Choose from three concentrations:
• Computed Tomography (CT)
  (For registered Radiographers and Radiation Therapists only)
• Magnetic Resonance Imaging (MRI)
• Quality Management (QM)

In an advanced position within the radiologic and imaging sciences, you'll manage high-tech equipment and oversee technologists and the procedures they perform. This is a challenging and growing field with career opportunities in areas such as computed tomography, magnetic resonance imaging, mammography, angiography and quality assurance.

“The ASRT recognizes the baccalaureate degree as the professional level of radiologic science education. The need for sophisticated imaging management and leadership to respond to the clinical, organizational and fiscal demands facing the healthcare industry supports the creation of advanced educational and skill development opportunities for imaging and therapeutic practitioners.”
- American Society of Radiologic Technologists, 2008

With a bachelor’s degree in Radiologic and Imaging Sciences, you'll be on your way to a related career in management, education or an advanced clinical position.

Note:
The Radiologic & Imaging Sciences program is a limited access program. Students must be prepared for rigorous coursework, and must meet all prerequisites before admission to the program.

Potential Careers
This is a 2 + 2 program, meaning you must first complete an associate
• Radiology Management/Administration
• Education
• Quality Assurance
• Advanced Clinical Practice in:
  - Computed Tomography
  - Magnetic Resonance Imaging

Potential Earnings
The ASRT 2010 salary survey shows that salaries increase across all of the imaging professions with the attainment of a B.S. degree and/or certifications in advanced imaging modalities. A staff radiographer can achieve a 13% -23% increase in base salary by gaining employment in an advanced modality such as CT, MRI or QM.

This survey also suggests that staff technologists in all of the imaging professions can increase their earning potential significantly through promotion to supervisory, administrative or educational positions.

Contacts
Health Sciences Career Program Advisor
West Campus: 407-582-1288
Visit our website at: valenciacollege.edu/bachelordegrees

Further Educational Opportunities
With a completed B.S. degree, additional doors to advanced academic programs are opened. These include graduate degree programs in medicine, physician assistance, radiologist assistance, education, and health services administration.

Receive updates about the program and connect with other students at: facebook.com/ValenciaHealthSciences
Radiologic & Imaging Sciences

A.S. TO B.S. RADIOLOGIC and IMAGING SCIENCES

Computed Tomography (CT) Concentration
Magnetic Resonance Imaging (MRI) Concentration
Quality Management (QM) Concentration

Limited Access
Division of Allied Health

The Radiologic and Imaging Sciences bachelor’s degree offers graduates of Radiography, Diagnostic Medical Sonography, Nuclear Medicine, or Radiation Therapy A.S. degree programs the opportunity to expand their knowledge in advanced modalities or quality management and administration. The Radiologic and Imaging professions are challenging and growing professions with career opportunities in areas such as computed tomography, magnetic resonance imaging, mammography, angiography, and quality assurance. With professional experience and additional education at the baccalaureate level, opportunities for management and education career options are enhanced.

Admission Requirements:
- Submit Valencia College baccalaureate application
- Submit program application to the Radiologic and Imaging Sciences limited access baccalaureate program
- Submit official transcripts denoting completion of an A.S. in Radiography, Diagnostic Medical Sonography, Nuclear Medicine, or Radiation Therapy from a regionally accredited college program with a minimum of 68 hours of course work, including 18 credit hours of General Education, as indicated:
  - Communication 3 Cr.
  - Humanities 3 Cr.
  - Social Science 3 Cr.
  - Mathematics (Gordon Rule) 3 Cr.
  - Science 6 Cr.
- Complete the following Common Prerequisites for B.S. Radiologic and Imaging Sciences:

Valencia General Education Requirements (18 Cr.)

A. Communication (6 Cr.)
  ENC 1102
  SPC 1608

B. Humanities (Gordon Rule) (6 Cr.)
  SPC 2041 (required if not previously taken)

C. Social Science (3 Cr.)
  POS 2041 (required if not previously taken)

D. Mathematics (3 Cr.)
  STA 2023

Radiologic and Imaging Core Requirements (27 Cr.)

+RTE 3116 Advanced Patient Care 3 Cr.
+RTE 3213 Radiology Information Systems 3 Cr.
+RTE 3765 Anatomy for the Medical Imager 3 Cr.
+RTE 4574 Advanced Imaging Modalities 3 Cr.
+HSC 4555 Pathophysiology 3 Cr.
+HSC 4640 Health Law and Compliance 3 Cr.
+HSC 4652 Ethics and Healthcare in a Pluralistic Society 3 Cr.
+RTE 4206 Leadership in Healthcare 3 Cr.
+RTE 4914 Research Methods and Information Literacy 3 Cr.

Concentration: Magnetic Resonance Imaging (MRI) (15 Cr.)

Program Outcomes
- Perform entry level skills competently as described by the scope of practice for magnetic resonance imaging.
- Perform effective interpersonal, internal, external and written communication skills within the healthcare environment.
- Effectively analyze resources to encourage growth in the profession.
- Execute safe clinical decision making in healthcare environment.

