

SUL ROSS STATE UNIVERSITY

Biology Special Topics 2320

Pathophysiology

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On-line Office Hours: Thursday 6 pm to 8 pm or by appointment.

Meeting Room: TBD

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

COURSE DESCRIPTION:

This 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.

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:
 - A. Inherited or Familial Diseases
 - B. Congenital Diseases
 - C. Toxic Diseases
 - D. Inflammation
 - E. Infectious Diseases
 - F. Traumatic Diseases
 - G. Degenerative Diseases
 - H. Allergic Diseases
 - I. Auto-immune Diseases
 - J. Neoplastic Diseases
 - K. Nutritional Diseases

- L. Metabolic Diseases
 - M. Molecular Diseases
 - N. Psychosomatic Diseases
 - O. Factitious Disease
 - P. 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.

REQUIRED TEXTBOOKS:

Grossman, Sheila, C., and Porth, Carol Mattson. *Porth's Pathophysiology*. Philadelphia: Wolters Kluwer, 9th Edition, 2014.

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

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/>

STUDENT REQUIREMENTS:

Students in this course are expected to complete weekly assignments with current and relevant data. The assignments and resources will be placed in a weekly folder. Student's are expected to read textbook assignments and utilize other resources in your weekly folder to acquire information that will assist the learning process. Power-points provided will assist the student to focus on important information but can only be used to enhance learning. The first step in learning the content is to read the assignments designated in the Class Schedule.

Each student will demonstrate legal and ethical behavior, safety practices, interpersonal skills, teamwork skills and appropriate written skills and professional verbal communication when completing course requirements. Group assignments will be arranged. Each student is responsible for meeting with other students in the group to complete the activities designated. If a member of the group fails to comply, it is the responsibility of the group to discuss group participation with the faculty of record.

COURSE ASSIGNMENTS:

Unit Definitions:

Weekly assignments include written definitions to key terms that are listed in the unit objectives. Select a minimum of ten terms from those that are listed, especially those terms that are unfamiliar to you. During the semester, you will need to submit a minimum of 10 sets of terms from the Units listed in this syllabus. Post the definitions in Assignments in Black Board. It will be to your benefit to define the terms each week that assist your learning for the Unit content.

Case Studies:

Three case studies are assigned in the Class Schedule that you will need to complete. Questions related to the case studies will be placed in Discussion Board. Each student will answer the questions as directed in the Discussion Board Guidelines. The major focus for the cases will relate to anatomical and physiological changes that occur during the disease process as well as diagnostic data that reflect the condition identified in the case study.

Pre-test for Concepts:

Several pathophysiologic concepts have been provided for you to study that address a selected concept that is common in the health care arena. The concept addresses information across the life span so you have an opportunity to see changes that occur from infancy to the aged. A pre-test has been provided with the concept analysis. You are required to answer the questions on the pre-test according to guidelines provided by the faculty of record. Grades from the pre-test will be included in Weekly Assignments.

Concept Analysis:

Your major written assignment for this course is a professional paper related to a concept analysis for your selected pathophysiologic concept. Select a partner student and the two of you decide which analysis you would like to address from the list provided at the end of this paragraph. The guidelines and form used to develop and present this information are provided in BB Resources. Since this is your first experience with concepts, you are being asked to select one age group on the form to research and present pertinent information in that category. That 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. Orientation to the Library

will be extremely helpful to you since you are required to present the information using APA format. The paper must be a minimum of 10 pages. Following is a list of concepts from which you can choose:

Acidosis

Alkalosis

Anemia

Asthma

Dehydration

Dyspnea

Hematoma

Ischemia

Hypoglycemia

Examinations:

Examinations are listed in the class schedule. You will be taking the examinations on Black Board as scheduled. The first examination you will have a longer allotment of time to complete the exam since it will be helpful to see the types of questions that will be included. Most of the examinations will be 100 points which can be derived from true and false questions, multiple choice questions and multiple response questions. The assigned points for each group will be specified on the test. You may also be asked to identify components of an anatomical structure. Reviewing the unit objectives should be the first step before you begin reading the chapters. In addition to the chapters, questions will be derived from the concept analysis, pre-test for the concepts, and power points.

All examinations will have a time limit which will vary. You must know how much time is allotted before you begin taking the examination, so you do not run out of time. If you are unable to take the examination at the specified time, the faculty of record must be notified before the scheduled test time.

CLASS SCHEDULE:

Week One: January 22, 2019

Review Syllabus

Orientation to Library Web Site:

Place a Biography in Black Board for your peers and faculty

Unit I Concepts of Health & Disease (Chapters 1, 2 & 3) Start reading these chapters.

Define terms listed in Course Objective number 2 on the first page of the syllabus and post in BB assignments.

Week Two: January 28, 2019

Unit I Concepts of Health & Disease (Chapters 1, 2 & 3)

Unit II Cell Function and Growth (Chapters 4 & 5)

Examination over Units I and II

Week Three: February 4, 2019

Unit III Disorders of Integrative Function (Chapters 10, 12 & 13)

Complete Pre-test for Fever (Obtain answers from Concept Analysis of Fever)

Submit in Assignments

Week Four: February 11, 2019

Unit III Disorders of Integrative Function (Chapters 14, 15 & 16)

Examination over Unit III

Week Five: February 18, 2019

Unit IV Disorders of the Hematopoietic System (Chapters 25, 26, 27 & 28)

Examination over Unit IV

Week Six: February 25, 2019

Unit V Disorders of Cardiovascular Function (Chapters 29, 30, & 31)

Case Study #1

Week Seven: March 4, 2019

Unit V Disorders of Cardiovascular Function (Chapters 32, 33 & 34)

