

Limited X-Ray Machine Operator Certificate

Pre-Admission Workshop



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Director of Radiology

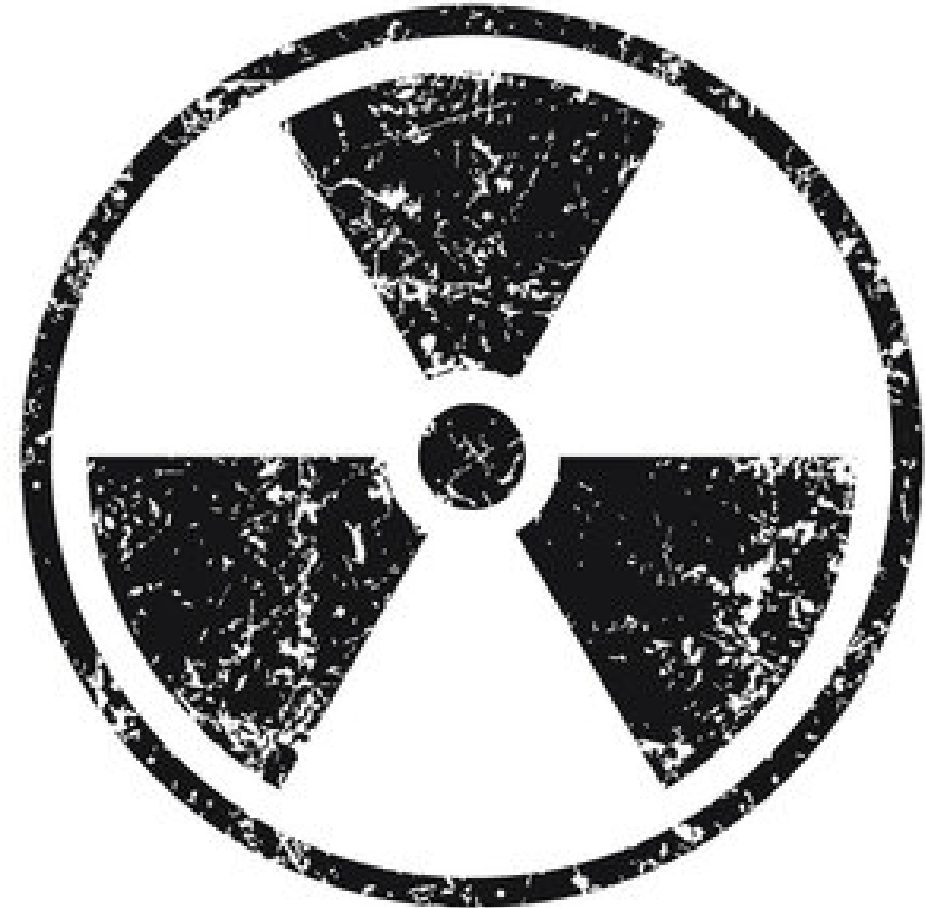
- Brian Spence: Course Instructor
- Chris Davidson: Course Instructor
- Amber Snodgrass: Course Instructor

- Avery Liggett: Clinical Coordinator
- Emily Underwood: Lab Faculty



OBJECTIVES

- **What is Radiologic Technology?**
 - Places of employment
- **What is a Limited X-Ray Machine Operator?**
 - Places of employment
 - Scope of Practice
- **About our program**
 - Student Qualifications
 - Application Process
- **Education Articulation**





X-RAYS WERE
DISCOVERED ON
NOVEMBER 8, 1895



WHAT IS RADIOLOGIC TECHNOLOGY?

The art & science of using radiation to provide images of the bones, organs, soft tissue and vessels that comprise the human body

- Radiologic technologists make up the third-largest group of health care professionals—surpassed in number only by physicians and nurses.
- A primary responsibility of many technologists is to create images of patients' bodies using medical equipment. This helps doctors diagnose and treat diseases and injuries. Depending on your specialty, you might use X-ray, MRI, CT, fluoroscopy, or sonography equipment.
- You could also help physicians perform procedures—such as angioplasty or stent insertion—to treat heart and blood vessel diseases without surgery. Or you might administer therapeutic doses of radiation to treat diseases such as cancer.

A DAY IN THE LIFE...

- You'll promote safety and provide the highest level of patient care as you complete your daily work.
- You'll probably work in:
 - Hospital
 - Physician's office (orthopedic, pain management, arthritis clinic, chiropractor)
 - Outpatient care center (urgent care, outpatient imaging, surgical centers)
- No matter your specialty, you'll be an important part of a medical team. Your work will help uncover health problems and could ultimately save lives. You'll be active throughout your working hours, and no two days will be the same.



