

**BIO 414/514. Clinical Anatomy for Occupational Therapists. 4 Credits**  
**Fall 2011. First Block**  
**James Madison University**

**Instructor:** Dr. Mark Gabriele  
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**Office Hours:** M 1:30-5:00 Burruss 312  
F 10:30-12:00 HHS 3101F

**Sections:** Lecture: TTh 9:30-12:00 HHS 1207  
Lab: TTh 1:00-4:30 HHS 3008  
Recitation F 8:30-10:30 HHS 3008/2202

**Required Texts:** *Essential Clinical Anatomy*; Moore and Agur (Fourth Edition)  
*Grant's Dissector*; Tank (Fourteenth Edition)  
*Atlas of Human Anatomy*; Netter (Fifth Edition)

**Course Description:** This course offers an in depth study of the structure of the musculoskeletal and peripheral nervous systems of the human body. Specific structural and neural pathologies will be examined in regards to impact on occupational performance. Laboratory experiences involving cadaver dissection, skeletal material, models and audiovisual technology will be utilized. *Prerequisite:* Admission to the Occupational Therapy Program.

**GRADING POLICY:** Three exams are scheduled for both lecture and laboratory. All exams are considered to be comprehensive in nature in that we will apply principles throughout the semester. In addition, 10% of your final grade will be based on quality of laboratory dissection and participation in weekly small group case studies. Final letter grades will be assigned according to the defined OT grading scale (93-100% = A, 90-92% = A-, 86-89% = B+, 80-85% = B, 70-79% = C, <70% = F).

Lecture Exam 1	15%	Lab Exam 1	15%
Lecture Exam 2	15%	Lab Exam 2	15%
Lecture Exam 3	15%	Lab Exam 3	15%
Dissection/Case Studies/Group Presentations			10%

**\*Graduate Course Components (514 students):**

1. To perform additional detailed dissections (suboccipital triangle, select joints, inner ear, etc.) that are *optional* for students enrolled at the 400-level.
2. To head classroom discussions on weekly case studies. Each student will be expected to lead *at least* one of the problem-solving sessions by presenting an in depth introduction covering the relevant structure and function. Graduate students will be expected to research and present recent findings in the occupational therapy literature that is relevant to the current case study. Case study discussion should focus on specific applications to the field of occupational therapy.

**HONOR SYSTEM:** All students are expected to be familiar with and to abide by the University Honor Code at JMU. A complete description of the University Honor System can be found in the JMU Student Handbook.

**ATTENDANCE:** Attendance is absolutely critical to the successful completion of this course. You are expected to attend ALL lecture, laboratory, and small group sessions. Officially excused absences from laboratory must be approved **prior** to the absence. Make-ups for **lecture and laboratory exams** will be given for **officially excused absences** ONLY (official school business, illness with M.D. excuse, death in the family). If you are unable to attend a lecture exam, you must contact me directly **prior** to the scheduled exam time.

**OFFICE OF DISABILITY SERVICES:** Mission statement: James Madison University is committed to the full and total inclusion of all individuals and to the principle of individual rights and responsibilities. To this end, policies and procedures will ensure that persons with a disability will not, on the basis of that disability, be denied full and equal access to and enjoyment of academic and co-curricular programs or activities or otherwise be subjected to discrimination under programs or activities offered by the University. This policy was developed to ensure equal access at the University for individuals with disabilities and to ensure full compliance with all pertinent federal and state legislation.

*It is the student's responsibility to provide documentation from the Office of Disability Services to the lecture instructor to ensure that appropriate arrangements are made.*

#### **INCLEMENT WEATHER POLICIES**

University closings, class cancellations and exam postponements due to inclement weather or emergencies will be according to Policy 1309 (*see: <http://www.jmu.edu/JMUpolicy/1309.shtml>*).

#### **RELIGIOUS OBSERVATION ACCOMMODATIONS**

Reasonable and appropriate accommodations will be given to students requesting them on grounds of religious observation. The faculty member determines what accommodations are appropriate. Students should notify the faculty by no later than the end of the Drop-Add period the first week of the semester of potential scheduled absences and determine with the instructor if mutually acceptable alternative methods exist for completing the missed classroom time, lab or activity.

#### **COURSE OBJECTIVES:**

**Objective 1: To obtain a basic understanding of the morphology of the human body and correlate it with general function.**

**Objective 2: To acquire and demonstrate gross dissection techniques, as well as the ability to make observations and decisions to identify pertinent structures.**

**Objective 3: To become aware of normal variations in the human body.**

**Objective 4: To relate gross anatomy to clinical situations.**

**Objective 5: To correlate sectional anatomy with current imaging techniques (CT, MRI, radiology).**

**Objective 6: To introduce basic medical terminology.**

**Objective 7: To apply problem-solving skills to clinical situations based on course content (case studies/presentations).**

