

Washtenaw Community College Comprehensive Report

MRI 165 MRI Clinical Education III

Effective Term: Fall 2022

Course Cover

College: Health Sciences

Division: Health Sciences

Department: Allied Health

Discipline: Magnetic Resonance Imaging

Course Number: 165

Org Number: 15600

Full Course Title: MRI Clinical Education III

Transcript Title: MRI Clinical Education III

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: Inactivation

Change Information:

Consultation with all departments affected by this course is required.

Rationale: The program is being reduced, and this course is being inactivated and removed from the program. The content in this course will be incorporated into an existing course.

Proposed Start Semester: Fall 2022

Course Description: This is the third clinical course for certified radiologic technologists ARRT (R), who are admitted to the Magnetic Resonance Imaging (MRI) program. Students are expected to independently perform patient care and MRI clinical procedures under indirect supervision. Students are required to complete all mandatory and elective clinical competency required by the ARRT. This course requires a 10 week, 32-hours/week clinical rotation under the supervision of a certified MRI technologist.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 0 Student: 0

Lab: Instructor: 0 Student: 0

Clinical: Instructor: 0 Student: 320

Total Contact Hours: Instructor: 0 Student: 320

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

Prerequisite

MRI 146 - MRI Clinical Education III

Corequisite

MRI 160

Enrollment Restrictions

Admission to Magnetic Resonance Imaging (MRI) program.

General Education**Request Course Transfer****Proposed For:****Student Learning Outcomes**

1. Demonstrate clinical competency in performing magnetic resonance (MR) procedures of the musculoskeletal system.

Assessment 1

Assessment Tool: Departmental Clinical Evaluation Form

Assessment Date: Spring/Summer 2019

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: Item analysis of numerical data from the Clinical Evaluation Rubric

Standard of success to be used for this assessment: 90% of the students will score 80% or higher on the Clinical Evaluation Rubric.

Who will score and analyze the data: Departmental Faculty

2. Demonstrate clinical competency in performing magnetic resonance (MR) procedures of the abdomen.

Assessment 1

Assessment Tool: Departmental Clinical Evaluation Form

Assessment Date: Spring/Summer 2019

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: Item analysis of numerical data from the Clinical Evaluation Rubric

Standard of success to be used for this assessment: 90% of the students will score 80% or higher on the Clinical Evaluation Rubric.

Who will score and analyze the data: Departmental Faculty

3. Demonstrate clinical competency in performing magnetic resonance (MR) procedures of the pelvis.

Assessment 1

Assessment Tool: Departmental Clinical Evaluation Form

Assessment Date: Spring/Summer 2019

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: Item analysis of numerical data from the Clinical Evaluation Rubric

Standard of success to be used for this assessment: 90% of the students will score 80% or higher on the Clinical Evaluation Rubric.

Who will score and analyze the data: Departmental Faculty

Course Objectives

1. Utilize appropriate magnetic resonance (MR) pulse sequences in clinical imaging.

2. Manipulate magnetic resonance (MR) parameters to optimize image quality.
3. Properly select and use magnetic resonance (MR) coils to optimize image quality.
4. Work effectively with clinicians as a member of the healthcare team.
5. Evaluate the diagnostic quality of magnetic resonance (MR) images and identify the methods of correction, if necessary.
6. Setup magnetic resonance (MR) coils, equipment, table accessories and cushioning.
7. Determine the source of an artifact, and describe a change or changes to the acquisition parameters to reduce the appearance of the artifact.
8. Utilize critical thinking, problem-solving, and decision-making skills in performing diagnostic Magnetic Resonance Imaging (MRI) procedures.
9. Identify the probable cause of image quality problems and recommend an appropriate solution.
10. Maintain a clean, comfortable, and safe environment for the patient, self, and others.
11. Employ proper precautions to prevent disease transmission.
12. Speak with the patient in a professional and empathetic manner to alleviate any concerns regarding the magnetic resonance (MR) procedure.
13. Respond appropriately in emergency situations.
14. Demonstrate the appropriate corrective actions to improve inadequate image formation.
15. Demonstrate knowledge of scanning menus, archival procedures and display functions.
16. Identify common indications and common pathology for the musculoskeletal system, abdomen and pelvis.
17. Use DICOM to archive and send images.
18. Use the imaging plane and pulse sequence parameters that maximize the diagnostic value of an magnetic resonance (MR) scan of the upper extremity, lower extremity, shoulder girdle, and pelvic girdle.
19. Use the imaging plane and pulse sequence parameters that maximize the diagnostic value of an magnetic resonance (MR) scan of the pelvis, including the male and female reproductive systems.
20. Use the imaging plane and pulse sequence parameters that maximize the diagnostic value of an magnetic resonance (MR) scan of the abdomen.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Catherine Blaesing</i>	<i>Faculty Preparer</i>	<i>Nov 04, 2021</i>
Department Chair/Area Director: <i>Kristina Sprague</i>	<i>Recommend Approval</i>	<i>Nov 05, 2021</i>
Dean: <i>Shari Lambert</i>	<i>Recommend Approval</i>	<i>Nov 12, 2021</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Reviewed</i>	<i>Feb 07, 2022</i>
Assessment Committee Chair:		

