

**UNIVERSITY OF NORTHERN COLORADO
COLLEGE OF NATURAL AND HEALTH SCIENCES
OFFICE OF EXTENDED STUDIES**

INDEPENDENT STUDY

Course Number and Prefix: NURS 326-935

Title: Pathophysiology

Credits: 3 Semester Hours

Prerequisites: A previous anatomy and physiology course/s. Without this background, the course will be overwhelming as it assumes you have knowledge of physiology.

Course Description: Classification and identification of major disease processes. A systems approach to alteration and disruption of physiologic functions. Focus on differentiation of pathophysiologic findings and identification of major disease processes.

Objectives:

1. Explain the etiology of disease states and imbalances.
2. Analyze how health deviations alter normal physiology.
3. Identify pathological processes as they occur within human cells, tissue, organs, and organ systems.
4. Describe the pathophysiology and clinical manifestations of significant health deviations.

Required Text:

Huether, S.E. & McCance, K.L. (2012) Understanding Pathophysiology (5rd edition): St. Louis, Missouri: Mosby Inc.

(The companion CD that accompanies this text has test questions you may want to utilize to prepare for exams. There are also free online student learning resources that accompany the text through <http://evolve.elsevier.com>. The paper version of the text is available for purchase via your choice of internet book sites including the evolve bookstore at the website indicated above. An ebook version is available for 10% less than the print at <http://pageburststore.elsevier.com> Keep in mind that the text is over a 1000 pages in length.)

Recommended text:

Sue E. Huether, RN, PhD, Kathryn L. McCance, RN, PhD and Clayton F. Parkinson, PhD (2012) Study Guide for Understanding Pathophysiology, (5th edition):St Louis, Missouri: Mosby, Inc.

(If you prefer a paper book rather than online resources, this text provides a chapter practice exam, case studies requiring analysis and application of knowledge, and a simplified review of information in the primary text.)

Course Requirements:

Blackboard Online Learning Assignments:

Each chapter has a section providing text reading assignments, learning objectives to focus your study, learning activities to increase your understanding of the content, and the exam.

Exams:

You are required to complete a 20 item exam following each assigned chapter. Each item on an exam is worth 1 point. So, for example, if you get 4 items wrong it results in a score of 80 percent. Part I has 6 exams. Part II has 5 exams (chapters 12 & 13 are combined), and Parts III & IV each have 6 exams. This makes a total of 23 exams which averaged together to give a final course score/letter grade.

The exams are taken online and **follow each chapter** on Blackboard. The exams include 20 multiple choice, one best answer, items. Each exam is timed at 30 minutes for your completion. Once you exit an item and/or the exam, you cannot reenter. Please do not attempt to paper copy the exams for security reasons, also doing so may not allow you enough time to complete the online exam, and you may not be allowed reentry. Please Click on the EXAM button for further instructions on the left panel in Blackboard course platform.

Contact the instructor when you have finished the course. Your final score/grade in the course must be verified by the instructor.

Note: If you need your exam results or final course grade reported to your university quickly, the instructor can also email your course grade per your request to you and/or send notice to whomever you designate when you have completed the course while you wait for your UNC transcript.

Evaluation:

Your final grade will be determined as follows:

- A = 89-100%
- B = 79-88%
- C = 69-78%
- D = 59-68%
- F = Below 59%

Outline of Course Content:

This course is divided into four parts that follow your text's chapter/unit organization. **Not all chapters are covered in this course.** Please review chapter 1 and 3 if you need to refresh your knowledge of cellular biology and tissue alterations. Diseases in **children** are **not** covered in this course **nor** are **treatments** of disease conditions.

PART 1

Unit 1: The Cell

4. Fluid and Electrolytes, Acids and Bases

Unit 2: Mechanisms of Self-Defense

5. Innate Immunity: Inflammation and Wound Healing
6. Adaptive Immunity
7. Infection and Defects in Mechanisms of Defense

Unit 3: Cellular Proliferation: Cancer

9. Biology, Clinical Manifestations, and Treatment of Cancer
10. Cancer Epidemiology

PART 2

Unit 4: The Neurologic System

12. Structure and Function of the Neurologic System
13. Pain, Temperature, Sleep and Sensory Function
15. Alterations in Cognitive Systems, Cerebral Hemodynamics and Motor Function
16. Disorders of the Central and Peripheral Nervous Systems and Neuromuscular Junction

Unit 5: The Endocrine System

17. Mechanisms of Hormonal Regulation
18. Alterations of Hormonal Regulation

PART 3

Unit 6: The Hematologic System

19. Structure and Function of the Hematologic System
20. Alterations of Hematologic Function

Unit 7: The Cardiovascular and Lymphatic Systems

22. Structure and Function of the Cardiovascular and Lymphatic Systems
23. Alterations of Cardiovascular Function

Unit 8: the Pulmonary System

25. Structure and Function of the Pulmonary System
26. Alterations of Pulmonary Function

PART 4

Unit 9: The Renal and Urologic Systems

28. Structure and Function of the Renal and Urologic Systems
29. Alterations of Renal and Urinary Tract Function

Unit 11: The Digestive System

- 33. Structure and Function of the Digestive System
- 34. Alterations of Digestive function

Unit 12: The Musculoskeletal and Integumentary Systems

- 36. Structure and function of the Musculoskeletal System
- 37. Alterations of Musculoskeletal Function

Library Services for Distance Education and Off-Campus Students: Obtaining Materials from UNC Libraries

Off-campus students residing within 50 miles of the UNC campus are required to come to the library and borrow materials in person. Students residing more than 50 miles from campus may request that materials be delivered to them. All requests must include complete citations. We will supply materials from the UNC Libraries, as well as materials from other libraries obtained via Interlibrary Loan. Articles will be delivered via email. Books will be mailed first class. Delivery time by U.S. postal service is approximately 1 week. It is the responsibility of the student to return books by the date due. UNC does not pay return postage on books. For information on document delivery, call (970) 351-1446.

Requests for materials may be made through the following methods:

Online: <http://www.unco.edu/library/forms/distancerequest.htm>

By email: library.ocp@unco.edu

By fax: (970) 351-2540

Students with Disabilities

Any student requesting disability accommodation for this class must inform the instructor giving appropriate notice. Students are encouraged to contact Disability Support Services at (970) 351-2289 to certify documentation of disability and to ensure appropriate accommodations are implemented in a timely manner.

Honor Code

All members of the University of Northern Colorado community are entrusted with the responsibility to uphold and promote five fundamental values: *Honesty, Trust, Respect, Fairness, and Responsibility*. These core elements foster an atmosphere, inside and outside of the classroom, which serves as a foundation and guides the UNC community's academic, professional, and personal growth. Endorsement of these core elements by students, faculty, staff, administration, and trustees strengthens the integrity and value of our academic climate.

UNC's Policies

UNC's policies and recommendations for academic misconduct will be followed. For additional information, please see the Dean of Student's website, Student Handbook link <http://www.unco.edu/dos/handbook/index.html>