# Biology 3301 Human Nutrition (3 credits) Summer 01 2023 Sul Ross State University

Instructor:Anne Marie HilscherOffice Hours:Virtual by appt.Email:ahilscher@sulross.eduPhone:432-837-8820

Required Textbook online: <u>Nutrition: Science and Everyday Application</u>

**Course Description:** This course will cover the scientific principles of human nutrition with an emphasis on nutrients, metabolism, and factors affecting utilization in the human body throughout the life cycle. This also includes the influence of food selection on health and evaluation of personal diets.

## Course Objectives (CO): By the end of this course students will:

- **CO1.** State the importance of proper nutrition in maintaining good health.
- **CO2.** Explain the importance and role of carbohydrates, lipids, proteins, and alcohol and effects on human health.
- **CO3.** Explain the importance and role of vitamins and minerals and their effects on human health.
- **CO4.** Demonstrate how metabolism and weight management relate to nutritional fitness.
- **CO5.** Plan diets based on the nutritional requirements of humans of different ages, genders, and physical conditions (pregnancy, endurance athletes, etc.).

**Grading:** Grades will be distributed according to the table below. If you have a valid excuse to miss an assignment, you must contact me **within 24 hours** of the due date. Failure to do so will result in a zero – no exceptions. Due dates are posted, so it is your responsibility to complete assignments on time.

TOTAL	560 points	100 %
Final Exam	100	<u>18 %</u>
Module Responses (5 @ 20 pts each)	120	21 %
Module Activities (5 @ 25 pts each)	125	22 %
Module Quizzes (9 @ 20 pts each)	180	32 %
Student Introduction	20	4 %
Syllabus Quiz	15	3 %

#### Module Quizzes (9 @ 20 points each): 180 points

Module quizzes include questions over the unit readings. Though the number of questions per quiz may vary, all quizzes are worth 20 points each. Two attempts are allowed, but the 2<sup>nd</sup> score (not the highest) will be recorded.

### Module Activities: (5 @ 25 points each) 125 points

Each module will include one hands-on/self-directed activity. Each activity is intended to apply the knowledge gained from the readings.

#### Module Responses: (5 @ 20 points each) 120 points

Module responses may be in the form of responses to a video clip, podcast, article, statement, or the like. Rather than merely restating information, I expect you to use the following thinking skills: interpret,

analyze, compare and contrast, examine, synthesize, generate, organize, evaluate, etc. I require that you submit a thoughtful, researched response. I expect that students adhere to acceptable codes of ethical, personal, and civil conduct when posting responses.

Final Exam: (1 @ 100 points)

The comprehensive final exam will include questions from the module quizzes.

DATE	LECTURE TOPIC	Unit & Pages in Online Text	
WEEK 1, MODULE 01			
June 05-11	Designing a Healthy Diet	1, pp 9-50	
June 11	The Digestive System	3, pp 126-141	
JUNE 11	STUDENT INTRO, SYLLABUS QUIZ, MODULE QUIZZES, ACTIVITY, & RESPONSE DUE		
WEEK 2, MODULE 02			
June 12-	Carbohydrates	4, pp 151-207	
June 18	Lipids	5, pp 215-255	
	Proteins	6, pp 263-298	
JUNE 18	MODULE QUIZZES, ACTIVITY, & RESPONSE DUE		
WEEK 3, MODULE 03			
June 19-	Vitamins and Minerals, Part 01	8, pp 383-424	
June 25	Vitamins and Minerals, Part 02	9, pp 433-466	
June 25	MODULE QUIZZES, ACTIVITY, & RESPONSE DUE		
WEEK 4, MODULE 04			
June 26-	Nutrition and Physical Activity	10, pp 475-493	
July 02	Nutrition Throughout the Lifespan	11, pp 503-542	
JULY <b>02</b>	MODULE QUIZZES, ACTIVITY, & RESPONSE DUE		
WEEK 5, MODULE 05			
July 03-	Personal Approaches to Nutrition	not in text	
July 07	Nutrition Wrap-Up		
July 07	MODULE ACTIVITY, RESPONSE, & FINAL EXAM DUE		

STUDENT LEARNING OUTCOMES (SLOS) The biology student graduating with a BS in Biology should be able to:

- 1) The student will be able to demonstrate an understanding of basic biological concepts, including but not limited toevolution via natural selection, cell theory, and the role and function of DNA.
- 2) The student will be able to demonstrateutilization of various field techniques toward addressing scientific questions in the specific discipline. These field techniques can include, but are not limited to, plant collection and processing, various animal collection techniques, ecological surveying and sampling, and biodiversity indexing.
- 3) The student will be able to use biological instrumentation to solve biological problems using standard observational strategies.
- 4) The student will develop writingskills by summarizing and critiquing recent relevant biological literature.

