**UNIVERSITY OF MARY WASHINGTON – PROGRAM CHANGE PROPOSAL**

Electronically submit this completed form with attachments in one file to the Chair of the College Curriculum Committee.

<table>
<thead>
<tr>
<th>COLLEGE (check one):</th>
<th>Arts and Sciences x</th>
<th>Business</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal Submitted By:</td>
<td>Andrew Dolby</td>
<td>Date Prepared: 10/14/2015</td>
<td></td>
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<tr>
<td>Department /Program:</td>
<td>Biological Sciences</td>
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Note: for any program change entailing the addition any new courses, or revisions to existing courses, separate proposal for those course actions must also be submitted.

### PROPOSAL TO CHANGE EXISTING PROGRAM (check no than one of the following)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Revise requirements for existing major</td>
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<td>Revise requirements for a concentration within an existing major</td>
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<td>Revise requirements for an existing degree program</td>
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<td>Revise requirements for existing certificate program</td>
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<td>Revise requirements for existing minor</td>
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**Implementation Date:** FALL semester, year: 2016

### REQUIRED ATTACHMENTS FOR CHANGES TO EXISTING PROGRAMS:

1. **Rationale statement** (Why is this program change needed? What purposes will it serve?)
2. **Impact Statement** (Provide details about the Library, space, budget, technology, and impacts created by this program change. Supporting statements from the Library, IT Department, etc. evaluating the resource impact and feasibility of the program change are required.)
3. **Catalog Copy** (Provide the existing Catalog Description and the complete statement of the proposed new Catalog description that reflects the program changes)

### PROPOSAL TO CREATE NEW PROGRAM NOT REQUIRING STATE ACTION

(check no more that one of the following)

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<table>
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<tbody>
<tr>
<td>New concentration within existing major</td>
<td>Name:</td>
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<tr>
<td>New minor</td>
<td>Name:</td>
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<tr>
<td>New Major but NOT a new degree*</td>
<td>Name:</td>
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</tbody>
</table>

*Use ONLY for interdisciplinary majors that will be grouped as part of the “Special Majors/General Liberal Arts and Sciences” degree (CIP Code 24.0101) or reported as a BLS degree (CIP Code 24.0199)

**Implementation Date (semester and year):**

### REQUIRED ATTACHMENTS FOR NEW PROGRAMS NOT REQUIRING STATE APPROVAL:

1. **Rationale statement** (Why is this additional program needed? What purposes will it serve?)
2. **Impact Statement** (Provide details about the Library, space, budget, technology, and impacts created by this program change. Supporting statements from the Library, IT Department, etc. evaluating the resource impact and feasibility of adding the new program are required.)
3. **Catalog Copy** (Provide the complete Catalog Description for the proposed new program)

**Department Chair Approval:** Andrew Dolby Date: 10/14/15

**CCC Chair Approval:** Dawn Bowen Date: 10/21/15

**Dean Approval:** Richard Finklstein raised no concerns Date: 10/23/15

**UCC Chair Approval:** Patricia Reynolds Date: 11/9/2015

*Provost Approval: Date: ________________

*Required only in cases of proposals for new concentrations, new minors, or new majors that do not involve a new degree
1.) **Rationale** - Currently, students are not permitted to count both BIOL 301, *Anatomy of Chordates* and BIOL 384, *Human Anatomy* toward the biology major. At the time this policy was implemented, these courses’ content overlapped too extensively to be considered distinct educational experiences. However, the content and approach of BIOL 301 has changed enough with respect to BIOL 384 since the policy took effect that these courses now constitute unique contributions to the biology major program. While BIOL 384 concentrates on the fine detail of human anatomy exclusively, BIOL 301 covers the evolution of anatomical characteristics across a wide variety of animal groups using a comparative approach. Furthermore, much of BIOL 301’s content now focuses specifically on anatomical features not found in humans, such as electrosensory and lateral line systems in fish, horns and antlers in mammals, and gills in fish and amphibians. The Department of Biological Sciences would now like to allow students to count them both toward the major. Students with interests in anatomy would be able to develop more depth in that particular area of biology while continuing to make progress toward the 40 credit hours in biology needed to complete the biology major. On a practical level, removal of this policy would also create a measure of additional scheduling flexibility for students.

2) **Impact** - The department anticipates that this change will not affect department, college, or university resources.

