

**Jones County Junior College**  
**Career and Technical Education Division**  
**Catalog Addendum**  
**2008-2010**

**Addendum # 7**  
**October 28, 2008**

As a result of the Curriculum Revision Process, the following changes have been made to the curriculum of the Medical Radiologic Technology Program:

- The name Radiation Exposure I (RGT 1413) was changed to Imaging Principles (RGT 1413) and the competency (Competency 1) related to X-ray production and properties of X-rays as related to exposure and measurement of radiation was moved to Physics of Imaging Equipment (RGT 1613). Course description has also changed and is reflected on page 230.
- The name Radiation Exposure II (RGT 1423) was changed to Digital Imaging (RGT 1423), and all of the concepts taught in this course were moved to Imaging Principles (RGT 1413); new concepts added to RGT 1423 relate to revisions in the ASRT Radiography Curriculum. Course description has also changed and is reflected on page 230.
- The course name Social and Legal Responsibilities (RGT 2132) was changed to Ethical and Legal Responsibilities (RGT 2132).

These changes will be effective May 2009.

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**MEDICAL RADIOLOGIC TECHNOLOGY**  
**(RADIOGRAPHY)**

**Purpose**

The Radiography Program is designed to provide the instruction and clinical opportunities needed to prepare the student for employment and advancement in the field of Radiologic Technology.

**Program Description**

Radiographers perform imaging examinations and accompanying responsibilities at the request of physicians qualified to prescribe and/or perform radiologic procedures. They utilize equipment emitting ionizing radiation to produce radiographic images of the internal structures of human anatomy. These radiographic images are utilized by the physician for diagnostic and therapeutic purposes. The radiographer is responsible for all functions in the Radiology Department to insure consistent radiographic images and provide for personal and patient safety from ionizing radiation. In addition to producing diagnostic images and primary patient care, other responsibilities may include administrative and educational functions.

Graduates of this two-year program will be awarded an Associate in Applied Science Degree in Radiologic Technology and are eligible to make application to the American Registry of Radiologic Technology in order to become a Registered Radiographer.

### **The program is accredited by:**

The Joint Review Committee on Education in Radiologic Technology (JRC/ERT)  
20 N. Wacker Dr., Suite 900  
Chicago, IL 60606-2901  
Telephone: 312-704-5300

### **Program Length**

Two Years (Fall, Spring, and Summer semesters)

### **Degree(s) Offered**

Associate in Applied Science

### **Admission Requirements**

The applicant must:

1. Meet all general admission requirements. (See the College Affairs Section)
2. Submit a completed radiography program application.
3. Be at least 18 years of age.
4. Have a minimum composite score of 17 on the American College Test (ACT)
5. Have a minimum G.P.A. of 2.5
6. Have completed each prerequisite course, with at least a C average, prior to entering the program
7. Be able to perform the following functions:
  - Reach and manipulate equipment at a height of six feet.
  - Lift or move objects weighing a minimum of fifty (50) pounds.
  - Stand for lengthy periods (approximately 6 hours a day).
  - Walk long distances in reasonable time (approximately 1/4 mile in 5 minutes).
  - Display good manual dexterity.
8. Submit an acceptable medical examination (if selected for admission into the program)
9. **Must submit a signed, notarized criminal background check. Students whose background reveals a crime unacceptable by a clinical site will be ineligible to enroll in the program.**

### **Application Procedure**

Applications will be accepted through **March 1st** each year. **Failure to submit all information or complete all requirements on or before March 1<sup>st</sup> will void the application.**

On or before **March 1st**:

1. Submit the completed application form.
2. Assure that the following items have been received:
  - A.C.T. scores
  - College transcript(s)
  - Midterm grades (if applicable)
  - Physical report
  - Reference forms (2)
  - Transcripts from all colleges attended, ACT Scores, and midterm grades (if applicable) must be sent or delivered to the Program Director in a sealed envelope.

~~\* Jones County Junior College transcripts and information will be obtained by program faculty.~~

  - Reference letters should be mailed or sent by the person completing the

reference form in a sealed envelope.