Examination over Unit V

Week Eight: March 11, 2019 Unit VI Disorders of Endocrine Function (Chapters 48, 49 & 50)

Pre-test for Hyperglycemia (Obtain answers from Concept Analysis of Hyperglycemia)

Examination over Unit VI

Week Nine: March 18, 2019 Spring Break

Week Ten: March 25, 2019

Unit VII Disorders of Respiratory Function (Chapters 35, 36 & 37)

Examination over Unit VII

Week Eleven: April 1, 2019

Unit VIII Fluids, Electrolytes and Acid-Base Dysfunction (Chapters 38, 39 & 40)

Case Study #2

Week Ten: April 8, 2019

Unit VIII Disorders of Renal Function (Chapters 41, 42 & 43))

Examination over Unit III

Week Eleven: April 15, 2019

Unit IX Disorders of Gastrointestinal Function (Chapters 44, 45, 46 & 47)

Examination over Unit IX

Week Twelve: April 22, 2019

Unit X Disorders of Neural Function (Chapters 17, 18 & 19)

Complete Pre-test for Nociceptive Pain (Obtain answers from Concept Analysis of Nociceptive Pain)

Week Thirteen: April 29, 2019

Unit X Disorders of Neural Function (Chapters 20, 21 & 22)

Examination over Unit X

Week Fourteen May 6, 2019

Unit XI Disorders of Genitourinary & Reproductive Function (Chapters 52, 54 & 55)

See Guide for Final Examination on Announcements

Week Fifteen May 13, Final Examination Including Unit XI

The above schedule is a brief description of the week's activity. A folder will be developed for each week that contains your assignments and resources. These folders will be available in BB.

GRADING:

Assignments outlined in this course will include examinations, written definitions, concept analysis pre-test, and case studies. The major written assignment will be development of an Across the Life-Span Pathophysiologic Concept Analysis. Grading percentages will occur according to the following:

Unit & Final Examinations	40%
Written definitions, Concept Analysis Pre-test, & Case Studies	30%
Development of Across the Life Span Pathophysiologic Concept Analysis	30%
Total	100%

RULES OF NETIQUETTE:

The term “netiquette” refers to written and unwritten rules regarding appropriate communication on the Internet. It will apply primarily to your interactions on the course Discussion Board, assignments both individual and group, 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 helpful and be sure to do your part in an online class or in group work so that assignments can be completed.
3. Common courtesy and good manners, along with proper use of grammar, sentence structure, and correct spelling, are essential when taking an online class.
 - a. Use a meaningful title in the Subject line. For e-mail, include course number.
 - b. Use the person’s name you are writing to as a greeting in the first line of the message – this helps ensure you are writing to the intended person (group).
 - c. Close the posting by writing your full name at the end of the message.
4. Do not post anything too personal as all students in the class and your instructor will see what you write and the University archives all course materials;
5. 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 as it will be read by others;
 - b. Be careful with the tones of what you are communicating, sarcasm and subtle humor; one person’s joke may be another person’s insults;
 - 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.
6. 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.
7. Avoid duplication. Read the previous discussions before you comment or ask a question as the information may have already been covered.
8. When posting a response, make sure you clarify the post to which you are responding.
9. If the topic you wish to address is already covered under an existing thread, do not start a new thread.
10. When responding to a specific comment, quote only the relevant part of the comment and stay focused on the assignment.
11. Try not to lurk, meaning you are just reading and not participating.
12. Quality of online communications/postings is important
 - a. It is not acceptable to present work or ideas of others as your own. If you quote from a source, use quotation marks and provide the original author's name, year, and the work from which the quotation is taken. If you paraphrase, use your own understanding of the work if possible and give credit to the original author by citing name, year and source of the idea.
 - b. If the posting is going to be long, use paragraphs;
 - c. Do not overuse acronyms like you use in text messaging. Some of the participants may not be familiar with acronyms;
 - 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.
13. Don't send large files as someone in your class may have a relatively slow internet connection and be sure to check for viruses when sending files.
14. 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, you can contact other students of faculty by e-mail, phone, or text.

POLICIES FOR EXAMS AND ASSIGNMENTS:

Online testing/Assessments: When assigned, examinations will be given via the use of Black Board. Instructions will be provided at the time of the examination.

Missed Examinations and Makeup Examinations: Faculty members must be informed immediately when a student is aware that an examination will be missed. Make-up should occur within a week of the scheduled examination as agreed on between the faculty and student. Should scheduling conflicts and/or family emergencies arise, students should contact faculty by phone, e-mail, or text as soon as possible. If students have spoken with faculty and an agreement is reached, late make-up exams can be arranged without penalty.

Late and Make-up Assignments: To achieve the designated points for an assignment, the assignment must be submitted at or before the scheduled date and time. Missed course work, class participation grades, written documents or presentations will result in the student receiving a zero for the assignment. Should scheduling conflicts and/or family emergencies arise, student

should contact faculty by phone, e-mail, or text as soon as possible. If students have spoken with faculty and an agreement is reached, late make-up assignments can be arranged without penalty. Course work not completed at the designated time will be given a grade of zero.

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 and Student 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 and Student 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.

AMERICAN WITH DISABILITIES ACT (ADA) STATEMENT:

Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is the student's responsibility to initiate a request for

accessibility services. Students seeking accessibility services must contact Kathy Biddick in Student Services, Room C-102, Uvalde campus. The mailing address is 2623 Garner Field Road, Rio Grande College-Sul Ross State University, Uvalde, Texas 78801. Telephone: 830-279-3003. E-mail: kbiddick@sulross.edu

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, but computers are available at the Southwest Texas Junior College and Sul Ross State University Rio Grande College libraries. A student who fails to participate in assignments during any one work period may be subject to being withdrawn from class and given a grade of F. Students should regularly log in to their class.

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.