

INSTRUCTIONS FOR COMPLETION OF THE UAMS GRADUATE SCHOOL COURSE APPROVAL FORM

1. Please save this PDF to your computer for editing.
2. The form has been designed with fields for your responses, and these are indicated in blue and gray shading. Please complete all fields. Use the "tab" key to move between fields. A 'beep' will sound if you attempt to enter a response that contains more characters than is permitted. **IF YOU NEED HELP IN ANY OF THE FIELDS, PRESS THE F1 KEY AND A HELP WINDOW WILL OPEN.**
3. Print the document, and then obtain the appropriate signatures before submitting the form to the Graduate Office.

**COURSE APPROVAL FORM, Graduate School
University of Arkansas for Medical Sciences**

This form and attached materials are due in the Graduate School Office on the first Monday of the month. All forms will be submitted to the UAMS Graduate Council Curriculum Committee for review and approval prior to consideration by the Graduate Council.

This form is not required for minor stylistic or editorial corrections to the title or course descriptions. These may be made when revising the catalog copy.

1. **Program:** Department of Biomedical Informatics

B	I	O	M						
---	---	---	---	--	--	--	--	--	--

Department *Alpha (Department) Code*

2. **Action proposed** (indicate one or more items): Effective term: Fall 2017

- | | |
|--|---|
| <input checked="" type="checkbox"/> Add course | <input type="checkbox"/> Change title |
| <input type="checkbox"/> Eliminate course
(No outline needed) | <input type="checkbox"/> Change credit hours from: _____ to _____ |
| | <input type="checkbox"/> Change course number
from: _____ to _____ |
| | _____ Change description |

3. **Course ID, title and description:**

<table border="1" style="display: inline-table;"><tr><td>B</td><td>I</td><td>O</td><td>M</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> prefix	B	I	O	M							_____ number	<u>Anatomy for Imaging</u> title (20 characters)
B	I	O	M									

Anatomy for Imaging
catalog name (40 characters)

Scheduled offering: Fall Spring Summer On demand

To cross list a course, use the Course Cross Listing Form.

Describe the course in sentence form using 50 words or less as it is to appear in the catalog. List prerequisites, co-requisites and possible off-site instructional opportunities or requirements.

This graduate course focuses on the structure of the human body and will include skeletal structure, muscular structure, organ systems and their structural organization. Students will gain knowledge not only of the gross anatomical structure of the human body, but also of visualization of that structure using modern imaging methods.

4. **Justification:**

Justify this change in terms of course needs or curriculum improvement. State the effect of this change on any degree programs. Identify the courses to be eliminated, if any, if this course is approved. (Course Approval Forms must also be submitted for these courses) Identify any existing course or courses that would extensively overlap or be duplicated if the proposed curricular change occurs. Provide statements of concurrence with the change from the chairperson(s) and dean(s) of the programs/areas offering the affected courses.

There will be no change to current degree plans.

SYLLABUS

COURSE NUMBER: ?????

COURSE TITLE: **Anatomy for Imaging**

COURSE DESCRIPTION:

This graduate course focuses on the structure of the human body and will include skeletal structure, muscular structure, organ systems and their structural organization. Students will gain knowledge not only of the gross anatomical structure of the human body, but also of visualization of that structure using modern imaging methods including magnetic resonance imaging, computed tomography, ultrasound, and positron emission tomography. For each anatomical region and organ system, histological and histopathological correlates will also be examined.

PRE-REQUISITES: None

GENERAL INFORMATION:

CREDITS: 3

SEMESTER: Fall (prior to taking PHYO 5013)

LOCATION: Campus or hybrid (online lectures, campus labs)

FACULTY: Linda Larson-Prior

SPECIAL ASSISTANCE: Students who believe they may need accommodations in this class based on mental or physical impairments must contact the Students with a disability that need accommodations should contact the Associate Dean for Academic Affairs at (501) 686-5730 to schedule an appointment to discuss your needs. Please make arrangements as soon as possible so accommodations can be made in a timely manner.