### **Application for Advance Standing or Readmission**

Application for advanced standing, transfer of credit, or readmission may be submitted at any time. Applicants who wish to apply for advanced standing, transfer of credit, or readmission into the program must submit a written request, meet all application requirements, and complete the application process. The request, application, and all required materials should be submitted to the Radiography Program Director. Applications for advanced standing, transfer of credit, or readmission are considered based on available clinical positions, grades, course work, and references. Completed applications are presented to the Dean of Career and Technical Education and the Academic Dean for consideration. The applicant is then notified of the decision. Applicants applying for advance standing or readmission into the Radiography Program must:

1. Meet all general admission requirements of the college (See the College Affairs Section)
2. Submit a completed radiography application including a written explanation describing the reason and type of admission being requested.
3. Be at least 18 years of age.
4. Have a composite score of 17, or equivalent on the Enhanced A.C.T.
5. Have a minimum G.P.A. of 2.5.
6. Have course work equivalent to the level for which he/she is making application.
7. Submit official college transcripts from all colleges attended.
8. Submit midterm grades if applicable.
9. Submit a reference from the previous Radiography Program attended.
10. Be able to perform the following functions:
  - Reach and manipulate equipment at a height of six feet.
  - Lift or move objects weighing a minimum of fifty (50) pounds.
  - Stand for lengthy periods (approximately 6 hours a day).
  - Walk long distances in reasonable time (approximately 1/4 mile in 5 minutes).
  - Display good manual dexterity.
11. Submit an acceptable medical examination. (If approved for admission into the program)
12. **Must submit a signed, notarized criminal background check. Students whose background reveals a crime unacceptable by a clinical site will be ineligible to enroll in the program.**

### **Student Selection**

The Radiographer Program is currently accredited for fourteen first year students. Each application is screened to insure that the applicant meets all minimum requirements. Thirty six applicants will be selected to interview for the program. Selection of the applicants for interview will be based on academic achievement and employment history. Applicants selected for interview will be notified of the date, time, and location of the admission interview by mail.

The Admissions Committee will select fourteen applicants to become students of the radiographer program. In addition to the fourteen applicants selected, the committee will also select three alternates. In the event that an applicant cannot accept their position, an alternate will be notified and offered the position.

Selection criteria are based on academic records such as G.P.A., A.C.T. scores, completed college course work, work experience, and a personal interview by the Admissions Committee. Selection criteria in each category are weighted as follows:

Academic 50%

Work Experience 10%  
Interview 40%

All applicants will be notified of the interview results by mail.

### Admission to the Program

The newly selected student will attend an orientation meeting. The date, time, and location of this meeting will be announced in the acceptance letter. Students are selected pending a favorable physical report and background check. Prior to beginning the program, the student must:

1. Have a physical examination.
2. Begin hepatitis vaccinations or sign a declination form.
3. Have the Tuberculin Skin Test and Varicella Titer IGG and submit results to the Program Director.
4. BE finger printed and submit a signed notarized background check.
5. Complete twenty four hours of orientation at Forrest General Hospital and South Central Regional Medical Center before the first day of class.
6. Obtain American Heart C.P.R. Certification.

**All related charges for these services are the responsibility of the student.**

### Contact and Application Information

Please contact the Jones County Junior College Counseling Center at (601) 477-4257 or the Radiography Program Office at (601) 477-4159. Application information and forms may also be accessed by visiting our web page at: [www.jcjc.edu/programs/career and technical education/medical radiologic technology](http://www.jcjc.edu/programs/career_and_technical_education/medical_radiologic_technology).

