

# RADIOLOGIC IMAGING SCIENCES - B.R.I.T.

College of Applied and Technical Studies  
www.kent.edu/cats

## About This Program

Kent State's Radiologic Imaging Sciences bachelor's degree is the perfect choice for students interested in launching a rewarding career in medical imaging. Gain hands-on experience with industry-standard equipment and work alongside experienced faculty to develop the skills and knowledge needed to excel in this growing field. Read more...

## Contact Information

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- Chat with an Admissions Counselor

## Program Delivery

- **Delivery:**
  - Fully online (Computed Tomography completer program and Magnetic Resonance Imaging completer programs - for those with a degree in radiologic technology)
  - In person (Diagnostic Medical Sonography and Radiation Therapy concentrations)
- **Location:**
  - Salem Campus (all concentrations)

## Examples of Possible Careers and Salaries\*

### Diagnostic medical sonographers

- 16.8% much faster than the average
- 74,300 number of jobs
- \$75,920 potential earnings

### Magnetic resonance imaging technologists

- 7.0% faster than the average
- 38,700 number of jobs
- \$74,690 potential earnings

### Radiation therapists

- 7.1% faster than the average
- 18,500 number of jobs
- \$86,850 potential earnings

## Radiologic technologists and technicians

- 6.7% faster than the average
- 212,000 number of jobs
- \$61,900 potential earnings

## Accreditation

The B.R.I.T. degree in Radiologic Imaging Sciences (Radiation Therapy concentration only) is accredited by the Joint Review Committee on Education in Radiologic Technology.

[Joint Review Committee on Education in Radiologic Technology](#)

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Chicago, IL 60606-381

Phone: 312-704-5300

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<http://www.jrcert.org/>

\* Source of occupation titles and labor data comes from the U.S. Bureau of Labor Statistics'

Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

## Admission Requirements

The university affirmatively strives to provide educational opportunities and access to students with varied backgrounds, those with special talents and adult students who graduated from high school three or more years ago.

**First-Year Students on the Kent Campus:** First-year admission policy on the Kent Campus is selective. Admission decisions are based upon cumulative grade point average, strength of high school college preparatory curriculum and grade trends. Students not admissible to the Kent Campus may be administratively referred to one of the seven regional campuses to begin their college coursework. For more information, visit the admissions website for first-year students.

**First-Year Students on the Regional Campuses:** First-year admission to Kent State's campuses at Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas, as well as the Twinsburg Academic Center, is open to anyone with a high school diploma or its equivalent. For more information on admissions, contact the Regional Campuses admissions offices.

**International Students:** All international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning a minimum 525 TOEFL score (71 on the Internet-based version), minimum 75 MELAB score, minimum 6.0 IELTS score or minimum 48 PTE Academic score, or by completing the ELS level 112 Intensive Program. For more information, visit the admissions website for international students.

**Transfer Students:** Students who have attended any other educational institution after graduating from high school must apply as undergraduate transfer students. For more information, visit the admissions website for transfer students.

**Former Students:** Former Kent State students or graduates who have not attended another college or university since Kent State may complete the reenrollment or reinstatement form on the University Registrar's website.

Admission policies for undergraduate students may be found in the University Catalog's Academic Policies.

Some programs may require that students meet certain requirements before progressing through the program. For programs with progression requirements, the information is shown on the program's Coursework tab.

## Program Requirements

### Major Requirements

#### Computed Tomography Concentration Requirements

Code	Title	Credit Hours
<b>Concentration Requirements (courses count in major GPA; min C grade required in all RIS courses)</b>		
RIS 34084	COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY I	2
RIS 34086	COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY II	2
RIS 44004	COMPUTED TOMOGRAPHY CLINICAL EDUCATION I	2
RIS 44021	PATIENT MANAGEMENT IN COMPUTED TOMOGRAPHY	2
RIS 44030	COMPUTED TOMOGRAPHY IMAGE PRODUCTION I	2
RIS 44047	COMPUTED TOMOGRAPHY PROCEDURES I	2
RIS 44048	COMPUTED TOMOGRAPHY PROCEDURES II	2
RIS 44054	COMPUTED TOMOGRAPHY CLINICAL EDUCATION II	2
RIS 44062	COMPUTED TOMOGRAPHY IMAGE PRODUCTION II	2
RIS 44068	COMPUTED TOMOGRAPHY TECHNIQUES	2
RIS 44069	COMPUTED TOMOGRAPHY CLINICAL EDUCATION III	1
RIS 44083	PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3
RIS 44088	LEADERSHIP IN MEDICAL IMAGING	1
RIS 44096	INDIVIDUAL INVESTIGATION IN MEDICAL IMAGING DIRECTED READINGS	3
RIS 44098	RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Additional Requirements (courses do not count in major GPA)</b>		
CHEM 10050 or CHEM 10055	FUNDAMENTALS OF CHEMISTRY (KBS) MOLECULES OF LIFE (KBS)	3
MATH 11009 or MATH 11010	MODELING ALGEBRA (KMCR) ALGEBRA FOR CALCULUS (KMCR)	3-4
PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001	FLASHES 101	1
Kent Core Composition		6
Kent Core Humanities and Fine Arts (minimum one course from each)		9
Kent Core Social Sciences (must be from two disciplines)		3
Kent Core Additional		6
General Electives (total credit hours depends on earning 120 credit hours, including 39 upper-division credit hours) <sup>1</sup>		48
<b>Additional Concentration Requirements (courses do not count in major GPA), choose from the following:</b>		<b>7-11</b>
<i>Concentration for A.A.S. Radiologic Technology graduates</i> <sup>CTRT</sup>		
Biology (BSCI) Electives, choose from the following <sup>2</sup>		6-8
BSCI 11010 & BSCI 11020	FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	

BSCI 21010 & BSCI 21020	ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and ANATOMY AND PHYSIOLOGY II	
HED 14020 or AHS 24010	MEDICAL TERMINOLOGY MEDICAL TERMINOLOGY	1-3
<i>Concentration for for A.T.S. Radiologic Technology graduates (with certification)</i> <sup>CTHA</sup>		
BSCI 10001	HUMAN BIOLOGY (KBS)	3
CIS 24053 or CS 10001 or IT 11000	INTRODUCTION TO INFORMATION SYSTEMS AND DIGITAL TECHNOLOGIES COMPUTER LITERACY INTRODUCTION TO OFFICE PRODUCTIVITY APPS	3
Kent Core Basic Sciences (must include one laboratory)		1
<b>Minimum Total Credit Hours:</b>		<b>120</b>

<sup>1</sup> Most general elective credit hours will be fulfilled with courses earned for radiologic technology associate degree or hospital-based certificate (**32-40 credit hours awarded for certificate**).

<sup>2</sup> Students who have successfully completed ATTR 25057 and ATTR 25058 (or EXSC 25057 and EXSC 25058) may use those courses in place of BSCI 11010 and BSCI 11020 (or BSCI 21010 and BSCI 21020).

