



Course Approval Form

For approval of new courses and deletions or modifications to an existing course.

registrar.gmu.edu/facultystaff/curriculum

Action Requested:

Create new course Delete existing course

Modify existing course (check all that apply)

Title Credits Repeat Status Grade Type

Prereq/coreq Schedule Type Restrictions

Other: _____

Course Level:

Undergraduate

Graduate

College/School: Department:

Submitted by: Ext: Email:

Subject Code: Number: Effective Term: Fall Spring Summer

(Do not list multiple codes or numbers. Each course proposal must have a separate form.)

Year:

Title: Current

Banner (30 characters max including spaces)

New

Credits: 4 Fixed Variable or to

Repeat Status: Not Repeatable (NR) Repeatable within degree (RD) Repeatable within term (RT)

(check one) (check one) Maximum credits allowed:

Grade Mode: Regular (A, B, C, etc.) Satisfactory/No Credit Special (A, B, C, etc. +IP)

Schedule Type Code(s): Lecture (LEC) Lab (LAB) Recitation (RCT) Internship (INT)

Independent Study (IND) Seminar (SEM) Studio (STU)

Prerequisite(s):

Corequisite(s):

Instructional Mode: 100% face-to-face Hybrid: ≤ 50% electronically delivered 100% electronically delivered

Special Instructions: (list restrictions for major, college, or degree; hard-coding; etc.)

Are there equivalent course(s)? Yes No

If yes, please list _____

Catalog Copy for NEW Courses Only (Consult University Catalog for models)

Description (No more than 60 words, use verb phrases and present tense)	Notes (List additional information for the course)
Organ system approach to studying the structure and function of the human organism and maintenance of homeostasis. Detailed discussion of anatomical structures and their functions of the endocrine, nervous, muscular, skeletal, and integumentary systems following introduction to the cellular and tissue levels of organization. Topics also include selected pathology for each organ system; current therapeutic interventions are addressed.	
Indicate number of contact hours: Hours of Lecture or Seminar per week: <input type="text" value="3"/> Hours of Lab or Studio: <input type="text" value="3"/>	
When Offered: (check all that apply) <input checked="" type="checkbox"/> Fall <input checked="" type="checkbox"/> Summer <input type="checkbox"/> Spring	

Approval Signatures

Department Approval _____ Date _____ College/School Approval _____ Date _____

If this course includes subject matter currently dealt with by any other units, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal.

Unit Name	Unit Approval Name	Unit Approver's Signature	Date

For Graduate Courses Only

Graduate Council Member _____ Provost Office _____ Graduate Council Approval Date _____

Course Proposal Submitted to the COS Curriculum Committee

1. COURSE NUMBER AND TITLE:

BIOL 430 – Advanced Human Anatomy & Physiology I

Course Prerequisites:

BIOL 213 and 60 credits

Catalog Description:

Organ system approach to studying the structure and function of the human organism and maintenance of homeostasis. Detailed discussion of anatomical structures and their functions of the endocrine, nervous, muscular, skeletal, and integumentary systems following introduction to the cellular and tissue levels of organization. Topics also include selected pathology for each organ system; current therapeutic interventions are addressed.

2. COURSE JUSTIFICATION:

Course Objectives:

The course objective is to provide students with a foundation in human anatomy and physiology as preparation for graduate study in health sciences. Students will learn how to relate anatomical structure to function, with emphasis on the coordination of body systems. Students will study selected pathologies and therapies to promote critical thinking and application of learned concepts. Through the utilization of preserved specimens, models, and computer simulations in the laboratory, the students will learn proper anatomical terminology and relation of structure to function.

Course Necessity:

Undergraduate study of human anatomy and physiology is often a prerequisite for application to graduate programs in the health sciences, such as medicine, dentistry, pharmacology, and physical and occupational therapy. Many graduate programs are looking for 8 credits of study in human anatomy and physiology in courses that are more advanced and separate from those courses designed as foundations for nursing and physical education studies (BIOL 124 and BIOL 125). Currently, only BIOL 425, Human Physiology, is offered as a more advanced course in this subject area. This course, however, is not adequate to satisfy graduate level program requirements for multiple reasons: it is only 3 credits, it does not have a laboratory component; there is no emphasis on anatomy. Together, the proposed BIOL 430 and 431 courses will more appropriately satisfy the needs of those students who are pursuing health careers requiring advanced studies.