### Medical Radiologic Technology Associate in Applied Science

<b>Prerequisite courses for admission to Radiography:</b>	<b>Credit Hours</b>
LLS 1312 Orientation.....	2
CSC 1113 Computer Concepts.....	3
ENG 1113 English Comp. I.....	3
MAT 1313 College Algebra.....	3
Psychology or Sociology.....	3
Total Hours.....	14
Freshman Year	
<b>Summer Semester Credit Hours</b>	
First four weeks	
RGT 1213 Fundamentals of Radiography.....	3
BIO 2514 Anatomy & Physiology I.....	4
Total Hours.....	7
(Second four weeks)	
RGT 1223 Patient Care & Radiography.....	3
BIO 2524 Anatomy & Physiology II.....	4
Total Hours.....	7
<b>First Semester Credit Hours</b>	
ENG 1123 English Comp. II.....	3
RGT 1114 Clinical Education I.....	4
RGT 1312 Prin. of Radiation Protection.....	2
RGT 1413 Imaging Principles.....	3
RGT 1513 Radiographic Procedures I.....	3
Total Hours.....	15
<b>Second Semester Credit Hours</b>	

SPT 1113 Public Speaking.....	3
RGT 1124 Clinical Education II.....	4
RGT 1613 Physics of Imaging Equipment.....	3
<b>RGT 1423 Digital Imaging.....</b>	<b>3</b>
RGT 1523 Radiographic Procedures II.....	3
Total Hours.....	16
Sophomore Year	
<b>Summer Semester Credit Hours</b>	
Eight weeks	
RGT 1139 Clinical Education III.....	9
<b>First Semester Credit Hours</b>	
RGT 2147 Clinical Education IV.....	7
RGT 2533 Radiographic Procedures III.....	3
<b>RGT 2133 Ethical &amp; Legal Responsibilities.....</b>	<b>3</b>
RGT 2912 Radiation Biology.....	2
Total Hours.....	15
<b>Second Semester Credit Hours</b>	
RGT 2157 Clinical Education V.....	7
RGT 2542 Radiographic Procedures IV.....	2
RGT 2922 Radiographic Pathology.....	2
RGT 2933 Certification Fundamentals.....	3
Humanities /Fine Arts Elective.....	3
Total Hours.....	17

All incoming freshmen must take LLS 1312 Orientation.

The curriculum for Medical Radiologic Technology (Radiography) is **only** for those students who have completed the radiography program application process and have been formally accepted for entrance into the program. Students preparing to make application to the radiography program and graduates of a radiography program who wish to pursue a baccalaureate degree should refer to the Health Professions curriculum and contact their advisor for guidance.

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## **MEDICAL RADIOLOGIC TECHNOLOGY (RADIOGRAPHY)**

**RGT 1114 – Clinical Education I** – Prerequisite: RGT 1213. This course involves clinical practice and instruction in a clinical affiliate. Areas included are patient care and management, radiation protection, operation of equipment, and radiologic procedures. Twelve hours clinical. Four semester hours credit.

**RGT 1124 – Clinical Education II** – Prerequisite: RGT 1114. This course involves clinical practice and instruction in a clinical affiliate. Areas included are patient care and management, radiation protection, operation of equipment, and radiologic procedures. Twelve hours clinical. Four semester hours credit.

**RGT 1139 – Clinical Education III** – Prerequisite: RGT 1124. This course involves clinical practice and instruction in a clinical affiliate. Areas included are patient care and management, radiation protection, operation of equipment, and radiologic procedures. Twenty-seven hours clinical. Nine semester hours credit.

**RGT 1213 – Fundamentals of Radiography** – This course is an introduction to Radiologic Technology including professional, departmental, and historical aspects. Included are terminology,

medical ethics, and fundamental legal responsibilities. Three hours lecture. Three semester hours credit.

**RGT 1223 – Patient Care and Radiography** - This course will provide the student with the basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures will be described, as well as infection control procedures utilizing standard precautions. The role of the radiographer in patient education will be identified. Two hours lecture, two hours lab. Three semester hours credit.

**RGT 1312 – Principles of Radiation Protection** – Prerequisite: RGT 1213. This course is designed to present an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel, and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies, and health-care organizations are incorporated. Two hours lecture. Two semester hours credit.

**RGT 1413 – Imaging Principles** - Prerequisite: RGT 1213. This course is a study of the principles involving manipulation of factors controlling and influencing exposure and radiographic quality. Included are the prime factors of radiographic exposure, beam limiting devices, filtration, production and control of scatter and secondary radiation, exposure systems, technical conversions, and problem solving. This course presents an introduction to film processing including darkroom design and equipment. Included are chemistry of developing solutions, procedures of general maintenance, quality control, and silver recovery methods. Two hours lecture and two hours lab. Three semester hours credit.

