

# ADVANCED IMAGING IN RADIOGRAPHY



## ADVANCED IMAGING IN RADIOGRAPHY CT OPTION CERTIFICATE

Advanced Imaging in Radiography focuses on the area of Computed Tomography (CT) in the Radiological Sciences. Didactic instruction prepares the technologist to work in the area of CT in the healthcare setting and to sit for the Advanced Board Exams given by the American Registry of Radiologic Technologists. This certificate is offered for technologists who are currently registered by the American Registry of Radiologic Technologists in Radiography and by the Nuclear Medicine Technology Certification Board in Nuclear Medicine, or students who have completed one year (must have summer clinical complete) and are currently enrolled in an accredited radiography, or nuclear medicine program, or by consent of the instructor. The core curriculum courses are intended to provide the student with an overall knowledge of advanced patient care and sectional anatomy. The CT option focuses on the physics, instrumentation and imaging techniques of this modality.

\*There are no clinical components included with this certificate. To be eligible for Advanced Board Exams given by the ARRT you must also meet specific clinical requirements. See [www.arrt.org](http://www.arrt.org) for specific details.

### Job Outlook

According to the Occupational Outlook Handbook, 2014-15 Edition, Employment of CT Radiologic Technologists is projected to grow 9 percent from 2014 to 2024, faster than the average for all occupations. As the population grows older, there will be an increase in medical conditions that require imaging as a tool for making diagnoses.



One Community College Drive | Hazard, KY 41701 | (606) 436-5721 | [hazard.kctcs.edu](http://hazard.kctcs.edu)

#GO2HCTC



*KCTCS is an equal educational and employment opportunity institution.*

# ADVANCED IMAGING IN RADIOGRAPHY

## ADVANCED IMAGING IN RADIOGRAPHY

Classes Offered

### SUGGESTED COURSE SEQUENCE

Although these courses are organized in a hierarchical pattern, depending on the entry-level knowledge and the needs of the student, they may be taken out of sequence with consent of the instructor.

Fall Semester

IMG 230 Sectional Anatomy for Advanced Medical Imaging 3 credit hours

IMG 250 Computed Tomography Physics and Instrumentation 3 credit hours

Spring Semester

IMG 240 Pathology for Advanced Medical Imaging Modalities 3 credit hours

IMG 260 Computed Tomography Imaging Procedures 3 credit hours

### COURSE DESCRIPTIONS

\*All courses are 100% on-line and require no in-person meetings.

**IMG 230 Sectional Anatomy for Advanced Medical Imaging**

Provides content on computed tomography and magnetic resonance imaging (CT/MRI) procedures including patient care, image acquisition, and cross sectional anatomy.

**IMG 240 Pathology for Advanced Medical Imaging Modalities**

Examines diseases commonly diagnosable via computed tomography (CT) and/or magnetic resonance imaging (MRI). Examines the disease or trauma process from its description, etiology, associated symptoms, and diagnosis with appearance on CT and /or MRI.

**IMG 250 Computed Tomography Physics and Instrumentation**

Explores the physical principles and instrumentation involved in computed tomography (CT). Examines the history and evolution of CT, physics of radiation, and CT. Includes the study of configuration, collimation, functions, processing and quality of CT systems.

**IMG 260 Computed Tomography Imaging Procedures**

Examines the procedures, positioning, and equipment involved in computed tomography (CT) imaging.

\*Please note that either of the courses will qualify for 48 hours of ARRT Continuing Education Units (CEU) for students earning a course grade of "C" or greater.

Additional Information:

Tim Whittaker, M.S., RT (R)(CT)(QM)

Phone: 606-487-3390 or 800-246-7521, extension 73390

Fax: 606-435-1117

Tim.Whittaker@kctcs.edu

Hazard.kctcs.edu

Revised: 2/2017

#GO2HCTC

One Community College Drive | Hazard, KY 41701 | (606) 436-5721 | hazard.kctcs.edu



Community & Technical College  
HIGHER EDUCATION BEGINS HERE

*KCTCS is an equal educational and employment opportunity institution.*

KENTUCKY COMMUNITY AND TECHNICAL COLLEGE SYSTEM