



# 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:** Clinical Education

**COMMON COURSE NUMBER:** RAT2824

**CREDIT HOURS:** 3

**CONTACT HOUR BREAKDOWN 24**

*(per 16 week term)*

**CLOCK HOURS:**

*(Voc. Course ONLY)*

Lecture:

Lab:

Clinic:

Other: 384

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

**COREQUISITE(S):** RAT2618, RAT2241,

**COURSE DESCRIPTION :** Advanced clinical education stressing practical application of dosimetry competencies under the direct supervision of a medical physicist or dosimetrist. Continuation of advanced patient treatment competencies under the supervision of a registered radiation therapist.

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. Treatment Procedures
2. Simulation Procedures
3. Dosimetry
4. Quality assurance
5. Professional Interactions.

## ASSESSMENT:

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

1. Periodic evaluation by the assigned radiation therapist.
2. Periodic evaluation by the clinical instructor.
3. Periodic evaluation by the clinical coordinator
4. Successful completion of mandatory clinical competency evaluations.



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Common Course Number: RAT2824

## UNITS

### Unit 1 Treatment procedures

#### General Outcome:

- 1.0 The student shall: be able to deliver a planned course of radiation treatment procedures with 100% accuracy.

#### Specific Measurable Learning Outcomes:

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

- 1.1 Set-up a treatment port on each patient with 100% accuracy at this intermediate level of complexity.
- 1.2 Set the beam parameters on the treatment unit with 100% accuracy.
- 1.3 Apply the appropriate treatment accessories as prescribed in the treatment plan with 100% accuracy.
- 1.4 Position the patient for treatment with 100% accuracy.
- 1.5 Set the console parameters with 100% accuracy.
- 1.6 The student should perform the procedure practicing good radiation safety for the patient and staff.



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## **UNITS**

### **Unit 2 Simulation Procedures**

#### **General Outcome:**

**2.0 The student shall: be able to perform a simple simulation.**

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

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

- 2.1 Identify and prepare the equipment necessary for a patient's individual simulation through communication with the Oncologist or acquiring the information from the treatment chart.**
- 2.2 Communicate to the patient the planned procedure.**
- 2.3 Position the patient for simulation with 100% accuracy.**
- 2.4 Set the beam parameters on the simulator with 100% accuracy.**
- 2.5 Obtain the appropriate treatment parameters (SSD, SAD, diameters, etc.) with 100% accuracy.**
- 2.6 Provide the appropriate documentation to facilitate the treatment of the patient.**



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## **UNITS**

### **Unit 3 Dosimetry**

#### **General Outcome:**

- 3.0 The student shall: be able to obtain the necessary skills to perform simple SSD or SAD calculations, identify pertinent information on an isodose plan, assist the physics department in preparing a treatment chart, and checking documentation on a treatment record. The student should also be able to assist in the preparation of a body contour.**

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

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

- 3.1 Assist in the preparation of a body contour generated manually.**
- 3.2 Carry out simple SSD or SAD calculations including those requiring blocks, and/or wedges.**
- 3.3 Identify the volume of interest, organs at risk and isodose line on a plan.**
- 3.4 Transfer treatment plan information to a treatment record.**
- 3.5 Assist in chart checking pertaining to the number of treatments, elapsed days, total doses, etc.**



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## **UNITS**

### **Unit 4 Quality assurance**

#### **General Outcome:**

- 4.0 The student shall: be able to perform quality assurance procedures, thereby ensuring maximum radiation safety to the patient and staff.**

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

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

- 4.1 Identify any changes in the operation of the treatment machine by becoming familiar with the audio and visual parameters.**
- 4.2 After identifying changes in the operation of the treatment machine, be able to initiate the appropriate action.**
- 4.3 Evaluate the treatment record and follow the chain of command regarding any inaccuracies encountered.**
- 4.4 Participate in checking general condition of treatment rooms.**
- 4.5 Identify the location and use of patient communication devices.**
- 4.6 Participate in inspection of treatment accessories.**
- 4.7 Perform morning warm-up procedures.**
- 4.8 Assist the physics department in quality control tests.**
- 4.9 Identify and discuss the use of different types of calibration and dosimetry equipment utilized in radiation therapy.**



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## **UNITS**

### **Unit 5 Professional interactions**

#### **General Outcome:**

- 5.0 The student shall: obtain the skills necessary to interact in a professional manner with patients, patient's caregivers, staff members and all others encountered in the performance of their profession.**

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

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

- 5.1 Communicate to the patient undergoing treatment all information necessary to alleviate the patient's apprehension regarding treatment.**
- 5.2 Interpret the patient's physical and emotional complaints and follow the appropriate action pertaining to these problems.**
- 5.3 Communicate to the patient's caregivers all information necessary to assist the patient successfully undergoing the treatment.**
- 5.4 Perform in a professional manner regarding proper dress, punctuality, etc.**
- 5.5 Interact with the staff in a professional manner.**
- 5.6 Interact with all others in a professional manner.**
- 5.7 Correctly perform assigned tasks willingly be self-motivated to pursue other areas when assigned area is not busy.**