

## **BIOL 1322**

### **Nutrition & Diet Therapy**

**Fall 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:** In-Person

#### **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 and a print copy, can be purchased online, or obtained through Eagle Learning Essentials. [Click Here for Eagle Learning Essentials](#)

## POLICIES

1. Lectures, classroom discussion, 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 you return and must make up activities within one week of absence at a day and time scheduled with the instructor.
2. Cell phones should only be visible and in use if being used in an activity designated by instructor. Otherwise, they should be put away and focus should be given to learning and completing activities. *Students who continually use their cellphones for other purposes will lose etiquette points or asked to leave for the day.*
3. Late assignments will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.
4. 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.

## 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>
	<b>100%</b>

\*10% of each activity will be based on etiquette including punctuality, preparedness, participation, and cleanliness

## 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](mailto: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](http://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. Three Quizzes, a Midterm Exam and a Final Exam is required, with two attempts given per assessment. The final score will be an **average of attempts**.
2. Students will complete an individual project and a group project. A deduction in points will be given for completing group project without partners.
3. Late assignments will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.

<b>Week</b>	<b>Assignments</b>	<b>Due Date</b>
<b><u>Week 1</u></b> Aug 26 <sup>th</sup> and 28 <sup>th</sup>  <u>Module 1</u> Nutrition Introduction  <b>Chap1: Introduction</b>	<ul style="list-style-type: none"> <li>Syllabus Quiz/Syllabus Acknowledgement</li> <li><a href="#">Read Chapter 1 → Click Here for Chapter 1: Introduction to Nutrition for Nurses</a></li> <li><b>DRI Calculator Worksheet</b></li> <li><b>Activity: Interpreting Food Labels and Analyzing Diets</b></li> <li>Read over Individual Project (Nutritional Analysis) <i>Due 10.17.25</i></li> <li>Join a group for Group Project: FAD Diets <i>Due 11.14.25</i></li> </ul>	<b>08.31.25</b>  <b>08.26.25</b> <b>08.28.25</b>
<b><u>Week 2</u></b> Sep 2 <sup>nd</sup> and 4 <sup>th</sup>  <u>Module 1</u> Nutrition Introduction  <b>Chap1: Introduction</b>	<ul style="list-style-type: none"> <li><a href="#">Read Chapter 1 → Click Here for Chapter 1: Introduction to Nutrition for Nurses</a></li> <li><b>Interactive Review Games</b></li> <li><b>Dietary Calculations Worksheet</b></li> <li><b>Poster Activity</b></li> <li>Work on Individual Project (Nutritional Analysis) <i>Due 10.17.25</i></li> <li>Work on Group Project: FAD Diets <i>Due 11.14.25</i></li> </ul>	<b>09.04.25</b>
<b><u>Week 3</u></b> Sep 9 <sup>th</sup> and 11 <sup>th</sup>  <u>Module 2</u> Energy Nutrients  <b>Chap 2: Macronutrients</b> <b>Chap 3: Micronutrients</b>	<ul style="list-style-type: none"> <li><a href="#">Read Chapter 2 → Click Here for Chapter 2: A Holistic View of Macronutrients</a></li> <li><a href="#">Read Chapter 3 → Click Here for Chapter 3: A Holistic View of Micronutrients</a></li> <li><b>Quiz 1:</b> Module 1 <i>Opens 09.08.25 and Closes 09.09.25 @ 11:59 PM</i></li> <li><b>Activities: Carbohydrates &amp; Fats</b></li> <li>Work on Individual Project (Nutritional Analysis) <i>Due 10.17.25</i></li> <li>Work on Group Project: FAD Diets <i>Due 11.14.25</i></li> </ul>	<b>09.09.25</b>  <b>09.11.25</b>
<b><u>Week 4</u></b> Sep 16 <sup>th</sup> and 18 <sup>th</sup>  <u>Module 2</u> Energy Nutrients  <b>Chap 2: Macronutrients</b> <b>Chap 3: Micronutrients</b>	<ul style="list-style-type: none"> <li><a href="#">Read Chapter 2 → Click Here for Chapter 2: A Holistic View of Macronutrients</a></li> <li><a href="#">Read Chapter 3 → Click Here for Chapter 3: A Holistic View of Micronutrients</a></li> <li><b>Activities: Protein &amp; Nucleic Acids</b></li> <li>Work on Individual Project (Nutritional Analysis) <i>Due 10.17.25</i></li> <li>Work on Group Project: FAD Diets <i>Due 11.14.25</i></li> </ul>	<b>09.18.25</b>
<b><u>Week 5</u></b> Sep 23 <sup>rd</sup> and 25 <sup>th</sup>  <u>Module 2</u> Energy Nutrients  <b>Chap 2: Macronutrients</b> <b>Chap 3: Micronutrients</b>	<ul style="list-style-type: none"> <li><a href="#">Read Chapter 2 → Click Here for Chapter 2: A Holistic View of Macronutrients</a></li> <li><a href="#">Read Chapter 3 → Click Here for Chapter 3: A Holistic View of Micronutrients</a></li> <li><b>Vitamin &amp; Mineral Matching and Bingo</b></li> <li><b>Goose Chase: Module 2</b></li> <li>Work on Individual Project (Nutritional Analysis) <i>Due 10.17.25</i></li> <li>Work on Group Project: FAD Diets <i>Due 11.14.25</i></li> <li><b>Quiz 2:</b> Module 2 <i>Opens 09.26.25 and Closes 09.27.25. @ 11:59 PM</i></li> </ul>	<b>09.25.25</b>  <b>09.27.25</b>

