

### Request for Undergraduate Course Addition

Prepare one paper copy with all signatures and forward to the University Curriculum Committee Chair. Additionally, immediately following attainment of the College Curriculum Chair signature, send one identical ELECTRONIC COPY sans signatures in PDF format with all supporting documentation converted to PDF format by email to the University Curriculum Committee chair for electronic distribution.

College: COHP Department/Division: Medical Imaging Alpha Designator / Number : MI 204 Graded:  CR/NC:

Contact Person: Dr. Shelia Kyle, Vice President Phone: 304-526-1412  
St. Mary's Center for Education

Dr. Rita Fisher 304-526-1259  
Director – School of Medical Imaging

**NEW COURSE DATA:**

New Course Title: Radiographic Anatomy

Alpha Designation/Number:

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Title Abbreviation:

R	a	d	i	o	g	r	a	p	h	i	c		A	n	a	t	o	m	y				
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(Limit of 25 characters and spaces.)

Course Description (Limit of 30 words): Content is designed to introduce the student to radiographic anatomy. Emphasis is placed on identifying structures visible on correctly performed radiographic procedures.

Co-requisite(s): MI202, MI203, MI204, MI205, MI206 First Term to be offered: Fall 09

Prerequisite(s): BSC 228; Admission to the Medical Imaging Program Credit Hours: 3

Course(s) being deleted in place of this addition (must submit course deletion form): None

**CHECKLIST/REQUIREMENTS:**

1. After completing this two page form in its entirety, include a complete syllabus and route through the departments/committees below.
2. A complete syllabus can be from when this course was previously taught as a special topics course or by creating a new, intended syllabus to use with the course. The sample syllabus must at a minimum address the following areas:
  - a. COURSE OBJECTIVES
  - b. COURSE OUTLINE
  - c. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATE
  - d. INSTRUCTIONAL METHODS (Lecture, Lab, Internship, Practicum, etc...)
  - e. EVALUATION METHODS (Unit/Chapter, Midterm, Final, Projects, etc...)
3. If this course will replace a course that is required by another department, please send a memo to the affected department and include it with this packet, as well as, the response received from the affected department.
4. If this course will be similar in title or content to another department's courses, please send a memo to the affected department and include it with this packet, as well as, the response received from the affected department.
5. Send a copy of this completed form to the Marshall University Catalog Editor.

SIGNATURES: (If disapproved at any level, do not sign. Return to previous signer.)

Department Chair/Division Head _____	Date: _____
Registrar: _____	Date: _____
Librarian: _____	Date: _____
College Dean: _____	Date: _____
College Curriculum Chair _____	Date: _____
University Curriculum Committee Chair: _____	Date: _____
Faculty Senate Chair: _____	Date: _____
VP Academic Affairs/VP Health Services: _____	Date: _____

**Request for Undergraduate Course Addition - Page 2**  
**Additional Information Required for Undergraduate Course Addition**

College: COHP

Department/Division: Medical Imaging

Alpha Designator/Number: MI 204

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. Identify by name the faculty in your department/division who may teach this course.

Rita Fisher, PhD RT (R)(CT)(CV)(ASRT)

2. If your department/division requires additional faculty, equipment, or specialized materials, attach an estimation of money and time required to secure these items.

No additional funding required

3. If this course will be required by a department/division other than your own, identify by name.

N/A

4. If there are any agreements required to provide clinical experience, attach details and signed agreements.

No additional agreements will be needed for this class

5. If library resources are deemed inadequate, attach a plan to overcome this. The plan must include the cost as stated by the Dean of Libraries.

No additional Library Resources to be provided by Marshall University

6. EQUIPMENT/SUPPLIES NEEDED TO TEACH THIS COURSE (this does not refer to additional equipment/supplies that need to be purchased; simply what materials are needed in order to teach this course successfully.):

Computer, LCD Projector, Projector Screen, White Board, Markers, Handouts, CD Rom's

No additional equipment or supplies will need to be provided by Marshall University

7. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE OR GRADUATE COURSE (please also submit to Graduate Council course addition for 5xx graduate component):

None

8. PROVIDE A COMPLETE BIBLIOGRAPHY INCLUDING ALL PUBLICATIONS RESEARCHED TO CREATE THIS COURSE AND WHAT PUBLICATIONS MAY BE BENEFICIAL TO STUDENTS TAKING THIS COURSE (separate page).