3) **Catalog Copy**

**BIOL 301 – Existing**

Prerequisites: BIOL 126 or 132; (C- or better in each course). The anatomy of selected Chordates with special emphasis on the Vertebrates. Lecture also examines the evolution of the organ systems of vertebrates. Laboratory. Students may not count both 301 and 384 toward the major.

**BIOL 301 – Proposed**

Prerequisites: BIOL 126 or 132; (C- or better in each course). The anatomy of selected Chordates with special emphasis on the Vertebrates. Lecture also examines the evolution of the organ systems of vertebrates. Laboratory.

**BIOL 384 – Existing**

Prerequisites: BIOL 126 or 132 (C- or better in each course). The structure of the human body at the cell, tissue, organ, and system levels of organization. Laboratory. Students may not count both Biology 301 and Biology 384 toward the major.

**BIOL 384 – Proposed**

Prerequisites: BIOL 126 or 132 (C- or better in each course). The structure of the human body at the cell, tissue, organ, and system levels of organization. Laboratory.
Syllabus
BIOL 301
Chordate Anatomy
Fall 2014

Instructor: Dr. Deborah A. O’Dell
Office: Jepson 433
Phone: 540-654-1417
Email: dodell@umw.edu

Office Hours:
MWF: 1:00-2:00 pm
T: 10:00am-12:00 pm
other times by appointment

Lecture: 10:00-10:50 am MWF Jepson 313
Lab 2:00-4:45 pm T Jepson 102

Books: Vertebrates, Comparative Anatomy, Function, Evolution, Kardong (required)
Comparative Anatomy: A Manual of Vertebrate Dissection 2nd Ed: Fishbeck and Sebastiani (Required)

Recommended supplies: disposable exam gloves, lab coat, goggles

Prerequisites: BIOL 121/122; BIOL 125/126 or equivalent courses. NOTE: If you take both this course AND BIOL 384 (Human Anatomy) only ONE will count in the biology major. This course serves as a pre-requisite for BIOL 385 Human Physiology

Canvas:

This course will be administered by way of the UMW’s Canvas WEB Portal. You will need your UMW network login and password to access this site. If you do not know what this is, you should contact UMW’s Office of Computer and Network Services. On this site you will be able to access modified PowerPoint slides for each lecture. You may use these slides to organize your lecture notes, and you may want to print them out three slides to a page with a note taking area, and use them during the lecture. DO NOT use these as a substitute for attendance in lecture. There will be information presented which will not be available on the slides and the only way you can get this material is by coming to class. I will also be using Canvas to post grades and lab material information. You will only be able to access your own information, and no other student will be able to view your grades.

Attendance Policy

While attendance in lecture is not mandatory, it will be very difficult to pass this course if you do not attend. The lectures are designed to provide insight and understanding of the material, which may not be available in the textbook. You are responsible for all material covered in a lecture. Not having attended a lecture is no excuse for missing important announcements. Laboratory attendance is required. While identification of structures occurs during the scheduled lab period and this will be the only time that the instructor will be available for clarification. Please note too that study of structures generally requires that you come in on your own time for study and review of structures. There is an after hours policy, which if violated, will cause closure of the lab for after hours work.

Assessment:
Student achievement will be assessed in 3 different ways. There will be lecture exams which will assess knowledge of course content. Laboratory exams will assess your knowledge of the structure of the Chordates from examining slides, specimens and models in the lab, and finally your dissection ability will be assessed as part of the lab grade.

**Lecture Examinations:**

There will be four lecture Exams, three given during the regular semester, and the final exam. These will be given during the lecture period, and the dates are indicated on the syllabus. Each exam will cover material covered in lecture and in reading assignments, and will consist of objective questions (multiple choice/true or false, matching, fill in the blank) and subjective questions (short essay). Please allow at least 1 week for the exams to be graded. Grades will be posted on Canvas, and the exams will be reviewed in class.

**Laboratory grade:**

**Lab Exams:**

There will be 3 laboratory exams, 2 during the regular semester and one during the final exam period. These exams will be strictly practical in nature, will cover the structures identified during the laboratory period, and will use the specimens that you dissect.

**Dissection Grade:**

Each group will receive a grade based on the clarity of their dissections. Each member of the group will receive the same grade for dissection. If individual group members feel that other members of the group do not deserve the same grade because of lack of participation in the dissection, they may write an exception, explaining why the individual(s) should not receive the same grade as the rest of the group. The instructor will take this into consideration when assigning group grades.

