

SUL ROSS STATE UNIVERSITY Spring 2021
BIOL 2320 Pathophysiology (3 credits)

INSTRUCTOR: Ms. Anne Marie Hilscher

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On-line Office Hours: Tues/Thurs 10:00 am-11:00am; and by appt. in Blackboard's "Meeting Room"

CLASS WEBSITE: [HTTP://SULROSS.BLACKBOARD.COM](http://SULROSS.BLACKBOARD.COM)

COURSE DESCRIPTION:

This online course builds on knowledge obtained in anatomy and physiology courses which provides information related to basic pathological processes that underlie diseases commonly found in clinical practice. The basics of each pathological process are explained and illustrated by exploration of common diseases caused by that pathological process. Introduction of selected pathophysiologic concepts across the life span will be initiated in this course with emphasis on diagnostic data related to the concept.

****REQUIRED TEXTBOOKS:**

Grossman, Sheila, C., and Porth, Carol Mattson. *Porth's Pathophysiology*. Philadelphia: Wolters Kluwer, 9th Edition, 2014. *The textbook is required reading. It is well written with numerous diagrams and illustrations. I do not intend that you master the details of all the information in the book, but I expect you to know where to find answers to your questions.*

Pagana, Kathleen, Pagana, D, and Pagana, Theresa, *Mosby's Diagnostic and Laboratory Test Reference*. 13th Edition, 2017 St. Louis: Mosby/Elsevier.

COURSE LEARNING OBJECTIVES:

Upon completion of assignments in this course, the student will:

1. Demonstrate understanding of pathological processes and how these changes produce disease.
2. Differentiate the following types/categories of disease/pathology that provide the basis for planning and implementing health care including:
 1. Inherited or Familial Diseases
 2. Congenital Diseases
 3. Toxic Diseases
 4. Inflammation
 5. Infectious Diseases
 6. Traumatic Diseases
 7. Degenerative Diseases
 8. Allergic Diseases
 9. Auto-immune Diseases
 10. Neoplastic Diseases
 11. Nutritional Diseases
 12. Metabolic Diseases
 13. Molecular Diseases
 14. Psychosomatic Diseases
 15. Factitious Disease
 16. Iatrogenic Disease
3. Relate disease clinical referents/signs and symptoms to laboratory findings and to their underlying pathology.
4. Use knowledge of genetic inheritance, environment, lifestyle choices and other identified antecedents/risk factors that contribute to disease development.
5. Recognize the presence and effects of compensatory mechanisms in response to major pathological alterations.

6. Apply knowledge of variables affecting the healing process in tissues and organ systems to management of common diseases and injuries.
7. Describe best safety practices to assure accuracy of obtaining diagnostic data required to identify the disease process and the magnitude/extent of the disease.
8. Differentiate between life span changes that occur with selected pathophysiologic concepts.

MARKETABLE SKILLS FOR THE DEPARTMENT OF NURSING

The following marketable skills and dissemination plan has been submitted to the Texas Higher Education Board after approval from Assistant Vice President for Institutional Effectiveness at Sul Ross State University:

Students will:

1. develop inquiry skills to evaluate situations (Sense of Inquiry);
2. develop communication skills to evaluate situations (Communication Skills);
3. develop research skills to promote their lifelong learning (Continuous Lifelong Learning); and
4. comport themselves verbally and visually in a professional manner (Professionalism).

Plan for Dissemination:

Students learn the marketable skills by first being exposed to them in all course syllabi. Each of the marketable skills is closely observed and evaluated by clinical faculty and preceptors as students progress through the educational program. Students hone their research and communication skills through assignments and activities in multiple classes.

RECOMMENDED RESOURCES:

Center for Disease Control Website: <http://www.cdc.gov/>

American Diabetes Association website: <http://www.diabetes.org/>

Medscape: <http://www.medscape.com>

National Institutes of Health website: <http://www.nlm.nih.gov>

National Stroke Association website: <http://www.stroke.org/>

National Institute of Allergy and Infectious Diseases (NIAH): <https://www.niaid.nih.gov/>

STUDENT REQUIREMENTS:

Students in this course are expected to:

1. Complete weekly assignments with current and relevant data. Unit objectives, weekly assignments, and relevant resources will be placed in a weekly folder.
2. Read textbook assignments and utilize other resources in your weekly folder to acquire information that will assist the learning process.
3. Demonstrate learning behavior, application of knowledge in case studies and class discussion, interpersonal skills, teamwork skills, appropriate writing skills and professional communication when completing course requirements.