See attached sheet

## **BIBLIOGRAPHY:**

Bontrager K. *Radiographic Positioning and Related Anatomy*. 6th ed. St. Louis, Mo: Elsevier Mosby; 2005.  
ISBN 0323025072

Bontrager K, Lampignano J. *Workbook and Laboratory Manual*, 6th ed. Volumes I and II. St. Louis, Mo: Elsevier Mosby; 2005.  
Volume I – ISBN 0323025048; Volume II – ISBN 0323025056

Butler J, Lewis R, Shier D. *Hole's Human Anatomy & Physiology*. 10th ed. Boston, Mass: McGraw-Hill Higher Education; 2004.  
ISBN 0072438908

Cornuelle AG. *Competency Manual for Radiographic Anatomy & Positioning*. New York: McGraw-Hill Inc; 1998.  
ISBN 0838582397

Cornuelle AG, Gronefeld DH. *Radiographic Anatomy Positioning*. Stamford, Conn: Appleton & Lange; 1998.  
ISBN 0838582389

Frank ED, Long, BW, Smith, BJ. *Mosby's Radiography Online: Anatomy and Positioning for Merrill's Atlas of Radiographic Positioning & Procedures*. 11th ed. St. Louis, Mo: Mosby; 2007.  
ISBN-10: 0323044921 and ISBN-13: 978-0323044929

Guy JF. *Learning Human Anatomy: a Laboratory Text and Workbook*. 3rd ed. Norwalk, Conn: Appleton & Lange; 2005.  
ISBN 0131433202

Lufkin R. *Teaching Atlas of Head & Neck Imaging*. New York, NY: Thieme Medical Publishers; 2002.  
ISBN 0865776911

Madden ME. *Introduction to Sectional Anatomy*. Philadelphia, Pa.: Lippincott Williams & Wilkins; 2001.  
ISBN 0781721059

Madden ME. *Sectional Anatomy Review*. Philadelphia, Pa: Lippincott, Williams & Wilkins; 2001.  
ISBN 0781721067

Madigan ML. *Pocket Manual for Radiographic Anatomy & Positioning: An Integrated Approach*. New York: McGraw-Hill Co; 1998.  
ISBN 0838582370

Manaster B.J. *Handbook of Skeletal Radiology*. 2nd ed. St. Louis, Mo: Year Book Medical Publishers Inc; 1997.  
ISBN 0815170327

Marieb EN. *Human Anatomy & Physiology*. 6th ed. New York, NY: Pearson Education; 2004  
ISBN 0805354638

[www.netanatomy.com](http://www.netanatomy.com)

Ramsey RG. *Teaching Atlas of Spine Imaging*. New York: Thieme Medical Publishers Inc; 1999.  
ISBN 0865777780

Sickles C . *Student Study Guide to Accompany Hole's Human Anatomy & Physiology*. 10th ed. Boston, Mass: McGraw-Hill Higher Education; 2003.  
ISBN 0072438932

Weber, EC, Vilensky JA, Carmichael, SW. *Netter's Concise Radiologic Anatomy*. Saunders; 2009

Weill FS, Manco-Johnson ML. *Imaging of Abdominal and Pelvic Anatomy*. New York, NY: Churchill Livingstone; 1997.  
ISBN 0443052387

Wicke L. *Atlas of Radiologic Anatomy*. 7th ed. Teterboro, NJ: Icon Learning Systems; 2004  
ISBN 1929007469

Yochum TR, Rowe LJ. *Essentials of Skeletal Radiology*. 2nd ed. Baltimore, Md: Williams & Wilkins; 1996.  
ISBN 0683099116

## COURSE SYLLABUS OUTLINE

### Course Title and Number: MI 204 Radiographic Anatomy (3 CR)

Semester and Year: Fall 2009

\*Course with Special Designation: none

Text Information: Bontrager: Radiographic Positioning and Related Anatomy, 7<sup>th</sup> Edition. 2009.

Netter's Concise Radiologic Anatomy, 2009, [www.netanatomy.com](http://www.netanatomy.com)

Computer Requirements: access to the internet

Instructor: Name: Dr. Rita Fisher

Office: Room 212

Office Hours: As arranged

Phone/email: 526-1259, [rfisher@st-marys.org](mailto:rfisher@st-marys.org)

**Course Description:** Content is designed to introduce the imaging student to radiographic anatomy. The student will identify anatomical structures depicted on radiographs including film based radiography and digital imaging. The student will be introduced to sectional anatomy as demonstrated with computed tomography, magnetic resonance imaging, and sonography. Emphasis is placed on identifying structures visible on correctly performed radiographic procedures. Lecture.

**Credits:** 3

**Prerequisites:** BSC 227, BSC 228

**Co-requisites:** MI 205

**Desired Learner Outcomes/Objectives:** When finished with this course you should be able to:

1. Demonstrate the use of topographical landmarks to locate internal structures.
2. Identify major anatomical structures found within sectional images.
3. Identify major anatomical structures demonstrated on radiographic images.
4. Critically evaluate radiographs for demonstration of correct anatomical structures and identify appropriate corrective actions required to properly visualize desired anatomy.
5. Correlate radiographic structures with skeletal anatomy.

**Evaluation/Measurement/Assessment of Learner Outcomes:**

1. 8 Exams: Exams will be administered to cover the content material found in the text, delivered in lecture and any additional materials. Exams will be multiple choice, true/false and short answer.
2. Class participation
3. Comprehensive final exam. Students who have achieved an A (93.1%) in the class may be exempt from the final exam.