**Grading Policy:**

Lecture = 60% of your grade  
Laboratory = 40% of your grade
Missed Exams:

Students will be allowed to make up missed exams on a case by case basis. If you are on a sports team which is traveling on an exam date, you must notify me as soon as possible, and make arrangements BEFORE you leave.

Generally illness is a valid excuse, however, a note from a health care provider or the health center must be produced, showing that you have been seen BEFORE the exam. Any other reasons will be dealt with on an individual basis.

Because of the nature of the lab exams and the room schedule, any make ups MUST be taken the Wednesday morning following the scheduled exam.

Grading Scale:

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<th>Grade</th>
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<tr>
<td>92.5-100</td>
<td>A</td>
<td>76.5-79.4</td>
<td>C+</td>
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<tr>
<td>89.5-92.4</td>
<td>A-</td>
<td>69.5-76.4</td>
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<td>86.5-89.4</td>
<td>B+</td>
<td>64.5-69.4</td>
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<td>82.5-86.4</td>
<td>B</td>
<td>59.5-64.4</td>
<td>D</td>
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<tr>
<td>79.5-82.4</td>
<td>B-</td>
<td>&lt; 59</td>
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I do not grade on a curve.

Honor Pledge Application

All material turned in for grading must have the honor pledge written out and signed. “I hereby declare upon my honor that I have neither given nor received unauthorized help on this work.”

Disability Statement:

The Office of Disability Services has been designated by the University of Mary Washington as the primary office to guide, counsel, and assist students with disabilities. If you receive services through that office and require accommodations for this class, please make an appointment with me as soon as possible to discuss your approved accommodations. I will hold any information you share with me in strictest confidence unless you give me permission to do otherwise.

If you have not made contact with the Office of Disability Services and have reasonable accommodation needs, I will be happy to help you contact them. The office will require appropriate documentation of a disability.

Office of Disability Services
209 George Washington Hall
540-654-1266
ods@umw.edu
Dissection Statement:

The laboratory of this class includes dissection of animal materials. While computer simulation and models are helpful, they are inadequate for a comprehensive study of anatomy. If this practice makes you uncomfortable, you may wish to select another biology course to fulfill your elective requirement.

Study of Specimens after hours

You may study the specimens in the laboratory when the lab is not in use during the day (8am to 5 pm). Human Anatomy will be using the Laboratory on Thursday Afternoons. If the door is locked, please see me or another faculty member to unlock the door.

After 5 pm and on the weekends, you will need to contact the College Police for access. To get into the lab, call the non-emergency number (654-1025) once you arrive at the building. You will be able to stay in the lab until 11 pm M-R and 6 pm on Sat and 10 pm on Sun. Please be advised that missing specimens or equipment, damage to materials or vandalism in the lab room will result in this privilege being revoked for all members of the class.

NOTE: I plan to set up the lab exams on the night prior to the exams. Space and specimens will not be available after that time, so plan your study time accordingly and don’t wait until the last minute to study.

Course Objectives

1. To learn the language of anatomy and appropriately use that to identify the structures of the vertebrate body.

2. To understand the evolutionary origins of the vertebrates, and their structural relationships to the protochordates.

3. To learn the structure, function, and embryological origin of the body systems of a typical vertebrate and their relationship to other systems.

4. To examine the environmental forces acting on the vertebrate body and the evolutionary changes in the vertebrate body which are formed as a result of these forces.

