

## BIOL 3705 - Introduction to Human Gross Anatomy

Fall 2026 Syllabus, Section 01, CRN 42021,

Credit hours: 4

### Instructor

Michael Butcher

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### Public Instructor Information

Instructor Title: *Professor of Zoology*

Instructor Professional Qualifications:

*Postdoctoral Fellow (Bone Biomechanics), Clemson University*

*Ph.D., Zoology (Muscle Biomechanics), University of Calgary/Florida State University*

*M.S., Biology (Functional Morphology), Wake Forest University*

Instructor Office Location: *4013 Ward Beecher Science Hall; Laboratory 4011 WBSH*

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### Course Description

3705. Introduction to Human Gross Anatomy. Overview of human structure, using a regional approach to examine the functional anatomy of the musculoskeletal, nervous, and visceral systems. Three hours lecture, two hours lab. Prereq.: BIOL 2602 or BIOL 2603. 4 s.h.

*Introduction to Human Gross Anatomy* is a lecture and laboratory course that provides a detailed overview to the structure of human primates. The lecture utilizes the course textbook and detailed anatomical images from anatomical software. The skeleton and muscle models in the Anatomy Laboratory will allow students to visualize the bones, muscle attachment points, muscle actions, nerve innervations, blood supplies, and positional relationships of animal anatomy. A full three-dimensional understanding of body structure can NOT be accomplished by only examining 2D images.

In general, anatomy concerns the study of bodily **structures**, providing the knowledge that is essential to understanding body **function**. In this course, we will concentrate on the study of human gross anatomy, the examination of those body structures that can be grossly observed (seen with the unaided eye). Because anatomy is a visual science, you will be studying numerous figures from your textbook, views from *Anatomy* software, and detailed laboratory models to help you visualize and integrate body structures. The course will take a regional approach (e.g., lower limb, upper limb, head & neck, thorax-abdomen-pelvis, etc.). Lectures will present material intended as a specific foundation and framework for the laboratory observations. Students are expected to utilize independent study time to thoroughly evaluate each anatomical region.

### Course Readings

| Group    | Title                                                 | Author       | ISBN              |
|----------|-------------------------------------------------------|--------------|-------------------|
| Required | Introduction to Human Gross Anatomy: A Regional Guide | Womble, M.D. | 978-1-61740-852-6 |

Course textbook from Van-Griner Publishing: <https://store2.van-griner.com/product/introduction-to-human-gross-anatomy-a-regional-guide/>

#### *Recommended Materials*

1. *Introduction to Human Gross Anatomy Laboratory Guide*, by Dr. Mark D. Womble. This guide provides instructions for use of *A.D.A.M. Interactive Anatomy* software. Kendall Hunt Publishing: <https://he.kendallhunt.com/product/laboratory-guide-introduction-human-gross-anatomy>

2. *A.D.A.M. Interactive Anatomy* software <http://adameducation.com/online-subscriptions.aspx>

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.



## Schedule of Topics and Assignments

| Day | Date  | Reading(s)               | Proposed Topic                                                                 | Due/To Prepare for Class                               |
|-----|-------|--------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------|
| Mon | 8/24  | Chapter 1<br>Chapter 2   | Introduction to Anatomy<br>Bones and Fascia of the Lower Limb                  |                                                        |
| Wed | 8/26  | Chapter 2<br>Chapter 3   | Bones and Fascia of the Lower Limb<br>Muscles & Movements                      | Review Textbook Chapter(s) & Previous Lecture Material |
| Fri | 8/28  | Chapter 3<br>Chapter 4   | Muscles & Movements<br>Muscles of the Hip                                      | Review Textbook Chapter(s) & Previous Lecture Material |
| Mon | 8/31  | Chapter 4                | Muscles of the Hip                                                             | Review Textbook Chapter(s) & Previous Lecture Material |
| Wed | 9/2   | Chapter 5                | Quiz 1<br>Muscles of the Thigh                                                 | Review Textbook Chapter(s) & Previous Lecture Material |
| Fri | 9/4   | Chapter 5                | Muscles of the Thigh                                                           | Review Textbook Chapter(s) & Previous Lecture Material |
| Mon | 9/7   | No Class                 |                                                                                |                                                        |
| Wed | 9/9   | Chapter 6                | Quiz 2<br>Muscles of the Leg and Foot                                          | Review Textbook Chapter(s) & Previous Lecture Material |
| Fri | 9/11  | Chapter 6<br>Chapter 7   | Muscles of the Leg and Foot<br>Introduction to Nervous System                  | Review Textbook Chapter(s) & Previous Lecture Material |
| Mon | 9/14  | Chapter 8<br>Chapter 9   | Nerves of Lower Limb<br>Blood Vessels of Lower Limb                            | Review Textbook Chapter(s) & Previous Lecture Material |
| Wed | 9/16  | Chapter 9                | Quiz 3<br>Blood Vessels of Lower Limb                                          | Review Textbook Chapter(s) & Previous Lecture Material |
| Fri | 9/18  | Chapter 10               | Joints of the Lower Limb<br>Practical Exam 1                                   | Review Textbook Chapter(s) & Previous Lecture Material |
| Mon | 9/21  | Chapter 22               | Bones and Muscles of the Axial Skeleton                                        | Review Textbook Chapter(s) & Previous Lecture Material |
| Wed | 9/23  | Chapter 23               | Bones of the Upper Limb                                                        | Review Textbook Chapter(s) & Previous Lecture Material |
| Fri | 9/25  |                          | Lecture Exam 1                                                                 |                                                        |
| Mon | 9/28  | Chapter 23<br>Chapter 24 | Bones of the Upper Limb<br>Muscles of the Superficial Back, Shoulder, & Axilla | Review Textbook Chapter(s) & Previous Lecture Material |
| Wed | 9/30  | Chapter 25               | Quiz 4<br>Muscles of the Arm                                                   | Review Textbook Chapter(s) & Previous Lecture Material |
| Fri | 10/2  | Chapter 26               | Muscles of the Forearm                                                         | Review Textbook Chapter(s) & Previous Lecture Material |
| Mon | 10/5  | Chapter 26<br>Chapter 27 | Muscles of the Forearm<br>Intrinsic Muscles of the Hand                        | Review Textbook Chapter(s) & Previous Lecture Material |
| Wed | 10/7  | Chapter 27               | Quiz 5<br>Intrinsic Muscles of the Hand                                        | Review Textbook Chapter(s) & Previous Lecture Material |
| Fri | 10/9  | Chapter 28               | Nerves of the Upper Limb                                                       | Review Textbook Chapter(s) & Previous Lecture Material |
| Mon | 10/12 | Chapter 28<br>Chapter 29 | Nerves of the Upper Limb<br>Blood Vessels of the Upper Limb                    | Review Textbook Chapter(s) & Previous Lecture Material |
| Wed | 10/14 | Chapter 30               | Quiz 6<br>Joints of the Upper Limb                                             | Review Textbook Chapter(s) & Previous Lecture Material |
| Fri | 10/16 |                          | Lecture Exam 2<br>Practical Exam 2                                             |                                                        |
| Mon | 10/19 | Chapter 11               | Bones of the Skull                                                             | Review Textbook Chapter                                |
| Wed | 10/21 | Chapter 12               | The Brain                                                                      | Review Textbook Chapter(s) & Previous Lecture Material |



