

NTR 365 – Nutritional Biochemistry: Busting Nutrition Myths
Unique Number: 52500
Spring 2024 – Course Syllabus

Course Description

This course will provide an overview of the science of nutrition. Topics covered include components of food (macro- and micronutrients), digestion and absorption, energy metabolism, micronutrients, supplements, energy balance, and the role of nutrition in the growing epidemics of obesity and chronic illnesses. In this course, we will also cover the interaction between genes and diet in influencing health, along with the role of the microbiome in energy balance and health outcomes.

Course Learning Objectives

1. Understand how the human body extracts and utilizes nutrients from foods for growth and maintenance of health.
2. Analyze patterns of dietary intake and determine how quantity, quality, and timing of meals influences energy balance and adiposity.
3. Apply knowledge of metabolism and nutritional biochemistry to interpreting the validity of nutrition information.

Course Professor/TA and Contacts

Below is a contact list for your professor, TA, and support resources:

COURSE TEAM	EMAIL ADDRESSES*	ADDRESS/ PHONE	OFFICE HOURS
Professor/TA			
Molly Bray, PhD (she/hers)	mbray@austin.utexas.edu	Gearing Hall, Room 313C 512-471-3958	Tuesdays: 8:00 am - 9:00 am or by virtual or in-person appointment
Ryan O'Connor (she/hers)	roconnor@utmail.utexas.edu	Virtual via Zoom	Thursdays: 11:00 am - 12:00 pm or by virtual or in-person appointment
Tech Support			
Canvas Support	https://community.canvaslms.com/community/help		

*Email should be used sparingly and appropriately for correspondence with your professor and/or TA. Office hours are for discussing grades, course content, etc. Should you have questions or need help regarding any course material outside of class, office hours or a separate appointment are the appropriate platforms for these discussions. Emails and Canvas messages should be professional and appropriate. **The professor and TA will not answer questions concerning the content of an exam or a grade by e-mail.**

Course Safety

This course will be taught in-person, with materials in Canvas, along with office hours. In order to ensure that our classroom is safe and to help preserve our in person learning environment, the university recommends the following:

- Masks – One thing that we have learned from the pandemic is that everyone doesn't have to get sick if one person is sick. This is true of COVID, the flu, and the common cold. If students feel unwell, they are strongly encouraged to stay home if symptomatic and/or wear a mask when in the classroom and to social distance as much as possible.
- UT has aligned its masking guidance with the [Centers for Disease Control and Prevention](https://www.cdc.gov/media/releases/2020/s0901-covid-19-mask.html). People may choose to mask at any time, for any reason, and individuals who are immunocompromised or at high risk should continue to take precautions. Masks are available for students who need one at the William C. Powers, Jr. Student Activity Center and Texas Union hospitality desks.
- Visit <https://protect.utexas.edu/> for more information

Course Format

There will be a total of 12 modules over the course of the semester. When you log into Canvas, you will arrive at your Canvas dashboard. Select the relevant course tile to access the course materials. You can use the advance buttons on the bottom of each page to advance through the materials in the course, and you can also access the course menu on the left side of your screen to navigate within the course. Please make sure to read the brief descriptions on each page that help guide you through the content.

Course Materials

- Required textbook:
 - Whitney and Rolfes, *Understanding Nutrition*, Cengage, 2022.
 - The e-book format of this text is relatively inexpensive, searchable, and contains additional materials for learning. Unless you intend to pursue additional nutrition or biochemistry courses, do not buy the hard cover version of this book.
- The book can be purchase via the following link: <https://getenrolled.com> and entering the course key: MTPNJHZ30RJM
- You may purchase earlier editions of this book but please note that errors in earlier versions have been corrected in the more recent versions. Do not purchase any edition earlier than 14th edition.
- Additional assigned readings and articles will be posted on Canvas.

Course Activities

Below are the activities and assessments you will encounter as you work your way through the course.

