

# Virginia Western Community College

## ROC 120

### Radiation Oncology / Pathology I

#### **Prerequisites**

None

#### **Course Description**

Introduces malignant pathology arising in each anatomical site, radiation treatment rationale, treatment techniques, and radiobiological response.

**Semester Credits: 3**

**Lecture Hours: 3**

**Lab/Clinical/Internship Hours: 0**

#### **Required Materials**

##### **Textbook:**

Principles and Practice of Radiation Therapy. Washington, C. and Leaver, D. (2016). 4th Edition.  
ISBN: 9780323287524

Anatomy and Physiology the Easy Way. Alcamo, I. and Krumhardt, B. (2004). 3<sup>rd</sup> Edition. Barron's  
Educational Services. ISBN: 9780764119798

##### **Other Required Materials:**

Internet Access

#### **Course Outcomes**

**At the completion of this course, the student should be able to:**

- Apply terminology to anatomy discussed
- Using diagrams label and identify anatomical structures
- For each cancer reviewed, identify etiology, presenting symptoms, pathology, staging, patterns of spread, and prognosis
- Identify lymphatic channels for each site
- Identify radiation dosage and describe the radiobiological responses associated with each anatomical site
- Discuss the rationale behind each treatment technique
- Demonstrate without assistance the basic treatment technique for each anatomical site

## **Topical Description**

### **Unit I: Anatomical Terminology, Cells, and Tissues**

- Skin and Melanoma
- Principles and Practice of Radiation Therapy
- Barron's Anatomy & Physiology the Easy Way

### **Unit II: Bones, Cartilage, and Soft Tissue Sarcomas**

- Principles and Practice of Radiation Therapy
- Anatomy and Physiology the Easy Way

### **Unit III: Respiratory System Tumors**

- Principles and Practice of Radiation Therapy
- Anatomy and Physiology the Easy Way

### **Unit IV: Male Reproductive and Genitourinary Tumors**

- Principles and Practice of Radiation Therapy
- Anatomy and Physiology the Easy Way

### **Unit V: Lymphoreticular System Tumors**

- Principles and Practice of Radiation Therapy
- Anatomy and Physiology the Easy Way

### **Unit VI: Head and Neck Cancers**

- Principles and Practice of Radiation Therapy

### **Unit VII: Special Senses**

- Anatomy and Physiology the Easy Way

## **Note to Instructors**