### Diagnostic Medical Sonography Concentration Requirements

Code	Title	Credit Hours
<b>Concentration Requirements (courses count in major GPA; min C grade required in all RIS courses)</b>		
RIS 34040	PATIENT MANAGEMENT IN DIAGNOSTIC MEDICAL SONOGRAPHY	3
RIS 34042	ABDOMINAL SONOGRAPHY I	3
RIS 34044	ULTRASOUND PHYSICS AND INSTRUMENTATION	3
RIS 34045	ULTRASOUND CLINICAL EDUCATION I	2
RIS 34052	ABDOMINAL SONOGRAPHY II	3
RIS 34060	ULTRASOUND CLINICAL EDUCATION II	4
RIS 34062	OBSTETRICS AND GYNECOLOGY SONOGRAPHY I	3
RIS 34072	SUPERFICIAL STRUCTURES SONOGRAPHY	2
RIS 34075	ULTRASOUND CLINICAL EDUCATION III	2
RIS 34083	SECTIONAL ANATOMY IN MEDICAL IMAGING	3
RIS 44072	OBSTETRICS AND GYNECOLOGY SONOGRAPHY II	3
RIS 44074	VASCULAR SONOGRAPHY	2
RIS 44076	ULTRASOUND CLINICAL EDUCATION IV	4
RIS 44083	PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3
RIS 44084	ULTRASOUND IMAGE EVALUATION	1
RIS 44098	RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Additional Requirements (courses do not count in major GPA)</b>		
MATH 11009 or MATH 11010	MODELING ALGEBRA (KMCR) ALGEBRA FOR CALCULUS (KMCR)	3-4
PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001	FLASHES 101	1
Kent Core Composition		6
Kent Core Humanities and Fine Arts (minimum one course from each)		9
Kent Core Social Sciences (must be from two disciplines)		3
Kent Core Additional		6

General Electives (total credit hours depends on earning 120 credit hours, including 39 upper-division credit hours)<sup>1</sup> 24-35

**Additional Concentration Requirements (courses do not count in major GPA), choose from the following:** 19-21

*Concentration for A.S. Degree graduates or Freshman<sup>FRAS</sup>*

Biology (BSCI) Electives, choose from the following: 6-8

BSCI 11010 & BSCI 11020 FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)

BSCI 21010 ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)<sup>2</sup> or BSCI 21020 ANATOMY AND PHYSIOLOGY II

CIS 24053 INTRODUCTION TO INFORMATION SYSTEMS AND DIGITAL TECHNOLOGIES 3

or CS 10001 COMPUTER LITERACY

or IT 11000 INTRODUCTION TO OFFICE PRODUCTIVITY APPS

HED 14020 MEDICAL TERMINOLOGY 3

PHY 13001 & PHY 13021 GENERAL COLLEGE PHYSICS I (KBS) and GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB) 3-5

or PHY 12111 PHYSICS FOR HEALTH TECHNOLOGIES

RIS 34001 INTRODUCTION TO DIAGNOSTIC MEDICAL SONOGRAPHY (min C grade) 1

Kent Core Basic Sciences (must include one laboratory) 3

*Concentration for A.A.S Radiologic Technology graduates<sup>RTAS</sup>*

Biology (BSCI) Electives, choose from the following:<sup>2</sup> 6-8

BSCI 11010 & BSCI 11020 FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)

BSCI 21010 & BSCI 21020 ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and ANATOMY AND PHYSIOLOGY II

CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) 3

or CHEM 10055 MOLECULES OF LIFE (KBS)

HED 14020 MEDICAL TERMINOLOGY 1-3

or AHS 24010 MEDICAL TERMINOLOGY

*Concentration for A.T.S. Radiologic Technology graduates (with certification)<sup>HATS</sup>*

BSCI 10001 HUMAN BIOLOGY (KBS) 3

CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) 3

or CHEM 10055 MOLECULES OF LIFE (KBS)

CIS 24053 INTRODUCTION TO INFORMATION SYSTEMS AND DIGITAL TECHNOLOGIES 3

or CS 10001 COMPUTER LITERACY

or IT 11000 INTRODUCTION TO OFFICE PRODUCTIVITY APPS

Kent Core Basic Sciences (must include one laboratory) 1

**Minimum Total Credit Hours:** 120

<sup>1</sup> For students with an associate degree or hospital-based certificate, most general elective credit hours will be fulfilled with courses earned for that degree (32 credit hours awarded for certificate).

<sup>2</sup> Students who have successfully completed ATTR 25057 and ATTR 25058 (or EXSC 25057 and EXSC 25058) may use those courses in place of BSCI 11010 and BSCI 11020 (or BSCI 21010 and BSCI 21020).

## Magnetic Resonance Imaging Concentration Requirements

Code	Title	Credit Hours
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**Concentration Requirements (courses count in major GPA; min C grade required in RIS all courses)**

RIS 34084	COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY I	2
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RIS 34086	COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY II	2
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RIS 44003	MAGNETIC RESONANCE IMAGING CLINICAL EDUCATION I	2
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RIS 44031	PATIENT MANAGEMENT IN MAGNETIC RESONANCE IMAGING	2
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RIS 44044	MAGNETIC RESONANCE IMAGING PROCEDURES I	2
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RIS 44045	MAGNETIC RESONANCE IMAGING PROCEDURES II	2
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RIS 44051	MAGNETIC RESONANCE EQUIPMENT AND IMAGE ACQUISITION I	2
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RIS 44052	MAGNETIC RESONANCE EQUIPMENT AND IMAGE ACQUISITION II	2
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RIS 44063	MAGNETIC RESONANCE IMAGING CLINICAL EDUCATION II	2
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RIS 44066	MAGNETIC RESONANCE IMAGING TECHNIQUES	2
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RIS 44073	MAGNETIC RESONANCE IMAGING CLINICAL EDUCATION III	1
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RIS 44083	PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3
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RIS 44088	LEADERSHIP IN MEDICAL IMAGING	1
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RIS 44096	INDIVIDUAL INVESTIGATION IN MEDICAL IMAGING DIRECTED READINGS	3
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RIS 44098	RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
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**Additional Requirements (courses do not count in major GPA)**

CHEM 10050	FUNDAMENTALS OF CHEMISTRY (KBS)	3
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or CHEM 10055	MOLECULES OF LIFE (KBS)	
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MATH 11009	MODELING ALGEBRA (KMCR)	3-4
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or MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	
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PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
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UC 10001	FLASHES 101	1
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Kent Core Composition 6

Kent Core Humanities and Fine Arts (minimum one course from each) 9

Kent Core Social Sciences (must be from two disciplines) 3

Kent Core Additional 6

General Electives (total credit hours depends on earning 120 credit hours, including 39 upper-division credit hours)<sup>1</sup> 48

