# BIOL 1322_3A1

## Spring 2026

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

**MODE OF INSTRUCTION**
Face to Face

**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

**INSTRUCTOR CONTACT INFORMATION**

> Instructor:     Melanie Daleo
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> 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. 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 they return and must make up labs within one week of absence at a day and time scheduled with the instructor.
2. Late assignments will be accepted with a deduction as a late penalty, with the exception of interactive quizzes given at the beginning of class. 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.

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

| Week | Assignments | Due Date |
|---|---|---|
| **Week 1**<br>Jan 20th and 22nd<br><br>Module 1<br>Nutrition Introduction<br><br>Chap1: Introduction | • Syllabus Quiz/Syllabus Acknowledgement<br>• Read Chapter 1➡Click Here for Chapter 1: Introduction to Nutrition for Nurses<br>• **DRI Calculator Worksheet**<br>• **Activity: Interpreting Food Labels and Analyzing Diets**<br>• Read over Individual Project (Nutritional Analysis) *Due 03.06.26*<br>• Join a group for Group Project: FAD Diets *Due 04.20.26* | **01.25.26**<br><br><br>**01.22.26** |
| **Week 2**<br>Jan 27th and 29th<br><br>Module 1<br>Nutrition Introduction<br><br>Chap1: Introduction | • Read Chapter 1→Click Here for Chapter 1: Introduction to Nutrition for Nurses<br>• **Interactive Review Games**<br>• **Dietary Calculations Worksheet**<br>• **FAD Diets Poster Activity**<br>• Work on Individual Project (Nutritional Analysis) *Due 03.06.26*<br>• Work on Group Project: FAD Diets *Due 04.20.26* | **01.29.26** |
| **Week 3**<br>Feb 3rd and 5th<br><br>Module 2<br>Energy Nutrients<br><br>Chap 2: Macronutrients<br>Chap 3: Micronutrients | • Read Chapter 2 → Click Here for Chapter 2: A Holistic View of Macronutrients<br>• Read Chapter 3 → Click Here for Chapter 3: A Holistic View of Micronutrients<br>• **Quiz 1:** Module 1 *Opens 02.06.26 and Closes 02.07.26 @ 11:59 PM*<br>• **Activities: Carbohydrates & Fats**<br>• Work on Individual Project (Nutritional Analysis) *Due 03.06.26*<br>• Work on Group Project: FAD Diets *Due 04.20.26* | **02.07.26**<br><br>**02.05.26** |
| **Week 4**<br>Feb 10th and 12th<br><br>Module 2<br>Energy Nutrients<br><br>Chap 2: Macronutrients<br>Chap 3: Micronutrients | • Read Chapter 2 → Click Here for Chapter 2: A Holistic View of Macronutrients<br>• Read Chapter 3 → Click Here for Chapter 3: A Holistic View of Micronutrients<br>• **Activities: Protein & Nucleic Acids**<br>• Work on Individual Project (Nutritional Analysis) *Due 03.06.26*<br>• Work on Group Project: FAD Diets *Due 04.20.26* | **02.12.26** |
| **Week 5**<br>Feb 17th and 19th<br><br>Module 2<br>Energy Nutrients<br><br>Chap 2: Macronutrients<br>Chap 3: Micronutrients | • Read Chapter 2 → Click Here for Chapter 2: A Holistic View of Macronutrients<br>• Read Chapter 3 → Click Here for Chapter 3: A Holistic View of Micronutrients<br>• **Vitamin & Mineral Matching and Bingo**<br>• **Goose Chase: Module 2**<br>• Work on Individual Project (Nutritional Analysis) *Due 03.06.26*<br>• Work on Group Project: FAD Diets *Due 04.20.26*<br>• **Quiz 2:** Module 2 Opens *02.20.26 and Closes 02.21.26. @ 11:59 PM* | **02.25.26**<br><br>**02.21.26** |
| **Week 6**<br>Feb 24th and 26th | • Read Chapter 4 → Click Here for Chapter 4: The Digestive Process<br>• **Digestive System Model** |  |