5. To use taxonomy to examine the different vertebrates.
Lecture Schedule

The following is a tentative schedule of lectures. Exam dates are set and are in **bold** print.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Kardong</th>
<th>Fishbeck &amp; Sebastiani</th>
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<tbody>
<tr>
<td>08/25</td>
<td>Introduction/Concepts</td>
<td>Chapter 1</td>
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<tr>
<td></td>
<td>Morphological concepts</td>
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<td>homology, analogy, homoplasy</td>
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<td>Distinction between function and biological role</td>
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<tr>
<td>08/27</td>
<td>Introduction/Concepts</td>
<td>Chapter 1</td>
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<td>Evolutionary concepts</td>
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<td>cladograms vs dendrograms</td>
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<td>Ancestral group</td>
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<td>Primitive condition</td>
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<td>Derived condition</td>
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<td>08/29</td>
<td>Introduction and Concepts</td>
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<td></td>
<td>Taxonomy concepts</td>
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<td>Grades, clades, sister groups, extinct vs extant, outgroups</td>
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<td>Chordate Phylogeny</td>
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<tr>
<td>09/01</td>
<td>Origin of Chordates</td>
<td>Chapter 2</td>
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<tr>
<td></td>
<td>The Protochordates and the Echinoderms</td>
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<td></td>
<td>Phylum <em>Hemichordata</em></td>
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<td>Phylum <em>Cephalochordata</em></td>
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<td>09/03</td>
<td>Origin of Chordates</td>
<td>Chapter 2</td>
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<td>Phylum <em>Urochordata</em></td>
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<td></td>
<td>Phylogenetic theories of vertebrate origins</td>
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<td></td>
<td>Heterochrony</td>
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<td></td>
<td>Pedomorphosis</td>
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<td></td>
<td>Ammocete larva</td>
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<tr>
<td>09/05</td>
<td>The Vertebrates</td>
<td>Chapter 3</td>
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<tr>
<td></td>
<td>Taxonomy of the Vertebrates</td>
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<td></td>
<td>Agnathans vs Gnastostomes</td>
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<td>Basic characteristics of the vertebrate Taxa</td>
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<td></td>
<td>The Agnathans</td>
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<td></td>
<td>Phylum <em>Ostracodermi</em></td>
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<td>Phylum <em>Pterospidomorphi</em></td>
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<td>Phylum <em>Myxini</em></td>
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<tr>
<td>09/08</td>
<td>The Vertebrates</td>
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<td>The Gnastostomes</td>
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<td>Phylum <em>Chondrichthyes</em></td>
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<td>Phylum <em>Osteichthyes</em></td>
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<tr>
<td></td>
<td>The actinopterygians</td>
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<td>The Sarcopterygians</td>
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</table>
09/10  The vertebrates  Chapter 3
Phylum Amphibia
The Amniotes
Phylum Reptilia
   The Anapsids
   The Diapsids
       Phylum Aves

09/12  The Vertebrates  Chapter 3
Phylum Reptilia
   The Synapsids
       Phylum Mammalia
Biological Design  Chapter 4
       Scaling
       Growth patterns: isometric vs allometric growth

09/15  Biological Design  Chapter 4
       Vectors and forces
       Biophysical considerations
           Biomechanics
           Effects of gravity
           Effects of fluids
           Effects of pressure
           Cranial kinesis

09/17  Biological Design  Chapter 4
       Biological material strength
           Forces and stresses
           Responses of tissues
       Diffusion and optics in biological systems

09/19  Life History  Chapter 5
       Stages of vertebrate development
       Vertebrate eggs and fertilization strategies
       Primary germ layers

09/22  Life History  Chapter 5
       Histogenesis and animal tissues
           Skeletal tissues and bone formation

09/24  Integument  Chapter 6  Ch 4
       Basic structure of invertebrate integument
The epidermis and derivatives
  Glands
  Hairs
  Feathers

09/26
  The integument  Chapter 6
  The epidermis and derivatives
    Horns and antlers
    Nail
    Epidermal scales
  The dermis and derivatives
    Fish scale phylogeny
    Osteoderms

09/29
  The Integument  Chapter 6
  Special features of the integument by vertebrate groups
  Skeletal System: the Skull  Chapter 7  Ch 5
    The origins of the vertebrate skull
    The skull in Agnathans

10/01
  Skeletal System the Skull  Chapter 7
  The chondrocranium
  The splanchnocranium
  The dermatocranium

10/03
  Skeletal System the Skull  Chapter 7
  Vertebrate jaws
    Jaw articulation and the development of the ear ossicles
    Temporal fossa in amniotes
    Cranial Kinesis and feeding mechanisms

10/06
  Exam 1  Chapters 1-6

10/08
  The skull
    Phylogenetic changes in the vertebrate skull by vertebrate group
  The Axial skeleton  Chapter 8  Ch 5
    Origins of the vertebrate vertebrae
    Basic structure of a vertebra

10/10
  The Axial Skeleton Chapter 8
  Embryonic development of the vertebra, formation of the intersegmental location, and consequences
  Fish vertebrae
  Caudal fins

10/13  NO class  fall Break
10/15
  The Axial Skeleton  Chapter 8
  Tetrapod vertebral columns

Program Change Proposal Cover Sheet (July 2013)
Phylogenetic changes and driving factors
Use of the vertebral column in locomotion and support of the body
Loading forces and skeletal structure
Special characteristics of the vertebral columns in tetrapod groups
Vertebrate ribs and sterna
Fish ribs
Hypothesized origin of tetrapod ribs