**Additional Concentration Requirements (courses do not count in major GPA), choose from the following:** 7-11

*Concentration for A.A.S. Radiologic Technology graduates<sup>MRRT</sup>*

Biology (BSCI) Electives, choose from the following:<sup>2</sup> 6-8

BSCI 11010 & BSCI 11020	FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
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BSCI 21010 & BSCI 21020	ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and ANATOMY AND PHYSIOLOGY II	
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HED 14020	MEDICAL TERMINOLOGY	1-3
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or AHS 24010	MEDICAL TERMINOLOGY	
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*Concentration for A.T.S. Radiologic Technology graduates (with certification)<sup>MRHA</sup>*

BSCI 10001	HUMAN BIOLOGY (KBS)	3
CIS 24053	INTRODUCTION TO INFORMATION SYSTEMS AND DIGITAL TECHNOLOGIES	3
or CS 10001	COMPUTER LITERACY	
or IT 11000	INTRODUCTION TO OFFICE PRODUCTIVITY APPS	
Kent Core Basic Sciences (must include one laboratory)		1
<b>Minimum Total Credit Hours:</b>		<b>120</b>

<sup>1</sup> Most general elective credit hours will be fulfilled with courses earned for radiologic technology associate degree or hospital-based certificate (32 credit hours awarded for certificate).

<sup>2</sup> Students who have successfully completed ATTR 25057 and ATTR 25058 (or EXSC 25057 and EXSC 25058) may use those courses in place of BSCI 11010 and BSCI 11020 (or BSCI 21010 and BSCI 21020).

## Radiation Therapy Concentration Requirements

Code	Title	Credit Hours
<b>Concentration Requirements (courses count in major GPA; min C grade required in all RIS courses)</b>		
RIS 34003	RADIATION THERAPY PRINCIPLES AND PRACTICE I	3
RIS 34004	RADIATION THERAPY PATIENT MANAGEMENT	3
RIS 34008	RADIATION THERAPY PHYSICS I	3
RIS 34030	RADIATION THERAPY CLINICAL EDUCATION I	1
RIS 34083	SECTIONAL ANATOMY IN MEDICAL IMAGING	3
RIS 44009	RADIATION THERAPY PRINCIPLES AND PRACTICE II	2
RIS 44018	RADIATION THERAPY PHYSICS II	3
RIS 44028	RADIATION THERAPY RADIOBIOLOGY	3
RIS 44029	RADIATION THERAPY PATHOLOGY I	3
RIS 44038	RADIATION THERAPY PHYSICS III	3
RIS 44041	RADIATION THERAPY QUALITY MANAGEMENT	2
RIS 44042	RADIATION THERAPY PATHOLOGY II	3
RIS 44053	RADIATION THERAPY CLINICAL EDUCATION II	3
RIS 44058	RADIATION THERAPY CLINICAL EDUCATION III	2
RIS 44067	RADIATION THERAPY CLINICAL EDUCATION IV	3
RIS 44098	RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Additional Requirements (courses do not count in major GPA)</b>		
COMM 15000	INTRODUCTION TO HUMAN COMMUNICATION (KADL)	3
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	
PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001	FLASHES 101	1
Kent Core Composition		6
Kent Core Humanities and Fine Arts (minimum one course from each)		9
Kent Core Social Sciences (must be from two disciplines)		3
General Electives (total credit hours depends on earning 120 credit hours, including 39 upper-division credit hours) <sup>1</sup>		24-39
<b>Additional Concentration Requirements (courses do not count in major GPA), choose from the following:</b>		<b>10-22</b>
<i>Concentration for A.S. Degree graduates or Freshman<sup>RTFE</sup></i>		
Biology (BSCI) Electives, choose from the following:		6-8

BSCI 11010 & BSCI 11020	FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
BSCI 21010 & BSCI 21020	ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and ANATOMY AND PHYSIOLOGY II <sup>2</sup>	
CIS 24053	INTRODUCTION TO INFORMATION SYSTEMS AND DIGITAL TECHNOLOGIES	3
or CS 10001	COMPUTER LITERACY	
or IT 11000	INTRODUCTION TO OFFICE PRODUCTIVITY APPS	
HED 14020	MEDICAL TERMINOLOGY	3
PHY 13001 & PHY 13021	GENERAL COLLEGE PHYSICS I (KBS) and GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB)	3-5
or PHY 12111	PHYSICS FOR HEALTH TECHNOLOGIES	
RIS 44000	INTRODUCTION TO RADIATION THERAPY	2
Kent Core Basic Sciences (must include one laboratory)		3
<i>Concentration for A.A.S. Radiologic Technology graduates<sup>RTAA</sup></i>		
Biology (BSCI) Electives, choose from the following: <sup>2</sup>		6-8
BSCI 11010 & BSCI 11020	FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
BSCI 21010 & BSCI 21020	ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) and ANATOMY AND PHYSIOLOGY II	
CHEM 10050	FUNDAMENTALS OF CHEMISTRY (KBS)	3
or CHEM 10055	MOLECULES OF LIFE (KBS)	
HED 14020	MEDICAL TERMINOLOGY	1-3
or AHS 24010	MEDICAL TERMINOLOGY	
<i>Concentration for A.T.S. Radiologic Technology graduates (with certification)<sup>RTHB</sup></i>		
BSCI 10001	HUMAN BIOLOGY (KBS)	3
CHEM 10050	FUNDAMENTALS OF CHEMISTRY (KBS)	3
or CHEM 10055	MOLECULES OF LIFE (KBS)	
CIS 24053	INTRODUCTION TO INFORMATION SYSTEMS AND DIGITAL TECHNOLOGIES	3
or CS 10001	COMPUTER LITERACY	
or IT 11000	INTRODUCTION TO OFFICE PRODUCTIVITY APPS	
Kent Core Basic Sciences (must include one laboratory)		1
<b>Minimum Total Credit Hours:</b>		<b>120</b>

<sup>1</sup> For students with an associate degree or hospital-based certificate, most general elective credit hours will be fulfilled with courses earned for that degree (32 credit hours awarded for certificate).

<sup>2</sup> Students who have successfully completed ATTR 25057 and ATTR 25058 (or EXSC 25057 and EXSC 25058) may use those courses in place of BSCI 11010 and BSCI 11020 (or BSCI 21010 and BSCI 21020).

## Progression Requirements

To be able to register for Radiologic and Imaging Sciences (RIS) courses, students must be accepted to technical study. Acceptance to technical study is a selective process due to the limited number of students approved for each clinical education setting. Criteria for acceptance are the following:

- Completion of required non-radiologic and imaging sciences (RIS) courses, e.g., biology, chemistry, mathematics, psychology, Kent Core courses
- Minimum 2.750 overall GPA

## Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
2.750	2.000

- Students must complete all Radiologic and Imaging Sciences (RIS) courses with a minimum C grade.
- Students must complete all academic and clinical competencies in their core concentration.