## **BIO 414/514: Tentative Lecture Schedule**

<b>WEEK 1:</b>	Aug 30 <sup>th</sup> Sept 1 <sup>st</sup>	Introduction, review of vert column, spinal nerves; back muscles (Introduction pp. 1-46; Chapter 4 pp. 274-315) Finish back muscles; thoracic and abdominal body wall m. (Chapter 2 pp. 116-29)
<b>WEEK 2:</b>	Sept 6 <sup>th</sup> Sept 8 <sup>th</sup>	Start Lower Limb; Hip and Thigh (Chapter 5; pp. 316-357) Thigh (cont.); Leg and Foot (Chapter 5; pp. 357-377)
<b>WEEK 3:</b>	Sept 13 <sup>th</sup> Sept 15 <sup>th</sup>	Finish Leg and Foot; Joints of Lower Limb (Chapter 5; pp. 377-404) Start Upper Limb; Pectoral Region; Back and Shoulder (Chapter 6 pp. 405-427)
<b>WEEK 4:</b>	Sept 20 <sup>th</sup> Sept 22 <sup>nd</sup>	Axilla and Brachial Plexus (Chapter 6; pp. 427-439) Arm and Cubital Fossa; Forearm Flexors (Chapter 6; pp. 440-451)
<b>WEEK 5:</b>	Sept 27 <sup>th</sup> Sept 29 <sup>th</sup>	Forearm Extensors, Hand, Joints of Upper Limb (Chapter 6; pp. 451-494) Start Head and Neck; Intro skull and Cranial Nerves (Chapter 7 pp. 495-502; Chapter 9 pp. 643-672)
<b>WEEK 6:</b>	Oct 4 <sup>th</sup> Oct 6 <sup>th</sup>	Triangles of Neck, Face, and Temporal Region (Chapter 7 pp. 502-511, 549-557; Chapter 8 pp. 593-612) Special Senses (Chapter 7 pp. 512-549; 557-592)
<b>WEEK 7:</b>	Oct 11 <sup>th</sup> Oct 13 <sup>th</sup>	Special Senses (cont.); Pharynx and Larynx (Chapter 8; pp. 612-642) Review for Final

## BIO 414/514: Tentative Laboratory/Recitation Schedule

<b>WEEK 1:</b>	Aug 30 <sup>th</sup> Sept 1 <sup>st</sup> Sept 2 <sup>nd</sup>	Intro/Lab Safety (GD pp. 1-4), Begin Vertebral Column and Muscles of the Back (GD pp. 5-11) Continue Vertebral Column and Muscles of the Back (GD pp. 5-11) Finish Back Muscles; Vert Canal and S.C.; Prosected Hypaxial mm. (GD pp. 12-18); Suboccipital Triangle; Case Study 1
<b>WEEK 2:</b>	Sept 6 <sup>th</sup> Sept 8 <sup>th</sup> Sept 9 <sup>th</sup>	Superficial Lower Limb Dissection; Start Gluteal and Post. Thigh (GD pp. 148-151, 159-167) Ant. & Medial Thigh; Ant. & Lateral Leg (GD pp. 152-159, 167, 172-175) Complete previous dissections; Case Study 2
<b>WEEK 3:</b>	Sept 13 <sup>th</sup> Sept 15 <sup>th</sup> Sept 16 <sup>th</sup>	Posterior Leg, Sole of Foot; LL joint; REVIEW (GD pp. 168-172, 175-180) <b>EXAM 1 – LECTURE AND LAB</b> Shoulder and superficial upper limb dissection (GD pp. 19-21); Case Study 3
<b>WEEK 4:</b>	Sept 20 <sup>th</sup> Sept 22 <sup>nd</sup> Sept 23 <sup>rd</sup>	Back and Shoulder; Axilla; Prosected Pectoral Region (GD pp. 22-31) Arm and Cubital Fossa; Forearm Flexors (GD pp. 32-40) Complete previous dissections; Case Study 4
<b>WEEK 5:</b>	Sept 27 <sup>th</sup> Sept 29 <sup>th</sup> Sept 30 <sup>th</sup>	Forearm Extensors and Hand (GD pp. 40-48) <b>EXAM 2 – LECTURE AND LAB</b> Skull (GD pp. 199-201); Case Study 5
<b>WEEK 6:</b>	Oct 4 <sup>th</sup> Oct 6 <sup>th</sup> Oct 7 <sup>th</sup>	Superficial neck dissection, Anterior & Posterior Triangles of Neck, Parotid Region, Temporal Region (GD pp. 186-198, 206-208, 210-214) Skull, Face, Scalp, Interior Skull, Brain, and Cranial Fossa (GD pp. 199-206, 208-209, 215-227) Complete previous dissections; Case Study 6
<b>WEEK 7:</b>	Oct 11 <sup>th</sup> Oct 13 <sup>th</sup> Oct 14 <sup>th</sup>	Continue Gross Anatomy of the Brain, Orbit, Prevertebral Region, Pharynx, Nose and Nasal Cavities, and Larynx (GD pp. 227-248) <b>EXAM 3 – LECTURE AND LAB FINAL</b> FINAL OT GROUP PRESENTATIONS