is recognized as an official mode of university correspondence. Therefore, you are responsible for reading your e-mail for university and course-related information and announcements. You are responsible to keep the University informed about changes to your e-mail address. You can find UT Austin’s policies and instructions for updating your e-mail address at: <http://www.utexas.edu/its/help/email/1564>.

Please utilize email, Canvas messaging, online office hours, or separate, scheduled appointments as the main means of communicating with the course instructor and TA(s).

Course Policy and Procedures

1. Students are expected to attend synchronous classes regularly, unless previously discussed with the course instructor.

2. Students are expected to keep pace with pre-recorded lectures (and recordings of missed synchronous classes) according to the course schedule as outlined below.
3. All students are expected to read the UT Student Handbook regarding plagiarism and its possible consequences.
4. Assignments are due by the beginning of class on the date listed on the course schedule below. For each day that an assignment is late past the due date, a minimum of 10% will be deducted from the final assignment grade.
5. Quizzes will not reopen after the close date for any reason. No make-up exams will be offered.
6. Any **documented** personal or family emergency or health problem will be considered as an exception to the above policy.
7. Personal emergencies or serious health problems are the only reasons for granting an incomplete in the course. In general, a grade of incomplete will not be given in the course.
8. Grades will be posted on Canvas.
9. Questions regarding grades should initially be directed to the TA over email or online during the TA's office hours. If any questions need additional follow-up, they should be addressed with the instructor during online office hours.

Coursework

Quizzes: There will be 6 total quizzes (50 points each) over the course material throughout the semester, administered via Canvas.

- Quizzes will be available from 12:01am to 11:59pm on their scheduled day. They will be closed thereafter.
- Content quizzes will take place on **Thursdays**, and you will be reminded of an upcoming quiz on Wednesday in class.
- You will be allowed ONE 45-minute attempt at each quiz.
- No make-up or early quizzes will be offered.
- You are expected to work alone on the quizzes.
- Quiz responses may be reviewed with the TA during online office hours for ONE WEEK ONLY following the close of the quiz.
- Quizzes may not be preserved in any way; multiple windows are not allowed. See academic integrity section for penalties should this policy be broken.

Midterm and Final Exams: Cumulative midterm and final exams (100 points each) will be held during class time as indicated on the schedule below. Material will be presented in a combination of formats including multiple choice and short answer questions, and case studies where students will apply their knowledge to 'real life' scenarios. Exams will be administered via Canvas.

- Exams will take place on the specified day and time as indicated on the course schedule below.
- You will be allowed ONE 75-minute attempt at each exam.
- No make-up or early exams will be offered.
- You are expected to work alone on exams.
- Exams will be available for review for ONE WEEK ONLY in online office hours or by appointment following the grade posting on Canvas.
- Exam results will not be discussed with the course instructors or TAs via email.
- Exams may not be preserved in any way; multiple windows are not allowed. See academic integrity section for penalties should this policy be broken.
- To maintain the security of exam content, students may not make any notes during exams.

Assignments: This course includes several assignments that are designed to enhance the educational experience, provide more in-depth information for students about their individual dietary habits, utilize peer collaboration as a resource to broaden the scope of their experience, and gain appreciation for the larger role of nutrition in society. All assignments are due on Canvas by the beginning of class on the due date listed in the course schedule below. Please find information about late submissions in the Course Policies and Procedures section above. More information about the projects, including the rubrics used for grading, can be found on Canvas.

- **Dietary Analysis Project:**

- **Objectives:** The purpose of this exercise is to provide students with experience in collecting and analyzing data, as well as provide useful information about their own (or someone else's) dietary intake.
- **Expectations:** Each student will keep a food diary for 3 days and then run a quantitative analysis of his/her diet for a variety of nutrients using dietary analysis (see "Course Materials" for allowable options). The results of the 3-day dietary analysis will be compared to established guidelines to assess the adequacy of the student's diet in providing the necessary macro- and micro-ingredients to support good health. Based on this assessment, students will calculate changes that could be made to achieve a healthier diet, including which food options (and in what amount) would remedy deficiencies, and which foods should be reduced or eliminated.
 - If a student does not wish to analyze their own dietary intake, they may analyze the dietary intake of a friend or family member as a "client". In this scenario, the client would need to record their food intake for 3 days and grant the student access to their data. The student would then run quantitative analysis of this data, and calculate changes that could be made to achieve a healthier diet (as outlined above) for their client. The student would then present these findings to their client in a professional, anonymized report (i.e. client name should be changed or removed).
- **Submission:** Students will submit a report that summarizes their discoveries from this analysis. There will be an online class discussion forum on what students learned from the assignment.

- **Discussion Boards:**

- **Objectives:** Throughout the course there will be three online discussions (via Canvas discussion boards) around the following topics: preconceptions of a healthy diet; the obesity epidemic in the US; the GMO debate. These discussion boards will give students experience in synthesizing information, expressing personal opinions, and responding to the opinions of others.
- **Expectations:** For each discussion board topic, students will create a thoughtful and informed discussion post. Posts should be based on a combination of students' own opinions and/or the critical analysis of relevant videos/articles. After creating their own post, students will respond to TWO of their classmates' discussion posts. All posts and responses should be succinct and respectful.
- **Submission:** Original posts and responses will be submitted via Canvas discussion boards. More information for each discussion topic can be found on Canvas.

