



# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

**LAST REVIEW:** 2007-2008      **NEXT REVIEW:** 2012-2013      **STATUS:** A  
*(A, I, D)*

**COURSE TITLE:** Nursing Procedures Radiologic Technology

**COMMON COURSE NUMBER:** RTE 1111

**CREDIT HOURS:** 2

**CONTACT HOUR BREAKDOWN**  
*(per 16 week term)*

**CLOCK HOURS:**  
*(Voc. Course ONLY)*

Lecture: 32      Lab:  
Clinic:              Other:

**PREREQUISITE(S):** Program admission

**COREQUISITE(S):**

**PRE/COREQUISITE(S):** RTE 1000, RTE 1503, RTE 1503L, RTE 1804

**COURSE DESCRIPTION:** Nursing procedures and patient care during radiographic procedures. Topics include medical ethics, legal issues, communication, safety, transfers and immobilization, infection control, isolation techniques, vital signs, oxygen administration, medical emergencies, patient care during GI and urologic exams, dealing with patient who have special needs, pharmacology, drug administration, and contrast media reactions.

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. Ethics                              | 9. Medical Emergencies                     |
| 2. Legal Issues                        | 10. Care of Patients With Special Problems |
| 3. Patient Communication & Assessment  | 11. Care of Patients During GI Exams       |
| 4. Basic Patient Care & Safety         | 12. Care of Patients During Urologic Exams |
| 5. Transfers & Immobilization          | 13. Alternative Medical Treatment Care     |
| 6. Infection Control & Asepsis         | 14. Pharmacology                           |
| 7. Isolation Techniques                | 15. Drug Administration                    |
| 8. Vital Signs & Oxygen Administration | 16. Contrast Media Reactions               |

## EVALUATION:

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

Assessment includes examinations, online discussion assignments and posts.



# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

**Common Course Number: RTE 1111**

## **UNITS**

### **Unit 1 Ethics**

#### **General Outcome:**

- 1.0 The student shall be able to describe the historical and philosophical basis of ethics and the elements of ethical behavior for radiographers.**

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

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

- 1.1** Define ethics & values.
- 1.2** Discuss the rationale for studying ethics & the role of ethical behavior in health care.
- 1.3** Discuss the origins of medical ethics & major ethical theories.
- 1.4** Differentiate between personal, cultural, & professional values.
- 1.5** Differentiate between empathetic rapport & sympathetic involvement with patients.
- 1.6** List & describe the 11 ethical principles.
- 1.7** Define & discuss professionalism.
- 1.8** Discuss the principles outlined in the ASRT Code of Ethics.
- 1.9** Discuss specific situations that give rise to ethical dilemmas in patient care.

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**UNITS**

**Unit 2 Legal Issues**

**General Outcome:**

- 2.0 The student shall be able to discuss the legal issues surrounding professional practice in radiology.**

**Specific Measurable Learning Outcomes:**

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

- 2.1 Define law & discuss its foundations.
- 2.2 Describe the basic divisions, classifications, & types of law.
- 2.3 Explain legal terms, principles, doctrines, & laws specific to radiography.
- 2.4 Define tort & differentiate between those that are intentional & unintentional.
- 2.5 Explain the legal implications of criminal & civil liability, malpractice, & negligence.
- 2.6 Discuss the importance of documentation as a legal imperative.
- 2.7 Discuss standard of care & scope of practice.
- 2.8 Identify & discuss the Patient's Bill of Rights.
- 2.9 Discuss informed consent & differentiate between oral, implied, & written consent.
- 2.10 Describe the use of consent forms for radiographic procedures.
- 2.11 Define risk management & discuss its importance in the health care setting.
- 2.12 Describe an incident report & discuss its purpose.



**UNITS**

**Unit 3 Patient Communication & Assessment**

**General Outcome:**

- 3.0 The student shall be able to describe appropriate patient-technologist communication techniques.**

**Specific Measurable Learning Outcomes:**

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

- 3.1** Define communication & describe the rationale for communication techniques.
- 3.2** Identify factors that affect communication.
- 3.3** Differentiate between physical & emotional needs of patients.
- 3.4** Describe various methods to evaluate the physical & mental status of patients.
- 3.5** Discuss the purpose of a patient interview & examination instructions.
- 3.6** Discuss grieving, death, & support mechanisms available to the terminally ill.
- 3.7** Discuss advance directives, living wills, power of attorney, & DNR orders.
- 3.8** Explain the role of the radiographer in patient education.



