Washtenaw Community College Comprehensive Report

MRI 120 MRI Procedures I
Effective Term: Fall 2015

Course Cover

Division: Math, Science and Health
Department: Allied Health
Discipline: Magnetic Resonance Imaging
Course Number: 120
Org Number: 15600
Full Course Title: MRI Procedures I
Transcript Title: MRI Procedures I
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: New Course
Change Information:
Rationale: This is a required course for the Magnetic Resonance Imaging (MRI) curriculum.
Proposed Start Semester: Fall 2015
Course Description: In this course, students learn the Magnetic Resonance Imaging (MRI) scanning procedures for the central nervous and musculoskeletal systems. Topics include scanning pulse sequences, positioning and patient care, sectional anatomy, and pathology. Anatomical structures and the plane that best demonstrates anatomy will be discussed as well as signal characteristics of normal and abnormal structures.

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 Magnetic Resonance Imaging (MRI) program.

General Education
Request Course Transfer

Proposed For:

Student Learning Outcomes

1. List the pulse sequences most commonly used for MRI scanning protocols of the central nervous and musculoskeletal systems.
    Assessment 1
        Assessment Tool: Department final exam
        Assessment Date: Fall 2018
        Assessment Cycle: Every Three Years
        Course section(s)/other population: All sections
        Number students to be assessed: All students
        How the assessment will be scored: answer key
        Standard of success to be used for this assessment: 80% of the students will score 70% or higher on the related outcome questions.
        Who will score and analyze the data: Departmental Faculty

2. Recognize normal and abnormal anatomy on MRI scans of the central nervous and musculoskeletal systems.
    Assessment 1
        Assessment Tool: Department final exam
        Assessment Date: Fall 2018
        Assessment Cycle: Every Three Years
        Course section(s)/other population: All sections
        Number students to be assessed: All students
        How the assessment will be scored: answer key
        Standard of success to be used for this assessment: 80% of the students will score 70% or higher on the related outcome questions.
        Who will score and analyze the data: Departmental Faculty

3. Determine the best coil selection, scan planes, and imaging options used for the central nervous and musculoskeletal systems.
    Assessment 1
        Assessment Tool: Department final exam
        Assessment Date: Fall 2018
        Assessment Cycle: Every Three Years
        Course section(s)/other population: All sections
        Number students to be assessed: All students
        How the assessment will be scored: answer key
        Standard of success to be used for this assessment: 80% of the students will score 70% or higher on the related outcome questions.
        Who will score and analyze the data: Departmental Faculty

Course Objectives
1. Identify scan planes used for imaging specific pathology of the central nervous system (CNS).
    Matched Outcomes
2. Identify intra and extra axial pathology of the central nervous system (CNS) on MRI scans.
    Matched Outcomes
3. Recognize congenital abnormalities of the brain and spinal cord on MRI scans.
    Matched Outcomes
4. Discuss the role that MRI plays in detecting demyelination of the brain.
    Matched Outcomes
5. Discuss infectious processes of the central nervous system (CNS) and scanning considerations.
    Matched Outcomes
6. Discuss MRI imaging of the trauma patient and patient care considerations for CNS and musculoskeletal clinical presentations.
    Matched Outcomes
7. Identify normal imaging planes, protocols, and parameters used for musculoskeletal MR imaging.
    Matched Outcomes

8. Discuss patient care issues associated with imaging the musculoskeletal patient with abnormal anatomical positioning.
   Matched Outcomes
9. Identify MR imaging protocols and parameters used to best demonstrate musculoskeletal pathology.
   Matched Outcomes
10. Discuss the clinical challenges to imaging the musculoskeletal trauma patient.
    Matched Outcomes
11. Use clinically acquired images as a basis for discussion of pathology, anatomy, pulse sequences and parameters for MR musculoskeletal imaging.
    Matched Outcomes

New Resources for Course
Course Textbooks/Resources
   Textbooks
   Manuals
   Periodicals
   Software
   Equipment/Facilities
   Level III classroom
   Testing Center

Reviewer	Action	Date
Faculty Preparer:		
Connie Foster	Faculty Preparer	Nov 18, 2014
Department Chair/Area Director:		
Connie Foster	Recommend Approval	Nov 18, 2014
Dean:		
Kristin Brandemuehl	Recommend Approval	Nov 19, 2014
Vice President for Instruction:		
Bill Abernethy	Approve	Jan 05, 2015