## Roadmaps

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

### Computed Tomography Concentration for A.A.S. Radiologic Technology graduates

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester Prerequisite	Credits
! Technical requirements in Radiologic Technology	40
Biology (BSCI) Electives, choose from the following:	6-8
BSCI 11010 FOUNDATIONAL ANATOMY AND PHYSIOLOGY I & BSCI 11020(KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
BSCI 21010 ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) & BSCI 2102C and ANATOMY AND PHYSIOLOGY II	
CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) or or MOLECULES OF LIFE (KBS) CHEM 10055	3
HED 14020 MEDICAL TERMINOLOGY or or MEDICAL TERMINOLOGY AHS 24010	1-3
MATH 11009 MODELING ALGEBRA (KMCR) or or ALGEBRA FOR CALCULUS (KMCR) MATH 11010	3-4
PSYC 11762 GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001 FLASHES 101	1
Kent Core Requirement	3
Kent Core Requirement	3
<b>Credit Hours</b>	<b>63</b>
<b>Semester One</b>	
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
General Electives	3
<b>Credit Hours</b>	<b>12</b>
<b>Semester Two</b>	
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3

General Electives	Credit Hours
	5
<b>Credit Hours</b>	<b>14</b>
<b>Semester Three</b>	
! RIS 34084 COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY I	2
! RIS 44004 COMPUTED TOMOGRAPHY CLINICAL EDUCATION I	2
! RIS 44021 PATIENT MANAGEMENT IN COMPUTED TOMOGRAPHY	2
! RIS 44030 COMPUTED TOMOGRAPHY IMAGE PRODUCTION I	2
RIS 44047 COMPUTED TOMOGRAPHY PROCEDURES I	2
! RIS 44088 LEADERSHIP IN MEDICAL IMAGING	1
! RIS 44096 INDIVIDUAL INVESTIGATION IN MEDICAL IMAGING DIRECTED READINGS	3
<b>Credit Hours</b>	<b>14</b>
<b>Semester Four</b>	
! RIS 34086 COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY II	2
! RIS 44048 COMPUTED TOMOGRAPHY PROCEDURES II	2
! RIS 44054 COMPUTED TOMOGRAPHY CLINICAL EDUCATION II	2
! RIS 44062 COMPUTED TOMOGRAPHY IMAGE PRODUCTION II	2
! RIS 44083 PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3
! RIS 44098 RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>	<b>14</b>
<b>Semester Five</b>	
! RIS 44068 COMPUTED TOMOGRAPHY TECHNIQUES	2
! RIS 44069 COMPUTED TOMOGRAPHY CLINICAL EDUCATION III	1
<b>Credit Hours</b>	<b>3</b>
<b>Minimum Total Credit Hours:</b>	<b>120</b>

### Computed Tomography Concentration for A.T.S. Radiologic Technology graduates (with certification)

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester Prerequisite	Credits
! Associate of Technical Studies in Radiologic Technology	32
BSCI 10001 HUMAN BIOLOGY (KBS)	3
CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) or or MOLECULES OF LIFE (KBS) CHEM 10055	3
CIS 24053 INTRODUCTION TO INFORMATION SYSTEMS AND DIGITAL TECHNOLOGIES or CS 10001 or IT 11000 or COMPUTER LITERACY or INTRODUCTION TO OFFICE PRODUCTIVITY APPS	3
MATH 11009 MODELING ALGEBRA (KMCR) or or ALGEBRA FOR CALCULUS (KMCR) MATH 11010	3-4
PSYC 11762 GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001 FLASHES 101	1
Kent Core Requirements	3
Kent Core Requirements	3
Kent Core Requirements	3
Kent Core Requirements	3

Kent Core Requirements	3	
Kent Core Requirements	3	
<b>Credit Hours</b>	<b>66</b>	
<b>Semester One</b>		
Kent Core Requirements	3	
General Electives	9	
<b>Credit Hours</b>	<b>12</b>	
<b>Semester Two</b>		
Kent Core Requirement	3	
Kent Core Requirement	1	
General Electives	7	
<b>Credit Hours</b>	<b>11</b>	
<b>Semester Three</b>		
RIS 34084	COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY I	2
RIS 44004	COMPUTED TOMOGRAPHY CLINICAL EDUCATION I	2
RIS 44021	PATIENT MANAGEMENT IN COMPUTED TOMOGRAPHY	2
RIS 44030	COMPUTED TOMOGRAPHY IMAGE PRODUCTION I	2
RIS 44047	COMPUTED TOMOGRAPHY PROCEDURES I	2
RIS 44088	LEADERSHIP IN MEDICAL IMAGING	1
RIS 44096	INDIVIDUAL INVESTIGATION IN MEDICAL IMAGING DIRECTED READINGS	3
<b>Credit Hours</b>	<b>14</b>	
<b>Semester Four</b>		
RIS 34086	COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY II	2
RIS 44048	COMPUTED TOMOGRAPHY PROCEDURES II	2
RIS 44054	COMPUTED TOMOGRAPHY CLINICAL EDUCATION II	2
RIS 44062	COMPUTED TOMOGRAPHY IMAGE PRODUCTION II	2
RIS 44083	PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3
RIS 44098	RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>	<b>14</b>	
<b>Semester Five</b>		
RIS 44068	COMPUTED TOMOGRAPHY TECHNIQUES	2
RIS 44069	COMPUTED TOMOGRAPHY CLINICAL EDUCATION III	1
<b>Credit Hours</b>	<b>3</b>	
<b>Minimum Total Credit Hours:</b>	<b>120</b>	

## Diagnostic Medical Sonography Concentration for A.S. Degree graduates or Freshman

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

<b>Semester One</b>	<b>Credits</b>	
CIS 24053	INTRODUCTION TO INFORMATION SYSTEMS	3
or CS 10001	AND DIGITAL TECHNOLOGIES	
or IT 11000	or COMPUTER LITERACY	
	or INTRODUCTION TO OFFICE PRODUCTIVITY APPS	
PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001	FLASHES 101	1
Kent Core Requirement		3