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**UNITS**

**Unit 4 Basic Patient Care & Safety**

**General Outcome:**

**4.0 The student shall be able to accurately describe patient care and safety procedures for patients undergoing radiographic examinations.**

**Specific Measurable Learning Outcomes:**

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

- 4.1** Identify methods for determining the correct patient for a given procedure.
- 4.2** Describe the appropriate use of devices for patient comfort & safety.
- 4.3** Discuss procedures for protecting patient modesty & privacy.
- 4.4** Describe the proper methods for handling patient's belongings.
- 4.5** Discuss methods used for dressing & undressing patients.
- 4.6** Describe precautions to be used with patients with fractures & those in traction.
- 4.7** Describe various methods to assist patients with elimination needs.



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## **UNITS**

### **Unit 5 Transfers & Immobilization**

#### **General Outcome:**

**5.0 The student shall be able to describe appropriate measures for moving, transferring, and immobilizing patients for radiographic examinations.**

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

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

- 5.1** Describe the principles of good body mechanics.
- 5.2** Identify the various types of wheeled transport equipment.
- 5.3** Describe preparation of patients for transfer.
- 5.4** Discuss procedures for transferring patients to & from wheelchairs, stretchers, & x-ray tables.
- 5.5** Discuss the proper utilization of various transfer devices & techniques.
- 5.6** Differentiate between immobilizing & restraining patients.
- 5.7** Discuss the appropriate procedures for immobilization & restraining of patients.
- 5.8** Discuss alternatives to restraining a patient.



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**UNITS**

**Unit 6 Infection Control**

**General Outcome:**

**6.0 The student shall be able to describe practices for infection control and medical & surgical asepsis.**

**Specific Measurable Learning Outcomes:**

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

- 6.1** Explain what is meant by infection control.
- 6.2** Define nosocomial infection & cite associated risk factors.
- 6.3** Describe the types of pathogens & common diseases caused by them.
- 6.4** Describe the elements needed to transmit & prevent infections.
- 6.5** Discuss the various types of precautions employed for the prevention of disease transmission.
- 6.6** Discuss OSHA regulations in the health care setting.
- 6.7** Differentiate between medical & surgical asepsis.
- 6.8** Discuss personal hygiene as it relates to infection control.
- 6.9** Describe the use of personal protective equipment for infection control.
- 6.10** Discuss sterilization & precautions to be followed around a sterile field.



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**UNITS**

**Unit 7 Isolation techniques**

**General Outcome:**

**7.0 The student shall be able to accurately describe procedures for utilizing isolation techniques.**

**Specific Measurable Learning Outcomes:**

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

- 7.1** Discuss the rationale for patient isolation.
- 7.2** Identify the various transmission routes of pathogens.
- 7.3** Differentiate between various isolation systems.
- 7.4** Describe the components of an isolation room.
- 7.5** Describe the proper procedures to be followed during imaging of an isolation patient.



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**UNITS**

**Unit 8 Vital Signs & Oxygen Administration**

**General Outcome:**

**8.0 The student shall be able to accurately describe procedures for taking vital signs and administering oxygen.**

**Specific Measurable Learning Outcomes:**

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

- 8.1** Define vital signs & explain the rationale for their assessment.
- 8.2** Discuss when vital signs are to be assessed on a patient.
- 8.3** Identify the 4 major vital signs & describe various methods for their measurement.
- 8.4** Identify normal & abnormal values for vital signs.
- 8.5** Discuss the rationale for oxygen therapy.
- 8.6** Describe the various methods of administering oxygen to a patient.
- 8.7** Discuss storage & safety considerations for oxygen.



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## **UNITS**

### **Unit 9 Medical Emergencies**

#### **General Outcome:**

**9.0 The student shall be able to accurately describe procedures for dealing with medical emergencies.**

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

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

- 9.1** Define patient status & discuss the role of the radiographer in patient emergencies.
- 9.2** Identify the appropriate procedures for initiating a code.
- 9.3** Explain the purpose & composition of a crash cart.
- 9.4** Describe the various types of emergency equipment found in an imaging department.
- 9.5** Identify symptoms related to various medical emergencies.
- 9.6** Describe the appropriate actions the radiographer is to take for various medical emergencies.



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**UNITS**

**Unit 10 Care of Patients With Special Problems**

**General Outcome:**

**10.0 The student shall be able to accurately describe procedures for dealing with patients with special problems encountered in an imaging department.**

**Specific Measurable Learning Outcomes:**

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

- 10.1** Differentiate between neonates, infants, toddlers, preschoolers, school-age kids, & adolescents.
- 10.2** Describe special precautions taken when imaging children.
- 10.3** Discuss the role of the radiographer in reporting suspected cases of child abuse.
- 10.4** Describe the physiologic & psychologic changes seen in geriatric patients.
- 10.5** Describe special precautions taken when imaging geriatric patients.
- 10.6** Describe special precautions taken when imaging patients with head or neck trauma.
- 10.7** Describe special precautions taken when imaging patients with fractures & dislocations.
- 10.8** Describe special precautions taken when imaging patients with wounds or burns.