COURSE ASSIGNMENTS:

DISEASE CATEGORY DEFINITIONS (50 points). Students will define and differentiate among 16 types of disease.

MODULES. The course consists of five MODULES, each approximately three weeks long. Students will be responsible for weekly folders within each module and complete the readings, assignments, case studies, quizzes and/or exams by the due dates. Resources including PowerPoints from your textbook and other sources also may be placed in each folder. Content items may include the following:

- **Readings.** Students are expected to read all the selected passages each week. Students may refer to these readings during the practice quiz (below).
- **Module Reflection (5 @ 10 points).** Reflective writing is different from most other forms of academic writing because it does not require that you cite sources. Instead, it calls on you to express your own views on an experience, even though you may have "experienced" it only in print or on the screen. Reflective writing is designed to help you learn. This type of writing also provides an opportunity to express *what* you think and *how* and *why* you think that way. **All reflections must demonstrate an understanding of class content and an honest, personal, connection to the module's material.** *Points will be deducted for incomplete or late submissions.*
- **Practice Quiz (ungraded).** The practice quizzes will test students' knowledge and comprehension over the weekly concepts. The quizzes will have unlimited attempts and are ungraded.
- **Case Study Discussions (5 @ 20 points).** Each module will contain one Case Study. The major focus for each case will relate to anatomical and physiological changes that occur during the disease and may include diagnostic data that reflect the condition. Students will discuss the case studies in Blackboard's Discussion Board and are required to (1) answer the questions AND (2) respond to two (2) other posts. Discussion postings are seen by everyone in the class so please respect each other and take this opportunity to learn from each other. The initial answers are worth a total of 12 points. Responses to peers are worth a total of 8 points. No points will be earned for discussion messages that are posted after the deadline. Points will be awarded based on the quality of the contribution, not necessarily the quantity of words.
- **Module Exam (5 @ 50 points each).** Each module exam will cover the material from the readings, additional module resources, and the practice quizzes. Questions can be derived from true and false questions, multiple choice questions and multiple response questions. You may also be asked to identify components of an anatomical structure. If you are unable to take the examination at the specified time, notify the instructor in advance.

CONCEPT ANALYSIS (100 points). Your major written assignment for this course is a professional paper related to an analysis for your selected pathophysiologic concept. You will select one age group to research and present pertinent information in that category. That age group can be infant (birth to 1 year of age); early childhood (1 year to 6 years of age); late childhood (6 years to puberty); adolescence; adult; and or the geriatric patient. ***The paper must be a minimum of six pages without the bibliography.*** Detailed information will be provided in class.

CLASS SCHEDULE:

Week One: January 11 -15

Intro to Course & Module 1 Concepts of Health & Disease (Chapter 1); **Definitions due January 18**

Week Two: January 18-22

Module 1 Cell Adaptation; Genetic Disorders; Neoplasia (Chapters 5, 7, 8)

Week Three: January 25-29

Module 1 Disorders of Red Blood Cells, White Blood Cells, Lymphoid Tissues (Chapters 27-28)

MODULE 1 EXAM

Week Four: February 01-05

Module 2 Mechanisms of Infectious Disease; Adaptive Immunity (Chapters 12-13)

Week Five: February 08-12

Module 2 Inflammation, Tissue Repair, and Wound Healing (Chapter 14)

Week Six: February 15-19

Module 2 Disorders of Immune Response (Chapter 15)

MODULE 2 EXAM

Week Seven: February 22-26

Module 3 Structure & Function of Cardiovascular System; Disorders of Blood Flow (Chapters 29-30)

Week Eight: March 01-05

Module 3 Disorders of Blood Pressure; Disorders of Cardiac Function (Chapters 31-32)

