

**Common Course Outline**  
**BIOL 252**  
**Physiological Pathology**  
**3 Credits**

**The Community College of Baltimore County**

**Description**

Physiological Pathology is the study of the basic principles regarding the alteration of the structure and function of tissues in disease and the development and abnormal effects of disease in the various organ systems. It acquaints students with the anatomical changes which have occurred as a result of disease and relates the work of the mortician to that of the pathologist, coroner, and medical examiner. Course prerequisite is BIOL130 or some other anatomy and physiology course approved by the instructor.

**Overall Course Outline**

Upon completion of this course the student will be able to:

1. Define Pathology, describe the major divisions of pathology, and describe the roles of the medical examiner and autopsy in pathology.
2. Define the term disease and define common terms relating to the nature and causes of disease and the disease process.
3. Describe how some common predisposing factors increase susceptibility to disease.
4. Describe how birth defects arise, list some common causes of birth defects, and give some common examples of hereditary, congenital, and birth trauma conditions.
5. Describe some common conditions related to circulatory disturbances including hyperemia, ischemia, infarction, thrombus, embolus, hemorrhage, and shock.
6. Describe some common metabolic disturbances including cell degenerations and infiltrations.
7. Define atrophy, hypertrophy, hyperplasia, necrosis, and somatic death.
8. Describe some common nutritional deficiency diseases including rickets, pellagra, beriberi, scurvy, and deficiencies in protein, calcium, and iron.
9. Describe the cause, modes of transmission, symptoms, and complications of some common bacterial and viral infections.
10. Describe the process of inflammation and repair including types of exudates and possible complications of the repair process.
11. Describe some injuries caused by physical agents such as temperature extremes, trauma, and radiation as well as injury caused by groups of chemical poisons.
12. Define the term neoplasm, contrast normal cells with transformed cells, compare benign and malignant neoplasms and describe some causes and common types of neoplasms.
13. Describe some important blood cell diseases including anemias, bleeding disorders, leukemia, and multiple myeloma.
14. Describe some important congenital heart disorders and acquired diseases of the heart and blood vessels including hypertension, endocarditis, coronary artery disease, myocardial infarction, arteriosclerosis, and aneurysm.

15. Describe some important diseases of the respiratory tract including asthma, tuberculosis, pneumonia, atelectasis, emphysema, and lung cancer.
16. Describe some important diseases of the digestive tract including oral diseases, ulcers, gastritis, obstructions, hernias, enteritis, cirrhosis, diabetes, appendicitis, and peritonitis.
17. Describe some important lymph tissue disorders including Hodgkins Disease, lymphoma, and myasthenia gravis.
18. Describe some important diseases of the reproductive tracts including orchitis, prostatitis, prostate cancer, endometritis, cervicitis, uterine cancers, P.I.D., breast cancer, endometriosis.
19. Describe some important urinary tract disorders including nephritis, pyelitis, calculi, cystitis, and neoplasms.
20. Describe some important disorders of the nervous system including hemorrhage, injury, meningitis, CVA, infections, epilepsy, multiple sclerosis, cerebral palsy, and neoplasms.
21. Describe some important diseases of bones and joints and glands including osteomyelitis, osteoporosis, arthritis, cushings syndrome, addisons disease, etc.

### **Major Topics**

1. Definitions and divisions of pathology
2. The nature and cause of disease
3. Abnormalities in development
4. Disturbances in circulation
5. Metabolic cell level disturbances
6. Nutritional deficiency disorders
7. Infectious diseases
8. Inflammation and repair
9. Injuries from physical and chemical agents
10. Tumors and cysts
11. Diseases of blood cells
12. Diseases of heart and blood vessels
13. Diseases of the respiratory tract
14. Diseases of the digestive tract
15. Diseases of lymph tissue
16. Diseases of the male and female reproductive tracts
17. Diseases of the urinary tract
18. Diseases of the nervous system
19. Diseases of bones and joints and endocrine glands
20. Forensic pathology

### **Course Requirements**

Grading/Exams: Grading procedures will be determined by the individual faculty member but will include the following:

1. Lecture examinations (minimum of two). Each exam will include some writing component.
2. Quizzes (minimum of five). Each quiz will include lab identifications and questions testing an understanding of lecture content and applications.
3. Oral presentation by each student in class on a specific disease.
4. Student paper on some specific topic in pathology with application to funeral service.

Writing: The individual faculty member will determine specific writing requirements.

**Other Course Information**

This course is intended to be taken by students in the Funeral Service Program.

This course meets for two lecture hours and three lab hours per week.

This course includes a lab component.