

BIOL 1322_2A2

Spring 2026

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 level 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

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

Approved: **Initials/date**



**LAMAR INSTITUTE
OF TECHNOLOGY**

INSTRUCTOR CONTACT INFORMATION

Instructor: Melanie Daleo
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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 - OpenStax 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

- You must log into Blackboard and access this course a minimum of 3 times per week.
- Late assignments will be accepted with a deduction as a late penalty. Students will receive zero for assignments not completed.
- If you wish to drop this course, you must drop it administratively. If you do not drop, you will receive an F for the course.

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.

COURSE CALENDAR *Instructor reserves the right to modify schedule as needed

Week	Assignments	Due Date
Week 1 Jan 20 th – 23 rd Module 1 Nutrition Introduction Chap1: Introduction	<ul style="list-style-type: none"> • Discussion Board 1: Netiquette for Online Learners • Discussion Board 2: Introduction • Syllabus Quiz/Syllabus Acknowledgement <ul style="list-style-type: none"> • Video Quiz: Introduction to Nutrition & Metabolism (10m 33s) • Video Quiz: Balanced Nutrition (6 m 59s) • Video Quiz: What is a Calorie? (1m 28 s) • Video Quiz: Serving Size vs. Portion Size (3m 11s) • Video Quiz: How to Read a Nutrition Label (3m 44s) • Read over Individual Project (Nutritional Analysis) instructions Due 02.18.25 • Join a group for Group Project: FAD Diets Due 03.06.26 	01.23.26 01.26.26
Week 2 Jan 26 th – 30 th Module 1 Nutrition Introduction Chap1: Introduction	<ul style="list-style-type: none"> • Video Quiz: How to Spot a FAD Diet (4m 34s) • Video Quiz: Bariatric Surgery and Eating Disorders (4m 59s) • Video Quiz: Why are eating disorders so hard to treat? (4m 40 s) • Discussion Board 3: Why 2000 Calories a Day? • Quiz 1: Module 1 Opens Sunday 02.01.26 @ 7:00 AM and Closes Monday 02.02.26 @ 11:59 PM • Work on Nutritional Analysis Project Due 02.18.25 • Work on FAD Diets Project Due 03.06.26 	01.31.26
Week 3 Feb 2 nd – 6 th Module 2 Energy Nutrients Chap 2: Macronutrients Chap 3: Micronutrients	<ul style="list-style-type: none"> • Video Quiz: Carbohydrates & Nutrition (5m 11s) • Video Quiz: The Deal with Carbs (4m 31s) • Video Quiz: What is Fat? (4m 22s) • Video Quiz: The Deal with Fat (5m 54s) • 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) • Discussion Board 4: How Sugar Affects Your Brain • Work on Nutritional Analysis Project Due 02.18.25 • Work on FAD Diets Project Due 03.06.26 	02.08.26

<p>Week 4 Feb 9th – 13th</p> <p>Video Time = 47 minutes</p> <p>Module 3 Digestive System and Process</p> <p>Chap 4: Digestive Process</p>	<ul style="list-style-type: none"> • Quiz 2: Module 2 Opens 02.09.26 @ 7:00 AM and Closes 02.10.26 @ 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) • Video Quiz: Metabolism & Nutrition 2 (10 m 7s) • Video Quiz: Food Borne Illness (5m 23s) • Discussion Board 5: How the Food You Eat Affects Your Gut • Work on Nutritional Analysis Project Due 02.18.26 • Work on FAD Diets Project Due 03.06.26 	02.15.26
<p>Week 5 Feb 16th – 20th</p> <p>Video Time = 26 minutes</p> <p>Module 4 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"> • 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) • Midterm Exam: Modules 1, 2, 3 Opens 02.22.26 7:00 AM and Closes 02.23.26 11:59 PM • DUE Wednesday 02.18.26: Nutritional Analysis Project • Work on FAD Diets Project Due 03.06.26 	02.22.26
<p>Week 6 Feb 23rd – 27th</p> <p>Video Time = 36 minutes</p> <p>Module 4 Impact of Nutrition on Body System Wellness and Life Stages</p> <p>Chapter 14: Pulmonary Chapter 16: Renal</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) • 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) • Discussion Board 6: Nutritional Analysis Gallery Walk • Work on FAD Diets Project Due 03.06.26 	03.01.26

<p>Week 7 March 2nd – 6th</p> <p>Video Time = 25 minutes</p> <p>Module 4 Impact of Nutrition on Body System Wellness and Life Stages</p> <p>Chapter 18: Gastrointestinal Chapter 20: Musculoskeletal & Integumentary</p>	<ul style="list-style-type: none"> Video Quiz: Nutritional Guidance - Gastrointestinal (5m 32s) Video Quiz: Gluten (4m 05s) Video Quiz: Nutritional Guidance - Musculoskeletal Disorders (4m 29s) Video Quiz: How Diet impacts Skin Health (8m 51s) Discussion Board 7: Sports Nutrition & Supplements DUE Friday 03.06.26: FAD Diet Group Project 	03.08.26
<p>Spring Break March 9th – 13th</p>	<ul style="list-style-type: none"> Sleep, rest, relax Enjoy time with family and friends Netflix, etc. Exercise Read a good book Do something nice for someone 	
<p>Week 8 March 16th – 20th</p> <p>Video Time = 16 minutes</p> <p>Module 4 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: 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 03.19.26 @ 7:30 am and closes 03.20.26 @ 11:59 pm FINAL EXAM Opens 03.21.26 @7:30 am and Closes 03.22.26 @ 11:59 pm (Modules 1 - 4) Congratulations!! You made it!! Celebrate  	03.18.26

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>	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 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 \(lit.edu\)](#).

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 selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

STARFISH

LIT utilizes 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 responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

COURSE REQUIREMENTS

- A Midterm and Final are required, with two attempts per assessment, and they use Respondus Lockdown Browser. The final score will be an ***average of attempts***.
- Five quizzes will be given using Respondus Lockdown Browser, with two attempts given per assessment. The final score will be an ***average of attempts***.
- Students will complete video quizzes and discussion boards for each unit.
- Students will complete an individual project and a group project. A deduction in points will be given for completing group project without partners.
- Late assignments, **except for the final exam**, will be accepted with a late penalty. Students will receive a zero for assignments not completed.

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.