

Radiography

[A45700] Associate in Applied Science Degree

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body.

Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology.

Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

Program Competencies

Upon successful completion of the Radiography program,

1. Students will demonstrate clinical competence.
2. Students will learn to think critically and how to apply problem-solving strategies.
3. Students will model professionalism.
4. Students will communicate proficiently.

The Randolph Community College Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone 312-704-5300, or at www.jrcert.org.

Enrollment Information

Radiography [A45700]

Courses for this A.A.S. degree program are offered day only.

Curriculum	Courses by Semester	Hours /Week			Sem. Hrs.
		Class	Lab	Wk. Exp.	Credit
First Year: Fall Semester					
ACA 111	College Student Success	1	0	0	1
BIO 163	Basic Anatomy & Physiology**	4	2	0	5
ENG 111	Writing and Inquiry	3	0	0	3
RAD 110	Radiography Intro & Patient Care	2	3	0	3
RAD 111	RAD Procedures I	3	3	0	4
RAD 113	RAD Lab Elective	0	3	0	1
RAD 151	RAD Clinical Education I	<u>0</u>	<u>0</u>	<u>6</u>	<u>2</u>
		13	11	6	19
First Year: Spring Semester					
ENG 114	Prof Research & Reporting	3	0	0	3
PHY 110	Conceptual Physics +	3	0	0	3
PHY 110 A	Conceptual Physics Lab OR	0	2	0	1
MAT 171	Precalculus Algebra	3	2	0	4
RAD 112	RAD Procedures II	3	3	0	4
RAD 121	Image Production I	2	3	0	3
RAD 161	RAD Clinical Education II	<u>0</u>	<u>0</u>	<u>15</u>	<u>5</u>
		11	8	15	19
First Year: Summer Semester					
RAD 122	Image Production II	1	3	0	2
RAD 141	Radiation Safety	2	0	0	2
RAD 171	RAD Clinical Education III	<u>0</u>	<u>0</u>	<u>9</u>	<u>3</u>
		3	3	9	7
Second Year: Fall Semester					
PHI 240	Introduction to Ethics	3	0	0	3
RAD 211	RAD Procedures III	2	3	0	3
RAD 231	Image Production III	1	3	0	2
RAD 251	RAD Clinical Education IV	<u>0</u>	<u>0</u>	<u>21</u>	<u>7</u>
		6	6	21	15
Second Year: Spring Semester					
PSY 150	General Psychology	3	0	0	3
RAD 261	RAD Clinical Education V	0	0	21	7
RAD 271	RAD Capstone	<u>2</u>	<u>3</u>	<u>0</u>	<u>3</u>
		5	3	21	13

Total Semester Hours Credit for Degree: 73

Students must obtain a grade of "C" or better in all RAD courses, "B" or better in BIO 163, ENG 111, ENG 114, PHI 240, PHY 110, PHY 110A, MAT 171, and PSY 150 in order to progress in the Radiography program.

***Students who choose to take BIO 168 and BIO 169 instead of BIO 163 will receive credit for BIO 163 if they earn a "B" or better.*

Radiography Admissions

The Radiography program understands and accepts the concept of the open-door policy for general admission to Randolph Community College. Admission to the college does not, however, guarantee admission to the Radiography program. Admission to the Radiography program is competitive. If you have questions about the admissions process for the Radiography program, please call the Retention and Career Services Specialist at 336-633-0222.

In addition to the Randolph Community College requirements for admission, the following are minimum requirements for admission to the Radiography program:

PHASE I (Completed by June 1)

1. Complete general **admission requirements** of Randolph Community College.
 - A. If new student, complete an RCC admissions application. Current students skip to number 2.
 - B. Provide official copies of high school transcript and/or high school equivalency test scores and all college transcripts.
 - C. Students are encouraged to apply for financial aid at www.studentaid.gov or contact the Office of Financial Aid and Veterans Affairs for assistance.
2. Student must be eligible to enter the program's required English and math courses without a co-requisite.
3. Complete the TEAS VI Test. The highest scores will be used in admissions decisions. Test scores are applicable for three years from the test date. There is no cut score for the exam.
4. A 2.5 cumulative grade point average (GPA) on the most recent transcript, college or high school. A 2.5 GPA **must** be maintained throughout the admissions process.
5. Attend mandatory information session. (Dates will be listed on the Radiography home page on the RCC website.)
6. Submit documentation required for the ranking sheet to Student Services Counselor.

