



DEPARTMENT OF HEALTH & HUMAN PERFORMANCE
COURSE SYLLABUS: Fall 2026
NUTR 431 01W: Advanced Nutrition Macronutrients
Web (online)

INSTRUCTOR INFORMATION

Instructor: Rebecca Bridgefarmer, M.S., RDN, LD

Office Location: NHS 134

Office Hours:

- *Tuesday 8:30am-11:00am (Virtual by appointment only)*
- *Wednesday 10:00-12:30pm*

Office Phone: 903.886.5549

Office Fax: N/A

University Email Address: Rebecca.Bridgefarmer@etamu.edu

Preferred Form of Communication: e-mail

Communication Response Time: 24-48 hours

Communication: If you have a question regarding the course or course materials, please email me OR use the “class questions” discussion board. When you email, please include your name and the course you are referring to so that I can quickly access your assignment(s) and respond.

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

This course does not require the purchase of a textbook. Instead, all required course materials—including readings, videos, and other learning resources—will be provided within D2L using **Open Educational Resources (OER)** and other instructor-selected materials. Students are responsible for reviewing the assigned materials in each module before completing course activities and assessments.

Course Description

This course expands on understanding the regulation and tissue-specific utilization of the macronutrients, e.g., carbohydrates, proteins and lipids. Macronutrient digestion, absorption, transport, and homeostatic mechanisms will be covered. Additionally, physiological and biochemical pathways of metabolism in health and disease will be emphasized.

Student Learning Outcomes (Should be measurable; observable; use action verbs)

1. Integrate the metabolism of macronutrients (carbohydrates, fats, protein) into homeostatic mechanisms and pathways.

The syllabus/schedule are subject to change.

2. Analyze the digestion, absorption, transport, utilization, and excretion of macronutrients when provided with the structure of the compound or compounds.
3. Differentiate the contribution of metabolic pathways to energy production, and or storage, during the pre-prandial and post-prandial states, and how this relates to longer term energy balance (weight gain, weight loss).
4. Determine how the metabolic pathways are affected if the dietary pattern overemphasizes or underemphasizes a particular macronutrient.
5. Understand the role of insulin in the regulation of the metabolic pathways and describe how type 1 diabetes mellitus or type 2 diabetes mellitus leads to dysregulation of the metabolic pathways.
6. Understand the pathophysiology of carbohydrate intolerances, Celiac disease, food hypersensitivities, type 1 and type 2 diabetes, cardiovascular disease, and some cancers.
7. Apply nutritional management guidelines for carbohydrate intolerances, Celiac disease, food hypersensitivities, type 1 and type 2 diabetes mellitus, cardiovascular diseases, and some cancers, using case studies of specified diseased states.
8. Describe key components of the position statements and evidence-based practice guidelines for management of diabetes, cardiovascular disease and cancer.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Using the learning management system (Brightspace D2L), using Microsoft Word, PowerPoint, and Excel, using university email, and using Google Docs / Slides.

Instructional Methods

This course is 100% online, and information will be delivered through a combination of resources such as the e-book, PowerPoints, supplementary multimedia content, or reading materials. Online quizzes, discussion boards, projects, and exams serve as assessment methods for this course.

Student Responsibilities or Tips for Success in the Course

- Communicate effectively: Reach out via email with any questions or concerns as soon as they arise. Waiting until the last moment may result in the issue not being resolved appropriately.
- Manage your time wisely: Prioritize tasks and allocate sufficient time for studying, completing assignments, and reviewing course material.
- Review all course materials: assessments will include information from both the e-book and any additional material provided in the modules. Make sure you review it thoroughly.

LATE WORK POLICY

Late work will not be accepted unless accompanied by a documented medical reason. Please note that vacations are not accepted as a reason. The policy is implemented to maintain fairness, consistency, and academic integrity within the course. All projects, quizzes, and other course-related tasks are expected to be submitted by the due date outlined in the course calendar. Any submissions received after the specified due date will not be considered.

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Students seeking to submit late work due to a medical reason must provide appropriate documentation, such as a medical certificate or note from a healthcare professional clearly outlining the nature and duration of the medical condition that prevented timely completion of the assignment. The document must be submitted within 1 week of the original due date, unless extenuating circumstances warrant an extension, as determined by the instructor on a case-by-case basis.

GRADING

Final grades in this course will be based on the following scale:

Letter Grade / Point Value

A	900-1000
B	800-899
C	700-799
D	600-699
F	0-599

Assignment	Quantity	Points	Total
Syllabus Quiz			
Chapter Quiz			
Projects			
Chapter Assignments			
Midterm			
Final Exam			
Total Points			

Assessments

Attendance and Participation (5%)

Students are expected to attend all regularly scheduled classes. If a student has a religious, athletic or medical conflict, the student must acquire proper approval to miss class.