<p><b>Week 6</b> Sep 30<sup>th</sup> and Oct 2<sup>nd</sup></p> <p><u>Module 3</u> Digestive System and Process</p> <p>Chap 4: Digestive Process</p>	<ul style="list-style-type: none"> <li>• <a href="#">Read Chapter 4</a> <a href="#">Click Here for Chapter 4: The Digestive Process</a></li> <li>• <b>Digestive System Model</b></li> <li>• Work on Individual Project (Nutritional Analysis) <i>Due 10.17.25</i></li> <li>• Work on Group Project: FAD Diets <i>Due 11.14.25</i></li> </ul>	<p><b>10.02.25</b></p>
<p><b>Week 7</b> Oct 7<sup>th</sup> and 9<sup>th</sup></p> <p><u>Module 3</u> Digestive System and Process</p> <p>Chap 4: Digestive Process</p>	<ul style="list-style-type: none"> <li>• <a href="#">Read Chapter 4</a> <a href="#">Click Here for Chapter 4: The Digestive Process</a></li> <li>• <b>Activity: Foodborne Illness</b></li> <li>• <b>DUE SOON</b> → Individual Project (Nutritional Analysis) <i>Due 10.17.25</i></li> <li>• Work on Group Project: FAD Diets <i>Due 11.14.25</i></li> </ul>	<p><b>10.09.25</b></p>
<p><b>Week 8</b> Oct 14<sup>th</sup> and 16<sup>th</sup></p> <p><b>Midterm Exam</b></p>	<ul style="list-style-type: none"> <li>• <b>Activities to prepare for Midterm Exam</b></li> <li>• <b>Midterm Exam:</b> Modules 1, 2, 3 <i>Opens 10.17.25 and Closes 10.18.25 11:59 PM</i></li> <li>• <b>DUE</b> → Individual Project (Nutritional Analysis)</li> <li>• Work on Group Project: FAD Diets <i>Due 11.14.25</i></li> </ul>	<p><b>10.16.25</b></p>
<p><b>Week 9</b> Oct 21<sup>st</sup> and 23<sup>rd</sup></p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness &amp; Life Stages</p> <p>Chap 6: Neurological Chap 8: Endocrine</p>	<ul style="list-style-type: none"> <li>• <a href="#">Read Chapter 6</a> <a href="#">Click Here for Chapter 6: Special Nutritional Considerations for Neurological Health</a></li> <li>• <a href="#">Read Chapter 8</a> <a href="#">Click Here for Chapter 8: Special Nutritional Considerations for Endocrine Health</a></li> <li>• <b>Neuroendocrine Model &amp; Mini-Poster</b></li> <li>• Work on Group Project: FAD Diets <i>Due 11.14.25</i></li> </ul>	<p><b>10.23.25</b></p>
<p><b>Week 10</b> Oct 28<sup>th</sup> and 30<sup>th</sup></p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness &amp; Life Stages</p> <p>Chap 10: Hematologic Chap 12: Cardiovascular</p>	<ul style="list-style-type: none"> <li>• <a href="#">Read Chapter 10</a> <a href="#">Click Here for Chapter 10: Special Considerations for Hematological Health</a></li> <li>• <a href="#">Read Chapter 12</a> <a href="#">Click Here for Chapter 12: Special Nutritional Considerations for Cardiovascular Health</a></li> <li>• <b>Cardiovascular Model &amp; Mini-Poster</b></li> <li>• <b>Interactive Review</b></li> <li>• Work on Group Project: FAD Diets <i>Due 11.14.25</i></li> </ul>	<p><b>10.30.25</b></p>
<p><b>Week 11</b> Nov 4<sup>th</sup> and 6<sup>th</sup></p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness &amp; Life Stages</p> <p>Chapter 14: Pulmonary</p>	<ul style="list-style-type: none"> <li>• Discussion Board: Nutritional Analysis Gallery Walk</li> <li>• <b>DUE SOON</b> → Group Project: FAD Diets</li> <li>• <a href="#">Read Chapter 14:</a> <a href="#">Click Here for Chapter 14: Special Considerations for Pulmonary Health</a></li> <li>• <b>Respiratory Model &amp; Mini-Poster</b></li> </ul>	<p><b>11.06.25</b></p>

