

BIOL 1322
Nutrition & Diet Therapy
Spring 2026



LAMAR INSTITUTE
OF TECHNOLOGY

CREDIT

3 Semester Credit Hours (3 hours lecture, 0 hours lab)

MODE OF INSTRUCTION

Online

***PLEASE NOTE:** This 12-week course covers the same content as courses held during long semesters. Expect to spend considerable time each week completing the coursework in a compressed timeframe.

PREREQUISITE/CO-REQUISITE:

None- a basic understanding of chemistry and general biology is helpful.

COURSE DESCRIPTION

This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes, including function, food sources, digestion, absorption, metabolism, interaction, storage, and excretion. Food safety, availability, and nutritional information, including food labels, advertising, and nationally established guidelines, are addressed.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to:

- Apply nutritional knowledge to analyze personal dietary intakes, to plan nutritious meals using nationally established criteria to meet recommended goals, and to evaluate food labels and the validity of nutritional claims
- Trace pathways and processes that occur in the body to handle nutrients and alcohol through consumption, digestion, absorption, transport, metabolism, storage, and waste excretion
- Discuss functions, sources, deficiencies, and toxicities of macro-and micronutrients, including carbohydrates, lipids, water, vitamins, and minerals
- Apply the concept of energy balance and its influences at the physical, emotional, societal, and cellular levels to evaluate advantages and disadvantages of various methods used to correct energy imbalances
- Utilize concepts of aerobic and anaerobic energy systems, and knowledge about macronutrients, vitamins, minerals, ergogenics, and supplements, and relate them to fitness and health
- Describe health and disease related to nutrition throughout the life cycle, including food safety, corrective dietary modifications, and the influence of specific nutrients on diseases
- Discuss the role nutrition plays in the current health care delivery system and how nutrition can be emphasized to promote health maintenance

Approved: **Initials/date**

CORE OBJECTIVES

1. **Critical Thinking Skills:** To include creative thinking, innovation, inquiry, analysis, evaluation and synthesis of information
2. **Communication Skills:** To include effective development, interpretation, and expression of ideas through written, oral, and visual communication
3. **Empirical & Quantitative Skills:** To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. **Teamwork:** To include the ability to connect choices, actions, and consequences to ethical decision-making

INSTRUCTOR CONTACT INFORMATION

Instructor: Melanie Daleo

Email: mdaleo@lit.edu

Office Phone: 409-247-5323

Office Location: MPC 216

Office Hours: See Starfish for available office hours

[Click Here for Starfish](#)

REQUIRED TEXTBOOK AND MATERIALS

- Computer with internet access
- REQUIRED = Textbook - OpexStax Nutrition for Nurses [Click Here for Online Textbook](#)
- Your textbook for this class is available for free online. If you prefer, you can also get a print version at a very low cost. Your book is available in web view and PDF for free. You can also choose to purchase on iBooks or get a print version via the campus bookstore or from OpenStax on Amazon.com.

Hardcover: ISBN-13: 978-1-711472-77-5

Paperback: ISBN-13: 978-1-711472-76-8

ATTENDANCE POLICY

1. Online students should expect to log onto Blackboard 3-5 days a week.
2. Late assignments will be accepted with a late penalty.. Students will receive a zero for assignments not completed.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified date as listed in the College Calendar on the [Student Success](#) web page. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

