

JEFFERSON COLLEGE

COURSE SYLLABUS

BIO 245

PATHOPHYSIOLOGY

3 Credit Hours

Prepared by:
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BIO245 Pathophysiology

I. CATALOG DESCRIPTION

- A. Course pre-requisites:
- BIO212 or PTA105 with a grade of “C” or better
 - Reading proficiency
- B. 3 semester credit hours
- C. Pathophysiology presents the fundamental mechanisms of human disease including the etiology, diagnosis, pathology, epidemiology, prevention, and treatment of significant human diseases. This course is required for the A.A.S. degrees in Health Information Technology and Physical Therapist Assistant. (F, S, Su, O)
- D. Curricular alignment:
- Elective course applies toward AA or AAT degree.
 - Fulfills AAS – Health Information Technology degree requirement.
 - Fulfills AAS – Physical Therapist Assistant degree requirement.

II. EXPECTED LEARNING OUTCOMES/CORRESPONDING ASSESSMENT MEASURES

Expected Learning Outcomes	Assessment Measures
Demonstrate appropriate use of vocabulary to discuss and classify diseases in written and verbal communication	Hourly and final exams, oral presentation and written papers, case studies: written analysis, online discussion topics, online and in-class assignments, and quizzes
List and describe the most frequent and / or significant human diseases, including etiology, diagnosis, pathology, epidemiology, prevention, and treatment	Hourly and final exams, oral presentation, online discussion topics, online and in-class assignments, and quizzes
Describe the fundamental mechanisms of disease and human response, and their effects on homeostasis at the level of the cell, the organ, the organ system, and the organism	Hourly and final exams, oral presentation and written papers, case studies: written analysis, online discussion topics, online and in-class assignments, and quizzes
Compare and contrast the anatomy and physiology of normal human body systems with the anatomy and physiology of systems affected by various diseases	Hourly and final exams, oral presentation, case studies: written analysis, online discussion topics, online and in-class assignments, and quizzes
Predict the effects of disease in one system on the entire human body, describing how the body may maintain homeostasis	Hourly and final exams, online and in class assignments, and quizzes
Classify various types of resources used in prevention, diagnosis, and treatment of disease	Hourly and final exams, online discussion topics, online and in-class assignments, and quizzes

III. OUTLINE OF TOPICS

- A. Mechanisms of disease
 - 1. Definitions and overview
 - 2. Cellular pathology: injury, inflammation, and repair
 - 3. Disorders of the immune system
 - 4. Infectious disease
 - 5. Neoplasia
 - 6. Disorders of fluid, electrolyte and acid-base balance and blood flow

- B. Disorders of organ stems
 - 1. Disorders of blood cells
 - 2. Disorders of blood vessels
 - 3. Disorders of the heart
 - 4. Disorders of the respiratory tract
 - 5. Disorders of the gastrointestinal tract
 - 6. Disorders of the liver and biliary tract
 - 7. Disorders of the pancreas
 - 8. Disorders of the endocrine glands
 - 9. Disorders of the urinary tract
 - 10. Disorders of the male genitalia
 - 11. Disorders of the female genitalia and breast
 - 12. Disorders of bones, joints, and skeletal muscle
 - 13. Disorders of the nervous system
 - 14. Disorders of the senses
 - 15. Disorders of the skin

- C. Disorders of the stages and states of life
 - 1. Congenital and childhood disorders
 - 2. Disorders of daily life
 - 3. Aging, stress, exercise, and pain

IV. METHODS OF INSTRUCTION

- A. Lecture to support text reading assignments
- B. Student presentations in classroom and online
- C. Case studies (individual and group)
- D. Online assignments and quizzes

V. REQUIRED TEXTBOOKS

McConnell, T. H. *Nature of disease: pathology for the health professions* (current edition). Baltimore, Mar.: Lippincott Williams & Wilkins.

Bruyere, H. J. *100 case studies in pathophysiology*. Philadelphia: Lippincott Williams & Wilkins.

VI. REQUIRED MATERIALS

- A. Textbook
- B. Case study manual
- C. Online access to MyJeffco and Blackboard

VII. SUPPLEMENTAL REFERENCES

- A. Library resources: present offerings and anticipated texts, journals, video/audio tapes, software, etc.
- B. Internet references

VIII. METHODS OF EVALUATION

- A. Three hourly exams and a comprehensive final exam 60%
- B. Case studies 20%
- C. Oral presentations and / or written papers 10%
- D. Online discussion topics and assignments 10%
- E. Grading scale:
 - 90-100% = A
 - 80-89% = B
 - 70-79% = C
 - 60-69% = D
 - Below 60% = F

IX. ADA AA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Library; phone 636-481-3169).

X. ACADEMIC HONESTY STATEMENT

All students are responsible for complying with campus policies as stated in the Student Handbook (see College website, <http://www.jeffco.edu>).

XI. ATTENDANCE STATEMENT

Regular and punctual attendance is expected of all students. Any one of these four options may result in the student being removed from the class and an administrative withdrawal being processed: (1) Student fails to begin class; (2) Student ceases participation for at least two consecutive weeks; (3) Student misses 15 percent or more of the coursework; and/or (4) Student misses 15 percent or more of the course as defined by the instructor. Students earn their financial aid by regularly attending and actively participating in their coursework. If a student does not actively participate, he/she may have to return financial aid funds. Consult the College Catalog or a Student Financial Services representative for more details.

XII. OUTSIDE OF CLASS ACADEMICALLY RELATED ACTIVITIES

The U.S. Department of Education mandates that students be made aware of expectations regarding coursework to be completed outside the classroom. Students are expected to spend substantial time outside of class meetings engaging in academically related activities such as reading, studying, and completing assignments. Specifically, time spent on academically related activities outside of class combined with time spent in class meetings is expected to be a minimum of 37.5 hours over the duration of the term for each credit hour.