Week Nine: March 08 – 12 SPRING BREAK

Week Ten: March 15-19

Module 3 Heart Failure and Shock; Disorders of Ventilation & Gas Exchange (Chapters 34, 37)

MODULE 3 EXAM

Week Eleven: March 22-26

Module 4 Structure & Function of Kidney; Disorders of Renal Function (Chapters 38, 41)

Week Twelve: March 29-April 02

Module 4 Chronic Kidney Disease; Gastrointestinal Function (Chapters 42, 45)

Week Thirteen: April 05-09

Module 4 Disorders of Hepatobiliary & Exocrine Pancreas Function (Chapter 46)

MODULE 4 EXAM

Week Fourteen: April 12-16

Module 5 Disorders of Motor Function; Disorders of Brain Function (Chapters 19-20)

Week Fifteen: April 19-23

Module 5 Disorders of Thought, Emotion, & Memory (Chapter 22)

MODULE 5 EXAM

Week Sixteen April 26-30

Wrap-up & Review; **Concept Analysis due April 26 by 11:59 PM**

Week Seventeen FINAL EXAM WEEK

GRADING POLICY:

Disease Category Definitions	50
Module Exams	250
Module Reflections	50
Case Studies	100
Concept Analysis	100
TOTAL	550

STUDENT/FACULTY EXPECTATIONS IN THE TEACHING/LEARNING PROCESS:

Learning is a shared endeavor based upon respectful and collaborative relationships between students and faculty. The learning activities designed for this course were developed based upon the following:

- 1) As adult learners we are partners in learning.
- 2) Faculty members serve as a mentor, resource, guide, or coach and professional peer.
- 3) Our work and life experiences differ and serve to enrich our individual and mutual learning.
- 4) Each member of the class is committed to preparing for and successfully completing class learning activities.
- 5) Each member of the class will organize time, learning goals, work schedules, and family arrangements to fully participate in the course and assignment activities.
- 6) Each member of the class is able to use computer technology and access resources via the Internet and other mobile technologies as needed for this and other courses.

COMMUNICATIONS:

- **Announcements** – Check announcements each time you log onto the course.
- **Course email** – Check course email frequently for communications and make sure that your email address is current. The instructor will respond to inquiries and comments within 24 hours Monday-Friday.
- **Use of technology:** If you have any technical questions, problems, or concerns with Blackboard, do not spend more than 15 minutes on any technical problems. Seek help immediately. Contact 24-7 Help Desk at: 1-888-837-2882 and/or techassist@sulross.edu.
- **Responses to emails and course postings:** Please respond to faculty requests and/or communications within 24 hours. Use course or Sul Ross email. Messages received on the weekends or holidays will be answered by the next working day.

- **Writing and use of APA:** All written assignments and bulletin board postings will be submitted using the American Psychological Association (APA) Guidelines, as indicated by faculty.
<http://owl.english.purdue.edu/owl/resource/560/01>

PARTICIPATION:

- Readings and learning activities relevant to the weekly topic are identified in the course schedule and weekly folders.
- Scholarly and knowledgeable participation requires that you read your assigned readings prior to joining the class discussions.
- An online course requires participation in all areas for accurate evaluation of performance, including responding to faculty requests or communications.
- If you have an emergency and cannot attend a class meeting or complete an assignment by the due date, you must contact your faculty by phone, email, or text as soon as possible and plan to make up the assignments.
- Blackboard course platforms have a tracking feature. This feature quantifies how often and when students are active in the course and provides information if the student has accessed different pages of the course. The Blackboard tracking function may be utilized to verify student online participation.

RULES OF NETIQUETTE:

The term “netiquette” refers to written and unwritten rules regarding appropriate communication on the Internet. It applies primarily to interactions on the course Discussion Board, individual and group assignments, and e-mail communications.