Quizzes (20%)

Weekly quizzes measure comprehension of class topics and aid students in preparing for exams.

Projects (25%)

In HHPH 336 – Nutritional Physiology students select a literature review topic in their area of interest. In this course they will expand on this topic by writing a scientific literature review paper addressing their selected topic. Further guidelines will be provided on D2L and discussed in class.

KRDN 1.1 Demonstrate how to locate, interpret, evaluate and use professional literature to make ethical, evidence-based practice decisions.

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KRDN 1.2 Select and use appropriate current information technologies to locate and apply evidence-based guidelines and protocols.

KRDN 2.1 Demonstrate effective and professional oral and written communication and documentation.

In-Class Exams (25%)

There are three 75-minute exams administered during class throughout the semester. The dates for in-class exams are set, and there are no make-up exams. The exams are not cumulative; they will cover only the material presented since the last exam. Materials from class lecture as well as any additional assigned reading are covered on exams.

Final Exam (25%)

The cumulative final exam is administered on the last day of class. Although the final is cumulative, only topics covered in the review session will be included on the final exam.

KRDN 1.3 Apply critical thinking skills.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

AI USE POLICY

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, Chatbots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

For this course, the use of any form of AI for generating text, discussion boards, project information, and communication is prohibited and will be reported if used.

Students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

The syllabus/schedule are subject to change.

BRIDGEFARMER AI USE POLICY

If the instructor has reason to believe that an assignment was completed using AI in violation of the above ETAMU policy, the student will be required to attend a meeting, either in person or via Zoom, to verbally defend their work without the aid of the submitted assignment. The meeting will allow the students to demonstrate their understanding of the material and their ability to discuss the assignment topic independently. Failure to adequately explain or justify the work may result in a grade penalty or further academic action, in accordance with the university's academic integrity policy.

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LMS Requirements: <https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a ETAMU campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your instructor.

Technical Support

The syllabus/schedule are subject to change.

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

ETAMU Attendance For more information about the attendance policy please visit the Attendance webpage and Procedures 13.99.99.R0.01

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity

Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03 Undergraduate Student Academic Dishonesty Form

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf>

Graduate Student Academic Dishonesty Form

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[13.99.99.R0.03UndergraduateAcademicDishonesty.pdf \(tamuc.edu\)](http://www.tamuc.edu/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf)

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) 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. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

East Texas A&M University

Velma K. Waters Library Rm 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148 Email: studentdisabilityservices@tamuc.edu Website: Office of Student Disability Resources and Services
<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

Nondiscrimination Notice

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all ET A&M campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



Department or Accrediting Agency Required Content

COURSE OUTLINE / CALENDAR

DATE	AREA OF FOCUS	ASSIGNMENTS DUE
Week ONE	Cellular Receptor Proteins, Catalytic Proteins, Apoptosis	Quiz # 1
Week TWO	Biological Energy, Coupled Reactions, Reduction Potentials	Quiz # 2
Week THREE	The Digestive System, Neural Regulation, Regulatory Peptides	Quiz # 3
Week FOUR	Carbohydrates, Digestion of CHO, Absorption and Transport	Quiz # 4
Week FIVE	Integrated Metabolism in Tissues, Regulation of Metabolism Exam 1 – Unit 1 – Cellular, Energy, Digestive System, CHO	Quiz # 5 Exam 1
Week SIX	Fiber, Lipids, Digestion of Lipids	Quiz # 6

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Week SEVEN	Absorption and Storage of Lipids	Quiz # 7
Week EIGHT	Integrated Metabolism in Tissues, Regulation of Metabolism	Quiz # 8
Week NINE	Brown Fat Metabolism Exam 2 – Fiber and Lipids	Quiz # 9 Exam 2
Week TEN	Protein Classification, Digestion, Absorption	Quiz # 10
Week ELEVEN	Amino Acid Catabolism, Protein Synthesis	Quiz # 11
Week TWELVE	Functional Role of Proteins, Protein Quality	Quiz # 12
Week THIRTEEN	Integration and Regulation of Metabolism with Exercise Exam 3 – Protein and Exercise	Quiz #12 Exam 3
Week FOURTEEN	Hormonal Regulation	Project
Week FIFTEEN	Energy Expenditure and Weight Management	Project
Finals Week	Final Exam	Final Exam

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