Students will be notified by MyRCC email of acceptance into the Radiography program during the week of June 15 for fall enrollment. Students must respond by email within seven calendar days to accept placement in the program. If a student declines or does not respond by the deadline, another student will be offered placement.

PHASE II (Completed by July 12)

1. Complete student medical information form (including current immunizations and negative TB test). **Please note: Some of these immunizations may take 6 months to complete.**

These requirements are discussed in the information session. No extensions will be granted. Students may submit medical requirements to the administrative assistant for health sciences any time after receiving the Phase I completion email, although students are encouraged to verify MMR and Varicella immunizations early. Please refer to the information session packet.

2. Attend New Radiography Orientation. Students will be notified of date and time.
3. Current CPR certification through the American Heart Association for adults and children.

NOTIFICATION OF ADMISSIONS/INFORMATION SESSION

Students will be able to see the dates and times of information sessions via the RCC website. The purpose of the information session is to answer questions about the program and for representatives from the Radiography program to share important information. Students who do not attend will not be admitted into the program.

Applications received after June 1 will be considered on a space-available basis.

Applicants who are not admitted may reapply before the June 1 deadline of the next year.

READMISSIONS

Readmission to the Radiography program is based upon successful completion of the requirements for readmission and space availability. A student may readmit to the Radiography program one time only, and this admission must occur within one academic year of separation. Students dismissed for behavioral or unsatisfactory clinical performance are not eligible for readmission. The number of students approved for readmission will be based upon the availability of resources to support them.

The Radiography department head may require a readmitted student to re-take a previously successful course in order to better ensure success in the program. The student must follow the guidelines for admission and continue to maintain a 2.5 GPA. The student may be eligible for one of the admissions options listed below.

Option 1:

If the student is unsuccessful in their first fall, spring, or summer semesters, they must repeat the entire admissions process. They will be readmitted if they are one of the top candidates according to the admissions ranking sheet.

Option 2:

If the student is unsuccessful in their 2nd fall or 2nd spring semester,

- The student must apply for readmission by submitting a letter of intent to return within seven days of a radiography course to the Radiography department head.
- The student must have maintained a 2.5 GPA.
- The student will be required to pass a written and laboratory skills test.
- Testing must be completed within one year after dismissal.
- If both exams are passed, the student will reenter the program as a second-level student in the fall semester pending space availability.
- It is the student's responsibility to initiate the re-admission process and to schedule testing with the department head for radiography.
- The student will be required to re-complete the background check and drug screen.
- All immunizations and CPR requirements must be up to date.

Students eligible for Option 2 will only be permitted one opportunity to pass the written and lab exams. If the student is unsuccessful on either exam, the student may be eligible for Option 1, if they have met the admission requirements as outlined in the current college catalog.

TRANSFER CREDIT FOR RADIOGRAPHY COURSES

Students wishing to transfer into the Radiography program must follow the processes outlined below according to status. Out-of-state transfers are not accepted. In-state status students:

- Admission is based on space availability.
- The student must initiate the admission process and schedule a meeting with the Radiography department head.
- The student must meet all admissions requirements for the College and the Radiography program, as posted in the College catalog.
- The student must submit a letter from their current Radiography program director stating they left their current program in good academic and behavioral standing.
- Any student dismissed from their current program for behavioral issues or unsafe clinical practice will not be eligible for admission.
- The student will be required to complete a background check and drug screen through the RCC provider at their expense.
- All immunizations and CPR requirements must be up to date.
- The student will be required to pass a written and laboratory skills test.