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**UNITS**

**Unit 11 Care of Patients During GI Exams**

**General Outcome:**

**11.0 The student shall be able to accurately describe the care to be provided for patients having studies of the gastrointestinal tract.**

**Specific Measurable Learning Outcomes:**

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

- 11.1** Define contrast media & discuss its classifications.
- 11.2** Describe the physical properties & purpose of contrast media for the GI tract.
- 11.3** Discuss contraindications associated with contrast media used for the GI tract.
- 11.4** Discuss the proper scheduling, sequencing, & preparation of GI tract imaging exams.
- 11.5** Discuss the care of patients during commonly performed exams of the GI tract.
- 11.6** Describe the types of equipment used for GI tract examinations.



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**UNITS**

**Unit 12 Care of Patients During Urologic Exams**

**General Outcome:**

**12.0 The student shall be able to accurately describe the care to be provided for patients having studies of the urinary tract.**

**Specific Measurable Learning Outcomes:**

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

- 12.1** Describe the physical properties & purpose of contrast media for the urinary tract.
- 12.2** Discuss contraindications associated with contrast media used for the urinary tract.
- 12.3** Discuss the proper scheduling, sequencing, & preparation of urinary tract imaging exams.
- 12.4** Discuss the care of patients during commonly performed exams of the urinary tract.
- 12.5** Describe the types of equipment used for urinary tract examinations.
- 12.6** Discuss the importance of laboratory tests for radiographic exams of the urinary tract.



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**UNITS**

**Unit 13 Alternative Medical treatment Care**

**General Outcome:**

**13.0 The student shall be able to accurately describe patient care related to patients having gastric tubes, venous catheters, chest tubes, tissue drains, pacemakers, ventilators, & who are in orthopedic traction or confined to special beds.**

**Specific Measurable Learning Outcomes:**

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

- 13.1** Differentiate between & explain the purpose of various types of gastric tubes & central venous catheters.
- 13.2** Describe the procedures for insertion of gastric tubes & central venous catheters.
- 13.3** Discuss the care of patients who have gastric tubes central venous catheters.
- 13.4** Explain the purpose of pacemakers, chest tubes, & tissue drains.
- 13.5** Describe the procedures for insertion of pacemakers, chest tubes, & tissue drains.
- 13.6** Discuss the care of patients who have pacemakers, chest tubes, & tissue drains.
- 13.7** Differentiate between endotracheal tubes & tracheotomies.
- 13.8** Discuss the care of patients on ventilators & who have ET tubes or tracheotomies.
- 13.9** Identify various special beds & traction that the radiographer may encounter.
- 13.10** Discuss the care of patients on special beds or in traction.



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**UNITS**

**Unit 14 Pharmacology**

**General Outcome:**

**14.0 The student shall be able to accurately discuss pharmacology as applied to the practice of radiography.**

**Specific Measurable Learning Outcomes:**

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

- 14.1** Explain the radiographer's role in the administration of drugs & contrast media.
- 14.2** Identify & discuss government agencies that regulate drugs in the United States.
- 14.3** Identify various sources of drugs & discuss the means by which they are classified.
- 14.4** Distinguish between the chemical, generic, & trade names of drugs.
- 14.5** Describe pharmacokinetic & pharmacodynamic principles of drugs.
- 14.6** Discuss adverse drug reactions & drug incompatibility.
- 14.7** Identify & discuss drugs used for radiographic procedures.



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**UNITS**

**Unit 15 Drug Administration**

**General Outcome:**

**15.0 The student shall be able to accurately describe the equipment and procedures for drug administration.**

**Specific Measurable Learning Outcomes:**

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

- 15.1** List & describe the various routes of drug administration.
- 15.2** Discuss precautions to be taken during drug administration & patient complications.
- 15.3** Identify various drug references.
- 15.4** Describe the various components of needles & syringes.
- 15.5** Discuss the correct procedures for administration of drugs using needles & syringes.
- 15.6** Discuss the various elements of intravenous lines & IV drug therapy.



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**UNITS**

**Unit 16 Contrast Media Reactions**

**General Outcome:**

**16.0 The student shall be able to accurately describe the care of patients having adverse reactions to contrast media.**

**Specific Measurable Learning Outcomes:**

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

- 16.1** Explain the properties of intravascular iodinated contrast media.
- 16.2** Differentiate between ionic & nonionic contrast.
- 16.3** Discuss the radiographer's role in the care of patients receiving contrast media.
- 16.4** Identify side effects & complications related to contrast media administration.
- 16.5** Discuss the treatment for iodinated contrast media reactions.