

BIOL 1322
Nutrition & Diet Therapy
Spring 2025



LAMAR INSTITUTE
OF TECHNOLOGY

INSTRUCTOR CONTACT INFORMATION

Instructor: Melanie Daleo
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Office Location: MPC 216
Office Hours: See Starfish for available office hours
[Click Here for Starfish](#)

CREDIT: 3 semester credit hours (3 hours lecture)

MODE OF INSTRUCTION: Online

PREREQUISITE/COREQUISITE:

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

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

POLICIES

1. Lectures, classroom discussions, activities, and labs promote understanding of key concepts. Please try to avoid unnecessary absences. If you are absent, you must make up the work in the allotted time frame. Students must make up exams the day they return and must make up labs in the morning or after school.
2. Late assignments will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.
3. You must log into Blackboard and access this course at least 3 times per week.
4. Cheating of any type will not be tolerated.
5. Students must use proper netiquette when participating in course emails, assignment submissions, and online discussions.

DROP POLICY

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

STUDENT EXPECTED TIME REQUIREMENT

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.

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

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>.

AI 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 assignment 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 acceptable use of AI / ChatGPT in their courses.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

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

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.

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.

COURSE REQUIREMENTS

1. A Midterm and Final is required, with two attempts given per assessment. The final score will be an **average of attempts**.
2. Students will complete video quizzes for each unit.
3. Students will complete an individual project and a group lab project.
4. Late assignments will be accepted with a deduction as a late penalty.
5. Students will receive a zero for assignments not completed.

BIOL 1322 Tentative Course Schedule

Week	Assignments	Due Date
<p>Week 1 Jan 21st – 24th</p> <p>Video Time = 10m 33 s</p> <p><u>Module 1</u> Nutrition Introduction</p> <p>Chap1: Introduction</p>	<ul style="list-style-type: none"> • Discussion Board 1: Introduction • Syllabus Quiz/Syllabus Acknowledgement • Read Chapter 1 <input type="checkbox"/> Click Here for Chapter 1: Introduction to Nutrition for Nurses • Video Quiz: Introduction to Nutrition & Metabolism (10m 33s) • Read over Individual Project (Nutritional Analysis) <i>Due 03.18.25</i> • Join a group for Group Project: FAD Diets <i>Due 04.29.25</i> 	<p>01.24.25</p> <hr/> <p>01.26.25</p>
<p>Week 2 Jan 27th – 31st</p> <p>Video Time = 15 minutes</p> <p><u>Module 1</u> Nutrition Introduction</p> <p>Chap1: Introduction</p>	<ul style="list-style-type: none"> • Read Chapter 1 <input type="checkbox"/> Click Here for Chapter 1: Introduction to Nutrition for Nurses • 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) • Work on Individual Project (Nutritional Analysis) <i>Due 03.18.25</i> • Work on Group Project: FAD Diets <i>Due 04.29.25</i> 	<p>02.02.25</p>
<p>Week 3 Feb 3rd – 7th</p> <p>Video Time = 13 minutes</p> <p><u>Module 1</u> Nutrition Introduction</p> <p>Chap1: Introduction</p>	<ul style="list-style-type: none"> • Read Chapter 1 <input type="checkbox"/> Click Here for Chapter 1: Introduction to Nutrition for Nurses • Video Quiz: How to Spot a FAD Diet (4m 34s) • Video Quiz: Why are eating disorders so hard to treat? (4m 40 s) • Video Quiz: Hunger & Health (3m 10s) • Work on Individual Project (Nutritional Analysis) <i>Due 03.18.25</i> • Work on Group Project: FAD Diets <i>Due 04.29.25</i> • Quiz 1: Module 1 <i>Opens 02.08.25 and Closes 02.09.25 @ 11:59 PM</i> 	<p>02.07.25</p>
<p>Week 4 Feb 10th – 14th</p> <p>Video Time = 20 Minutes</p> <p><u>Module 2</u> Energy Nutrients</p> <p>Chap 2: Macronutrients Chap 3: Micronutrients</p>	<ul style="list-style-type: none"> • Read Chapter 2 <input type="checkbox"/> Click Here for Chapter 2: A Holistic View of Macronutrients • Read Chapter 3 <input type="checkbox"/> Click Here for Chapter 3: A Holistic View of Micronutrients • 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) • Work on Individual Project (Nutritional Analysis) <i>Due 03.18.25</i> • Work on Group Project: FAD Diets <i>Due 04.29.25</i> 	<p>02.16.25</p>