PHYSICAL & EMOTIONAL HEALTH

It is required that there be evidence that the physical and emotional health of the student be such that he/she can be expected to provide safe care to the public.

Evaluation of health will continue throughout the program. An applicant or student who presents problems in physical or emotional health which have not responded to appropriate treatment within a reasonable time may be denied admission or asked to withdraw. The student is denied

admission or asked to withdraw to protect his/her own health and that of clients to whom he/she is assigned.

NUMERICAL RANKING SYSTEM

The numerical ranking system was implemented as an objective means for evaluating Radiography applicants. Applicants will be ranked based upon points earned. Students with the highest number of points will be selected for admission into the Radiography program.

GPA: A minimum 2.5 cumulative grade point average (GPA). Actual GPA will be multiplied by three.

TEAS VI SCORE: The test scores are good for three years. Composite score converted into a decimal and multiplied by 20.

TRANSFER OF TEAS VI SCORE: RCC will consider accepting TEAS VI scores from other institutions, via atitesting.com, pending proof that all four sections have been completed within three years. RCC reserves the right to refuse TEAS V scores from other institutions should there be concern that all four sections have not been taken.

GENERAL COURSES: Points for having completed the following courses with a grade of “A” or “B” in the past five years: MAT 171 OR PHY 110 & PHY 110A, BIO 163, or BIO 168 & BIO 169. A=5 points; B=3 points.


HEALTHCARE EXPERIENCE: Points awarded for having healthcare-related experience working directly in patient care. Must be

- At least part time for a period of six months or more.
- Experience that has occurred within the past five years.
- A letter must be completed on company letterhead by your department supervisor and submitted to the Student Services Counselor by June 1.

LEGAL LIMITATIONS OF LICENSURE

Upon successful completion of the Radiography program, the student will be eligible to apply to take the American Registry of Radiologic Technologists certification exam. The application will be submitted in the last semester of study. Graduation from the Radiography program does not guarantee that a student will be permitted to sit for the exam. Students must pass an ethics review conducted by the ARRT. Please see the department head for Radiography if you have questions. Fees are associated with this process.

Radiography - Technical Standards

-  Each student must exhibit the abilities and meet the expectations listed below.

PHYSICAL REQUIREMENTS

- Prior to acceptance into the Radiography program, students are required to submit a completed and signed NC Community College Medical Form documenting immunizations and medical history which show proof of physical and mental health to perform the duties of a radiologic technologist.
- Possess the visual acuity to effectively operate equipment and otherwise function in various degrees of ambient lighting and in various sizes of print.
- Possess adequate depth perception to transport/move patients.
- Must be able to stand, sit, or walk up to 10 hours per day with minimal break times.
- Must be physically able to lift, carry, push and manipulate heavy equipment, which is often above the radiographers head/shoulder level.
- Must be physically able to push, pull, or otherwise transfer patients weighing several hundred pounds.
- Must be physically able to transport patients via wheelchairs or stretchers.
- Possess gross and fine motor skills sufficient to provide safe patient care and operate equipment.
- Must be able to bend and squat.
- Must be able to hear and visually monitor equipment to report any abnormal sounds or irregularities.
- Must be able to monitor and evaluate patient vital signs including respiration rate, temperature, blood pressure, and pulse rate.
- Must be able to visually analyze images for brightness/contrast levels, distortion, and evidence of blurring.

ANALYTICAL AND COMPREHENSION

- Apply the principles of aseptic and sterile techniques, infection control, contrast administration, and proper body mechanics.

- Use critical thinking skills necessary to assess patients and adapt procedures to patient ability and to solve problems.
- Use critical thinking skills necessary to interpret orders, medical records, lab values, and any other clinical information.
- Evaluate and analyze image quality and exam completeness.
- Be able to use short and long-term memory.
- Perform mathematical calculations to accurately select technical factors, administer contrast media and other medications and assess patient data.
- Understand and correctly follow verbal instructions given face-to-face, over the phone, or from a distance, including those given in a setting where personnel are wearing surgical masks.