- **Fad Diet Poster:**

- **Objectives:** Students will apply course concepts and critical analysis to identify and discredit (or support) the claims of a fad diet.
- **Expectations:** Students will choose a fad diet that is currently (e.g. Keto) or formerly (e.g. Atkins) popular among the general public. Students will identify three alleged nutritional outcomes made by proponents of this diet, and they will apply scientifically proven nutritional concepts, as learned throughout the course, to critically analyze (i.e. discredit or support) the claims of the diet.
- **Submission:** Students will create an advertisement-type poster for their chosen fad diet. The poster should include the three major claims of the fad diet, along with the students' assessment of those claims: providing evidence to either support or discredit each claim. Flyers will be submitted on Canvas as PDFs.

Course Outline:

Dates	Format	Lecture topic(s)	Chapter / Assignments
Fri 6/5	Live	Course Introduction; Mythbusters: Nutrition Edition	Syllabus Review; Chapter 1
Mon 6/8	Live	Overview of Nutrition	Chapter 1 Assign: Discussion Board - Preconceptions of a Healthy Diet
Wed 6/10	Pre-recorded	Planning a Healthy Diet	Chapter 2
Thurs 6/11	12:01am - 11:59pm	Quiz #1	Chapters 1 - 2
Fri 6/12	Pre-recorded	Digestion, Absorption, and Transport	Chapter 3 Assign: Dietary Analysis Project
Mon 6/15	Pre-recorded	Digestion, Absorption, and Transport	Chapter 3 DUE: Discussion Board - Preconceptions of a Healthy Diet
Wed 6/17	Live	Carbohydrates	Chapter 4
Fri 6/19	Live	Carbohydrates	Chapter 4
Mon 6/22	Live	Lipids	Chapter 5
Wed 6/24	Live	Lipids	Chapter 5
Thurs 6/25	12:01am - 11:59pm	Quiz #2	Chapters 3 - 4
Fri 6/26	Pre-recorded	Proteins	Chapter 6
Mon 6/29	Pre-recorded	Proteins	Chapter 6 Assign: Fad Diet Poster

Wed 7/1	Pre-recorded	Energy Metabolism	Chapter 7
Thurs 7/2	12:01am - 11:59pm	Quiz #3	Chapters 5 - 6
Fri 7/3	Pre-recorded	Energy Metabolism	Chapter 7 Assign: Discussion Board - Obesity in the US
Mon 7/6	Pre-recorded	Energy Balance and Body Composition	Chapter 8
Wed 7/8	Pre-recorded	Weight Management	Chapter 9
Thurs 7/9	12:01am - 11:59pm	Quiz #4	Chapters 8 - 9
Fri 7/10	No class	Study day for mid-term	Chapters 1 - 9 DUE: Discussion Board - Obesity in the US
Mon 7/13	12:01am - 11:59pm	Mid-term Exam	Chapters 1 - 9
Wed 7/15	Live	Water Soluble Vitamins	Chapter 10
Fri 7/17	Live	Fat Soluble Vitamins	Chapter 11
Mon 7/20	Pre-recorded	Water and Major Minerals	Chapter 12
Wed 7/22	Live	Trace Minerals	Chapter 13
Thurs 7/23	12:01am - 11:59pm	Quiz #5	Chapters 10 - 13
Fri 7/24	Pre-Recorded	Fitness	Chapter 14
Mon 7/27	Pre-recorded	Life Cycle Nutrition: Pregnancy and Lactation	Chapter 15 DUE: Fad Diet Poster

Wed 7/29	Live	Life Cycle Nutrition: Infancy, Childhood, and Adolescence	Chapter 16
Fri 7/31	Live	Life Cycle Nutrition: Adults	Chapter 17 Assign: Discussion Board - The GMO Debate
Mon 8/3	Pre-recorded	Diet and Health	Chapter 18
Wed 8/5	Live	Consumer Concerns: Food and Water	Chapter 19
Thurs 8/6	12:01am - 11:59pm	Quiz #6	Chapters 15 - 17
Fri 8/7	Live	Hunger and the Global Environment	Chapter 20 DUE: Discussion Board - The GMO Debate
Mon 8/10	Live	Ethical Consumerism Discussion	Chapter 19 - 20
Wed 8/12	Live	Dietary Analysis Project Discussion	DUE: Dietary Analysis Project
Fri 8/14	Live	Review Session	Chapters 1 - 20
Mon 8/17	12:01am - 11:59pm	Final Exam	

Important Dates:

- **June 4th:** Summer session classes begin (first-term, nine-week, and whole-session)
- **June 5th:** Last day of the official add/drop period for first-term, nine-week, and whole-session classes
- **June 9th:** Fourth class day for first-term, nine-week, and whole-session classes; last day an undergraduate student may add a first-term, nine-week, or whole-session class except for rare and extenuating circumstances. Last day to drop a first-term, nine-week, or whole-session class for a possible refund.
- **June 24th:** Last day a student may change registration in a first-term, nine-week, or whole-session class to or from the pass/fail or credit/no credit basis.
- **August 14th:** Last class day for second-term and whole-session classes.