COURSE OBJECTIVES:

Upon successful completion of this course, the student is able to:

- Communicate accurately using anatomical terminology
- Be able to describe the anatomical structure of the human body
- Identify anatomical structures, including organ systems, in radiological images

- Understand and be able to describe the structure of the human brain and cranial nerves
- Understand and be able to describe the structure of the human eye
- Be able to describe the innervation and blood supply of the anatomical structures of the human body
- Understand and be able to describe the structure of the heart and lungs
- Be able to identify histologic features of anatomical structures
- Understand and be able to describe the structure of the human gut, including its innervation and blood supply
- Know and be able to discuss the musculo-skeletal system of the human body

MAJOR TOPICS:

Head and Neck

Introduction to anatomical orientation and terminology
 Structure of the skull and vertebral system
 Musculature of the face, head and neck
 Brain and spinal cord
 Innervation and cranial nerves
 Blood supply and vasculature
 Neuroimaging
 Histology

Thorax and Upper Limb

Skeletal structure of the thorax and upper limb
 Musculature of the thorax and upper limb
 Organ systems of the thorax
 Structure of the heart and lungs
 Innervation and spinal nerves
 Blood supply and vasculature
 Imaging
 Histology

Abdomen, Pelvis and Lower Limb

Skeletal structure of the pelvis and lower limb
 Musculature of the abdomen, pelvis and lower limb
 Organ systems of the abdomen and pelvis
 Structure of the gut
 Innervation and spinal nerves
 Blood supply and vasculature
 Imaging
 Histology

ASSIGNMENTS:

Assignments to supplement lecture materials will be assigned each week. All assignments will be due at the time of class the following week. Students are encouraged to use outside resources together with the textbook to address these assignments. Assignments are to take

no more than a single page, and may include figures and diagrams as well as text where that is appropriate to address the assigned issue.

TEXTBOOK:

W. Kapit & L.M. Elson, The Anatomy Coloring Book, Pearson Education Limited
4th Edition, 2014
Online Resources (free)
Library Resources

STUDENT EVALUATION & GRADING

Comprehensive Exam	Head and Neck	20%
Comprehensive Exam	Thorax & upper limb	20%
Comprehensive Exam	Abdomen, pelvis & lower limb	20%
Quizzes		15%
Assignments		25%

TOPICS AND ASSIGNMENTS BY WEEK:

- Week 1: Course Overview and imaging correlates
Head & Neck: Musculo-skeletal anatomy
Chapter 1 from textbook (reference) - "Glossary".
Chapter 2 from textbook - "Orientation of the Body"
Chapter 3 from textbook - "Cells & Tissues"
Chapter 5 from textbook - "Skeletal and articular system: head and neck"
Chapter 6 from textbook - "Muscular system: head and neck"
Assignment: Cranial nerves: what are they and what do they control?
- Week 2: Head & Neck: Organ systems: the eye
Chapter 12 from textbook - "Special senses"
Assignment: How do the eyes see the world?
- Week 3: Head & Neck: Organ systems: brain and central nervous system
Chapter 7 from textbook - "Nervous system"
Chapter 8 from textbook - "CNS"
Chapter 9 from textbook - "CNS, cavities and coverings"
Assignment: ANS components and function of one component
Quiz 1
- Week 4: Head & Neck: neuroimaging and histological correlations
Anatomy Lab: prosection of the head and neck
Online resources
Assignment: Blood supply of the head and neck
- Week 5: EXAM I: Anatomy of the Head & Neck

6. Program Approvals:

Fred Prior, PhD, Department of Biomedical Informatics
(Print or type) Chairperson, Academic Department or Area

Fred Prior

10/26/16

(Signature) Chairperson, Academic Department or Area

Date

[Signature]

College Dean (Dean McGehee for College of Medicine)

Date

11/17/2016

7. Graduate School Approvals

Eui C Park 11/17/2016
Chairperson, Graduate Council Date

[Signature] 11/17/2016
Dean of the Graduate School Date