EMOTIONAL AND BEHAVIORAL SKILLS

- Expected to be honest, respectful, and exhibit a high level of integrity in all situations.
- Follow all program, college, and clinical site policies.
- Expected to adhere to the ARRT/ASRT Code of Ethics and Rules of Ethics.
- Expected to maintain confidentiality at all times.
- Expected to be on time and dressed appropriately, which includes all necessary supplies for class, lab, and clinical.
- Expected to take initiative in their own clinical, class, and lab experience in an effort to improve his/her knowledge and skills
- Expected to work in groups and individually.
- Expected to conduct him/herself in an adult manner.
- Maintain mental alertness.
- Respond appropriately to constructive criticism.
- Must be emotionally stable to handle trauma, emergency and any other emotionally stressful situation that may be encountered at the clinical site.

COMMUNICATION SKILLS

- Must have adequate hearing and speech to communicate orally with patients and other members of the health care team in face-to-face and telephone situations in a professional manner.
- Must be able to write legibly and be able to type sufficiently in order to accurately record patient history, lab values, reports and document in medical records.

Enrollment Information

- Must be able to read at a level sufficient to accurately read and understand medical records, physician orders, procedure manuals, technique charts, electronic data, and textbooks.



Office of
Student Success

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Radiography Admissions Checklist

Phase I – deadline June 1st

Contact for Phase I questions is Elaine Sill, ewsill@randolph.edu or 336-633-0222

- Current RCC application
- Official high school and all college transcripts submitted (current high school students may submit unofficial transcript for Phase I; official final transcript must be submitted by June 15th)
- Placement Testing if required
- Complete FAFSA/meet with Financial Aid
- Must be eligible to enter the program's required English and math courses without a co-requisite.
- 2.5 cumulative GPA on most recent transcript, high school or college (2.5 GPA **must** be maintained throughout admissions process)
- Take TEAS test; submit scores through ATI Testing website if TEAS is taken anywhere but RCC
- Attend/complete mandatory radiography information session
- Submit healthcare experience letter if applicable

Notifications of acceptance sent out week of June 15th to RCC email accounts only

Phase II – deadline July 12th

Contact for Phase II questions is Angela Bare, arbare@randolph.edu or 336-633-0264. Phase II requirements cannot be turned in unless/until you have been offered and have accepted a seat in the program.

- Complete and submit medical form (including current immunizations and negative TB test)
- Current CPR certification

Attend New Radiography Orientation. The Radiography Orientation is the 3rd Thursday in July and starts at 9 a.m. Attendance is mandatory and failure to attend for any reason will result in the loss of the student's seat in the program.

TEAS Information

TEAS stands for Test of Essential Academic Skills; the test is used to assess how well students are prepared for the rigors of nursing and other health science programs. The test takes about four hours and is composed of four sections: reading, math, science, and English. You will sign up for your TEAS test at <https://www.atitesting.com/home.aspx> . Click on “I AM PREPARING FOR OR TAKING THE TEAS.” You will then need to create an account, log in, and click on Online Store at the top right. Click on the TEAS under “Register for...” on the left side of the page. You will have several choices for how you want to take TEAS. Each choice will have guides and information. When you are ready to register, choose “TEAS for Nursing Students” as your Program Type. To register for in-person TEAS, you can search by state, North Carolina, then choose a site to take your test. You must pay when you register.

You can find study resources for TEAS on the ATI Testing website and at the following links:

<https://www.test-guide.com/free-teas-practice-tests.html>

<https://www.mometrix.com/academy/teas-test/>

<http://www.teaspracticetest.com/>

You can also purchase workbooks and flash cards from ATI Testing and other sources.

Plan to attend a TEAS Preparation workshop. Please call 336-633-0268 for information.

Rules for test day:

1. No hoodies allowed
2. No food or drinks allowed
3. No calculators allowed – you will have access to a calculator on your computer during the test
4. No electronic devices
5. No printed materials – you will be given three sheets of scratch paper (you can turn those in and request more during the test if you need them) which you will turn in when you finish your test
6. Bring as few things as possible with you; your possessions will be stored in a small locker during your test

DO bring a picture ID on test day!