LIMITED X-RAY MACHINE OPERATOR OR CPTR

A Limited X-Ray Machine Operator, Limited Tech, CPTR, PTR or Practical Tech are all inner changeable terms to describe this specific scope of practice within the state of Arizona.

A Certified Practical Technologist in Radiology (CPTR) is a healthcare professional who has completed specific training to perform limited radiographic procedures, typically focusing on basic X-rays of the chest and extremities. They are qualified to operate imaging equipment but have a more restricted scope of practice compared to a fully certified radiographer.

SCOPE OF PRACTICE & EDUCATION

Limited Scope: They are not allowed to perform all types of radiographic examinations and are usually restricted to specific body areas like the chest and extremities.

CPTRs are most likely to work in an outpatient setting such as an urgent care or physician's office.

Training and Certification: To become a CPTR, individuals need to complete a specialized training program and pass a certification exam, often administered by the state where they practice.

Certification will be applicable in the state of Arizona only.

[ARRT State Licensing Guide](#)

ABOUT OUR PROGRAM

Our classroom and lab are located at the Prescott Valley Center
3800 N. Glassford Hill Rd – Prescott Valley, AZ 86314



All didactic courses are online

ABOUT OUR PROGRAM

Summer Term 1:
In-person 1 day a week lab for 6 hours

Fall Term 2:
2 days a week for 18 weeks clinicals (16 hrs per week)

Spring Term 1	4 credit hours	Hours	Notes
2nd 8 weeks			
• BIO 160 Introduction to Human Anatomy and Physiology		4	Prerequisite: Reading Proficiency.
		Term hours subtotal:	4

Summer Term 1	7 credit hours	Hours	Notes
• RAD 100 Introduction to Medical Imaging		2	Prerequisite: Program Admission. BIO 160 or BIO 201 (may be taken concurrently)
• RAD 101 Limited Radiographic Positioning I		3	Prerequisite: Program Admission. BIO 160 or BIO 201 (may be taken concurrently)
• RAD 102 Limited Radiographic Positioning Lab II		2	Prerequisite: Program Admission. BIO 160 or BIO 201 (may be taken concurrently)
		Term hours subtotal:	7

Fall Term 2	12 credit hours	Hours	Notes
• RAD 135 Radiation Physics and Equipment		3	
• RAD 158 Radiographic Image Production		2	
• RAD 161 Radiology Clinical Education I		3	
• RAD 170 Radiology Patient Care and Pharmacology		2	Prerequisite: Program Admission
2nd 8 weeks			
• RAD 175 Radiation Biology and Protection		2	Prerequisite: Program Admission
		Term hours subtotal:	12

COMPETENCY BASED PROGRAM

- **24- week** program based on a combination of coursework (didactic) and clinical skills.
- Students are required to complete a specific number of competencies prior to graduation from the program as required by the ARRT.



Ensuring Gold Standard
Patient Care Since 1922



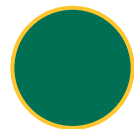
ARIZONA DEPARTMENT
OF HEALTH SERVICES

RADIOLOGY PROGRAM SPECIFIC FEES

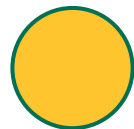
TOTAL INCLUDES TUITION FEES FOR PROGRAM CORE COURSES

Biology Course Tuition Cost	\$524.00
HESI Entrance Exam	\$65.00 (Subject to change)
Program Tuition	\$3,857.00
Textbook Bundles; Print Version OR e-Book Version	Print Version - \$445.56 e-Book Version - \$355.16
MyClinicalExchange: Clinical Compliance/Rotation Tracker <small>*Some organizations may not use the MyClinicalExchange platform</small>	\$40.00 (Subject to change)
Clinical Activity Tracker	\$150.00
Background Check, Drug Test, and Immunization Tracker (CastleBranch.com) <small>*Some organizations may waive the need for a background check & drug test for their own employee's attending clinicals within their system.</small>	\$140.49 (Subject to change)
Scrubs and Shoes Black top-Pewter bottoms (or employer uniforms) Scrubs & Shoes Available in the Bookstore	\$200.00 (Estimated)
Physical Exam and Immunizations	\$350.00 (Varies by provider)
CPR (course provided by program)	\$7.00 (Subject to change)
Transportation (travel could be in excess of 1.5 hours)	(Varies by clinical site location)
Health Insurance Coverage (must maintain continuous coverage)	(Varies by provider)
ARRT Examination Application Fee ARRT State Handbook & Fees	\$150.00 (Subject to change)