<p><u>Week 4</u> June 22nd - 26th</p> <p>Video Time = 15 minutes</p> <p><u>Module 2</u> Energy Nutrients</p> <p>Chap 2: Macronutrients Chap 3: Micronutrients</p>	<ul style="list-style-type: none"> • Video Quiz: The Deal with Protein (4m 50 s) • Video Quiz: Essential Amino Acids (1m 48s) • Video Quiz: How do Vitamins Work? (4m 44s) • Video Quiz: Minerals (2m 39s) • Work on Nutritional Analysis Project <i>Due 07.17.26</i> • Work on FAD Diets Project <i>Due 07.31.26</i> 	06.28.26
<p><u>Week 5</u> June 29th - July 2nd</p> <p>Video Time = 32 minutes</p> <p><u>Module 3</u> Digestive System & Process</p> <p>Chap 4: Digestive Process</p>	<ul style="list-style-type: none"> • Quiz 2: Module 2 Opens 06.29.26 @ 7:00 AM and Closes 06.30.26 @ 11:59 PM • Video Quiz: Digestive System – Part 1 (11m 5s) • Video Quiz: Digestive System – Part 2 (10m 55s) • Video Quiz: Digestive System – Part 3 (10m 24s) • Work on Nutritional Analysis Project <i>Due 07.17.26</i> • Work on FAD Diets Project <i>Due 07.31.26</i> 	07.05.26
<p><u>Week 6</u> July 6th - 10th</p> <p>Video Time = 20 minutes</p> <p><u>Module 3</u> Digestive & Processes</p> <p>Chap 4: Digestive Process</p>	<ul style="list-style-type: none"> • Video Quiz: Metabolism & Nutrition 2 (10 m 7s) • Video Quiz: Food-Borne Illness (5m 23s) • Video Quiz: Infection & Intoxication (3m 20s) • Discussion Board 5: How the Food You Eat Affects Your Gut • DUE 07.17.25: Nutritional Analysis Project • Work on FAD Diets Project <i>Due 07.31.26</i> 	07.12.26
<p><u>Week 7</u> July 13th - 17th</p> <p>Video Time = 25 minutes</p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness and Life Stages</p> <p>Chap 6: Neurological Chap 8: Endocrine Chap 10: Hematologic Chap 12: Cardiovascular</p>	<ul style="list-style-type: none"> • Midterm Exam: Modules 1, 2, 3 Opens 07.13.26 7:00 AM and Closes 07.15.26 11:59 PM • DUE Friday 07.17.26: Nutritional Analysis Project • Video Quiz: How the food you eat affects your Brain (4m 52s) • Video Quiz: Nutritional Guidance – Endocrine Disorders (6m 43s) • Video Quiz: Anemia (7m 17s) • Video Quiz: Nutritional Guidance – Cardiovascular (5m 18s) • Work on FAD Diets Project <i>Due 07.31.26</i> 	07.19.26

<p><u>Week 8</u> July 20th - 24th</p> <p>Video Time = 16 minutes</p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness and Life Stages</p>	<ul style="list-style-type: none"> • Video Quiz: Nutrition during Pregnancy (2m 30s) • Video Quiz: Importance of Nutrition during Pregnancy (3m 2s) • Video Quiz: Benefits of Breastfeeding (3m 2s) • Video Quiz: Hunger & Health (3m 10s) • Video Quiz: Malnutrition & Disease (3m 53s) • Discussion Board 6: Nutritional Analysis Gallery Walk • DUE 07.31.26: FAD Diets Group Project 	07.26.26
<p><u>Week 9</u> July 27th - 31st</p> <p>Video Time = 25 minutes</p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness and Life Stages</p> <p>Chapter 14: Pulmonary Chapter 16: Renal Chapter 18: Gastrointestinal</p>	<ul style="list-style-type: none"> • Video Quiz: Nutritional Guidance – Respiratory Disorders (4m 5s) • Video Quiz: How do your Kidneys work? (3m 55s) • Video Quiz: What causes Kidney Stones? (5m 15s) • Video Quiz: Nutritional Guidance – Gastrointestinal (5m 32s) • Video Quiz: Gluten (4m 05s) • DUE 07.31.26: FAD Diets Group Project 	08.02.26
<p><u>Week 10</u> Aug 3rd - 7th</p> <p>Video Time = 25 minutes</p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness and Life Stages</p> <p>Chapter 20: Musculoskeletal & Integumentary</p>	<ul style="list-style-type: none"> • Video Quiz: Nutritional Guidance – Musculoskeletal Disorders (4m 29s) • Video Quiz: How Diet Impacts Skin Health (8m 51s) • Discussion Board 7: Sports Nutrition & Supplements • Video Quiz: What do PEDs do to your body? (3m 15s) • Video Quiz: Performance Enhancing Drugs (9m 2s) • Discussion 8: Nutrition through the Life Cycle • Quiz 3: Module 4 Opens 08.08.26 @ 7:30 am and closes 08.09.26 @ 11:59 pm 	08.07.26
<p><u>Week 11</u> Aug 10th - 14th</p>	<ul style="list-style-type: none"> • FINAL EXAM Opens 08.11.26 @7:30 am and Closes 08.13.26 @ 11:59 pm (Modules 1 - 4) • Congratulations!! You made it!! Celebrate 🎉🥳 	

