

BIO 514. Clinical Anatomy for Occupational Therapists. 4 Credits
Fall 2023. First Block
James Madison University

Instructor: Dr. Mark Gabriele (Lecture and Lab)
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Office Hours: W 10:30-12:30 (Burruss 314)
F 11:15-12:15 (Burruss 314)
* by appointment only if absolutely can't make above work

Instructor: Mr. Pat Kilkenny (Lab)
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Office Hours: TBD

Section 7101:	Lecture: TTh	9:35-12:05	HBS 1090
	Recitation F	9:05-11:05	Burruss 340
Section 7102:	Lab: TTh	1:00-4:30	Burruss 340

*Every lecture and lab will be **in-person** for the full duration of scheduled class time unless official mandates warrant otherwise. Previously recorded lectures will also be made available to you virtually for your asynchronous review. THIS DOES NOT MEAN YOUR ATTENDANCE TO SCHEDULED IN-PERSON LECTURES IS OPTIONAL. Daily attendance and active participation are mandatory and critical for your success. Lecture PowerPoints and asynchronous recordings will be uploaded to Canvas for the coming week by the end of the preceding weekend.*

For instruction on Canvas How-To tutorials, please visit <http://guides.instructure.com/m/8470>. For the Canvas Support email your name, JMU student ID, and a description of the issue(s) to Library Tech Support at letsupport@jmu.edu or 540-568-5312.

Required Materials: (1) *Grant's Dissector and Associated Dissection Videos*; Detton
Both included with **required** *Grant's Anatomy Lab* subscription
(2) *Atlas of Human Anatomy*; Netter (any edition)
(3) *Essential Clinical Anatomy*; Moore, Agur, Dalley (6th edition),
freely available via JMU libraries: <https://guides.lib.jmu.edu/anat>

NATURE OF COURSE CONTENT: 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.*

METHOD OF EVALUATION: 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, general participation, participation in weekly small group case studies, and participation in a final group presentation (details to follow). 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	12.5%	Lab Exam 1	12.5%
Lecture Exam 2	12.5%	Lab Exam 2	12.5%
Lecture Exam 3	12.5%	Lab Exam 3	12.5%
Laboratory engagement and overall dissection effort/quality			15%
Professionalism, participation, and attitude toward learning			10%

COMMUNICATION AND CANVAS:

Please do not use Canvas as a means for getting in touch with your instructors. Instead, please email us directly (gabrieml@jmu.edu, kilkenpx@jmu.edu). We try hard not to check our email outside of normal business hours. If we do not have balance, we have nothing. During normal business hours, we will try to respond to you quickly, but we may not be able to respond right away - We could be in the middle of a teaching, research, or other service commitment. **When we need to get in touch with you or send you an announcement outside of class, we will email you directly using your JMU @dukes email address.** We do not expect a reply from you outside of normal business hours, unless you wish. We'd like you to prioritize your work-life balance too as much as you can. That said, please reply as promptly as possible. We have arranged our office hours so that we are available as much as possible outside of your scheduled class time. Exceptions to the above would be contacting the lab coordinator (kilkenpx@jmu.edu) immediately if any emergency should arise in the dissection lab after hours.

ELECTRONIC DEVICES:

Most of our time in class will be spent listening to lecture or in discussion with your classmates. If we are distracted by our electronic devices in class, we are physically present but not intellectually present. This is a "half presence" that is disrespectful to your classmates. Therefore, out of respect for each other, the default policy is that **all use of personal electronic devices (e.g. sending a quick text on a phone, checking smart watches for alerts/texts) is prohibited in class.** You may use laptops if you do not print your lecture notes and prefer keeping everything digital. **However, at no time should any other window (browser, social media, etc.) be open for any reason.** Any unauthorized use of the above will be treated as if you didn't participate for the day, clearly impacting that portion of your grade. I will not stop class to let you know this obvious fact. However, if your unauthorized use of electronic devices is especially disruptive, I will stop class and ask you to leave so that your physical presence becomes consistent with your intellectual presence. There are two noteworthy exceptions: (1) During certain class activities that require the internet for course-related searches, all students are permitted to use any electronic devices at their disposal, and (2) If there is an activity where you feel the entire class would greatly benefit from appropriate electronic device use, you should ask for special permission. If granted, the entire class will be given this special permission.

ATTENDANCE: You are expected to attend all classes as stipulated above and in the tentative lecture and laboratory schedules below. Attendance is critical for you to perform well. If you are ill, please do not attend class in person. You are expected to report the reason for your absence (e.g. health-related, family emergency, or any other reason) by email prior to the absence. If that is not possible, you must make contact within 72 hours of the absence. Your proactive communication is required! No grade penalty will be assessed directly for officially excused absences. As a condition of the Honor Code, you are required to be honest about any absence or face an Honor Code violation. Therefore, no documentation is required to prove your reason for absence.