Your demonstrated daily preparation, participation, and punctuality can raise or lower your final grade.

**Grading Policy:**

Exams: 100 points each                      75% of grade

Final Exam                                      25% of grade

\*Lowest exam grade will be dropped.

Grades will be determined by the following scale:

92.3-100                      A

84.3-92.2                      B

74.3-84.2                      C

Below 74.3                      F

## Policy Statements:

1. **Attendance:** Regular attendance is expected. Students who miss more than two classes will receive a one letter drop in the final grade. You cannot pass the course with more than four absences. You must be present at the beginning of the class and stay until the end of class in order to be counted present. *The School of Medical Imaging follows Marshall University inclement weather policy. Refer to the Student Handbook.*
2. **Preparation, participation, punctuality.** All preparation material should be completed prior to its scheduled discussion in class. All class sessions will be conducted with the assumption that all appropriate readings and/or assignments have been completed. Doing the preparation work prior to class will allow you to identify specific topics with which you need the most help, and you can then raise the pertinent questions when the topic is scheduled for class time. Not all assigned information will be reviewed in class. Additionally, information that may not have been assigned may be reviewed in class. If you have a question about a particular subject, you have the responsibility of using class time to get your questions answered. This necessitates having attempted the work prior to class. Class time should be used to clarify issues; it is difficult to know what issues you need to have clarified if you have not prepared.
3. **Academic integrity:** Please refer to the Student Handbook. Students may not copy or utilize prior exams as study material unless provided by the instructor for review. Students who obtain copies of old exams from current or former students will be sanctioned.
4. **Make-up assignments:** Late assignments will not be accepted. Students who miss scheduled exams may make them up only in the event of a medical emergency or by prior arrangement with the instructor.
5. **Missed classes:** If you are absent, it is your responsibility to find out from a classmate what notes, handouts, assignments, or other course material you missed and to make arrangements with me to receive handouts.
6. **Office hours:** Instructors are available to meet individually by appointment.
7. **Learning Disabled Students:** consideration toward learning disabled students will be in accordance to SMI Student Handbook policies. Please make certain the instructor is made aware of any special needs.
8. **Computing policy at SMMC:**
  - a. Authorized users of SMMC or other clinical affiliates institutional networks are those individuals who have been granted a username and password. Unauthorized use of usernames or passwords is prohibited
  - b. Use of computer systems in the clinical setting is limited to authorized patient data entry. Unauthorized access or attempts to access privileged patient information is a HIPAA violation and may result in dismissal from the SMI.
  - c. Students are provided access to the Internet through computers located in the School of Nursing Library, the computer lab and the SMI office. **Internet access is limited to assigned research projects.** Students may not access personal e-mail accounts (such as Hotmail or Yahoo) from these computers. Non school related use of the internet is prohibited. Students may access the internet via computers located in the Mojo/vending area in the hospital.
  - d. Internet access at SMMC is monitored by Information Services. Any attempts to download material of an obscene nature may result in dismissal from the SMI.
  - e. Students have access to computers located in the computer lab next to the SMI classroom. Students may not store information of the hard drive of these computers.
  - f. Users must adhere to the ethical standards governing copyright, software licensing, and intellectual property.
  - g. Suspected violation of these guidelines constitutes unacceptable use of information resources, and may violate other institutional policies and/or state and federal law including HIPPA. Suspected or known violations should be reported to the appropriate supervisory authority. The SMI and/or law enforcement agencies will process violations.
  - h. Violations may result in revocation of computing resource privileges, academic dishonest proceedings, disciplinary action or legal action.
  - i. Violations are subject to the appeal or grievance process.
  - j. Students should refer to computer policy in the CFE Student handbook

### Proposed Course Outline

Dates and content are subject to change as the semester progresses. Changes will be announced in class as far in advance as possible.

Week	Topic	Reading Assignment/Exam
	Introduction	Bontrager Chapter 1
	Chest	Bontrager Chapter 3
	Abdomen	Bontrager Chapter 4
	Exam One	
	Upper Extremity	Bontrager Chapter 5
	Shoulder Girdle	Bontrager Chapter 6
	Exam Two	
	Lower Extremity	Bontrager Chapter 7
	Hip/Pelvis	Bontrager Chapter 8
	Exam Three	
	Spine	Bontrager Chapter 9, 10
	Exam Four	
	Skull/Facial bones	Bontrager Chapter 12, 13
	Exam Five	
	Upper and Lower GI	Bontrager Chapter 14, 15
	Exam Six	
	Urinary and Hepatobiliary	Bontrager Chapter 16, 17
	Exam Seven	
	Thorax	Bontrager Chapter 11
	Sectional Anatomy	<a href="http://www.netanatomy.com">www.netanatomy.com</a> , Bontrager Chapter 21, 22, 23
	Exam Eight	
	Review	
	Final Exam	