CLINICAL EDUCATION

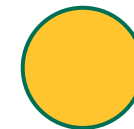
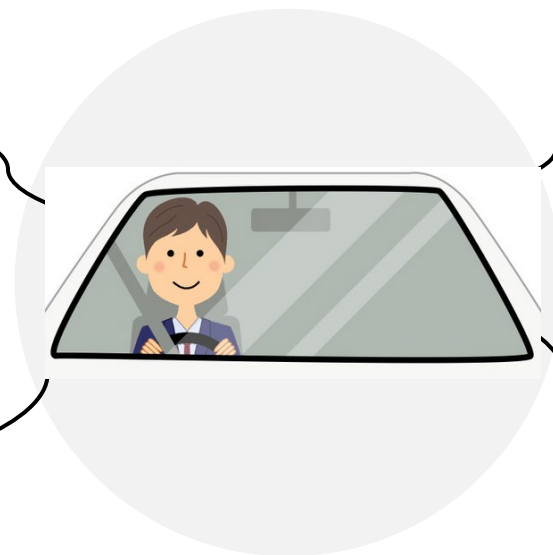


Commuting
In excess of 1.5 hours



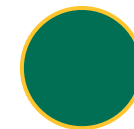
Schedule

- Mon-Fri
- 8-10 hour shifts
- Between 6am-11pm
- Total 240+ hrs



You're Responsible for:

- Gas
- Lodging
- Car Maintenance



Professionalism

- Appearance
- Behavior
- Conversation
- Attendance



!!WARNING!!

- Within every profession involving patient care you will be exposed to sick & injured members of the community.
 - Bodily fluids
 - Blood, urine, vomit, sputum, feces
 - Disease
 - COVID-19
 - Death
 - Mental Illness
 - Infection
 - Abuse/Domestic Violence

CLINICAL COMPLIANCE REQUIREMENTS

National background check

Ethics review by ARRT if needed

- Felony
- Misdemeanor

Drug test-zero tolerance to include marijuana

Current Health Insurance (must maintain throughout program)

Current BLS for Healthcare Providers

Immunizations (or proof of titers)

- Done at the expense of the student and requires upkeep during the program
- COVID-19 & Flu exemptions available



STUDENT QUALIFICATIONS- PHYSICAL

- Ability to lift and move patients safely
- Reach above your head to move heavy equipment
- Ability to stand a significant amount of time while moving patients and equipment.
 - Must wear protective lead apparel during patient care (at certain times)
- Ability to see and hear clearly
 - Please see technical standards in the application packet for more details

STUDENT QUALIFICATIONS -PERFORMANCE

- Effective oral & written communication skills
- Work effectively in a team setting
- Ability to work in a multi-cultural environment
- Use of critical-thinking skills
- Emotional stability & maturity
- Ability to work compassionately with patients and their families
- Organize & perform sequentially the individual steps necessary for an x-ray exam



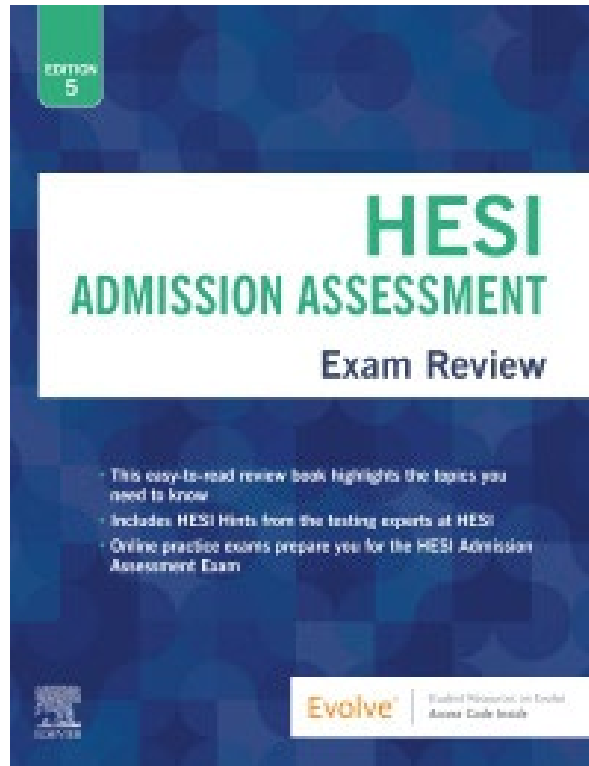
ADMISSION CRITERIA

Selective Admissions Point System (based on a total of 900 possible points)

Category	Ranking Criteria	Criteria Points Values	Possible Points
1	HESI A2 Entrance Exam (<i>Valid for 1 application cycle; can be taken twice to achieve a higher score.</i>) Cumulative Score 75% minimum is required for application submission	95-100% = 500 points 90-94.99% = 425 points 84-89.99% = 350 points 75-83.99% = 175 points Example: Cumulative Score of 85% = 350 points	500
2	Agency Affiliation <i>Are you employed with an agency partner?</i>	Yes = 50 points No = 0 points	50
3	Biology Course Requirement Completed or In-progress	4 prerequisite credits = 50 points In-progress = 25 points	50
4	Residency	Yavapai County = 150 points State of Arizona = 50 points Out of state = 0	150
5	Current Yavapai College Student	Completed credits at Yavapai College 12 or more credits = 150 points 9-11 credits = 100 points 6-8 credits = 75 points 3-5 credits = 50 points	150

HESI A2 ENTRANCE EXAM

Review book available online averaging: \$20-\$40
ISBN: 9780323582261



Call & schedule at one of our test centers:
<https://www.yc.edu/v6/testing-center/>

Instructions on how to get started are on our website.