#### **CORE OBJECTIVES ADDRESSED:**

- 1) Communication Skills Students will effectively communicate the results of scientificinvestigations, using oral, written, and visual communication, either in group discussions or on written exams.
- 2) CriticalThinking Skills Students will include creative thinking, innovation, inquiry, and analysis required to relate new information with previous information in a way that demonstrates the diversity and similarity due to evolutionary ancestry.
- 3) Empirical and Quantitative Skills Students will use basic math skills to solve problems (e.g., related to genetic outcomes, cellular energy production, and probability) resulting in informed conclusions.
- 4) Teamwork Skills Students will work effectively with others to support a shared goal during lab sessions on activities, such as dissections, problem solving, and other experimental procedures.

**MARKETABLE SKILLS:** A student getting a degree in the biological sciences would be expected to acquire the following marketable skills by graduation.

- 1) Students will be able to organize, analyze, and interpret data.
- 2) Students will be proficient at using presentation software.
- 3) Students will acquire experience in managing time and meeting deadlines.
- 4) Students will gain the ability to speak effectively and write concisely about scientific topics.
- 5) Students will acquire experience and guidance in the development of professional email correspondence.

**SRSU Attendance Policy.** Roll will be taken during each class meeting. The SRSU catalog states "The instructor may, at their discretion, drop a student from a course when the student has a total of nine absences in lecture and three absences in lab. An absence is defined as non-attendance in fifty minutes of class. Exams must be taken on the scheduled exam date that will be announced at least a week prior unless other arrangements have been made with theinstructor. Exams must be made up within a week form the scheduled date. RULE TO LIVE BY: DON'T MISS ANY CLASSES! If you absolutely must miss, make sure you let me know before.

**SRSU Distance Education Statement.** Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are in the student handbook.

Academic Integrity. Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation is appreciated. Examples of academic dishonesty include but are not limited to: Turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, orquiz when collaboration is forbidden.

**SRSU Disability Services.** SRSU Disability Services. Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Alpine students seeking accessibility/accommodations services must contact Mary Schwartze Grisham, M.Ed., LPC, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email <a href="maschwartze@sulross.edu">mschwartze@sulross.edu</a> Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing <a href="maschwartze@sulross.edu">address is P.O. Box C-122</a>, SUI Ross State University, Alpine. Texas, 79832.

**Technical Support.** SRSU 24/7 Blackboard Technical Support: Toll Free: 888.837.6055. Email: <a href="mailto:blackboardsupport@sulross.edu">blackboardsupport@sulross.edu</a>

**SRSU Library Services.** The Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, <a href="mailto:library.sulross.edu">library.sulross.edu</a>. Off-campus access requires your LoboID and password. Check out materials using your photo ID. Librarians are a tremendous resource foryour coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

The Southwest Texas Junior College (SWTJC) Libraries at Uvalde, Del Rio, and Eagle Pass offer additional access to library spaces and resources. Del Rio, Eagle Pass, and Uvalde students may also use onlineresources available through SWTJC website, <a href="https://library.swtjc.edu">https://library.swtjc.edu</a>. The SWTJC Libraries serve as pick-up locationsfor Interlibrary Loan (ILL) and Document Delivery from the Alpine campus.

Classroom Climate of Respect. Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose and disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another based on race, religion, ethnicity, age, gender, national origin, or sexual preference. Still, we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.

**Diversity Statement. I** aim to create a learning environment for my students that supports a diversity of thoughts, perspectives, andexperiences, and honors your identities (including race, gender, class, sexuality, religion, ability, socioeconomic class, age, nationality, etc.). I also understand that the crisis of COVID, economic disparity, and health concerns, or even unexpected life events could impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create an inclusive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you.