Washtenaw Community College Comprehensive Report

RAD 263 Practical Computed Tomography (CT) Imaging
Effective Term: Fall 2013

Course Cover

Division: Math, Science and Health
Department: Allied Health
Discipline: Radiography
Course Number: 263
Org Number: 15600
Full Course Title: Practical Computed Tomography (CT) Imaging
Transcript Title: Practical CT Imaging
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Course Change
Change Information:
Consultation with all departments affected by this course is required.
Course description
Total Contact Hours
Objectives/Evaluation
Rationale: Increase in contact hours is needed to cover course content.
Proposed Start Semester: Fall 2013
Course Description: This is a course for certified technologists, ARRT (R), ARRT (N), ARRT (T), and (CNMT), who are admitted to the computed tomography (CT) program. Computed tomography (CT) scanning protocols, patient care, and related pathology will be covered.

Course Credit Hours

Variable hours: No
Credits: 3
Lecture Hours: Instructor: 45 **Student:** 45
Lab: Instructor: 0 **Student:** 0
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45
Repeatable for Credit: NO
Grading Methods: Letter Grades
Audit
Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

Enrollment Restrictions
Admission to the Computed Tomography (CT) program
and
Prerequisite
RAD 259 minimum grade "C"; may enroll concurrently
and
Prerequisite

RAD 261 minimum grade "C"; may enroll concurrently
and
Corequisite
RAD 265

General Education

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Adapt patient care and management techniques for computed tomography (CT) scanning procedures of the head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities.
   Assessment 1
   Assessment Tool: Embedded multiple choice questions on the final exam.
   Assessment Date: Fall 2015
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections/All students
   Number students to be assessed: All students (maximum admission to Computed Tomography (CT) program is 12 students)
   How the assessment will be scored: Blind-scored with an answer key.
   Standard of success to be used for this assessment: 90% of the students will score 75% or higher on the outcome related questions.
   Who will score and analyze the data: Faculty

2. Select appropriate computed tomography (CT) scanning protocols and techniques for the head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities.
   Assessment 1
   Assessment Tool: Embedded multiple choice questions on the final exam.
   Assessment Date: Fall 2015
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections/All students
   Number students to be assessed: All students (maximum admission to Computed Tomography (CT) program is 12 students)
   How the assessment will be scored: Blind-scored with an answer key.
   Standard of success to be used for this assessment: 90% of the students will score 75% or higher on the outcome related questions.
   Who will score and analyze the data: Faculty

3. Differentiate between normal anatomy, anatomical variants and pathological conditions on computed tomography (CT) images of the head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities.
   Assessment 1
   Assessment Tool: Embedded multiple choice questions on the final exam.
   Assessment Date: Fall 2015
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All sections/All students
   Number students to be assessed: All students (maximum admission to Computed Tomography (CT) program is 12 students)
   How the assessment will be scored: Blind-scored with an answer key.
   Standard of success to be used for this assessment: 90% of the students will score 75% or higher on the outcome related questions.
   Who will score and analyze the data: Faculty

Course Objectives

1. Apply the principles of transferring and immobilizing patients as needed for computed

tomography (CT) procedures.
Matched Outcomes

2. Discuss positioning of the patient for computed tomography (CT) procedures of the head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities.
Matched Outcomes
3. Identify the protocols for assessing a patient and obtaining a patient history for computed tomography (CT) procedures.
Matched Outcomes
4. List the technical factors used for each computed tomography (CT) procedure.
Matched Outcomes
5. Modify scanning factors such as tube current, tube potential, and pitch factors to reduce the radiation dose to the patient.
Matched Outcomes
6. Differentiate between emergency and non-emergency computed tomography (CT) procedures.
Matched Outcomes
7. List the clinical indications for a computed tomography (CT) study of the head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities.
Matched Outcomes
8. Identify normal anatomy, anatomical variants and pathological conditions on computed tomography (CT) images of the head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities.
Matched Outcomes
9. Compare and contrast computed tomography scanning protocols for adult and pediatric patients.
Matched Outcomes
10. Identify computed tomography (CT) scanning protocols for pathological conditions of the head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities.
Matched Outcomes

New Resources for Course

No new resources are needed for this course.

Course Textbooks/Resources

Textbooks

Hofer, Matthias. *CT Teaching Manual*, 4th ed. Thieme, 2011, ISBN: 9783131243546.

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

Testing Center

Other: OE 121 Radiography Laboratory

Reviewer	Action	Date
Faculty Preparer:		
Connie Foster	*Faculty Preparer*	*Feb 28, 2013*
Department Chair/Area Director:		
Connie Foster	*Recommend Approval*	*Mar 01, 2013*
Dean:		
Martha Showalter	*Recommend Approval*	*Mar 05, 2013*
Vice President for Instruction:		
Bill Abernethy	*Approve*	*Apr 11, 2013*