General Electives	3	
<b>Credit Hours</b>	<b>13</b>	
<b>Semester Two</b>		
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or	or ALGEBRA FOR CALCULUS (KMCR)	
MATH 11010		
Kent Core Requirement		3
Kent Core Requirement		3
Kent Core Requirement		3
General Electives		3
<b>Credit Hours</b>	<b>15</b>	
<b>Semester Three</b>		
Kent Core Requirement		3
Kent Core Requirement		3
Kent Core Requirement		3
General Electives		3
<b>Credit Hours</b>	<b>12</b>	
<b>Semester Four</b>		
Kent Core Requirement		3
Kent Core Requirement		3
General Electives		4
<b>Credit Hours</b>	<b>10</b>	
<b>Semester Five</b>		
BSCI 11010	FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	3-4
or	or ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	
BSCI 21010		
General Electives		8
<b>Credit Hours</b>	<b>12</b>	
<b>Semester Six</b>		
HED 14020	MEDICAL TERMINOLOGY	3
PHY 13001	GENERAL COLLEGE PHYSICS I (KBS)	3-5
& PHY 13021	and GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB)	
or	or PHYSICS FOR HEALTH TECHNOLOGIES	
PHY 12111		
BSCI 11020	FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	3-4
or	or ANATOMY AND PHYSIOLOGY II	
BSCI 21020		
General Electives		3
<b>Credit Hours</b>	<b>13</b>	
<b>Third Summer Term</b>		
RIS 34001	INTRODUCTION TO DIAGNOSTIC MEDICAL SONOGRAPHY	1
<b>Credit Hours</b>	<b>1</b>	
<b>Semester Seven</b>		
! RIS 34040	PATIENT MANAGEMENT IN DIAGNOSTIC MEDICAL SONOGRAPHY	3
! RIS 34042	ABDOMINAL SONOGRAPHY I	3
! RIS 34044	ULTRASOUND PHYSICS AND INSTRUMENTATION	3
! RIS 34045	ULTRASOUND CLINICAL EDUCATION I	2
! RIS 34083	SECTIONAL ANATOMY IN MEDICAL IMAGING	3
<b>Credit Hours</b>	<b>14</b>	
<b>Semester Eight</b>		
! RIS 34052	ABDOMINAL SONOGRAPHY II	3
! RIS 34060	ULTRASOUND CLINICAL EDUCATION II	4
! RIS 34062	OBSTETRICS AND GYNECOLOGY SONOGRAPHY I	3
! RIS 44083	PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3

!	RIS 44098	RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>			<b>16</b>
<b>Fourth Summer Term</b>			
	RIS 34072	SUPERFICIAL STRUCTURES SONOGRAPHY	2
	RIS 34075	ULTRASOUND CLINICAL EDUCATION III	2
!	RIS 44072	OBSTETRICS AND GYNECOLOGY SONOGRAPHY II	3
!	RIS 44084	ULTRASOUND IMAGE EVALUATION	1
<b>Credit Hours</b>			<b>8</b>
<b>Semester Nine</b>			
	RIS 44076	ULTRASOUND CLINICAL EDUCATION IV	4
!	RIS 44074	VASCULAR SONOGRAPHY	2
<b>Credit Hours</b>			<b>6</b>
<b>Minimum Total Credit Hours:</b>			<b>120</b>

## Diagnostic Medical Sonography Concentration for A.A.S Radiologic Technology graduates

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester Prerequisite	Credits
Technical requirements in Radiologic Technology	35
Biology (BSCI) Electives, choose from the following:	6-8
BSCI 11010 FOUNDATIONAL ANATOMY AND PHYSIOLOGY I & BSCI 11020(KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
BSCI 21010 ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) & BSCI 2102C and ANATOMY AND PHYSIOLOGY II	
CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) or CHEM 10055 or MOLECULES OF LIFE (KBS)	3
HED 14020 MEDICAL TERMINOLOGY or AHS 24010 or MEDICAL TERMINOLOGY	1-3
MATH 11009 MODELING ALGEBRA (KMCR) or MATH 11010 or ALGEBRA FOR CALCULUS (KMCR)	3-4
PSYC 11762 GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001 FLASHES 101	1
Kent Core Requirement	3
Kent Core Requirement	3
<b>Credit Hours</b>	<b>58</b>
<b>Semester One</b>	
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
<b>Credit Hours</b>	<b>18</b>
<b>Semester Two</b>	
! RIS 34040 PATIENT MANAGEMENT IN DIAGNOSTIC MEDICAL SONOGRAPHY	3
! RIS 34042 ABDOMINAL SONOGRAPHY I	3
! RIS 34044 ULTRASOUND PHYSICS AND INSTRUMENTATION	3
! RIS 34045 ULTRASOUND CLINICAL EDUCATION I	2
! RIS 34083 SECTIONAL ANATOMY IN MEDICAL IMAGING	3
<b>Credit Hours</b>	<b>14</b>
<b>Semester Three</b>	
! RIS 34052 ABDOMINAL SONOGRAPHY II	3
! RIS 34060 ULTRASOUND CLINICAL EDUCATION II	4
! RIS 34062 OBSTETRICS AND GYNECOLOGY SONOGRAPHY I	3
! RIS 44083 PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3
! RIS 44098 RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>	<b>16</b>
<b>Semester Four</b>	
RIS 34075 ULTRASOUND CLINICAL EDUCATION III	2
RIS 34072 SUPERFICIAL STRUCTURES SONOGRAPHY	2
! RIS 44072 OBSTETRICS AND GYNECOLOGY SONOGRAPHY II	3
! RIS 44084 ULTRASOUND IMAGE EVALUATION	1
<b>Credit Hours</b>	<b>8</b>

Semester Five		
! RIS 44074	VASCULAR SONOGRAPHY	2
RIS 44076	ULTRASOUND CLINICAL EDUCATION IV	4
<b>Credit Hours</b>		<b>6</b>
<b>Minimum Total Credit Hours:</b>		<b>120</b>

## Diagnostic Medical Sonography Concentration for A.T.S. Radiologic Technology graduates (with certification)

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester Prerequisite	Credits
Associate of Technical Studies in Radiologic Technology	32
BSCI 10001 HUMAN BIOLOGY (KBS)	3
CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) or CHEM 10055 or MOLECULES OF LIFE (KBS)	3
CIS 24053 INTRODUCTION TO INFORMATION SYSTEMS or CS 10001 AND DIGITAL TECHNOLOGIES or IT 11000 or COMPUTER LITERACY or INTRODUCTION TO OFFICE PRODUCTIVITY APPS	3
MATH 11009 MODELING ALGEBRA (KMCR) or MATH 11010 or ALGEBRA FOR CALCULUS (KMCR)	3-4
PSYC 11762 GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001 FLASHES 101	1
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
<b>Credit Hours</b>	<b>66</b>
<b>Semester One</b>	
Kent Core Requirement	3
Kent Core Requirement	1
Kent Core Requirement	3
General Electives	3
<b>Credit Hours</b>	<b>10</b>
<b>Semester Two</b>	
! RIS 34040 PATIENT MANAGEMENT IN DIAGNOSTIC MEDICAL SONOGRAPHY	3
! RIS 34042 ABDOMINAL SONOGRAPHY I	3
! RIS 34044 ULTRASOUND PHYSICS AND INSTRUMENTATION	3
! RIS 34045 ULTRASOUND CLINICAL EDUCATION I	2
! RIS 34083 SECTIONAL ANATOMY IN MEDICAL IMAGING	3
<b>Credit Hours</b>	<b>14</b>
<b>Semester Three</b>	
! RIS 34052 ABDOMINAL SONOGRAPHY II	3
! RIS 34060 ULTRASOUND CLINICAL EDUCATION II	4
! RIS 34062 OBSTETRICS AND GYNECOLOGY SONOGRAPHY I	3
! RIS 44083 PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3
! RIS 44098 RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>	<b>16</b>
<b>Semester Four</b>	
RIS 34072 SUPERFICIAL STRUCTURES SONOGRAPHY	2
<b>Credit Hours</b>	<b>16</b>
<b>Semester Four</b>	
RIS 34072 SUPERFICIAL STRUCTURES SONOGRAPHY	2