1. Help create a community of scholars by encouraging a cooperative win-win attitude in which all members of the class are willing to work together, each contributing in their own way.
2. Be courteous and respectful to students and faculty in the course.
 - a. There is a difference between making a statement that is a critical appraisal of an idea and criticizing someone for their point of view.
 - b. Be careful with the tone of what you are communicating, as with sarcasm and subtle humor; one person’s joke may be another person’s insult.
 - c. Do not use all caps in the message box (it is considered shouting).
 - d. Do not use language that is inappropriate for a classroom setting or prejudicial in regard to gender, race or ethnicity.
3. Be helpful and be sure to do your part in an online class or in group work so that assignments can be completed according to the course schedule.
4. Common courtesy and good manners, along with the use of proper grammar, sentence structure, and correct spelling, are essential when taking an online course.
 - a. Use meaningful titles in the Subject line. For e-mail, include the course number.
 - b. Use the person’s name you are addressing as a greeting in the first line of the message. This helps ensure that you are writing to the intended person (group).
 - c. Close the posting by writing your full name at the end of the message.
5. Discussion Boards are public, and the University archives all materials. Do not post anything too personal, as all students in the class and your instructor will see what you write.
 - a. Keep the messages you post to the Discussion Board relevant to the course and assignment and provide a rationale, including references as appropriate, to support your point of view.
 - b. Avoid duplication. Read the previous discussions before you comment or ask a question, as the information may have already been covered.
 - c. When posting a response, make sure that you identify the post to which you are responding.

- d. If the topic you plan to address is already covered under an existing thread, do not start a new thread.
 - e. When responding to a specific comment, quote only the relevant part of the comment and stay focused on the assignment.
 - f. Try not to lurk, meaning you are just reading and not participating.
6. Quality of online communications/postings is important.
- a. It is not acceptable to present work or ideas of others as your own. Use APA format when you quote directly from a source; use quotation marks and provide the original author's name, year, and page or location in the body of the narrative. When you paraphrase a source—using your own words to explain your understanding of another's ideas or work—provide author and year in the body of the narrative. At the end of the posting provide the complete reference using APA format.
 - b. If the posting is going to be long, use paragraphs.
 - c. Do not overuse acronyms and abbreviations like you use in text messaging. Some participants may not be familiar with acronyms and abbreviations.
 - d. Just as you would proofread a formal paper, before posting
 - i. Read what you have written for content;
 - ii. Rethink what you have written for tone;
 - iii. Reread what you have written for organization and coherence; and
 - iv. Revise what you have written for grammar, punctuation, and mechanics.
 - v. Once you submit your work, discussion, or e-mail, you cannot change what you have written.
7. Do not send large files, since someone in your class may have a relatively slow internet connection or limited server capacity.
8. Be sure to use a reliable computer security system with functioning anti-virus software. Check for viruses when sending and sharing files.
9. Be patient if you do not get an immediate response to your postings, as others may be on a different schedule. If it is urgent, contact other students or faculty by e-mail.

MANDATORY UNIVERSITY STATEMENTS:

Academic Honesty Policy: The University expects all students to engage in all academic pursuits in a manner that is beyond reproach and to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. The University may initiate disciplinary proceedings against a student accused of any form of academic dishonesty, including but not limited to, cheating

on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials. Academic Dishonesty includes:

1. Copying from another student's test paper, laboratory report, other report, or computer files, data listings, and/or programs, or allowing another student to copy from same.
2. Using, during a test, materials not authorized by the person giving the test.
3. Collaborating, without authorization, with another person during an examination or in preparing academic work.
4. Knowingly, and without authorization, using, buying, selling, stealing, transporting, soliciting, copying, or possessing, in whole or in part, the contents of a non-administered test.
5. Substituting for another student; permitting any other person, or otherwise assisting any other person to substitute for oneself or for another student in the taking of an examination or test or the preparation of academic work to be submitted for academic credit.
6. Bribing another person to obtain a non-administered test or information about a non-administered test.

7. Purchasing or otherwise acquiring and submitting as one's own work any research paper or other writing assignment prepared by an individual or firm. This section does not apply to the typing of a rough and/or final version of an assignment by a professional typist.
8. "Plagiarism" means the appropriation and the unacknowledged incorporation of another's work or idea in one's own written work offered for credit.
9. "Collusion" means the unauthorized collaboration with another person in preparing written work offered for credit.
10. "Abuse of resource materials" means the mutilation, destruction, concealment, theft or alteration of materials provided to assist students in the mastery of course materials.
11. "Academic work" means the preparation of an essay, dissertation, thesis, report, problem, assignment, or other project that the student submits as a course requirement or for a grade.