**RGT 1423 – Digital Imaging** – Prerequisite: RGT 1413. This course is designed to impart an understanding of the components, principles, and operation of digital imaging systems found in diagnostic radiology. Included are factors that impact image acquisition, display, archiving, and retrieval. In addition, principles of digital system quality assurance and maintenance are introduced along with guidelines for selecting exposure factors and evaluating images within a digital system to assist students to bridge between film-based and digital imaging systems. Two hours lecture and two hours lab. Three semester hours credit.

**RGT 1513 – Radiographic Procedures I** – Prerequisite: RGT 1213. This course includes terminology, principles, and procedures involved in routine radiographic positioning for demonstration of the chest, abdomen, upper extremities, digestive system, and urinary system. Included is a review of radiographic anatomy on each procedure. Two hours lecture and two hours lab. Three semester hours credit.

**RGT 1523 – Radiographic Procedures II** – Prerequisite: RGT 1513. This course includes principles and procedures involved in radiographic positioning of the spinal column, pelvic girdle, lower extremities, bony thorax, and the routine skull, including mobile and trauma radiography procedures. Included is a review of radiographic anatomy on each procedure. Two hours lecture and two hours lab, Three semester hours credit.

**RGT 1613 – Physics of Imaging Equipment** – Prerequisite: RGT 1213. This course is designed to establish a knowledge base in radiographic, fluoroscopic, mobile, and tomographic requirements and design. The content will also provide a basic knowledge of quality control. Computer applications in the radiologic sciences related to image capture, display, storage, and distribution are presented. Three hours lecture. Three semester hours credit.

**RGT 2133 – Ethical and Legal Responsibilities** – Legal terminology, concepts, and principles will be presented in this course. Topics include misconduct, malpractice, legal and professional standards, and the ASRT scope of practice. The importance of proper documentation and informed consent is emphasized. This course will prepare students to better understand their patients, the patients' families, and professional peers through comparison of diverse populations based on their value systems,

cultural and ethnic influences, communication styles, socioeconomic influences, health risks, and life stages. Three hours lecture. Three semester hours credit.

**RGT 2147 – Clinical Education IV** – Prerequisite: RGT 1139. This course involves clinical practice and instruction in a clinical affiliate. Areas included are patient care and management, radiation protection, operation of equipment, and radiologic procedures. Twenty-one hours clinical. Seven semester hours credit.

**RGT 2157 – Clinical Education V** – Prerequisite: RGT 2147. This course involves clinical practice and instruction in a clinical affiliate. Areas included are patient care and management, radiation protection, operation of equipment, and radiologic procedures. Twenty-one hours clinical. Seven semester hours credit.

**RGT 2533 – Radiographic Procedures III** – Prerequisite: RGT 1523. This course includes principles and procedures involved in radiographic positioning of the entire cranium, facial bones, reproductive systems, and special senses. Included is a review of radiographic anatomy on each procedure. Three semester hours credit.

**RGT 2542 – Radiographic Procedures IV** – Prerequisite: RGT 2533. This course is a study of special radiographic procedures which utilizes sterile techniques and/or specialized equipment. It also includes patient preparation and contrast media utilized for these procedures. Two semester hours credit.

**RGT 2912 – Radiation Biology** – Prerequisite: RGT 1312. This course is a study of the biological effects of radiation upon living matter. It includes genetic and somatic effects, instrumentation for detection and measurement, and calculation of dosage. Two hours lecture. Two semester hours credit.

**RGT 2922 – Radiographic Pathology** – This course is an introduction to the concepts of disease. Pathology and disease as it relates to various radiographic procedures will be discussed. Two hours lecture. Two semester hours credit.

**RGT 2933 – Certification Fundamentals** – This course is designed to correlate scientific components of radiography to entry-level knowledge required by the profession. Three hours lecture. Three semester hours credit.