+ RTE 3591 Magnetic Resonance Imaging I 3 Cr.
* RTE 3592 Magnetic Resonance Imaging II 3 Cr.
* RTE 4941L Practicum 3 Cr.
Electives 6 Cr.

Concentration: Computed Tomography (CT) (15 Cr.)

Program Outcomes
- Perform entry level skills competently as described by the scope of practice for computed tomography.
- Perform effective interpersonal, internal, external and written communication skills within the healthcare environment.
- Effectively analyze resources to encourage growth in the profession.
- Execute safe clinical decision making in healthcare environment.

(For Radiographers & Radiation Therapists only)

+ RTE 3590 Computed Tomography 3 Cr.
+ RTE 4474 Quality Management 3 Cr.
+*RTE 4941L Practicum 3 Cr.
Electives 6 Cr.

Concentration: Quality Management (QM) (15 Cr.)

Program Outcomes
- Perform entry level skills competently as described by the scope of practice for quality assurance.
- Perform effective interpersonal, internal, external and written communication skills within the healthcare environment.
- Effectively analyze resources to encourage growth in the profession.
- Demonstrate leadership skills essential for effective managerial performance.
Radiologic & Imaging Sciences

- RTE 4474  Quality Management  3 Cr.
- RTE 3205  Administration and Supervision  3 Cr.
- * RTE 4941L  Practicum  3 Cr.
- Electives  6 Cr.

Radiologic and Imaging Sciences Electives
- RTE 3253  Teaching in the Health Professions  3 Cr.
- RTE 4208  Managed Care Concepts  3 Cr.
- HSA 4340  Principles of Human Resources Management  3 Cr.
- RTE 3205  Administration and Supervision  3 Cr.
- RTE 4474  Quality Management  3 Cr.
- RTE 3590  Computed Tomography  3 Cr.
- RTE 3591  Magnetic Resonance Imaging I  3 Cr.
- * RTE 3592  Magnetic Resonance Imaging II  3 Cr.

Foreign Language Proficiency Requirements

See Degree Graduation Requirements below.

Degree Graduation Requirements

- A 2.0 Valencia and Overall GPA
- Satisfy Valencia's General Education requirements, Gordon Rule, and CLAS requirements
- 42 semester credits of upper division course work completed
- 25% of course work (32 semester credits) must be completed in residency at Valencia
- Two years of one foreign language in high school or one year foreign language in college (or equivalent proficiency prior to graduation)

Total Semester Credits Required  128 Credits

TRANSFER NOTES:

- Students transferring from a regionally accredited Florida public institution with an AA degree or with the general education program (GEP) requirements of that institution met have thereby satisfied Valencia GEP requirements.
- 1000 and 2000 level courses do not substitute for upper division 3000 – 4000 level courses.

Specialized courses may not be offered every session or on every campus.

* This course must be completed with a grade of C or better.
* This course has a prerequisite; check description in Valencia catalog.

REGISTRATION NOTE: Once a student has been approved as “Course Registration Eligible,” it is the student’s responsibility to secure enrollment in the desired course(s).
ADMISSION CRITERIA and CHECKLIST

Application Priority Deadlines:
2011 Fall Term – July 29, 2011
2012 Spring Term – November 11, 2011
2012 Summer Term – April 16, 2012

Valencia’s Radiologic & Imaging Sciences B.S. Program is a limited access program. Students are admitted at the beginning of each term. The minimum admission requirements that must be satisfied prior to submitting an application to the Radiologic & Imaging Sciences Program are:

1. Review the general admission requirements for Health Sciences programs in the Admissions section of the Valencia catalog and review the Health Sciences Program Guidelines, included in this program guide.

2. Submit a completed Valencia Application for Admission via Valencia’s website at www.valenciacc.edu/admissions and pay the application fee; satisfy the requirements for Degree-Seeking Status, including submission of all official transcripts, and be in Active Student Status.

3. Complete the prerequisites for admission including: an A.S. degree in Radiography, Diagnostic Medical Sonography, Nuclear Medicine Technology or Radiation Therapy which includes at least 18 credit hours of general education coursework; MAC 1105 College Algebra; and BSC 2094C Human Anatomy and Physiology II, with a minimum grade of “C.”

4. Have a minimum overall college GPA of 2.5 including transfer work.

5. Submit official transcripts denoting completion of an A.S. degree in Radiography, Diagnostic Medical Sonography, Nuclear Medicine Technology, Radiation Therapy, or equivalent from a regionally accredited college program.

6. When Numbers 1 – 5 are complete, submit a completed Valencia Radiologic & Imaging Sciences B.S. Program application by the application deadline to the Health Sciences Advising Office on West Campus. The application can be found at www.valenciacc.edu/health.

7. Submit to a campus Business Office the $15.00 non-refundable Health Sciences program application fee (check or money order payable to Valencia College). This fee must be paid with each Health Sciences program application.

8. Attach your current American Registry of Radiologic Technologists (ARRT) certifications, American Registry of Diagnostic Medical Sonographers (ARDMS), Nuclear Medicine Technology Certification Board (NMTCB), or equivalent certification documentation.