	RIS 34075	ULTRASOUND CLINICAL EDUCATION III	2
!	RIS 44072	OBSTETRICS AND GYNECOLOGY SONOGRAPHY II	3
!	RIS 44084	ULTRASOUND IMAGE EVALUATION	1
<b>Credit Hours</b>			<b>8</b>
<b>Semester Five</b>			
!	RIS 44074	VASCULAR SONOGRAPHY	2
	RIS 44076	ULTRASOUND CLINICAL EDUCATION IV	4
<b>Credit Hours</b>			<b>6</b>
<b>Minimum Total Credit Hours:</b>			<b>120</b>

## Magnetic Resonance Imaging Concentration for A.A.S. Radiologic Technology graduates

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester Prerequisite	Credits
Technical requirements in Radiologic Technology	40
Biology (BSCI) Electives, choose from the following:	6-8
BSCI 11010 FOUNDATIONAL ANATOMY AND PHYSIOLOGY I & BSCI 11020(KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
BSCI 21010 ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) or BSCI 2102 or ANATOMY AND PHYSIOLOGY II	
CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) or CHEM 10055 or MOLECULES OF LIFE (KBS)	3
HED 14020 MEDICAL TERMINOLOGY or AHS 24010 or MEDICAL TERMINOLOGY	1-3
MATH 11009 MODELING ALGEBRA (KMCR) or MATH 11010 or ALGEBRA FOR CALCULUS (KMCR)	3-4
PSYC 11762 GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001 FLASHES 101	1
Kent Core Requirement	3
Kent Core Requirement	3
<b>Credit Hours</b>	<b>63</b>
<b>Semester One</b>	
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
General Electives	3
<b>Credit Hours</b>	<b>15</b>
<b>Semester Two</b>	
Kent Core Requirement	3
Kent Core Requirement	3
General Electives	5
<b>Credit Hours</b>	<b>11</b>
<b>Semester Three</b>	
! RIS 34084 COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY I	2
! RIS 44003 MAGNETIC RESONANCE IMAGING CLINICAL EDUCATION I	2
! RIS 44031 PATIENT MANAGEMENT IN MAGNETIC RESONANCE IMAGING	2
! RIS 44044 MAGNETIC RESONANCE IMAGING PROCEDURES I	2
! RIS 44051 MAGNETIC RESONANCE EQUIPMENT AND IMAGE ACQUISITION I	2
! RIS 44088 LEADERSHIP IN MEDICAL IMAGING	1
! RIS 44096 INDIVIDUAL INVESTIGATION IN MEDICAL IMAGING DIRECTED READINGS	3
<b>Credit Hours</b>	<b>14</b>
<b>Semester Four</b>	
! RIS 34086 COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY II	2

! RIS 44045 MAGNETIC RESONANCE IMAGING PROCEDURES II	2
! RIS 44052 MAGNETIC RESONANCE EQUIPMENT AND IMAGE ACQUISITION II	2
! RIS 44063 MAGNETIC RESONANCE IMAGING CLINICAL EDUCATION II	2
! RIS 44083 PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3
! RIS 44098 RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>	<b>14</b>
<b>Second Summer Term</b>	
! RIS 44066 MAGNETIC RESONANCE IMAGING TECHNIQUES	2
! RIS 44073 MAGNETIC RESONANCE IMAGING CLINICAL EDUCATION III	1
<b>Credit Hours</b>	<b>3</b>
<b>Minimum Total Credit Hours:</b>	<b>120</b>

## Magnetic Resonance Imaging Concentration for A.T.S. Radiologic Technology graduates (with certification)

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester Prerequisite	Credits
! Associate of Technical Studies in Radiologic Technology	32
BSCI 10001 HUMAN BIOLOGY (KBS)	3
CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) or CHEM 10055 or MOLECULES OF LIFE (KBS)	3
CIS 24053 INTRODUCTION TO INFORMATION SYSTEMS AND DIGITAL TECHNOLOGIES or CS 10001 AND DIGITAL TECHNOLOGIES or IT 11000 or COMPUTER LITERACY or INTRODUCTION TO OFFICE PRODUCTIVITY APPS	3
MATH 11009 MODELING ALGEBRA (KMCR) or MATH 11010 or ALGEBRA FOR CALCULUS (KMCR)	3-4
PSYC 11762 GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001 FLASHES 101	1
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
<b>Credit Hours</b>	<b>66</b>
<b>Semester One</b>	
General Electives	9
<b>Credit Hours</b>	<b>9</b>
<b>Semester Two</b>	
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	1
<b>Credit Hours</b>	<b>7</b>
<b>Semester Three</b>	
! RIS 34084 COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY I	2
! RIS 44003 MAGNETIC RESONANCE IMAGING CLINICAL EDUCATION I	2

!	RIS 44031	PATIENT MANAGEMENT IN MAGNETIC RESONANCE IMAGING	2
!	RIS 44044	MAGNETIC RESONANCE IMAGING PROCEDURES I	2
!	RIS 44051	MAGNETIC RESONANCE EQUIPMENT AND IMAGE ACQUISITION I	2
!	RIS 44088	LEADERSHIP IN MEDICAL IMAGING	1
!	RIS 44096	INDIVIDUAL INVESTIGATION IN MEDICAL IMAGING DIRECTED READINGS	3
General Electives			2
<b>Credit Hours</b>			<b>16</b>
<b>Semester Four</b>			
!	RIS 34086	COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING SECTIONAL ANATOMY II	2
!	RIS 44045	MAGNETIC RESONANCE IMAGING PROCEDURES II	2
!	RIS 44052	MAGNETIC RESONANCE EQUIPMENT AND IMAGE ACQUISITION II	2
!	RIS 44063	MAGNETIC RESONANCE IMAGING CLINICAL EDUCATION II	2
!	RIS 44083	PATHOPHYSIOLOGY FOR MEDICAL IMAGING	3
	RIS 44098	RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>			<b>14</b>
<b>Second Summer Term</b>			
	RIS 44066	MAGNETIC RESONANCE IMAGING TECHNIQUES	2
	RIS 44073	MAGNETIC RESONANCE IMAGING CLINICAL EDUCATION III	1
General Electives			5
<b>Credit Hours</b>			<b>8</b>
<b>Minimum Total Credit Hours:</b>			<b>120</b>