- **Class Activities:** Interactive lectures will be given in class on scheduled class days. Unscheduled quizzes for extra credit will also be given in class. Students who attend class and office hours regularly will perform well in this course.
- **Read/Watch/Explore:** Didactic content activities, including reading the course text and assigned articles, along with interacting with key concepts presented in engaging videos and web-based formats.
- **Module Quizzes (30 points/quiz):** Each week, you will complete a short, open-book quiz covering the content of each module to help you to gauge your understanding of the content covered. You will have unlimited time to complete each quiz; however, you will only be allowed 1 continuous attempt per each quiz. Each quiz will include a case study that will help you apply the knowledge you are acquiring to a real-life setting. You are allowed to use your textbook and notes to complete these quizzes, **but you are expected to complete the quizzes on your own**. Keep in mind that questions and answers are shuffled for every quiz. See *academic honesty* section for penalties should this policy be broken. **Weekly quizzes are due by midnight on Saturday of each week.**
- **Module Discussion Board Blogs (50 points/discussion):** Working in groups, you will complete a discussion board topic related to a nutrition myth or provocative question for every odd-numbered module. The discussions will open on Sundays when the modules open. Specific materials may also be included to read and/or watch related to these discussions. We will discuss the module topic in class, and each group will write a concise discussion on the topic or question (300-500 words) in the form of a blog. Group members must take turns completing the discussion board submissions, and anything written in a discussion that is not common knowledge must include a citation. **Module Discussions are due by midnight on Saturday of each odd-numbered module week.** Topics will be discussed in class on Thursdays and 10 points of your discussion grade will be given as a participation grade in class.
- **Final Group Project (340 points):** Working in groups, students will have their choice of several different types of “Myth Buster” projects, as described below:
 - Evaluation of a popular diet

- Evaluation of a dietary supplement
- Evaluation of a common nutrition belief (e.g., “An apple a day keeps the doctor away”)

It is important to start early on this project, to provide time for the full evaluation. Be sure to choose a diet or supplement for which there is sufficient information to complete the requirements below – **stating that information was not available is not acceptable**. More information about the specific contents of each type of group project will be provided. Every member of the group should contribute to the project.

Not only will you be learning how to evaluate nutrition information from many sources, it will also be important for you to be able to communicate this information effectively. Thus, for the group project, you will learn to create communication materials in several formats. For each group project, the student groups will prepare the following materials:

- Annotated bibliography (40 points) – formal APA-formatted bibliography including at least 6 sources; pdfs of the original papers must be submitted along with the bibliography
- Infographic describing the diet or supplement (40 points)
- Short video (2-5 minutes) describing the physiologic/metabolic premise of the diet or supplement (40 points)
- A literature review of the science behind the diet or supplement (5-10 double-spaced pages plus references; references should be included in APA format and do not count toward this page number) (75 points)
- A presentation of the pros and cons of the diet or supplement to the class; this can be in the form of a PowerPoint presentation or a formal debate, with supporting written materials. Each group will present their findings during the last week of class. (75 points)
- Final written recommendation (1-2 double-spaced pages) – outline the final recommendation of the group regarding the diet or supplement, with an explanation of why you would or would not recommend or support the diet, supplement, or nutrition maxim; include references as needed (references do not count toward the page count). (30 points)
- Every member of the group will complete the following:
 - Self-evaluation – provide a brief evaluation of your contribution to the project (10 points)
 - Peer-evaluation – provide a brief evaluation of the contribution of others in your group to the project (10 points)
 - Group evaluation – provide an evaluation of other group projects following their presentation in class (20 points)
- **Extra Credit Exercises:** Extra credit assignments will be given periodically throughout the semester. Completed extra credit activities must be entered and/or uploaded to Canvas for grading.
 - Upload all completed extra credit materials to Canvas by 11:59 pm on the due date.
 - Instructions for the extra credit activities will be posted on Canvas.
 - Points for the extra credit activities will be posted on Canvas.
 - You have 1 week from the time you receive your extra credit grade to communicate any concerns regarding your grade to the teaching assistant.
 - **Late submittals of extra credit activities will not be accepted.**

Grading Policy

Your semester grade will be based on a combination of your performance on each of the module quizzes, your completion of discussion boards on various topics in nutrition, and on the final group project, as outlined below. **Yes, that's right, there are no major exams.** There will be opportunities to earn extra credit points; thus, no **extra points will be given after the final assignment for any reason.** Final grades will be based on the following point distribution, out of a possible 1,200:

Required Assignments	Frequency	Contribution to Course Grade
Module Quizzes (30 points each)	1/module	360 pts (30%)
Module Discussions (50 points)	1/odd-numbered module	300 pts (45%)
Final group project (340 points)	1	340 pts (25%)
Total		1000 pts (100%)

Grade scale:

- A = 900 - 1000 pts
- B = 800 - 899 pts
- C = 700 - 799 pts
- D = 600 - 699 pts
- F = <600 pts

Course Schedule

All dates and times are in Central Daylight Time (CDT). Each Module will open each Saturday at 12:01 AM and close on Friday at 11:59 PM. All types of assignments must be completed by the due dates.