<p><b><u>Week 12</u></b> Nov 11<sup>th</sup> and 13<sup>th</sup></p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness &amp; Life Stages</p> <p><b>Chapter 16: Renal</b></p>	<ul style="list-style-type: none"> <li>• <a href="#">Read Chapter 16</a> <a href="#">Click Here for Chapter 16: Special Nutritional Considerations for Renal Health</a></li> <li>• <b>DUE → Group Project: FAD Diets</b> Due 11.14.25</li> <li>• <b>Renal Model &amp; Mini-Poster</b></li> </ul>	<p><b>11.14.25</b> <b>11.13.25</b></p>
<p><b><u>Week 13</u></b> Nov 18<sup>th</sup> and 20<sup>th</sup></p> <p><u>Module 4</u> Impact of Nutrition on Body System Wellness &amp; Life Stages</p> <p><b>Chap 18: Gastrointestinal</b> <b>Chap 20: Musculoskeletal &amp; Integumentary</b></p>	<ul style="list-style-type: none"> <li>• <a href="#">Read Chapter 18</a> <a href="#">Click Here for Chapter 18: Special Nutritional Considerations for Gastrointestinal Health</a></li> <li>• <a href="#">Read Chapter 20</a> <a href="#">Click Here for Chapter 20: Special Nutritional Considerations for Musculoskeletal and Integumentary Health</a></li> <li>• <b>Goose Chase: Gastrointestinal</b></li> <li>• <b>Musculoskeletal Model &amp; Mini-Poster</b></li> <li>• <b>Integumentary Model &amp; Mini-Poster</b> <ul style="list-style-type: none"> <li>• <b>Quiz 3: Module 4</b> Opens 11.21.25 and closes 11.22.25 @ 11:59 pm</li> </ul> </li> </ul>	<p><b>11.20.25</b></p>
<p><b><u>Week 14</u></b> Nov 25<sup>th</sup></p> <p><b>Thanksgiving Holiday</b> Nov 27<sup>th</sup></p>	<ul style="list-style-type: none"> <li>• <b>Group Project Presentations on Tuesday, November 25<sup>th</sup></b></li> <li>• Sleep, rest, relax</li> <li>• Enjoy time with family and friends</li> <li>• Netflix, etc.</li> <li>• Exercise</li> <li>• Read a good book</li> <li>• Do something nice for someone</li> </ul>	
<p><b><u>Week 15</u></b> Dec 2<sup>nd</sup> and 4<sup>th</sup></p> <p><u>Module 4</u> -Pregnancy -Sports Nutrition -Life Stages</p>	<ul style="list-style-type: none"> <li>• <b>Final Exam Review activities</b></li> <li>• <b>Mix and Match Life Stages</b></li> </ul>	<p><b>12.04.25</b></p>
<p><b><u>Week 16</u></b> December 8<sup>th</sup> <b>FINAL EXAM</b></p>	<ul style="list-style-type: none"> <li>• <b>FINAL EXAM</b> Opens 12.06.25 and Closes 12.08.25 @ 11:59 pm (Modules 1 - 4)</li> <li>• Congratulations!! You made it!! Celebrate 😊 🎉</li> </ul>	<p><b>12.08.25</b></p>