BIOL 1322
Nutrition & Diet Therapy
Fall 2026

LAMAR INSTITUTE OF TECHNOLOGY

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

MODE OF INSTRUCTION
Online

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: Dr. Tara Torres

Email: ttorres4@lit.edu

Office Phone: 409-247-4858

Office Location: MPC 213

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 online for free. 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 purchase it on iBooks or get a print version through the campus bookstore or 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 incomplete assignments.

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.

Tentative Calendar *Instructor reserves the right to modify as needed

Week	Assignments	Due Date
Week 1 **August 24th - 28th** Video Time = 10m 33 s Module 1 Nutrition Introduction **Chap1: Introduction**	Discussion Board 1: Netiquette for Online Learners Discussion Board 2: Introduction Syllabus Quiz/Syllabus Acknowledgment Read Chapter 1➞Click Here for Chapter 1: Introduction to Nutrition for Nurses Video Quiz: Introduction Nutrition & Metabolism (10m 33s) DRI Calculator Activity Read over Individual Project (Nutritional Analysis) instructions *Due 10.18.26* Join a group for Group Project: FAD Diets *Due 11.20.26*	08.28.26 08.30.26
Week 2 **Aug 31st - Sep 4th** Video Time = 9 minutes Module 1 Nutrition Introduction **Chap1: Introduction**	Read Chapter 1➞Click Here for Chapter 1: Introduction to Nutrition for Nurses DRI Quizlet Activity Video Quiz: What is a Calorie? (1m 28 s) VQ: Serving Size vs. Portion Size (3m 11s) VQ: How to Read a Nutrition Label (3m 44s) Discussion Board 3: Why 2000 Calories a Day? Work on Individual Project (Nutritional Analysis) *Due 10.18.26* Work on Group Project: FAD Diets *Due 11.20.26*	09.06.26
Week 3 Holiday Sep 7th Sep 8th – 11th Video Time = 17 minutes Module 1 Nutrition Introduction **Chap1: Introduction**	Read Chapter 1➞Click Here for Chapter 1: Introduction to Nutrition for Nurses VQ: How to Spot a FAD Diet (4m 34s) VQ: Bariatric Surgery and Eating Disorders (4m 59s) VQ: Hunger & Health (3m 10s) VQ: Malnutrition & Disease (3m 53s) Work on Individual Project (Nutritional Analysis) *Due 10.18.26* Work on Group Project: FAD Diets *Due 11.20.26*	09.13.26
Week 4 **Sep 14th - 18th** Video Time = 19 Minutes Module 2 Energy Nutrients **Chap 2: Macronutrients** **Chap 3: Micronutrients**	Read Chapter 2 ➞ Click Here for Chapter 2: A Holistic View of Macronutrients Read Chapter 3 ➞ Click Here for Chapter 3: A Holistic View of Micronutrients **Quiz 1:** Module 1 Opens *Monday 09.14.26 and Closes Tuesday 09.16.26 @ 11:59 PM* VQ: Carbohydrates (8m 49s) VQ: Carbohydrates & Health (5m 11s) VQ: The Deal with Carbs (4m 31s) Discussion Board 4: How Sugar Affects Your Brain Work on Individual Project (Nutritional Analysis) *Due 10.18.26* Work on Group Project: FAD Diets *Due 11.20.26*	09.20.26
Week 5 **Sep 21st - 25th**	Read Chapter 2 ➞ Click Here for Chapter 2: A Holistic View of Macronutrients Read Chapter 3 ➞ Click Here for Chapter 3: A Holistic View of Micronutrients	09.27.26