NTR 365 Tentative Schedule

	Module/Date Open	Topics Covered	Assignments/Exams
	Module 0 (Jan 16)	Introduction/Course Overview	Syllabus Quiz (Due May 3)
	Module 0 (Jan 18)	Introduction to Bioethics	Group Discussion Time
Basic Nutrition	Module 1 (Jan 21)	Digestion and Absorption (Chapter 3)	Module 1 Quiz (Due Jan 27) Module 1 Discussion (Due Jan 27)
	Module 2 (Jan 28)	Carbohydrate Metabolism (Chapter 4)	Module 2 Quiz (Due Feb 3)
	Module 3 (Feb 4)	Protein Metabolism (Chapter 6)	Module 3 Quiz (Due Feb 10) Module 3 Discussion (Due Feb 10)
	Module 4 (Feb 11)	Lipid Metabolism (Chapter 5)	Module 4 Quiz (Due Feb 17) Identify a Topic for Final Project
Micronutrients, Hydration, and Energy Balance	Module 5 (Feb 18)	Vitamins (Chapters 10 & 11)	Module 5 Quiz (Due Feb 24) Module 5 Discussion (Due Feb 24)
	Module 6 (Feb 25)	Hydration & Minerals (Chapter 12)	Module 6 Quiz (Due Mar 2) Annotated Bibliography (Due Mar 2)
	Module 7 (Mar 3)	Energy Utilization & Storage (Chapter 7)	Module 7 Quiz (Due Mar 9) Module 7 Discussion (Due Mar 9)
	Module 8 (Mar 17)	Energy Balance (Chapters 8 & 9)	Module 8 Quiz (Due Mar 23) Infographic (Due Mar 23)
Topics in Nutrition	Module 9 (Mar 24)	Physical Activity & Sports Nutrition (Chapter 14)	Module 9 Quiz (Due Mar 30) Module 9 Discussion (Due Mar 30)
	Module 10 (Mar 31)	Nutritional Supplements (Selected readings)	Module 10 Quiz (Due Apr 6) Video (Due Apr 6)
	Module 11 (Apr 7)	Nutrigenomics (Selected readings)	Module 11 Quiz (Due Apr 13) Module 11 Discussion (Due Apr 13)
	Module 12 (Apr 14)	Personalized Diets (Selected readings)	Module 12 Quiz (Due Apr 20)
	Apr 21-Apr 26	Group presentations	Remaining final project components (paper w/references, presentation PowerPoint, final recommendation, self/peer/group evaluations (May 3))

Course Policies

STUDENTS' RESPONSIBILITIES: As a student in this course, you are responsible for being curious, striving to stretch your brain, and of course, learning all of the course material specified in the syllabus. You may be required to learn some of the course material independently through readings specified in the study guide and lecture recordings on Canvas.

- You are responsible for completing all assignments on time and asking questions in advance if you don't understand an aspect of an assignment.
- You will put your full name and course number on the Subject line of email (e.g., Jane Doe NTR 365) so I can easily determine in which course you are registered.
- You will check your email account and course announcements regularly.
- You will not fall behind the syllabus/schedule.
- You will not consistently wait until the last minute to take assessments or submit assignments.
- While you MAY be given a grace period to allow for technical problems, you MUST report problems immediately to me and to IT@UT.

LATE ASSIGNMENTS: Five points will be deducted for each day an assignment is late.

GRIEVANCE PROCEDURE: Anyone feeling that a dispute exists after the grading of an assignment may submit a written grievance. The grievance should identify the item in dispute and provide arguments supporting the student's position. Grievances must be submitted within two class periods following the return of a course grade. Attach your entire assignment to the grievance.

ACADEMIC AND PROFESSIONAL HONESTY: Honesty and integrity must be practiced in all class activities. Cheating will not be tolerated. Violations of University rules on academic dishonesty are subject to disciplinary penalties including possible failure of the course and dismissal from the University. The Students for Judicial Services site has important information regarding academic integrity and standards of conduct. Students are expected to read, fully understand, and abide by this content. <https://deanofstudents.utexas.edu/conduct/>.

The least severe penalty for scholastic dishonesty will be a grade of F. ALL instances of scholastic dishonesty will be reported to the Dean's office and will appear on your official record. No exam/quiz question or assignment answer should be preserved through any means whatsoever, including writing following the exam. Sharing exam questions, assignments, lecture slides, or any other course material via e-mail, Google doc, photographs, 'academic libraries', course sharing websites (e.g., Course Hero), Facebook (or other social media sites), or any other internet means is strictly prohibited. Violations of these policies are considered scholastic dishonesty and penalties outlined above will apply. All assignments will be reviewed for plagiarism, as well as wording consistencies with other submissions from both current and previous semesters. Current software makes plagiarism easily identifiable. Submit your own work or face penalties for scholastic dishonesty.