10/17 Appendicular skeleton  Chapter 9  Ch 5
Evolutionary hypotheses of the origin of paired appendages
Pectoral and pelvic girdles of fish
Structural characteristics of fins

10/20 Appendicular skeleton  Chapter 9
Tetrapod pectoral and pelvic girdles
Tetrapod pectoral and pelvic limb bones
Phylogenetic changes in the appendicular skeleton by vertebrate group
Use of the appendicular skeleton in Locomotion and support of the vertebrate body

10/22 Appendicular skeleton  Chapter 9
Use of the skeleton in locomotion and support of the body
Muscular system  Chapter 10  Ch 6
Structural and functional characteristics of muscle tissue

10/24 Muscular system  Chapter 10
Tissue organization in muscles
Control of muscle contraction
Force production by muscles
  Effect of muscle structure on force produced
  Recruitment of motor units in force production
Differential use of muscles during locomotion in fish and tetrapods
Pattern of musculature in the vertebrates

10/27 Exam 2  Chapters 7-9

10/29 Muscular system  Chapter 10
Fish muscles
  Structure and function of the branchomeric muscles
  Structure and function of the trunk muscles
Tetrapod muscles
  Phylogenetic changes and driving forces in the vertebrate muscle groups

  Use of muscle during the step-cycle in locomotion
Electric organs

10/31 Respiratory system  Chapter 11  Ch 8
Functions of respiratory systems
Respiratory systems of aquatic organisms
Challenges and structural features
Mechanisms of ventilation
  Dual pump vs buccal pumps
Accessory respiratory structures

11/03  Respiratory system  Chapter 11
   Accessory respiratory structures
   Phylogeny and function of gas bladders
   Phylogeny of lungs
   Respiratory systems of terrestrial organisms
   Challenges and structural features

11/05  Respiratory system  Chapter 11
   The Aspiration pump with and without a diaphragm
   Special features of tetrapod respiratory systems by Taxa
   Avian parabronchi
   Vocalization

11/07  Circulatory Systems  Chapter 12  Ch 11
   Functions of the circulatory system
   Blood
   The heart
   Cardiac tissue
   Fish hearts
   Three chambered and 4 chambered hearts-adaptations and advantages

11/10  Circulatory systems
   Arterial systems in fish
   Evolutionary changes in Arterial systems in tetrapods
   Venous systems in Fish
   Evolutionary changes in Venous systems in tetrapods
   Accessory structures and behaviors
   Adaptive mechanisms for heat conservation and heat loss

11/12  Digestive System  Chapter 13  Ch 8
   Basic components of the digestive system
   Specializations of the Digestive system in vertebrates
   Relationships between diet and structure

11/14  Digestive systems
   Feeding mechanisms
   Hind gut vs Fore gut fermenters
   Urogenital systems  Chapter 14  Ch 10
   Formation of the urogenital system in vertebrates
   Kidney structure in amniotes

11/17  Urogenital system
   Excretory strategies in vertebrates
   Kidney structure in amniotes
   Specialized features of the urogenital system by taxa

11/19  Urogenital systems
   Reproductive strategies
   Male reproductive systems
Female reproductive systems
Special features by taxa

11/21 The endocrine system Chapter 15
   General features of endocrine organs
   The Pituitary gland
   The Thyroid gland
   The Ultimobranchial bodies

11/24 Exam 3 Chapters 10-14

11/26-28 NO Class

12/01 Endocrine system Chapter 15 Ch 13
   Chromaffin tissue and Adrenal glands
   Pancreas
   Phylogenetic changes in the endocrine system

   The Nervous system Chapter 16 Ch 12
   Nervous tissue structure
   Nerve cell function
   Glial cells and function

12/03 The Nervous System Chapter 16 Ch 12
   The vertebrate nerve tube
   Components of the nervous system
   Evolutionary changes in the nervous system in the vertebrates and driving forces

12/05 The Sensory systems Chapter 17 Ch 12
   Neuromast organs structure function and location
   Sensory structures by vertebrate taxa

12/10 Final Lecture Exam (8:30-11 am) Chapters 15-17
Laboratory Syllabus - Bring all Lab books and supplies to each laboratory period

08/26
Introduction to the Anatomy Lab,
Hemichordates Ex 1
Non-Vertebrate Chordates Ex 2 & 3

09/02
Ex 14 Lamprey-
External Morphology pp101-104
Saggital Section Figs 14.14, 14.15
Ammocoetes larvae pp 114-118