Your score will not be available to you online until ten minutes after the last person in your test group has finished. Scores will be unavailable during test dates at RCC on other days/times. Any other time, you will have access to your scores online. Do not call the Assessment Center for your score or with questions about your score.

“EXPLANATION OF PHASE II DOCUMENT”

TAKE THIS TO YOUR DOCTOR

This is not considered official documentation of your immunizations. This document is to help you meet the PHASE II admissions requirements

1. NCCCS Student Medical form

- You must submit the ORIGINAL packet, not a copy.
- The physical must have occurred within the **past 6 months**.
- Your provider must fill out and sign the physical exam page **and** the immunizations page (even if the immunizations are attached and not written in – this signifies the physician is acknowledging immunization history is complete and up-to-date).
- The **entire** packet must be filled out. **Every** section must be completed. If pages are left blank, then it will be denied and your medical file will be considered incomplete. **This includes the hearing and eye exams (ALL including corrected/uncorrected and color vision as well as gross and 15. Ft hearing test).**
- Students must complete Form A and Form B of the packet. This includes the statement of understanding at the beginning of the packet, student’s information, insurance information (if no insurance, write in NONE, otherwise, fill out the entire section), emergency contact information (MUST be a relative – no boyfriend/girlfriend/friend/acquaintance/fiancé), medical history (**ALL** questions must be answered yes or no), and statement of complete and accurate information provided by student at end of Form B.
 - **Date physical was completed: _____**
 - **Were all the hearing and eye exams completed?**
 - **Is all Form A filled out by the student with all questions answered?**
 - **Is all Form B filled out by the student with all questions answered?**
 - **Is the immunizations page completed or are immunization records attached?**
 - **Do titer reports have the numeric value and range of immunity?**
 - **Do the TB Skin Tests have a result of 0 MM or No Induration? If induration noted, was a chest x-ray performed and report included? If titer was completed, do the results show numeric result and range of immunity?**
 - **Is the physical page fully completed by the physician (ALL questions must be answered) and the statement of mental, physical, and emotional health completed?**
 - **Is the clinic stamp in each box provided for the immunization pages and the physical page that are completed by the medical provider? Has the medical provider signed each page?**

2. Two MMR vaccinations or positive titer

- If you do not have proof of your MMR vaccines, it is suggested that you obtain titer results before receiving the vaccinations again.
- **The titer must list the numeric value with range of immunity**
 - If you use the titer option, documentation must list a titer for each element of the disease (3 titers): one for measles, one for mumps, and one for rubella.

- If you have a negative titer, then you will need the two MMR vaccines, which are given a month apart.
 - Documentation must include your name, facility where the vaccination and/or titer was administered for each shot, dates received, and a medical provider's signature
 - **Option 1 for MMR:**
 - Date of 1st MMR shot: _____
 - Date of 2nd MMR shot (must at least 4 weeks after 1st shot): _____
 - **Option 2 for MMR:**
 - Get a titer drawn:
 - Numerical result from titer: _____
 - Does the result show range of immunity?
 - If you are negative, you must complete option 1.

3. Two Varicella vaccinations or positive titer

- If you do not have proof of your Varicella vaccines, it is suggested that you obtain titer results before receiving the vaccinations again.
- **The titer must list the numeric value with range of immunity**
 - Documentation must include your name, facility where the vaccination and/or titer was administered for each shot, dates received, and a medical provider's signature
 - **Option 1 for Varicella:**
 - Date of 1st shot: _____
 - Date of 2nd shot (must at least 4 weeks after the 1st shot): _____
 - **Option 2 for Varicella:**
 - Get a titer drawn:
 - Numerical result from titer: _____
 - Does the result show range of immunity?
 - If you are negative, you must complete option 1.