ONLINE ACADEMIC HONESTY: Class recordings in this class are reserved only for students, instructors, and TAs for educational purposes. **The recordings should not be shared outside the class in any form. Violation of this restriction could lead to Student Misconduct proceedings.**

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 to avoid penalty for late submission. The Americans with Disabilities Act (ADA) (42 U.S.C. § 12101, et seq.) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be

guaranteed a learning environment that provides for reasonable accommodation of their disabilities. *Students with disabilities may request academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, <http://ddce.utexas.edu/disability/>, (512) 471-6259.*

COMMUNICATION AND INTERACTION EXPECTATIONS: There is an informal code of conduct that most people follow on the Internet. "Netiquette" includes not sending email or messages in ALL CAPS or with too many exclamation points or asking repetitive questions in forums that have FAQs posted. Sending spam is also a violation of netiquette. Additional guidelines for communications include the following:

- Use proper grammar and syntax when posting discussion board responses and/or messages or questions.
- Interact appropriately and respectfully with instructors and your fellow class members.
- Respond in an appropriate timeframe (usually 24 hours) to emails and announcements (usually 48 hours).
- Follow the 25

TIPS FOR SUCCESS:

- Get familiar with the Canvas technology.
- Regularly check the Canvas course for announcements and updates.
- Log in to your Canvas course every day.
- Complete all required assignments and quizzes by the due dates.
- Participate in all required blog posts. Online learning is not solitary learning; you need to interact with your classmates.
- Take responsibility for your own learning. Take the course and yourself seriously.
- Be aware of the amount of class work you need to accomplish. Eliminating on-campus meetings does NOT mean less work. Usually, eight hours of work outside of class are required every week in order to succeed in this course.
- Be polite and respectful in all communications with the instructor and other members of the class.

COPYRIGHT AND FAIR USE: Copying, displaying, and distributing copyrighted works may infringe the owner's copyright. The University of Texas System's policy statement on Fair Use of Copyrighted Materials can help you determine whether your use of a copyrighted work may be an infringement. Any use of computer or duplication facilities by students, faculty, or staff for infringing use of copyrighted works is subject to appropriate disciplinary action as well as those civil remedies and criminal penalties provided by federal law.

Copyright law applies to the Internet, which contains a mixture of copyrighted and non-copyrighted materials. An item does not have to display a statement of copyright to be copyrighted. It is assumed that an item is copyrighted until otherwise determined. For more information on copyright, see the University of Texas System Office of General Counsel web site.

THE TEACH ACT: Copyright law provides educators with a separate set of rights, in addition to fair use, to display (show) and perform (show or play) others' works in the classroom (not online). These rights are in Section 110(1) of the Copyright Act and apply to any work, regardless of the medium.

CONDUCT: "Courtesy, politeness, manners, and civility are all, in essence, forms of awareness. Being civil means being constantly aware of others and weaving restraint, respect, and consideration into the very fabric of this awareness. Civility is a form of goodness; it is gracious goodness. But it is not just

an attitude of benevolent and thoughtful relation to other individuals; it also entails an active interest in the well-being of our communities and even a concern for the health of the planet on which we live.”

P.M. Forni – Choosing Civility: The 25 Rules of Considerate Conduct

PRIVACY: Canvas software automatically stores course access records, quiz scores, email postings, discussion postings, and chat room conversations. This is one more reason to make sure that your communications adhere to the netiquette policy.

ALTERNATE COMMUNICATION: In the event that a Canvas problem makes it impossible to use the course communication tools for more than 24 hours, the instructor will communicate with class members through email.

CHANGES: The syllabus, along with course assignments and due dates, are subject to change. It is your responsibility to check Canvas for corrections or updates to the syllabus. Any changes/corrections to the course materials, assignment dates, or other updates will be posted ahead of time in the course Announcements tool. It is your responsibility to check Canvas regularly for updates.

Student Resources

The following resources are available to all students of UT-Austin:

- Campus Safety and Security: <http://operations.utexas.edu/units/csas/>
- Counseling and Mental Health Center: <https://cmhc.utexas.edu/>
- Forty Acres Pharmacy: <http://www.fortyacrespharmacy.com/>
- University Health Services: <https://healthyhorns.utexas.edu/>
- University of Texas Police Department: <http://police.utexas.edu/>
- UT Recreational Sports: <https://www.utrecsports.org/>

Important Dates:

- January 31 – Twelfth class day; this is the date the official enrollment count is taken. This is the last day an undergraduate student may add a class except for rare and extenuating circumstances, and the last day to drop with possible refund.
- March 11-16 – Spring Break
- April 29 – Last class day