Ex 15

09/09
Lab Exam 1

09/16
Skeletal Systems:
Shark Ex 16 pp 130-140
Necturus Ex 25 pp 218-223
Cat Ex 34 pp 284-308

09/23
Skeletal Systems:
Shark Ex 16 pp 130-140
Necturus Ex 25 pp 218-223
Cat Ex 34 pp 284-308

09/30
Skeletal Systems:
Shark Ex 16 pp 130-140
Necturus Ex 25 pp 218-223
Cat Ex 34 pp 284-308

10/07
Muscular systems
Shark Ex 17
Necturus Ex 26
Cat Ex 35

10/14
NO Class Fall Break

10/21
Muscular systems
Shark Ex 17
Necturus Ex 26
Cat Ex 35

10/28
Muscular systems
Shark Ex 17
Necturus Ex 26
11/04  **Lab Exam 2**

11/11  Digestive and respiratory
Urogenital Systems

- Shark- Ex 19-20
- Necturus Ex 28-29
- Cat Ex 37-38
- Nervous system (the brain) Sheep Brain- Ex 40 pp 412-415

11/18  Digestive and respiratory
Urogenital Systems

- Shark- Ex 19-20
- Necturus Ex 28-29
- Cat Ex 37-38
- Nervous system (the brain) Sheep Brain- Ex 40 pp 412-415

11/25  Circulatory

- Shark- Ex 21 to pg189
- Necturus Ex 30 to p266
- Cat Ex 39 to pg 407

12/02  Circulatory

- Shark- Ex 21 to pg189
- Necturus Ex 30 to p266
- Cat Ex 39 to pg 407

12/11  **Final Lab Exam** (3:30-6 pm)

**BIOL 384: Human Anatomy**
Fall 2015
Lecture: TR  11.00-12.15
Lab: W: 01:00 - 03:50 or R: 02:00 – 04:50
Lecture: Combs Hall 139
Lab: Jepson Hall 102

**Professor:** Dr. R Parrish Waters (rwaters@umw.edu)
**Office:** 437 Jepson Hall
**Phone:** 654-1416
**Office Hours:** Tue - 12:30-3:30
               Wed - 9:00-12:30
               ‘Open Door Policy’

**Text:** Human Anatomy: 8th ed., Martini, Timmons, Tallitsch
**Lab Manual:** Human Anatomy Laboratory Manual with Cat Dissection: 7th ed., Marieb, Mitchell, Smith

Program Change Proposal Cover Sheet (July 2013)
Course Objectives
This course will provide you with the knowledge necessary to understand the form and development of
the structures of the human body. This course will focus on organ systems (Systemic Anatomy),
however you will also learn important concepts of cellular, histological, developmental, and
organisational anatomy. After successful participation in this course, you will be able to recognize and
identify the structures and organization of the human body (both microscopic and macroscopic), the
basic functions of these structures, and the terminology associated with them. This course is also a
prerequisite for Human Physiology (Biol 385), and is designed to provide the groundwork that is
necessary to understand the complex mechanisms that allow the human body to function properly.
In the laboratory portion of this course, we will use preserved cat and fresh rat specimens to investigate
mammalian anatomy. You will be responsible for identifying common mammalian anatomical
structures using these specimens.

General Information
Students with disabilities: “The Office of Disability Services has been designated by the
University as the primary office to guide, counsel, and assist students with disabilities. If you
receive services through this office and require accommodations for this class, please make an
appointment with me to discuss your approved accommodation needs. Bring your accommodation
letter to the appointment. I will hold any information you share with me in the strictest confidence.
If you need accommodations, (note taking assistance, extended time for tests, etc.), I will be happy
to refer you to the Office of Disability Services. They require appropriate documentation of a
disability. Their phone number is 654-1266.” (From the Office of Disability Services, used by
permission.)

