



# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

**LAST REVIEW: 2008-2009**

*(i.e. 2003-2004)*

**NEXT REVIEW: 2013-2014**

*(i.e. 2008-2009)*

**STATUS: A**

*(A, I, D)*

**COURSE TITLE:** Radiation Pathology

**COMMON COURSE NUMBER:** RAT2240

**CREDIT HOURS:** 3

**CONTACT HOUR BREAKDOWN**

*(per 16 week term)*

**CLOCK HOURS:**

*(Voc. Course ONLY)*

Lecture: 48

Lab:

Clinic:

Other:

**PREREQUISITE(S):** RAT2021, RAT2617, RAT2023,

**COREQUISITE(S):** RAT2021, RAT2617, RAT2023,

**COURSE DESCRIPTION :** An introduction to the concept of disease. The types of growth, causative factors and biological behavior of neoplastic diseases are stressed.

General Education Requirements – Associate of Arts Degree (AA), meets Area(s):

Area

General Education Requirements – Associate in Science Degree (AS), meets Area(s):

Area

General Education Requirements – Associate in Applied Science Degree (AAS), meets Area(s):

Area

## UNIT TITLES

1. Inflammation
2. Pigmentation
3. Disturbances of Circulation
4. Disturbances of Growth
5. Repair and replacement tissue
6. Neoplasia
7. Specific tumors
8. Tumor sites
9. Pharmacology

## ASSESSMENT:

Please provide a brief description (250 characters maximum) that details how students will be assessed on the course outcomes.

**Assignments, comprehensive/cumulative unit exams, comprehensive/cumulative final exams**



**Common Course Number:** RAT2240

## **UNITS**

### **Unit 1 Inflammation**

#### **General Outcome:**

**1.0 The student shall: be able to discuss the inflammatory process.**

#### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 1.1 Identify the principle types of inflammatory cells.**
- 1.2 List the factors causing inflammation.**
- 1.3 Describe the function and features of exudate.**
- 1.4 Explain the mechanism of phagocytes and list the cell types.**
- 1.5 Define regeneration and compare healing with regeneration.**
- 1.6 List the factors influencing necrosis.**
- 1.7 Define necrosis.**
- 1.8 Describe the degeneration process and influencing factors.**



**Common Course Number:** RAT2240

## **UNITS**

### **Unit 2 Pigmentation**

#### **General Outcome:**

**2.0 The student shall: be able to explain the different types of pigmentation.**

#### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 2.1 Define endogenous and exogenous pigmentation.**
- 2.2 Name groups of endogenous pigments and give examples of each.**
- 2.3 List the methods by which pigment may be introduced into the body.**



**Common Course Number:** RAT2240

## **UNITS**

### **Unit 3 Disturbances of Circulation**

#### **General Outcome:**

- 3.0 The student shall: be able to list and define the different types of circulation disturbances.**

#### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 3.1 Define congestion, including examples.**
- 3.2 Explain ischemia.**
- 3.3 Discuss hemorrhage.**
- 3.4 Explain infarction**
- 3.5 Discuss edema**
- 3.6 Define shock.**



**Common Course Number:** RAT2240

## **UNITS**

### **Unit 4 Disturbances of growth**

#### **General Outcome:**

**4.0 The student shall: be able to list and compare disturbances of growth.**

#### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 4.1 List and describe those hormones which are directly or indirectly related to growth.**
- 4.2 Briefly discuss those diseases altering growth patterns.**
- 4.3 State the effects of deficiency or excess of vitamin intake.**



**Common Course Number:** RAT2240

## **UNITS**

### **Unit 5 Repair and Replacement tissue**

#### **General Outcome:**

- 5.0 The student shall: be able to compare the processes involved in repair and replacement of tissue.**

#### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 5.1 Define and discuss the process and effects of hypertrophy.**
- 5.2 Describe hyperplasia.**
- 5.3 Discuss anaplasia.**
- 5.4 Explain metaplasia.**



**Common Course Number:** RAT2240

## **UNITS**

### **Unit 6 Neoplasia**

#### **General Outcome:**

**6.0 The student shall: be able to explain neoplasia.**

#### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 6.1 Define neoplasia**
- 6.2 Compare benign and malignant characteristics**
- 6.3 Discuss carcinogenesis including the effects of tissue injury, ionizing radiation, and environmentally.**



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## **UNITS**

### **Unit 7 Specific tumors**

#### **General Outcome:**

- 7.0 The student shall: be able to compare the different characteristics of tumor cell types.**

#### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 7.1 Describe the general characteristics, histological appearances and progression of mesenchymal, epithelial and mixed tumors.**
- 7.2 Give examples of tumors from mesenchymal, epithelial and mixed origins.**



**Common Course Number:** RAT2240

## **UNITS**

### **Unit 8 Tumor sites**

#### **General Outcome:**

**8.0 The student shall: be able to discuss the histopathology related to specific tumor sites including the metastatic behavior.**

#### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

**8.1 Identify the histopathology commonly associated with the following sites:**

- A. Head and neck**
- B. Central nervous system**
- C. Respiratory System**
- D. Reproductive System**
- E. Urinary System**
- F. Endocrine System**
- G. Circulatory System**
- H. Digestive system**



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**UNITS**

**Unit 9 Pharmacology**

**General Outcome:**

**9.0 The student shall: be able to discuss drug therapy related to patient care.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

**9.1 Discuss pharmacology with emphasis on:**

- A. The principles of pharmacology**
- B. The body process relating to drug intake**
- C. Patient reactions to drugs**
- D. Drugs related to radiation therapy**
- E. Contrast materials**
- F. Drug administration**
- G. Legal aspects of drug therapy.**