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| Module 3<br>Digestive System and Process<br>**Chap 4: Digestive Process** | • **DUE SOON →** Individual Project (Nutritional Analysis) *Due 03.06.26*<br>• Work on Group Project: FAD Diets *Due 04.20.26* | **02.26.26** |
| **Week 7**<br>**March 3rd and 5th**<br>Module 3<br>Digestive System and Process<br>**Chap 4: Digestive Process** | • Read Chapter 4 → Click Here for Chapter 4: The Digestive Process<br>• **Activity: Foodborne Illness**<br>• **DUE →** Individual Project (Nutritional Analysis) Due *03.06.26*<br>• Work on Group Project: FAD Diets *Due 04.20.26* | **03.05.26** |
| **Spring Break**<br>March 9th – 13th | • Sleep, rest, relax<br>• Enjoy time with family and friends<br>• Netflix, etc.<br>• Exercise<br>• Read a good book<br>• Do something nice for someone | |
| **Week 8**<br>**March 17th and 19th**<br>**Midterm Exam** | • **Activities to prepare for Midterm Exam**<br>• **Midterm Exam:** Modules 1, 2, 3 *Opens 03.20.26 and Closes 03.21.26 11:59 PM*<br>• Work on Group Project: FAD Diets *Due 04.20.26* | **03.19.25** |
| **Week 9**<br>**March 24th and 26th**<br>Module 4<br>Impact of Nutrition on Body System Wellness & Life Stages<br>**Chap 6: Neurological**<br>**Chap 8: Endocrine** | • Read Chapter 6 → Click Here for Chapter 6: Special Nutritional Considerations for Neurological Health<br>• Read Chapter 8 → Click Here for Chapter 8: Special Nutritional Considerations for Endocrine Health<br>• **Neuroendocrine Activities**<br>• Work on Group Project: FAD Diets *Due 04.20.26* | **03.26.26** |
| **Week 10**<br>**March 31st and April 2nd**<br>Module 4<br>Impact of Nutrition on Body System Wellness & Life Stages<br>**Chap 10: Hematologic**<br>**Chap 12: Cardiovascular** | • Read Chapter 10 → Click Here for Chapter 10: Special Considerations for Hematological Health<br>• Read Chapter 12 → Click Here for Chapter 12: Special Nutritional Considerations for Cardiovascular Health<br>• **Cardiovascular Activities**<br>• **Interactive Review**<br>• Work on Group Project: FAD Diets *Due 04.20.26* | **04.02.26** |
| **Week 11**<br>**April 7th and 9th**<br>Module 4<br>Impact of Nutrition on Body System Wellness & Life Stages<br>**Chapter 14: Pulmonary** | • Discussion Board: Nutritional Analysis Gallery Walk<br>• **DUE SOON →** Group Project: FAD Diets<br>• Read Chapter 14: → Click Here for Chapter 14: Special Considerations for Pulmonary Health<br>• **Respiratory Activities** | **04.09.26** |
| **Week 12**<br>**April 14th and 16th** | • Read Chapter 16 → Click Here for Chapter 16: Special Nutritional Considerations for Renal Health | **04.16.26** |

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| **Module 4**<br>Impact of Nutrition on Body System Wellness & Life Stages<br>**Chapter 16: Renal** | • **DUE SOON → Group Project: FAD Diets** *Due 04.20.26*<br>• **Renal Model & Mini-Poster** | |
| **Week 13**<br>April 21ˢᵗ and 23ʳᵈ<br><br>Module 4<br>Impact of Nutrition on Body System Wellness & Life Stages<br><br>**Chap 18: Gastrointestinal**<br>**Chap 20: Musculoskeletal & Integumentary** | • Read Chapter 18 →Click Here for Chapter 18: Special Nutritional Considerations for Gastrointestinal Health<br>• Read Chapter 20 →Click Here for Chapter 20: Special Nutritional Considerations for Musculoskeletal and Integumentary Health<br>  • **DUE SOON → Group Project: FAD Diets** *Due 04.20.26*<br>  • **Musculoskeletal & Integumentary Activities**<br>• **Quiz 3:** Module 4 *Opens 11.21.25 and closes 11.22.25 @ 11:59 pm* | **04.23.26** |
| **Week 14**<br>April 28ᵗʰ and 30ᵗʰ<br><br>Module 4<br>-Pregnancy<br>-Sports Nutrition<br>-Life Stages | • Group Project Presentations on Tuesday, April 28th<br>• **Life Stages activities** | |
| **Week 15**<br>May 5ᵗʰ | • **Final Exam Review activities** | **05.05.26** |
| **Week 16**<br>May 11ᵗʰ – 13ᵗʰ<br>FINAL EXAM | • FINAL EXAM Opens 05.09.26 and Closes 05.11.26 @ 11:59 pm *(Modules 1 - 4)*<br>• Congratulations!! You made it!! Celebrate 😊 🎉 | **05.11.26** |

**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. 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 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.

- o If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete.
- o 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:**

- o Using technology or electronic devices including, but not limited to, iPads, phones, smart glasses, earbuds, smartwatches.
- o Leaving the testing environment or face missing from frame or obscured.
- o Noises that might indicate external help.
- o 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**
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 in-person lab experiments.
3. Students will complete a group lab project.
4. Late assignments will be accepted, but a late penalty will be applied. Interactive quizzes given at the beginning of class cannot be made up. Students will receive a zero for assignments not completed.
5. Cell phones should be visible and in use only during an activity designated by the instructor. Otherwise, they should be put away, and focus should be given to safely completing lab activities. *Students who continually use their cellphones for purposes other than class will lose etiquette points or be asked to leave for the day.*
6. 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.