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|-----|-------|----------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Fri | 10/23 | Chapter 12<br>Chapter 13               | The Brain<br>Ventricles & Dural Venous Sinuses                                                          | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Mon | 10/26 | Chapter 14<br>Chapter 15               | Meninges and Blood Circulation of the Brain<br>The Spinal Cord                                          | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Wed | 10/28 | Chapter 16                             | Quiz 7<br>The Spinal Cord<br>Autonomic Nervous System                                                   | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Fri | 10/30 | Chapter 16<br>Chapter 17               | Autonomic Nervous System<br>Cranial Nerves and Foramina of the Skull                                    | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Mon | 11/2  | Chapter 17<br>Chapter 18               | Cranial Nerves and Foramina of the Skull<br>The Neck                                                    | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Wed | 11/4  | Chapter 18                             | Quiz 8<br>The Neck                                                                                      | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Fri | 11/6  | Chapter 19                             | The Head                                                                                                | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Mon | 11/9  | Chapter 19<br>Chapter 20               | The Head<br>Extraocular Muscles & Muscles of the<br>Tongue                                              | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Wed | 11/11 | No Class                               |                                                                                                         |                                                                                                                        |
| Fri | 11/13 | Chapter 20                             | Quiz 9<br>Extraocular Muscles & Muscles of the<br>Tongue<br>Practical Exam 3                            | Review Textbook Chapter(s) & Previous<br>Lecture Material<br>Review Textbook Chapter(s)<br>& Previous Lecture Material |
| Mon | 11/16 | Chapter 31                             | Lecture Exam 3<br>The Thorax                                                                            |                                                                                                                        |
| Wed | 11/18 | Chapter 31                             | The Thorax                                                                                              | Review Textbook Chapter                                                                                                |
| Fri | 11/20 | Chapter 32                             | The Heart                                                                                               | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Mon | 11/23 | Chapter 32<br>Chapter 33               | The Heart<br>Muscles of the Abdominal and Pelvic Walls<br>Quiz 10                                       | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Wed | 11/25 | No Class                               |                                                                                                         |                                                                                                                        |
| Fri | 11/27 | No Class                               |                                                                                                         |                                                                                                                        |
| Mon | 11/30 | Chapter 34<br>Chapter 35               | Organs of Digestion<br>Peritoneum<br>Blood Vessels and Nerves of the Abdominal<br>Cavity                | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Wed | 12/2  | Chapter 36                             | Quiz 11<br>Blood Vessels and Nerves of the Abdominal<br>Cavity                                          | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Fri | 12/4  | Chapter 37<br>Chapter 38<br>Chapter 39 | Urinary System<br>Male Reproductive System<br>Female Reproductive System and Blood<br>Vessels of Pelvis | Review Textbook Chapter(s) & Previous<br>Lecture Material                                                              |
| Mon | 12/7  |                                        | Lecture Exam 4                                                                                          |                                                                                                                        |
| Fri | 12/11 |                                        | Practical Exam 4                                                                                        |                                                                                                                        |

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