<p><u>Week 5</u> Feb 17th – 21st</p> <p>Video Time = 13 Minutes</p> <p><u>Module 2</u> Energy Nutrients</p> <p>Chap 2: Macronutrients Chap 3: Micronutrients</p>	<ul style="list-style-type: none"> • 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 • 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 Individual Project (Nutritional Analysis) Due 03.18.25 • Work on Group Project: FAD Diets Due 04.29.25 • Quiz 2: Module 2 Opens 02.22.25 and Closes 02.23.25. @ 11:59 PM 	02.21.25
<p><u>Week 6</u> Feb 24th – 28th</p> <p>Video Time = 33 Minutes</p> <p><u>Module 3</u> Digestive System and Process</p> <p>Chap 4: Digestive Process</p>	<ul style="list-style-type: none"> • Read Chapter 4 Click Here for Chapter 4: The Digestive Process • 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 Individual Project (Nutritional Analysis) Due 03.18.25 • Work on Group Project: FAD Diets Due 04.29.25 	03.02.25
<p><u>Week 7</u> March 3rd – 7th</p> <p>Video Time = 20 Minutes</p> <p><u>Module 3</u> Digestive System and Process</p> <p>Chap 4: Digestive Process</p>	<ul style="list-style-type: none"> • Read Chapter 4 Click Here for Chapter 4: The Digestive Process • Video Quiz: Metabolism & Nutrition 2 (10 m 7s) • Video Quiz: Food Borne Illness (5m 23s) • Video Quiz: Infection & Intoxication (3m 20s) • DUE SOON → Individual Project (Nutritional Analysis) Due 03.18.25 • Work on Group Project: FAD Diets Due 04.29.25 	03.09.25
<p><u>Week 8</u> March 10th – 14th</p> <p>Spring Break</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Sleep, rest, relax <input type="checkbox"/> Enjoy time with family and friends <input type="checkbox"/> Netflix, etc. <input type="checkbox"/> Exercise <input type="checkbox"/> Read a good book <input type="checkbox"/> Do something nice for someone 	
<p><u>Week 9</u> March 17th – 21st</p>	<ul style="list-style-type: none"> • Prepare for Midterm Exam • Midterm Exam: Modules 1, 2, 3 Opens 03.19.25 and Closes 03.21.25 11:59 PM • DUE → Individual Project (Nutritional Analysis) • Work on Group Project: FAD Diets Due 04.29.25 	
<p><u>Week 10</u> Mar 24th – 28th</p>	<ul style="list-style-type: none"> • Read Chapter 6 Click Here for Chapter 6: Special Nutritional Considerations for Neurological Health 	03.30.25

<p>Video Time = 12 Minutes</p> <p>Module 4 Impact of Nutrition on Body System Wellness and Life Stages</p> <p>Chap 6: Neurological Chap 8: Endocrine</p>	<ul style="list-style-type: none"> • Read Chapter 8 → Click Here for Chapter 8: Special Nutritional Considerations for Endocrine Health • Video Quiz: How the food you eat affects your Brain (4m 52s) • Video Quiz: Nutritional Guidance - Endocrine Disorders (6m 43s) • Work on Group Project: FAD Diets Due 04.29.25 	
<p>Week 11 March 31st – April 4th</p> <p>Video Time = 8 Minutes</p> <p>Module 4 Impact of Nutrition on Body System Wellness and Life Stages</p> <p>Chap 10: Hematologic</p>	<ul style="list-style-type: none"> • Read Chapter 10 → Click Here for Chapter 10: Special Considerations for Hematological Health • Video Quiz: Anemia (7m 17s) • Work on Group Project: FAD Diets Due 04.29.25 	04.06.25
<p>Week 12 April 7th – 11th</p> <p>Video Time = 14 Minutes</p> <p>Module 4 Impact of Nutrition on Body System Wellness and Life Stages</p> <p>Chap 12: Cardiovascular</p>	<ul style="list-style-type: none"> • Read Chapter 12 → Click Here for Chapter 12: Special Nutritional Considerations for Cardiovascular Health • Video Quiz: Nutritional Guidance - Cardiovascular (5m 18s) • Video Quiz: Nutrition during Pregnancy (2m 30s) • Video Quiz: Importance of Nutrition during Pregnancy (3m 2s) • Video Quiz: Benefits of Breastfeeding (3m 2s) • Discussion Board: Nutritional Analysis Gallery Walk • Work on Group Project: FAD Diets Due 04.29.25 	04.13.25
<p>Week 13 April 14th – 18th</p> <p>Video Time = 5 Minutes</p> <p>Module 4 Impact of Nutrition on Body System Wellness and Life Stages</p> <p>Chapter 14: Pulmonary</p>	<ul style="list-style-type: none"> • Read Chapter 14: → Click Here for Chapter 14: Special Considerations for Pulmonary Health • Video Quiz: Nutritional Guidance - Respiratory Disorders (4m 5s) • DUE SOON → Group Project: FAD Diets Due 04.29.25 	04.20.25
<p>Week 14 April 21st – 25th</p>	<ul style="list-style-type: none"> • Read Chapter 16 → Click Here for Chapter 16: Special Nutritional Considerations for Renal Health 	04.27.25

<p>Video Time = 10 Minutes</p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness and Life Stages Chapter 16: Renal</p>	<ul style="list-style-type: none"> • Video Quiz: How do your Kidneys work? (3m 55s) • Video Quiz: What causes Kidney Stones? (5m 15s) • DUE SOON → Group Project: FAD Diets Due 04.29.25 	
<p><u>Week 15</u> April 28th – May 2nd</p> <p>Video Time = 10 Minutes</p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness and Life Stages Chapter 18: Gastrointestinal</p>	<ul style="list-style-type: none"> • Read Chapter 18 [-] Click Here for Chapter 18: Special Nutritional Considerations for Gastrointestinal Health • Video Quiz: Nutritional Guidance - Gastrointestinal (5m 32s) • Video Quiz: Gluten (4m 05s) • DUE → Group Project: FAD Diets Due 04.29.25 	05.04.25
<p><u>Week 16</u> May 5th – 9th</p> <p>Video Time = 26 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"> • Read Chapter 20 [-] Click Here for Chapter 20: Special Nutritional Considerations for Musculoskeletal and Integumentary Health • Video Quiz: Nutritional Guidance - Musculoskeletal Disorders (4m 29s) • Video Quiz: How Diet impacts Skin Health (8m 51s) • Video Quiz: What do PEDs do to your body? (3m 15s) • Video Quiz: Performance Enhancing Drugs (9m 2s) • Quiz 3: Module 4 Opens 05.08.25 and closes 05.09.25 @ 11:59 pm 	05.07.25
<p><u>Week 17</u> May 12th – 14th</p>	<ul style="list-style-type: none"> • FINAL EXAM Opens 05.11.25 and Closes 05.12.25 @ 11:59 pm (Modules 1 - 4) • Congratulations!! You made it!! Celebrate 😊🎉 	