All academic dishonesty cases may be first considered and reviewed by the faculty member. If the faculty member believes that an academic penalty is necessary, he/she may assign a penalty, but must notify the student of his/her right to appeal to the Department Chair, the Associate Provost/Dean, and eventually to the Provost and Vice President for Academic Affairs before imposition of the penalty. At each step in the process, the student shall be entitled to written notice of the offense and/or the administrative decision, an opportunity to respond, and an impartial disposition as to the merits of his/her case.

In the case of flagrant or repeated violations, the Vice President for Academic Affairs may refer the matter to the Dean of Students for further disciplinary action. No disciplinary action shall become effective against the student until the student has received procedural due process except as provided under Interim Disciplinary Action.

AMERICANS WITH DISABILITIES ACT (ADA) STATEMENT:

Sul Ross State University is committed to compliance with the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973. Qualified students with disabilities needing academic or other accommodations to facilitate full participation in our programs, services and activities should contact the Accessibilities Coordinator, Ferguson Hall Room 112, Monday – Friday 8:00 a.m. – 5:00 p.m., 432-837-8203 at the Alpine campus. At the Uvalde Campus, Room C102, Monday – Friday 8:00 a.m.- 5:00 p.m.

ONLINE COURSES:

Web courses (offered online) are not self-paced and require considerable work in order to meet requirements. Students should be prepared to devote approximately 12 hours per week to accomplish the work required for a 3-hour class (i.e. student should devote approximately the same study time for an online course as would be spent in a regular class with outside work requirements—a measure generally calculated at 3 hours outside work for each hours in class.) Students MUST have a reliable high-speed internet connection available on a regular basis for course work and other assignments whenever University computer laboratories are not open. Computer labs are open Mon.-Thurs., 8 a.m.-10 p.m., and Fri. 8 a.m-5 p.m. University computer labs are not open on weekends and holidays.

DISTANCE EDUCATION STATEMENT:

Students enrolled in distance-education courses have equal access to the university's academic support services, such as Smarthinking, library resources, such as 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 information to verify students' identities and to protect students' information. The

procedures for filing a student complaint are included in the student handbook. 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.

GENERAL CAMPUS REGULATIONS AND CONDUCT:

All students are expected to conduct themselves in a manner consistent with the University's functions as an educational institution. It is also expected that all students who enroll at Sul Ross State University agree to assume the responsibilities of citizenship in the university community. Association in such a university community is purely voluntary, and any student may resign from it at any time when he/she considers the obligation of membership disproportionate to the benefits. All students are subject to University authority, and those students whose conduct is not within the policies of the University rules and regulations are subject to dismissal. Students are responsible for abiding by all published University rules and regulations. Failure to read publications will not excuse the student from the requirements and regulations described therein. The SRSU Student Handbook and other official University publications outline specific regulations and requirements.

ADA Statement: Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. Students with qualifying disabilities who seek accommodations must initiate a request for a meeting for accessibility services. Students seeking accessibility services must contact Rebecca Greathouse Wren, M.Ed., LPC-S, Counseling & Accessibility Services, Telephone: 432-837-8203, or email: rebecca.wren@sulross.edu. For more information see: <https://www.sulross.edu/page/1384/accessibility-services>

SRSU Library Services. The Sul Ross Library offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires your LoboID and password. Check out materials using your photo ID. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

COVID-19. Sul Ross aims to do our part to prevent further spread of the novel coronavirus SARS-CoV-2. A mandatory campus-wide mask policy is in place, given the high level of contagion of this coronavirus and the implications of its disease COVID-19. Following guidelines from the Centers for Disease Control, face masks can be cloth and must cover your nose and mouth. Masks must be kept on during classes and within all public places in campus buildings at all times as part of this community-wide effort to prevent more spreading of COVID-19. Failure to do so will be treated as a class disruption, per the Student Handbook.