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

1. Discussion	10%
2. Quizzes	20%
3. Midterm & Final Exam	30%
4. Individual & Group Project	20%
5. <u>Assignments</u>	<u>20%</u>
	100%

GRADING SCALE

90-100 = A

80-89 = B

70-79 = C

60-69 = D

0 – 59 = F

TECHNICAL REQUIREMENTS

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the [LIT Online Experience](#) page. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

Quizzes and Exams in this course are administered through Blackboard. Exams will be administered with Respondus **LockDown Browser + Respondus Monitor (webcam)**

Requirements to take exams include:

- A reliable computer, desktop or laptop (phones, chromebooks, tablets, and iPads are not allowed).
- Windows: 10, 8, 7
- Mac: OS X 10.10 or higher
- Adobe Flash Player (bundled with the LockDown Browser installation)
- Web camera (internal or external) & microphone
- A reliable internet service provider. A broadband internet connection.
- A room to take the exam where you are alone (other individuals in the room are not allowed)

Respondus **LockDown Browser + Respondus Monitor (webcam)**

Download Instructions:

- Select the quiz in the course
- Under Quiz Requirements you will see "To take this quiz you must use the Respondus LockDown Browser"
- Below this will appear: "You can use the button below if you have not already downloaded LockDown Browser". Click the button to go to the download page and then follow the instructions
- Use the link to download Respondus LockDown Browser to your computer; follow the installation instructions
- Return to the Quiz page in Brightspace (it may still be open in another tab) and select the quiz
- Select "Launch LockDown Browser"

- The quiz will now start

Note: LockDown Browser only needs to be installed once on a computer or device. It will start automatically from that point forward when a quiz requires it.

Guidelines while taking online quiz, follow these guidelines

- Ensure you're in a location where you won't be interrupted.
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach.
- Before starting the test, know how much time is available for it, and also that you've allotted sufficient time to complete it.
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices.
- Remain at your computer for the duration of the test.
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again prior to the exam.
- To produce a good webcam video, do the following:
 - Avoid wearing baseball caps or hats with brims.
 - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move.
 - If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete.
 - Take the exam in a well-lit room, but avoid backlighting (such as sitting with your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted.

The following violations during testing will result in a grade of zero or reduction in points:

- Using technology or electronic devices including, but not limited to, iPads, phones, smart glasses, earbuds, smartwatches.
- Leaving the testing environment or face missing from frame or obscured.
- Noises that might indicate external help.
- Any other questionable activities indicating cheating.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](https://www.lit.edu/specialpopulations).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their chosen careers, LIT aims to guide them in the ethical use of these technologies and to incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the instructor's discretion. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions about the acceptable use of AI/ChatGPT in their courses.

STARFISH

LIT uses an early-alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the student's responsibility to pay attention to these emails and information in Starfish and to consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

Course Requirements

1. A Midterm and Final are required using Respondus Lockdown Browser, with two attempts given per assessment. The final score will be an **average of both attempts**.
2. Students will complete a group lab project.
3. Late assignments will be accepted, but a late penalty will be applied. Students will receive a zero for assignments not completed.
4. Students are expected to follow the guidelines for testing in the 'Respondus Academic Integrity Policy'. The following violations during testing might result in a grade of zero or a reduction in points:
 - o Using technology or electronic devices, including but not limited to iPads, phones, smart glasses, earbuds, and smartwatches.
 - o Leaving the testing environment may result in a face being missing from or obscured in the frame.
 - o Noises that might indicate external help.
 - o Any other questionable activities that indicate cheating.

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at

<http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

STUDENT EXPECTED TIME REQUIREMENTS

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.