### Radiation Therapy Concentration for A.S. Degree graduates or Freshman

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

<b>Semester One</b>			<b>Credits</b>
	CIS 24053	INTRODUCTION TO INFORMATION SYSTEMS	3
	or CS 10001	AND DIGITAL TECHNOLOGIES	
	or IT 11000	or COMPUTER LITERACY	
		or INTRODUCTION TO OFFICE PRODUCTIVITY APPS	
	PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
	UC 10001	FLASHES 101	1
Kent Core Requirement			3
General Electives			2
<b>Credit Hours</b>			<b>12</b>
<b>Semester Two</b>			
	MATH 11009	MODELING ALGEBRA (KMCR)	3-4
	or	or ALGEBRA FOR CALCULUS (KMCR)	
	MATH 11010		
Kent Core Requirement			3
Kent Core Requirement			3
General Electives			3
<b>Credit Hours</b>			<b>12</b>
<b>Semester Three</b>			
Kent Core Requirement			3
Kent Core Requirement			3

General Electives			6
<b>Credit Hours</b>			<b>12</b>
<b>Semester Four</b>			
	COMM 15000	INTRODUCTION TO HUMAN COMMUNICATION (KADL)	3
Kent Core Requirement			3
Kent Core Requirement			3
General Electives			7
<b>Credit Hours</b>			<b>16</b>
<b>Semester Five</b>			
	BSCI 11010	FOUNDATIONAL ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	3-4
	or	or FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
	BSCI 11020		
General Electives			6
<b>Credit Hours</b>			<b>10</b>
<b>Semester Six</b>			
	HED 14020	MEDICAL TERMINOLOGY	3
	PHY 13001	GENERAL COLLEGE PHYSICS I (KBS)	3-5
	& PHY 13021	and GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB)	
	or	or PHYSICS FOR HEALTH TECHNOLOGIES	
	PHY 12111		
	BSCI 11020	FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	3-4
	or	or ANATOMY AND PHYSIOLOGY II	
	BSCI 21020		
General Electives			3
<b>Credit Hours</b>			<b>13</b>
<b>Semester Seven</b>			
!	RIS 34003	RADIATION THERAPY PRINCIPLES AND PRACTICE I	3
!	RIS 34004	RADIATION THERAPY PATIENT MANAGEMENT	3
!	RIS 34008	RADIATION THERAPY PHYSICS I	3
!	RIS 34030	RADIATION THERAPY CLINICAL EDUCATION I	1
!	RIS 34083	SECTIONAL ANATOMY IN MEDICAL IMAGING	3
	RIS 44000	INTRODUCTION TO RADIATION THERAPY	2
<b>Credit Hours</b>			<b>15</b>
<b>Semester Eight</b>			
!	RIS 44009	RADIATION THERAPY PRINCIPLES AND PRACTICE II	2
!	RIS 44018	RADIATION THERAPY PHYSICS II	3
!	RIS 44029	RADIATION THERAPY PATHOLOGY I	3
!	RIS 44053	RADIATION THERAPY CLINICAL EDUCATION II	3
!	RIS 44098	RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>			<b>14</b>
<b>Fourth Summer Term</b>			
!	RIS 44028	RADIATION THERAPY RADIOBIOLOGY	3
!	RIS 44042	RADIATION THERAPY PATHOLOGY II	3
	RIS 44058	RADIATION THERAPY CLINICAL EDUCATION III	2
<b>Credit Hours</b>			<b>8</b>
<b>Semester Nine</b>			
!	RIS 44038	RADIATION THERAPY PHYSICS III	3
!	RIS 44041	RADIATION THERAPY QUALITY MANAGEMENT	2
	RIS 44067	RADIATION THERAPY CLINICAL EDUCATION IV	3
<b>Credit Hours</b>			<b>8</b>
<b>Minimum Total Credit Hours:</b>			<b>120</b>

### Radiation Therapy Concentration for A.A.S. Radiologic Technology graduates

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester Prerequisite	Credits
Technical requirements in Radiologic Technology	39
Biology (BSCI) Electives, choose from the following	6-8
BSCI 11010 FOUNDATIONAL ANATOMY AND PHYSIOLOGY I & BSCI 11020(KBS) (KLAB) and FOUNDATIONAL ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
BSCI 21010 ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) & BSCI 2102C and ANATOMY AND PHYSIOLOGY II	
CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) or CHEM 10055 or MOLECULES OF LIFE (KBS)	3
HED 14020 MEDICAL TERMINOLOGY or AHS 24010 or MEDICAL TERMINOLOGY	1-3
MATH 11009 MODELING ALGEBRA (KMCR) or MATH 11010 or ALGEBRA FOR CALCULUS (KMCR)	3-4
PSYC 11762 GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001 FLASHES 101	1
Kent Core Requirement	3
Kent Core Requirement	3
<b>Credit Hours</b>	<b>62</b>
<b>Semester One</b>	
COMM 15000 INTRODUCTION TO HUMAN COMMUNICATION (KADL)	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
<b>Credit Hours</b>	<b>15</b>
<b>Semester Two</b>	
! RIS 34003 RADIATION THERAPY PRINCIPLES AND PRACTICE I	3
! RIS 34004 RADIATION THERAPY PATIENT MANAGEMENT	3
! RIS 34008 RADIATION THERAPY PHYSICS I	3
! RIS 34030 RADIATION THERAPY CLINICAL EDUCATION I	1
! RIS 34083 SECTIONAL ANATOMY IN MEDICAL IMAGING	3
<b>Credit Hours</b>	<b>13</b>
<b>Semester Three</b>	
! RIS 44009 RADIATION THERAPY PRINCIPLES AND PRACTICE II	2
! RIS 44018 RADIATION THERAPY PHYSICS II	3
! RIS 44029 RADIATION THERAPY PATHOLOGY I	3
! RIS 44053 RADIATION THERAPY CLINICAL EDUCATION II	3
! RIS 44098 RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>	<b>14</b>
<b>Second Summer Term</b>	
! RIS 44028 RADIATION THERAPY RADIOBIOLOGY	3
! RIS 44042 RADIATION THERAPY PATHOLOGY II	3
RIS 44058 RADIATION THERAPY CLINICAL EDUCATION III	2
<b>Credit Hours</b>	<b>8</b>

Semester Five		
! RIS 44038	RADIATION THERAPY PHYSICS III	3
! RIS 44041	RADIATION THERAPY QUALITY MANAGEMENT	2
RIS 44067	RADIATION THERAPY CLINICAL EDUCATION IV	3
<b>Credit Hours</b>		<b>8</b>
<b>Minimum Total Credit Hours:</b>		<b>120</b>