4. One dose Tdap

- Must have been administered within the past 10 years (this is NOT a tetanus booster – it must be a Tdap: tetanus, diphtheria, and pertussis).
- If it becomes out of date (over 10 years old) while you are in the program, you will have to have it updated to go to clinical. So, if it is close, consult your physician about when would be the best time to update it.
 - **Date of shot:** _____
 - Is this shot less than 10 years old? If not, repeat the shot

5. Hepatitis B vaccination series or positive titer

- There are 3 shots in the Hepatitis B series; we will require a record of all 3 vaccination dates. This series takes 6 months to complete. Please make sure that you begin this series in time to be completed by the Phase II deadline. No extensions will be given.

- **If the titer option is used, the titer must list the numeric value with range of immunity**
 - Documentation must include your name, facility where the vaccination and/or titer was administered for each shot, dates received, and a medical provider's signature
 - **Option 1 for Hep B:**
 - Date of 1st shot: _____
 - Date of 2nd shot (must be at least 4 weeks after dose 1): _____
 - Date of 3rd shot (must be at least 8 weeks after dose 2): _____
 - **Option 2 for Hep B:**
 - Get a titer drawn:
 - Numerical result from titer: _____
 - Does the result show range of immunity?
 - If you are negative, you must complete option 1.

6. 2-step Tuberculosis (TB) skin test with results (within the past 12 months)

- You will need two TB skin tests done. Each test result needs to be read within 48-72 hours.
- The second TB skin test needs to be administered **at least** seven days after the first one has been read. TB skin tests must have been performed within the last year.
- **Both tests must list the numeric result (0 mm or No Induration) and list the completion date.**
 - If you have a positive TB skin test (5 mm or greater), choose one of the following options
 - **Option 1:** QuantiFERON[®] Gold or T-SPOT[®] TB blood test is also acceptable in the place of the 2 TB skin tests. If this test comes back positive, a chest x-ray will be required.
 - **Option 2:** Chest X-ray. You will need to provide documentation that the chest x-ray is performed, the name of the practice, the date, and the results of the chest x-ray. The doctor's information must be included on the documentation. A chest x-ray will need to be repeated every year while you are in the program.
 - **Date of 1st test:** _____
Is this test 1 year old? If it is, repeat the test.
 - **Date of 2nd test** (must be at least 7 days after the first test was read): _____
Is this test 1 year old? If it is, repeat the test.

A TB Titer may be completed instead of 2 TB Skin Tests (QuantiFERON[®] Gold or T-SPOT[®])

- Must show numeric result and range of immunity on documentation
- If positive result is received, procedure for chest must be completed (as stated above)

7. Covid Vaccination

- You will be required to provide proof of Covid vaccination(s) including manufacturer and date of each dose received
- No exemptions permitted

8. American Heart Association Basic Life Support Certification

- Your BLS certification **MUST** be from the American Heart Association. Your card **must not be expired**. E-cards must be printed out and a copy presented for your file.
- If you need to obtain your certification and would like to know where to go, we offer classes here at RCC! Please contact Kathy Thornburg in the Continuing Education department at (336) 633-0221 for the schedule and registration information.
 - **Did you receive your card?**
 - **If your card is not an e-card, is your card signed?**
 - **Is your card expired? If so you must repeat the class**
 - **Was the provider of your class the American Heart Association (AMA)?**
 - **Was your class the BLS class for health care providers?**

9. Background Check and Drug screen

- You will be required to complete a background check and drug screen prior to the start of classes. Complete the background check form and return to Ms. Bare via email, fax (336-633-3082) or drop it off to her office (black drop box in lobby is available if she is not in her office). More information will be provided regarding the drug screen and payment for background check and drug screening.
 - **For Radiography students only: the new student orientation will be July 18, 2019. You will submit the consent for background check form to Ms. Bare as part of your PHASE II admissions criteria.**
- When you appear for your test, you will need a driver's license or other government-issued photo identification card and either cash or a blank check for payment. Credit cards are not accepted.

10. Note: It is highly suggested that you turn in ALL of your phase II documents one week before the actual deadline. If you are missing something this will allow you adequate time to complete this phase.