Course Relationship to Existing Programs:

This course is designed to be an optional biology elective for the B.A. and B.S. Biology degrees, and the B.S. Medical Technology degree.

Course Relationship to Existing Courses:

This course offers a more advanced study in human anatomy and physiology than the BIOL 124 Human Anatomy & Physiology course required for nursing students, and students in the various majors within the School of Recreation, Health and Tourism. This course is designed to satisfy requirements for those students applying to health-related graduate programs.

3. APPROVAL HISTORY:

4. SCHEDULING AND PROPOSED INSTRUCTORS:

Semester of Initial Offering:

Fall 2011

Proposed Instructors

Dr. Brenda Tondi – instructor for BIOL 124, BIOL 125 and BIOL 425

Dr. Sara Kalifa – instructor for BIOL 124, BIOL 125, BIOL 435 and BMED 605

5. TENTATIVE SYLLABUS: see attached

BIOLOGY 430 – ADVANCED HUMAN ANATOMY & PHYSIOLOGY I

FALL 2011

Dr. Brenda Tondi

Office: 3015 David King Hall

Office Hours: Tuesday/Thursday 11:30 am - 1:00 pm; Wednesday 1:00 – 3:00pm; or by appointment

Email: btondi@gmu.edu

Phone: 703-993-9427

COURSE OBJECTIVES:

This is a 4-credit course designed for students who are planning on a career in any health-related field. Physiology integrates information and applies principles that students have learned in biology, chemistry, and physics to understand the function of the human body. Material is organized by organ system and will cover the structure and function of the endocrine, nervous, muscular, skeletal, and integumentary systems following introduction to the cellular and tissue levels of organization. Discussions of selected pathology for each organ system and current therapeutic interventions will also be included. Laboratory emphasis will be on the complementarity of structure and function.

BIOL 430 is the first semester of a two-semester course in Human Anatomy and Physiology. During the first semester we will discuss the cellular and tissue levels of organization in the human body and begin our survey of organ systems. Laboratory exercises are designed to reinforce lecture material by providing opportunities for both observation and manipulation of anatomical structures and experiments in physiological principles.

Pre-requisites: BIOL 213 - Cell Structure and Function, and 60 credits

TEXT: Seely, Rod 2011. Seely's Anatomy & Physiology, 9th Edition. McGraw Hill.

LAB MANUAL: Laboratory Manual for Human Anatomy & Physiology, Fetal Pig Version, Terry R. Martin, McGraw Hill, 2010.

Atlas of the Human Body, Frederic H. Martini, Pearson Benjamin Cummings , 2009

iClicker (Student Response System): Register at www.iclicker.com/registration

Student ID = User ID for email

iClicker ID = # on back of clicker (Note: There are no O's, only zeros (0) in this sequence.)

EVALUATION:

You will earn one final grade for this course and will be determined by the percent of possible 750 points that you can earn from lecture and laboratory. These 750 points will be earned as follows:

LECTURE

4 Exams @100 points each

400 Points

Lecture Quizzes

100 Points

LABORATORY

250 Points

750 POINTS TOTAL

GRADING SCALE:

97-100% A+

87-89% B+

77-79%C+

60-69% D

93-96% A

83-86% B

70-76%C

Below 60% . . F

90-92% A-

80-82% B-

All exams must be taken at the regularly scheduled time. (If an exam date is cancelled for any unforeseen reason (such as inclement weather), the exam will be given during the next class period).

* On Exam days – **YOU MUST BRING YOUR GMU PHOTO ID.** ID's will be checked when you hand in your test. A **NO CELL PHONE (and other electronics)** policy will be strictly adhered to during exams. You will also be required to obtain a **TESTING NUMBER** from your instructor which will indicate which exam version you will take.

If you arrive late for an exam, and after a student has already finished and turned in their exam, you will **NOT** be permitted to take the exam.

If a student has a valid and documented absence from an exam, a make-up exam will be provided. All make-up exams are in **ESSAY FORMAT** only. You are only given the opportunity to take **ONE** make-up exam over the course of the semester.