Vice President for Instruction:

Kimberly Hurns

Approve

Feb 11, 2022

Washtenaw Community College Comprehensive Report

MRI 165 MRI Clinical Education III

Effective Term: Winter 2017

Course Cover

Division: Health Sciences

Department: Allied Health

Discipline: Magnetic Resonance Imaging

Course Number: 165

Org Number: 15600

Full Course Title: MRI Clinical Education III

Transcript Title: MRI Clinical Education III

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:

Total Contact Hours

Rationale: Change MRI 165 from a 12 week course to a 10 week course so that the lecture and clinical courses will end same time.

Proposed Start Semester: Winter 2017

Course Description: This is the third clinical course for certified radiologic technologists ARRT (R), who are admitted to the Magnetic Resonance Imaging (MRI) program. Students are expected to independently perform patient care and MRI clinical procedures under indirect supervision. Students are required to complete all mandatory and elective clinical competency required by the ARRT. This course requires a 10 week, 32-hours/week clinical rotation under the supervision of a certified MRI technologist.

Course Credit Hours

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College-Level Math

Requisites

Prerequisite

MRI 145 - MRI Clinical Education III

Corequisite

MRI 160

Enrollment Restrictions

Admission to the Magnetic Resonance Imaging (MRI) program.

General Education**Request Course Transfer**

Proposed For:

Student Learning Outcomes

1. Demonstrate clinical competency in performing magnetic resonance (MR) procedures of the musculoskeletal system.

Assessment 1

Assessment Tool: Departmental Clinical Evaluation Form

Assessment Date: Spring/Summer 2019

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: Item analysis of numerical data from the Clinical Evaluation Rubric

Standard of success to be used for this assessment: 90% of the students will score 80% or higher on the Clinical Evaluation Rubric.

Who will score and analyze the data: Departmental Faculty

2. Demonstrate clinical competency in performing magnetic resonance (MR) procedures of the abdomen.

Assessment 1

Assessment Tool: Departmental Clinical Evaluation Form

Assessment Date: Spring/Summer 2019

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: Item analysis of numerical data from the Clinical Evaluation Rubric

Standard of success to be used for this assessment: 90% of the students will score 80% or higher on the Clinical Evaluation Rubric.

Who will score and analyze the data: Departmental Faculty

3. Demonstrate clinical competency in performing magnetic resonance (MR) procedures of the pelvis.

Assessment 1

Assessment Tool: Departmental Clinical Evaluation Form

Assessment Date: Spring/Summer 2019

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: Item analysis of numerical data from the Clinical Evaluation Rubric

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19. Use the imaging plane and pulse sequence parameters that maximize the diagnostic value of an magnetic resonance (MR) scan of the pelvis, including the male and female reproductive systems.
20. Use the imaging plane and pulse sequence parameters that maximize the diagnostic value of an magnetic resonance (MR) scan of the abdomen.

New Resources for Course

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Equipment/Facilities

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Connie Foster</i>	<i>Faculty Preparer</i>	<i>Jun 09, 2016</i>
Department Chair/Area Director: <i>Connie Foster</i>	<i>Recommend Approval</i>	<i>Jun 09, 2016</i>
Dean: <i>Valerie Greaves</i>	<i>Recommend Approval</i>	<i>Jul 02, 2016</i>
Curriculum Committee Chair: <i>David Wooten</i>	<i>Recommend Approval</i>	<i>Jul 25, 2016</i>
Assessment Committee Chair: <i>Michelle Garey</i>	<i>Recommend Approval</i>	<i>Jul 25, 2016</i>
Vice President for Instruction: <i>Michael Nealon</i>	<i>Approve</i>	<i>Jul 28, 2016</i>