3-hour exam that you need to schedule and complete with a **75%** or better prior to applying to the program.

Cost: \$65.00

English:

- Reading comprehension
- Vocabulary
- Grammar

Math: Basic Math Skills

Science:

- Biology
- Anatomy & Physiology

Critical Thinking Skills

- Problem Solving
- Biases & Ethical Dilemmas
- Argument Analysis
- Analysis of Data
- Prioritization of Care

APPLICATION PROCESS

PAGE 02

APPLICATION DEADLINES

- Link will be activated once the application cycle opens
- Follow each of the prompts
- A pdf file will be available to print and fill out the correct forms required for upload during the application process.

www.yc.edu/radiology

APPLICATION CYCLE OPEN DATE	March 1, 2025
APPLICATION CYCLE CLOSE DATE	April 30, 2025 11:59pm
ACCEPTANCE STATUS NOTIFICATION	May 5, 2025
CASTLEBRANCH IMMUNIZATION/ DOCUMENT UPLOADS	TDB
CASTLEBRANCH IMMUNIZATION/ DOCUMENT APPROVALS	TDB

TRANSFER & ARTICULATION

The Limited X-Ray Machine Operator Certificate does not transfer outside of Yavapai College, however, there is a transition certificate based on availability of clinical sites & other criteria for advanced placement into the Radiologic Technology Program-AAS. Please check with an academic advisor for more information.

Employment opportunities are limited to the state of Arizona for Certified Practical Technologists of Radiology.

RADIOLOGY PROGRAM TUTOR



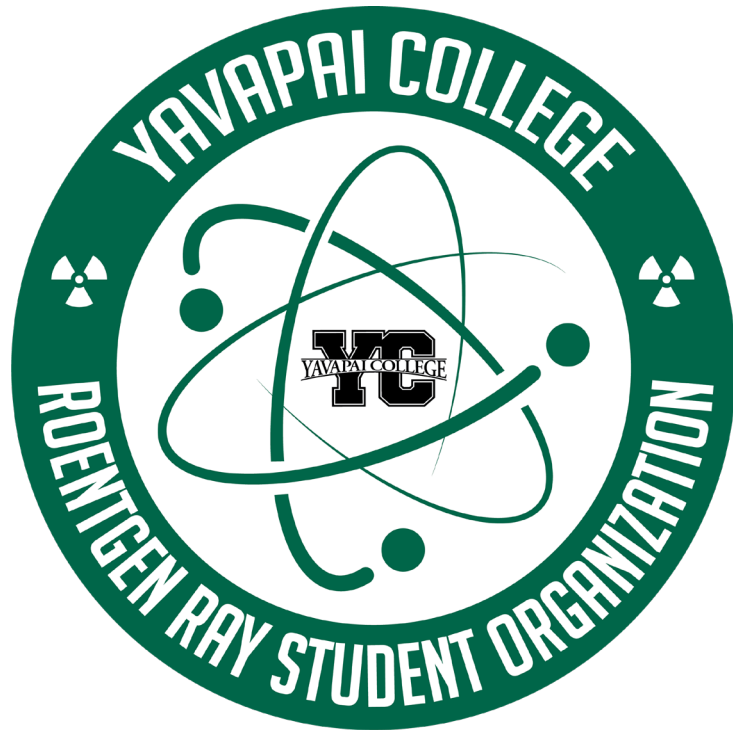
[Schedule Online](#)

Location:
Zoom

CONTACT:
Justin Layman
justin.layman@yc.edu
928.717.7670



YC'S ROENTGEN RAY STUDENT ORGANIZATION



YC's Roentgen Ray Student Organization is a pre-professional organization committed to supporting and mentoring future radiologic technologists by providing opportunities in: Leadership, Professional Development, and Mentorship to current and future Rad Tech Students. Membership is open to pre-radiology and radiology students.

Contact: Alex , radiology@yc.edu

<https://www.yc.edu/v6/campus-activities/clubs.html>

THANK YOU!

Click on the class verification link on the YC.edu/radiology page & answer all of the questions.

- This will generate a certificate of completion that will be sent to your email. You must include the certificate of completion with your application.

Make sure to include your Name, Email, & Phone Number

If you have additional questions please email:

radiology@yc.edu