Video Time = 15 Minutes Module 2 Energy Nutrients Chap 2: Macronutrients Chap 3: Micronutrients	VQ: What is Fat? (4m 22s) VQ: The Deal with Fat (5m 54s) VQ: The Deal with Protein (4m 50s) Work on Individual Project (Nutritional Analysis) *Due 10.18.26* Work on Group Project: FAD Diets *Due 11.20.26*	
Week 6 **Sep 28th - Oct 2nd** Video Time = 10 Minutes Module 2 Energy Nutrients Chap 2: Macronutrients Chap 3: Micronutrients	Read Chapter 2 → Click Here for Chapter 2: A Holistic View of Macronutrients Read Chapter 3 → Click Here for Chapter 3: A Holistic View of Micronutrients VQ: Essential Amino Acids (1m 48s) VQ: How do Vitamins Work? (4m 44s) VQ: Minerals (2m 39s) **Quiz 2:** Module 2 Opens *10.02.26* and C*loses 10.04.26 @ 11:59 PM* Work on Individual Project (Nutritional Analysis) *Due 10.18.26* Work on Group Project: FAD Diets *Due 11.20.26*	10.02.26
Week 7 **Oct 5th - 9th** Video Time = 48 Minutes Module 3 Digestive System and Process Chap 4: Digestive Process	Read Chapter 4 → Click Here for Chapter 4: The Digestive Process VQ: Digestive System – Part 1 (11m 5s) VQ: Digestive System – Part 2 (10m 55s) VQ: Digestive System – Part 3 (10m 24s) VQ: Metabolism & Nutrition 2 (10 m 7s) VQ: Foodborne Illness (5m 23s) VQ: Infection & Intoxication (3m 20s) Discussion Board 5: How the Food You Eat Affects Your Gut **DUE SOON** Individual Project (Nutritional Analysis) *Due 10.18.26* Work on Group Project: FAD Diets *Due 11.20.26*	10.11.26
Week 8 **Oct 12th - 16th** **Midterm Exam**	Prepare for Midterm Exam (Module 1, 2, and 3) Individual Project (Nutritional Analysis) ***Due 10.18.26*** Work on Group Project: FAD Diets *Due 11.20.26* **Midterm Exam:** Modules 1, 2, 3 *Opens 10.14.26 and Closes 10.16.26 11:59 PM*	
Week 9	Review Notes in Google Drive folder	10.25.26

Oct 19th - 23rd Video Time = 46 Minutes Module 4 Impact of Nutrition on Body System Wellness & Life Stages	◉VQ: Nutrition during Pregnancy (2m 30s) ◉VQ: Importance of Nutrition during Pregnancy (3m 2s) ◉VQ: The Surprising Effects of Pregnancy (5m 46s) ◉VQ: Benefits of Breastfeeding (3m 2s) ◉VQ: What is Malnutrition? (3m 33s) ◉VQ: Adulthood and Later Years (28 m) ◉Work on Group Project: FAD Diets *Due 11.20.26*	
Week 10 **Oct 26th - 30th** Video Time = 12 Minutes Module 4 Impact of Nutrition on Body System Wellness & Life Stages **Chap 6: Neurological** **Chap 8: Endocrine**	Read Chapter 6 ➞ Click Here for Chapter 6: Special Nutritional Considerations for Neurological Health Read Chapter 8 ➞ Click Here for Chapter 8: Special Nutritional Considerations for Endocrine Health ◉VQ: How the food you eat affects your Brain (4m 52s) ◉VQ: Nutritional Guidance – Endocrine Disorders (6m 43s) ◉Work on Group Project: FAD Diets *Due 11.20.26*	11.01.26
Week 11 **Nov 2nd - 6th** Video Time = 13 Minutes Module 4 Impact of Nutrition on Body System Wellness & Life Stages **Chap 10: Hematologic** **Chap 12: Cardiovascular**	Read Chapter 10 ➞ Click Here for Chapter 10: Special Considerations for Hematological Health Read Chapter 12 ➞ Click Here for Chapter 12: Special Nutritional Considerations for Cardiovascular Health ◉VQ: Anemia (7m 17s) ◉VQ: Nutritional Guidance – Cardiovascular (5m 18s) ◉Discussion Board 6: Nutritional Analysis Gallery Walk **DUE SOON** FAD Diets Group Project ***11.20.26***	11.08.26
Week 12 **Nov 9th - 13th** Video Time = 14 Minutes Module 4 Impact of Nutrition on Body System Wellness & Life Stages **Chapter 14: Pulmonary** **Chapter 16: Renal**	Read Chapter 14: ➞Click Here for Chapter 14: Special Considerations for Pulmonary Health Read Chapter 16 ➞ Click Here for Chapter 16: Special Nutritional Considerations for Renal Health ◉VQ: Nutritional Guidance – Respiratory Disorders (4m 5s) ◉VQ: How do your Kidneys work? (3m 55s) ◉VQ: What causes Kidney Stones? (5m 15s) **DUE SOON** FAD Diets Group Project ***11.20.26***	11.15.26