### Radiation Therapy Concentration for A.T.S. Radiologic Technology graduates (with certification)

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester Prerequisite	Credits
! Associate of Technical Studies in Radiologic Technology	32
BSCI 10001 HUMAN BIOLOGY (KBS)	3
CHEM 10050 FUNDAMENTALS OF CHEMISTRY (KBS) or CHEM 10055 or MOLECULES OF LIFE (KBS)	3
COMM 15000 INTRODUCTION TO HUMAN COMMUNICATION (KADL)	3
CIS 24053 INTRODUCTION TO INFORMATION SYSTEMS or CS 10001 AND DIGITAL TECHNOLOGIES or IT 11000 or COMPUTER LITERACY or INTRODUCTION TO OFFICE PRODUCTIVITY APPS	3
MATH 11009 MODELING ALGEBRA (KMCR) or MATH 11010 or ALGEBRA FOR CALCULUS (KMCR)	3-4
PSYC 11762 GENERAL PSYCHOLOGY (DIVD) (KSS)	3
UC 10001 FLASHES 101	1
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
Kent Core Requirement	3
<b>Credit Hours</b>	<b>66</b>
<b>Semester One</b>	
COMM 15000 INTRODUCTION TO HUMAN COMMUNICATION (KADL)	3
Kent Core Requirement	3
Kent Core Requirement	1
General Electives	4
<b>Credit Hours</b>	<b>11</b>
<b>Semester Two</b>	
! RIS 34003 RADIATION THERAPY PRINCIPLES AND PRACTICE I	3
! RIS 34004 RADIATION THERAPY PATIENT MANAGEMENT	3
! RIS 34008 RADIATION THERAPY PHYSICS I	3
! RIS 34030 RADIATION THERAPY CLINICAL EDUCATION I	1
! RIS 34083 SECTIONAL ANATOMY IN MEDICAL IMAGING	3
<b>Credit Hours</b>	<b>13</b>
<b>Semester Three</b>	
! RIS 44009 RADIATION THERAPY PRINCIPLES AND PRACTICE II	2
! RIS 44018 RADIATION THERAPY PHYSICS II	3
! RIS 44029 RADIATION THERAPY PATHOLOGY I	3
! RIS 44053 RADIATION THERAPY CLINICAL EDUCATION II	3

!	RIS 44098	RESEARCH IN MEDICAL IMAGING (ELR) (WIC)	3
<b>Credit Hours</b>			<b>14</b>
<b>Second Summer Term</b>			
!	RIS 44028	RADIATION THERAPY RADIOBIOLOGY	3
!	RIS 44042	RADIATION THERAPY PATHOLOGY II	3
	RIS 44058	RADIATION THERAPY CLINICAL EDUCATION III	2
<b>Credit Hours</b>			<b>8</b>
<b>Semester Five</b>			
!	RIS 44038	RADIATION THERAPY PHYSICS III	3
!	RIS 44041	RADIATION THERAPY QUALITY MANAGEMENT	2
	RIS 44067	RADIATION THERAPY CLINICAL EDUCATION IV	3
<b>Credit Hours</b>			<b>8</b>
<b>Minimum Total Credit Hours:</b>			<b>120</b>

## University Requirements

All students in a bachelor's degree program at Kent State University must complete the following university requirements for graduation.

**NOTE:** University requirements may be fulfilled in this program by specific course requirements. Please see Program Requirements for details.

Flashes 101 (UC 10001)	1 credit hour
Course is not required for students with 30+ transfer credits (excluding College Credit Plus) or age 21+ at time of admission.	
Diversity Domestic/Global (DIVD/DIVG)	2 courses
Students must successfully complete one domestic and one global course, of which one must be from the Kent Core.	
Experiential Learning Requirement (ELR)	varies
Students must successfully complete one course or approved experience.	
Kent Core (see table below)	36-37 credit hours
Writing-Intensive Course (WIC)	1 course
Students must earn a minimum C grade in the course.	
Upper-Division Requirement	39 credit hours
Students must successfully complete 39 upper-division (numbered 30000 to 49999) credit hours to graduate.	
Total Credit Hour Requirement	120 credit hours

## Kent Core Requirements

Kent Core Composition (KCOMP)	6
Kent Core Mathematics and Critical Reasoning (KMCR)	3
Kent Core Humanities and Fine Arts (KHUM/KFA) (min one course each)	9
Kent Core Social Sciences (KSS) (must be from two disciplines)	6
Kent Core Basic Sciences (KBS/KLAB) (must include one laboratory)	6-7
Kent Core Additional (KADL)	6
<b>Total Credit Hours:</b>	<b>36-37</b>

## Full Description

The Bachelor of Radiologic and Imaging Sciences Technology degree is designed for students pursuing studies related to medical imaging. Job opportunities for CT and MRI technologists, sonographers and therapists

exist in hospitals, surgical centers, clinics, physician offices and other healthcare facilities.

The Radiologic and Imaging Sciences major comprising the following concentrations:

- The **Computed Tomography** concentration uses specialized x-ray equipment to create sectional images of the human body. Each cross-sectional image reveals complex information about body structures that are used for a variety of reasons (i.e., diagnostic, treatment planning, interventional or screening).
  - Computed Tomography concentration for students who completed an A.A.S. degree in Radiologic Technology, Nuclear Medicine or Radiation Therapy
  - Computed Tomography concentration for students who completed a hospital-based certificate or A.T.S. degree in Radiologic Technology and American Registry of Radiologic Technologist certification examination
- The **Diagnostic Medical Sonography** concentration uses medical ultrasound (high frequency sound waves that produce images of internal structures) to diagnose a variety of conditions and diseases, as well as monitor fetal development.
  - Diagnostic Medical Sonography concentration for new students (freshmen) and students who completed an associate degree
  - Diagnostic Medical Sonography concentration for students who completed an A.A.S. degree in Radiologic Technology
  - Diagnostic Medical Sonography concentration for students who completed a hospital-based certificate program or A.T.S. degree in Radiologic Technology and American Registry of Radiologic Technologist certification examination
- The **Magnetic Resonance Imaging** concentration uses a powerful magnet, radio waves, and computers to create sectional images of the human body. The images reveal complex information about body structures and the chemical changes that occur as a result of the onset of disease.
  - Magnetic Resonance Imaging concentration for students who completed an A.A.S. degree in Radiologic Technology, Nuclear Medicine or Radiation Therapy
  - Magnetic Resonance Imaging concentration for students who completed a hospital-based certificate or A.T.S. degree in Radiologic Technology and American Registry of Radiologic Technologist certification examination
- The **Radiation Therapy** concentration uses specialized high energy treatment units to administer therapeutic doses of radiation to cancer patients.
  - Radiation Therapy concentration for new students (freshmen) and students who completed an associate degree
  - Radiation Therapy concentration for students who completed an A.A.S. degree in Radiologic Technology
  - Radiation Therapy concentration for students who completed a hospital-based certificate program or A.T.S. degree in Radiologic Technology and American Registry of Radiologic Technologist certification examination

## Professional Licensure Disclosure

This program is designed to prepare students to sit for applicable licensure or certification in Ohio. If you plan to pursue licensure or certification in a state other than Ohio, please review state educational requirements for licensure or certification and contact information for

state licensing boards at Kent State's website for professional licensure disclosure.