Course Title: CLINICAL ANATOMY FOR THE EXERCISE SCIENCES (3-CR)

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Course Description: This course will involve primarily human cadaver dissection. Dissection will be supplemented with required readings. The course is designed for graduate students to learn basic and advanced dissection skills along with developing a deep appreciation of human gross anatomy from a whole systems approach with the intent of practical application. Emphasis will be placed on the musculoskeletal, articular, and neurovascular systems of the human body. The role of anatomical structures as they relate to athletic injury mechanisms, evaluation, and rehabilitation will be emphasized. As is the case in any dissection course, each student should expect to spend several additional hours each week in the laboratory over and above those scheduled as class lecture time.

Course Objectives: At the completion of the course the student will be able to:

- Develop skills and proficiency related to human cadaver dissection.
- Be able to locate on the cadaver structures of the musculoskeletal, articular, neurovascular, and associated systems.
- Demonstrate the ability to identify and apply anatomical knowledge to clinical problems.
- Understand the role of these anatomical structures as they relate to athletic injury mechanism, evaluation, and rehabilitation.

Prerequisites: Human Anatomy or equivalent
Class Meeting: When: M & W 10:40am – 1:00pm
Where: Dissection – COMM Anatomy Laboratory (CG 087)

Textbooks and Other Course Materials:

The Dissector’s Guide – Claudette Finley
Lecture Notes on UF/e-Learning (Canvas) System

Course Requirements: Attendance is mandatory

Exams/Quizzes: 95% of final grade; There will be weekly quizzes from the assigned readings. In addition there will be 3 practical/written exams involving identification and clarification of dissection and skeletal materials. Exams will consist of both written and practical (identification) items.

Professionalism: 5% of final grade, professionalism, including preparation and active participation, is expected in this class. Lack of professionalism and/or failure to prepare and participate will result in loss of credit.
Grading:

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<tr>
<th>Grade</th>
<th>Score Range</th>
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<tbody>
<tr>
<td>A</td>
<td>&gt; 90</td>
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<tr>
<td>B+</td>
<td>86-89</td>
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<td>B</td>
<td>80-85</td>
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<td>C</td>
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<td>C+</td>
<td>76-79</td>
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<td>F</td>
<td>&lt;60</td>
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Laboratory Materials: Gloves will be provided. Each student must purchase a white laboratory coat and/or surgical scrubs. These items may be purchased at the Health Science Center Bookstore.

General Guidelines:

A. Instructional Procedures – Prior to laboratory dissection every student MUST read and sign the Pledge of Respect form. Also, you will be expected to review the laboratory procedures and cadaver care instructions available on-line at http://www.medinfo.ufl.edu/year1/ha/labpros.shtml and http://www.medinfo.ufl.edu/year1/ha/cadavers.shtml. The laboratory dissection will comprise the majority of the time. In addition to dissection of the cadavers, students will be responsible for learning the bony landmarks on the skeletons and bones available in the laboratory. It will be imperative that each student review the material from the preceding lectures and completes the assigned readings prior to dissection.

B. Cadavers – We are extremely fortunate to have access to cadavers and the anatomy laboratory. In most cases, the cadavers are faithfully willed to the medical school for the purpose of enhancing medical training and knowledge. The cadavers must be treated with your utmost care and respect at all times.

C. Cadaver Care – Cadavers are subject to mold and drying. At the beginning of each lab session the cadavers should be thoroughly observed for mold; it can best be dealt with if treated before it is widespread.
   1. Exposed areas should be lightly sprayed and wrapped with moist towels at the end of each lab session.
   2. Body bags should be zipped at the conclusion of all lab sessions to avoid exposure to air.
   3. No tools should be left attached to the cadaver when they are not being used.
   4. Toe tags must remain on the cadavers at all times.