Week 13 **Nov 16th - 20th** Video Time = 10 Minutes Module 4 Impact of Nutrition on Body System Wellness & Life Stages **Chapter 18: Gastrointestinal**	Read Chapter 18 ➞Click Here for Chapter 18: Special Nutritional Considerations for Gastrointestinal Health ◉ VQ: Nutritional Guidance – Gastrointestinal (5m 32s) ◉ VQ: Gluten (4m 05s) ⏰ **DUE:** FAD Diets Group Project ***11.20.26 by 11:59 PM*** *Each group member needs to submit the project	11.18.26
Week 14 Nov 23rd - 24th Thanksgiving Holiday Nov 25th - 27th Video Time = 10 Minutes Module 4 Impact of Nutrition on Body System Wellness & Life Stages	☐ *Work on missing assignments* ☐ Sleep, rest, relax ☐ Enjoy time with family and friends ☐ Netflix, etc. ☐ Exercise ☐ Read a good book ☐ Do something nice for someone	11.24.26
Week 15 Nov 30th - Dec 4th Video Time = 10 Minutes Module 4 Impact of Nutrition on Body System Wellness & Life Stages **Chapter 20: Musculoskeletal & Integumentary**	Read Chapter 20 ➞Click Here for Chapter 20: Special Nutritional Considerations for Musculoskeletal and Integumentary Health ◉ VQ: Nutritional Guidance – Musculoskeletal Disorders (4m 29s) ◉ VQ: How Diet impacts Skin Health (8m 51s) ◉ Discussion Board 7: Sports Nutrition & Supplements ◉ VQ: What do PEDs do to your body? (3m 15s) ◉ VQ: Performance Enhancing Drugs (9m 2s) ◉ Discussion 8: Nutrition through the Life Cycle	12.04.26
Week 16 Dec 7th - 9th FINAL EXAM	• FINAL EXAM Opens 12.06.26 and Closes 12.08.26 @ 11:59 pm *(Modules 1 - 4)* • Congratulations!! You made it!! Celebrate ☺ 🎉	⏰ Final is *due 12.08.26 by 11:59 pm* **Final Grades must be submitted to Banner by 12.11.26 at noon**

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.	Assignments	20%
		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, you will see: "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: You only need to install LockDown Browser once on a computer or device. It will start automatically from then on when a quiz requires it.

Guidelines while taking an online quiz:

- 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 and ensure you've allotted enough 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 your computer, Wi-Fi, or location differs from what you used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again before 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 place the computer on your lap, a bed, or any other surface where the device (or you) is likely to move.
    - If using a built-in webcam, avoid readjusting the screen tilt 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 you complete and submit all questions.

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, and 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, inclusive educational environment by maintaining partnerships with faculty and staff and promoting awareness across 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).

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*. You can access the *LIT Catalog and Student Handbook* 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 that 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 appropriately into classroom instruction and assignments. Instructors determine appropriate use of these technologies. 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 log in to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. Students are responsible for monitoring these emails and Starfish information and considering 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 and must be completed using Respondus LockDown Browser, with two attempts allowed per assessment. The final score will be an ***average of both attempts***.
2. Students will complete an individual and group project.
3. Late assignments will be accepted, but a late penalty will be applied. Students will receive a zero for incomplete assignments.
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:
    - Using technology or electronic devices, including but not limited to iPads, phones, smart glasses, earbuds, and smartwatches.
    - Leaving the testing environment may result in a face being missing from or obscured in the frame.
    - Noises that might indicate external help.
    - 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 must 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.