Honor Code: You are expected to abide by the UMW Honor Code. All tests and assignments
must be completed independently (unless explicitly indicated otherwise). All written work
must be pledged as follows,
“I hereby declare, upon my word of honor, that I have neither given nor received any
unauthorized help on this work. (Signature)”

Tentative Lecture Topics Schedule

<table>
<thead>
<tr>
<th>Topic to be covered</th>
<th>Chapters in text</th>
<th>Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction, Cell Anatomy, Histology</td>
<td>1-3</td>
<td>1 (Aug 25)</td>
</tr>
<tr>
<td>Integumentary System</td>
<td>4</td>
<td>2 (Sept 1)</td>
</tr>
<tr>
<td>Musculoskeletal System</td>
<td>5-9</td>
<td>3-4 (Sept 8,15)</td>
</tr>
<tr>
<td><strong>09/22/2015</strong></td>
<td><strong>Exam I</strong> (100 pts)</td>
<td></td>
</tr>
<tr>
<td>Muscle Structure and Organization</td>
<td>10-11</td>
<td>6 (Sept 29)</td>
</tr>
<tr>
<td>Nervous System</td>
<td>13-16</td>
<td>7-8 (Oct 6,15)</td>
</tr>
<tr>
<td>Autonomic Nervous System</td>
<td>17</td>
<td>9 (Oct 20)</td>
</tr>
<tr>
<td>Senses</td>
<td>18</td>
<td>9 (Oct 22)</td>
</tr>
<tr>
<td><strong>10/27/2015</strong></td>
<td><strong>Exam II</strong> (100 pts)</td>
<td></td>
</tr>
<tr>
<td>Endocrine System</td>
<td>19</td>
<td>11 (Nov 3)</td>
</tr>
<tr>
<td>Cardiovascular System</td>
<td>20-22</td>
<td>12 (Nov 10)</td>
</tr>
<tr>
<td>Respiratory System</td>
<td>24</td>
<td>13 (Nov 17)</td>
</tr>
<tr>
<td><strong>11/24/2015</strong></td>
<td><strong>Exam III</strong> (100 pts)</td>
<td></td>
</tr>
<tr>
<td>Digestive System</td>
<td>25</td>
<td>15 (Dec 1)</td>
</tr>
</tbody>
</table>
Teaching Philosophy and Course Policy

Course Policies

You are adults and will be treated as such. I will show you the respect you are due, and expect the same in return. I will refrain from texting my friends and playing on Facebook (and all other social activities) during lectures, and you should as well. You will find throughout this course that although anatomy class can be an intimidating venture, it is actually fun, and will help you gain a better understanding of everyday life. If you attend class regularly, as you should, you will succeed in this class, and will also possess ample biological knowledge to think critically about life’s processes, and also to engage intellectually in conversations about medicine, forensic science, exercise, and many other fields of study.

Given the moderate size of this class, we should be able to develop a healthy academic relationship, which will facilitate personal and intellectual growth on both your part and mine. In that vein, learning is a two-way relationship, and is not simply me spouting info to a group of minds (you). You will benefit most from this course by regularly attending lectures, reading supplemental material (i.e. the textbook), and attending lab. Understanding Human Anatomy requires mastering a new vocabulary set; as such, I will provide you with a vocabulary list at times throughout the course. Learning these terms will be essential to mastering upcoming lessons.
Online Resources

I will use both Canvas (canvas.umw.edu) and Mastering Anatomy and Physiology (www.masteringaandp.com) during this course. Canvas will serve primarily as a gradebook and message board. I will post copies of my lectures to Canvas at least by the night before the lecture is given. Check for the most up to date draft the night before, as I may add new material at the last minute. Mastering A&P will be used to assign homework, quizzes, and some of the supplementary reading material. I will announce any new material for both of these sites in class when they become available, but it is a good idea to sign up for direct alerts as well. If you have any trouble signing up for these sites, let me know as soon as possible.

Finally, the virtual anatomy model (Essential Anatomy) will be used in lecture and as a guide for you. I have loaded this on computers in the ITCC that you can use, or you can purchase this app.

Lab: Participation And Other Requirements

- Participation in lab is required. If you fail to participate in a lab for a valid reason (e.g. illness, college-sponsored activity), you can make it up by attending another lab section. You can only make up a lab during the same week of the lab, and you must notify me in advance of the intent to make up a lab. You will not receive credit for lab assignments for labs in which you do not participate.
  - Students who miss one lab period will forfeit 45 pts from their total score.
  - Students who miss two lab periods in will have an additional 90 points deduction for the course final grade.
  - Students who fail to participate in three lab periods in will fail.

- Participation requires active, focused, and cooperative work with lab partners; bringing your own copy of the lab manual; and completion of all the requirements for that lab, including observations, exercises, and written work (as per lab manual).

- No food, drink, etc., is allowed in lab.

- Regarding delayed openings due to weather, power outages, etc.: If the university (or Jepson) reopens by 12 PM on lab days—we will have lab (though reduced).