D. Dissecting Guidelines:
   1. Students will be free to dissect as they need to in order to thoroughly observe and study all components of each body region.
   2. Each group is required to have a dissector’s guide open at all times.
   3. The opportunity to dissect should be available equally to all students. One person should read from the dissector’s guide as the other dissects. Students should rotate jobs every other class.
   4. Know what you are looking for and what you intend to cut before dissecting.
   5. Know origin, insertion, action, vascular supply and innervation of each muscle before it is cut. Do not remove any structures unless instructed to do so. In most cases, you will
reflect superficial structures so that you can access deep structures. Those structures that are reflected should be replaced at the end of each laboratory session. The goal of dissection is to reveal and preserve all possible detail.

E. **Facilities & Additional Information**: We are very fortunate to have access to the anatomy laboratory. This is a privilege. However, it is our responsibility to keep the room clean and to comply with the OSHA (Occupational Safety and Health Administration) standards.

1. Each group will be responsible for the upkeep of their general area. There should not be any debris remaining on the floor or dissecting table – THIS INCLUDES BODY TISSUE. However, once a week the laboratory must be mopped and wiped down with a disinfectant cleaning solution. This job will be rotated by dissection groups.
2. Three types of waste containers will be available in the lab. It is imperative that these items are used appropriately: a) **standard garbage can** – used for paper towels, gloves, etc.; b) **biohazardous waste can** – used only for tissue & cadaver parts (NO METAL SUCH AS BLADES); c) **sharps container** – used for blades (BLADES MUST NOT BE EXPOSED FROM TOP OF CONTAINER)
3. Eating and/or drinking are not permitted in the laboratory.
4. Wearing a white lab coat (or surgical scrubs) and gloves while dissecting is required.
5. Securing long hair away from the face is recommended.
6. Wearing protective eye goggles while using the cast saw is required.
COURSE OUTLINE

Section I – Back and Upper Extremity

Position: prone

Area | Pages
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Superficial back and posterior axilla | 1-3
Posterior surface of the arm | 3
Deep back and posterior neck | 3-4
Sub-occipital region | 4-5

Section II – Posterior Lower Extremity

Position: prone

Area | Pages
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Posterior hip | 5-7
Posterior thigh | 7-8
Posterior leg and popliteal fossa | 8-9
Sole (plantar surface of foot) | 9-11

Exam 1

Section IV – Neck, Chest and Upper Extremity

Position: supine

Area | Pages
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Lateral neck | 11-13
Pectoral region | 13-15
Anterior surface of the arm | 15-16
Flexor surface of the forearm | 17-19
Postero-lateral surface of forearm | 19-21
Flexor surface of the hand | 21-24
Dorsum of the hand | 24

Section V – Trunk

Position: supine

Area | Pages
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Anterior abdominal wall | 25-26

Section VI – Anterior Lower Extremity

Position: supine

Area | Pages
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Anterior thigh – adductor thigh | 26-29
Anterior leg – lateral leg 29-30
Dorsum of the foot 30-32

Exam 2

Section VII – Joints of the Upper Extremity

Position: supine

Area  Pages
Sterno-clavicular joint  32
Acromio-clavicular joint  32
Glenohumeral joint  33
Elbow and proximal radio-ulnar joint  33-34
Distal radio-ulnar, wrist (radio-carpal) and intercarpal joints  34
Metacarpo-phalangeal and interphalangeal joints  34

Section VIII – Joints of the Lower Extremity

Position: supine

Area  Pages
Hip joint  35
Knee and proximal tibio-fibular  35-36
Ankle and distal tibio-fibular joints  36-37
Inter-tarsal joints  37
Joints of the foot and phalanges  37

Section IX – Intra-Abdominal and Thoracic Regions

Position: supine

Area  Pages
Lumbar plexus  38-39
Lungs  39-41
Heart  41-44
Abdominal contents  44-49

Section X – Head and Neck

Position: supine

Area  Pages
Cranium  49-50
Face  50-52
TMJ  52-53
Anterior neck  54-55
Section III – Spinal Column and Spinal Cord

Position: prone

Area: Cervical, thoracic and lumbar spine

Pages: 61 – 62

Exam 3