The estimated total cost for the BS in Radiologic & Imaging Sciences degree, including tuition, special course fees, and associated expenses such as uniforms, immunizations, and licensing is $7,150 (does not include textbooks).
DIVISION OF HEALTH SCIENCES
PROGRAM GUIDELINES for ALL
LIMITED ACCESS PROGRAMS

Valencia’s Health Sciences programs are offered through the Divisions of Allied Health and Nursing, which provide information about specific admission criteria for the programs. The Health Sciences Program Guides, of which this is one, are developed for a specific academic year (August to July) and, as a rule, changes to admission and program requirements become effective at the start of an academic year; however, Valencia College reserves the right to make changes in admission and program requirements as circumstances require. If a mid-year change becomes necessary, it will be indicated in the information for the specific program on the Valencia website at valenciacc.edu/bachelordegrees.

Most programs have an application deadline; some do not. If a program application deadline falls on Saturday, Sunday or a Valencia holiday, the deadline will become the following Valencia business day. Health Sciences program applications are available at valenciacc.edu/health.

To submit an application to a Health Sciences program, you must be a U.S. citizen or permanent resident.

All communication from Valencia relative to program admission will be via your Atlas e-mail address. Written communication you initiate with Valencia staff should also be via your Atlas e-mail account and should include your full name and your Valencia ID number.

BACKGROUND CHECK, DRUG TESTING,
IMMUNIZATIONS AND CPR CERTIFICATION

The Health Sciences programs include student clinical rotations in external affiliate health care facilities with which Valencia has contracts for student clinicals. The affiliates’ policies require that students serving in a clinical rotation have their civil rights intact and be free of specific offenses that would disqualify them for a student clinical. Thus, all students accepted to a Health Sciences program are required to submit to a criminal background check and drug testing and provide documentation of specific immunizations and CPR certification following acceptance to a program and prior to placement in a clinical practicum.

If you have a positive background check or drug testing, you may be denied enrollment in a Health Sciences program due to the inability to participate in a clinical practicum. If you have concerns regarding your background, you are encouraged to make contact with the Health Sciences Career Program Advisor.

TRANSPORTATION TO CLINICAL SITES

If accepted to a program, you will be responsible for furnishing transportation to the community and/or hospital facilities used by Valencia for clinical practice.

Valencia is an Equal Opportunity Institution.
### PERFORMANCE STANDARDS continued

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<th>ISSUE</th>
<th>STANDARD</th>
<th>EXAMPLES OF REQUIRED ACTIVITIES (NOT ALL INCLUSIVE)</th>
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| Critical Thinking| Critical thinking ability sufficient for safe clinical judgment.          | * Identify cause-effect relationships in clinical situations.  
* Evaluate radiographs to ascertain that they contain proper identification and are of diagnostic value.  
* Select exposure factors and accessory devices for all radiographic procedures with consideration of patient size, age, and extent of disease.  
* Assess patient's condition and needs from a distance of at least 20 feet.  
* Initiate proper emergency care protocols, including CPR, based on assessment data. |
| Interpersonal    | Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds. | * Establish rapport with patients, families, and colleagues. |
| Communication    | Communication abilities sufficient for interaction with others in verbal and written form. | * Communicate in English to the patient in order to: converse, instruct the patient, relieve anxiety, gain their cooperation during procedures, understand the patient when communicating symptoms of a medical emergency.  
* Read the patient’s medical chart and/or physician’s orders.  
* Legibly write patient history.  
* Documents own actions and patient responses as indicated. |
| Mobility         | Physical abilities sufficient to move from room to room and maneuver in small spaces. | * Assist all patients, according to individual needs and abilities, in moving, turning, transferring from transportation devices to the x-ray table, etc.  
* Be able to push, pull, and lift 40 pounds.  
* Push a stretcher, wheelchair or other transportation device without injury to self, patient, or others.  
* Push a portable x-ray machine from one location to another, including turning corners, getting on and off of an elevator, and manipulating it in a patient's room. |
| Motor Skills     | Gross and fine motor abilities sufficient to provide safe and effective care. | * Manually move the x-ray tube and position the tube at various angles at heights up to 7 feet.  
* Accurately draw up sterile contrast media and other solutions without contaminating the syringe and/or needle, etc.  
* Place cassettes in Bucky trays and spot film devices and properly manipulate all locks.  
* Physically be able to administer emergency care including performing CPR.  
* Be able to stand for periods as long as 2 hours wearing lead aprons and to walk a distance of 2 miles during a normal work day. |
| Hearing          | Auditory abilities sufficient to monitor and assess patient needs, and to provide a safe environment. | * Hear a patient talk in a normal tone from a distance of 20 feet.  
* Hear monitor alarm, emergency signals |
| Visual           | Visual ability sufficient for observation and assessment necessary in the operation of equipment and care of patients. | * Observe the patient in order to assess the patient's condition and/or needs from a distance of, at least, 20 feet.  
* Can see numbers, letters, calibrations, etc. of varying sizes located on equipment utilized by a radiographer. |
| Tactile          | Tactile ability sufficient for patient assessment and operation of equipment. | * Perform palpation, tactile assessment, and manipulation of body parts to insure proper body placement and alignment.  
* Manipulate dials, buttons, and switches. |