Graded Lab Assignments

- 7 quizzes/worksheets will be completed as part of the laboratory. These will be worth 10 points, and the top 5 scores will count toward your grade.
- 3 Practical Laboratory Exams will be given throughout the semester. These exams will be 100 points each.

Snow days

I bike to my office, and will be here regardless of weather (barring extreme weather… an arctic storm perhaps). If driving is hazardous, I expect you to use reasonable judgment and not risk life or limb. If classes are canceled or delayed because of weather when an exam is scheduled, it will be postponed until the next regular class meeting.

Info Hotline (654-2424).
## Laboratory Schedule

<table>
<thead>
<tr>
<th>Lab Week</th>
<th>Date</th>
<th>Topic</th>
<th>Manual Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>August-25</td>
<td>Terminology; Cell</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>2</td>
<td>September-01</td>
<td>Tissues and Integument</td>
<td>5,6</td>
</tr>
<tr>
<td>3</td>
<td>September-08</td>
<td>Skeletal System</td>
<td>7,8</td>
</tr>
<tr>
<td>4</td>
<td>September-15</td>
<td>Skeletal System</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>September-22</td>
<td>LAB EXAM</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>September-28</td>
<td>Human and Cat Muscles</td>
<td>12 (181-196; 217-221)</td>
</tr>
<tr>
<td>7</td>
<td>October-06</td>
<td>Human and Cat Muscles</td>
<td>12 (197-215; 221-230)</td>
</tr>
<tr>
<td>8</td>
<td>October-13</td>
<td>LAB EXAM</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>October-20</td>
<td>Brain and Spine</td>
<td>14 (279-285)</td>
</tr>
<tr>
<td>10</td>
<td>October-27</td>
<td>Senses (Vision &amp; Hearing)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Heart</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>November-03</td>
<td>Heart and Vasculature</td>
<td>17,19,23</td>
</tr>
<tr>
<td>12</td>
<td>November-10</td>
<td>Respiratory and Digestive Systems</td>
<td>23,24</td>
</tr>
<tr>
<td>13</td>
<td>November-17</td>
<td>Urinary and Reproductive Systems</td>
<td>26,27</td>
</tr>
<tr>
<td>14</td>
<td>November-24</td>
<td>NO LAB</td>
<td>28,29</td>
</tr>
<tr>
<td>15</td>
<td>December-01</td>
<td>LAB EXAM</td>
<td></td>
</tr>
</tbody>
</table>
Grading

To assess your progress throughout the course, you will be assigned a number of quizzes (approximately weekly – the 10 highest scores will count towards your grade), four exams, and a cumulative ‘final’ activity. Together with the laboratory exercises, these assignments will provide your final grade in the class, as well as provide an indication of where and on what we need to concentrate our efforts. No one will be allowed to begin their exam after the first individual in the class has finished and submitted their exam.

Exams may be made up only in the case of a university-approved excuse for missing the exam. You know when these exams are, and should adjust your schedule now to accommodate. Legitimate causes of absence include illness or injury to you, death or serious illness in your family, required court attendance, field trips for other classes and religious observances. These absences must be documented to be considered excused. Absences due to other causes are usually considered unexcused but should be discussed individually with me (Please do not just assume you have failed!). Makeup lecture exams will be given during the week of December 1st.

*It is your responsibility to schedule an appropriate time to take the test.*

<table>
<thead>
<tr>
<th>Lecture Activities</th>
<th>variable points</th>
<th>100</th>
<th>A</th>
<th>810-900 (&gt;90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>3 x 100 points</td>
<td>300</td>
<td>B+</td>
<td>783-809 (87-89%)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>150 points</td>
<td>150</td>
<td>B</td>
<td>747-782 (83-86%)</td>
</tr>
<tr>
<td>Laboratory Quizzes</td>
<td>10 x 5 points</td>
<td>50</td>
<td>B-</td>
<td>720-746 (80-82%)</td>
</tr>
<tr>
<td>Laboratory Exams</td>
<td>3 x 100 points</td>
<td>300</td>
<td>C+</td>
<td>693-719 (77-79%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C</td>
<td>657-692 (73-76%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>C-</td>
<td>630-656 (70-73%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>D+</td>
<td>603-629 (67-69%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>540-602 (60-66%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>F</td>
<td>0-539 (&lt;60%)</td>
</tr>
</tbody>
</table>

***you must earn a C- in this course to take Human Physiology!***