All students must take the Final Exam. Note that the Final Exam is held at a different time than class normally meets.

The **Final Exam** will include the following parts:

New material covered after Exam #3	50%
Cumulative section	50%

There are **NO** make-up quizzes. You must use your iClicker remote when submitting answers – **NO** handwritten responses will be accepted.

EXAM FORMAT:

Exams may include multiple choice, true/false, matching, fill in the blank, essay and problem-solving questions. You will need one scantron form (Form No. 882-E) for each exam. Special testing accommodations must be verified through ODS (Office of Disability Services).

LECTURE MATERIALS:

Power Point slide lecture presentations will be available to you on **Blackboard** to assist you in your note taking, but should **NOT** be used as a substitute for attending class.

Logging in: <http://gmu.edu> or <http://courses.gmu.edu>
Use Mason Username and Password to access the system.

Course Tools to be utilized include:

- * Course Content
 - Various folders with general information and organ system lecture material
- * Announcements
 - Periodic notices (Announcements will also be made in class).
- * Calendar
 - Exam dates

HONOR CODE

The Honor Code is an integral part of university life, and will be vigorously adhered to in this course. On the application for admission, students sign a statement agreeing to conform to and uphold the Honor Code. Therefore, students are responsible for understanding the provisions of the Code. If you do not recall the provisions of this Code, you can review them in the GMU University Catalog – Student Rights and Responsibilities/Honor System and Code.

Honor Code: *To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: **Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.***

Student Responsibilities: *Students should request an explanation of any aspect of the professor's policies regarding the Honor Code that they do not fully understand. They also have an obligation not only to follow the code themselves, but also to encourage respect among their fellow students for the provisions of the code. This includes an obligation to report violations by other students to the Honor Committee.*

MASON Alert System: This system serves to provide students with emergency information of various kinds. You may sign up for these alerts at <https://alert.gmu.edu> .

BIOLOGY 430

LECTURE and LABORATORY SCHEDULE

WEEK 1	Levels of Structural Organization Homeostasis and Feedback Mechanisms LAB: Introduction to Anatomical Terminology
WEEK 2	Cellular and Tissue Structural Organization LAB: Histological Examination of Epithelial and Connective Tissues
WEEK 3	Integumentary System Skin and Connective Tissue Pathology LAB: Histological and Gross Anatomy of the Skin; Diagnostic tools and therapeutic interventions of selected skin and connective tissue pathologies
WEEK 4	EXAM #1 Skeletal System LAB: Histological and Gross Anatomy of Cartilages and Bone; Review of assigned bones and bone markings for Bone Practical
WEEK 5	Joints Skeletal and Joint Pathology LAB: Diagnostic tools and therapeutic interventions of selected skeletal and joint pathologies; Review of selected synovial joint structures
WEEK 6	Muscular System LAB: Histological Examination of Muscle Tissues; Computer simulation of factors of graded muscle contractions
WEEK 7	Muscular System Muscular System Pathology; Diagnostic tools and therapeutic interventions of selected muscular system pathologies LAB: Bone Practical; Review of assigned muscles (origin, insertion, action) for Muscle Practical
WEEK 8	EXAM #2 Nervous System: Neurophysiology LAB: Histological and Gross Examination of Nervous Tissue
WEEK 9	Nervous System: Brain and Spinal Cord LAB: Histological and Gross Examination of the Brain and Spinal Cord
WEEK 10	Reflexes Autonomic Nervous System LAB: Somatic and Autonomic Reflexes; Nervous System Pathology; Diagnostic tools and therapeutic interventions of selected nervous system pathologies
WEEK 11	Sensory Physiology LAB: Histological and Gross Anatomy of the Ear, Nose, Eye, Tongue

- WEEK 12 Sensory Physiology
 EXAM #3
 LAB: Muscle Practical
- WEEK 13 Endocrine System
 LAB: Histological and Gross Anatomy of Endocrine Organs
- WEEK 14 Endocrine System
 LAB: Endocrine System Pathology; Diagnostic tools and therapeutic
 interventions of selected endocrine system pathologies
- WEEK 15 FINAL EXAM