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 or here: <http://www.jmu.edu/honor/code.shtml>

INTELLECTUAL PROPERTY: All exams, handouts, and materials for this course, including those posted on Canvas and faculty and course websites, are intellectual property. Therefore, dissemination of any of these items, in whole or in part, through any extracurricular agency including other websites is a violation of the honor code and will be punished as such.

ADDING/DROPPING CLASSES:

Policies for adding and dropping courses can be found here: <http://www.jmu.edu/syllabus>
Requests to withdrawal after the university stated deadlines are strictly at the discretion of the instructor. **In extraordinary circumstances only**, the instructor may choose to use the WP/WF option for students unable to complete the course. WP will be assigned for a course average $\geq 70\%$; WF will be assigned for averages $< 70\%$.

ACADEMIC HONESTY:

Policies for academic honesty and plagiarism can be found here: <http://www.jmu.edu/syllabus>

OFFICE OF DISABILITY SERVICES:

Policies for disability accommodations can be found here: <http://www.jmu.edu/syllabus>

It is the student's responsibility to provide documentation from the Office of Disability Services to the lecture instructor the first week of class so that appropriate arrangements can be agreed upon.

INCLEMENT WEATHER POLICIES

Policies for inclement weather can be found here: <http://www.jmu.edu/syllabus>

RELIGIOUS OBSERVATION ACCOMMODATIONS

Policies for religious observation accommodations can be found here: <http://www.jmu.edu/syllabus>

INCLUSIVITY COMMITMENT

Being inclusive of all people and their respective backgrounds, values, points of view, and experiences is so vital and something that we will emphasize daily. Through our example we will promote positive change and underscore how diverse backgrounds and perspectives enrich our experiences and learning environments. We will set such an example by maintaining the highest expectations and moral standards in and out of the classroom – being present to each other and treating one another with respect.

Microaggressions will not be tolerated. Microaggressions are the everyday verbal, nonverbal, and environmental slights, snubs, or insults, whether intentional or unintentional, that communicate hostile, derogatory, or negative messages to target persons based solely upon their marginalized group membership (*from Diversity in the Classroom, UCLA Diversity & Faculty Development, 2014*). For examples see:

https://academicaffairs.ucsc.edu/events/documents/Microaggressions_Examples_Arial_2014_11_12.pdf

As part of my commitment to being inclusive and providing an inclusive environment in my classroom, I welcome and ask that you bring any instances of non-inclusivity to my attention either in person, electronically, or through appropriate anonymous feedback mechanisms.

GOALS OF THE COURSE:

- Goal 1: To obtain a basic understanding of the morphology of the human body and correlate it with general function.**
- Goal 2: To acquire and demonstrate gross dissection techniques, as well as the ability to make observations and decisions to identify pertinent structures.**
- Goal 3: To become aware of normal variations in the human body.**
- Goal 4: To relate gross anatomy to clinical situations.**
- Goal 5: To correlate sectional anatomy with current imaging techniques (CT, MRI, radiology).**
- Goal 6: To introduce basic medical terminology.**
- Goal 7: To apply problem-solving skills to clinical situations based on course content (case studies/presentations).**

Assignments and Due Dates

BIO 514: Tentative Lecture Schedule

Asynchronous lecture videos for your review can be found on Canvas under the Pages tab after the corresponding lecture/lab.

Corresponding PowerPoint slides for each lecture can be found on Canvas under the Files tab for you to download and take notes on or print out if you wish

Listed accompanying readings are from *Essential Clinical Anatomy*

WEEK 1:	Aug 24 th	Lecture 01. Introduction, Review of Vert. Column, Spinal Nerves; Back Muscles. <i>Introduction to Clinical Anatomy chapter.</i> <i>Back chapter</i>
WEEK 2:	Aug 29 th	Lecture 02. Finish Back Muscles, Nervous System Review, Abdominal Hypaxial Body Wall Muscles, and Inguinal Region. <i>Back chapter.</i> <i>Abdomen chapter (through anterolateral body wall and inguinal region sections).</i>
	Aug 31 st	Lecture 03. Start lower limb, Gluteal region, Lateral rotators, Posterior Thigh, Popliteal fossa <i>Lower Limb chapter (sections listed above for Lecture 03).</i>
WEEK 3:	Sept 5 th	Lecture 04. Anterior & Medial Thigh, Anterior & Lateral Leg, Dorsum of Foot <i>Lower Limb chapter (sections listed above for Lecture 04).</i>
	Sept 7 th	Lecture 05. Posterior Leg, Sole of Foot; Joints of Lower Limb <i>Lower Limb chapter (sections listed above for Lecture 05).</i>
WEEK 4:	Sept 12 th	Lecture 06. Overview Upper Limb, Pectoral Region, Intro Back and Shoulder
	Sept 14 th	Lecture 07. Back and Shoulder, Axilla, and Brachial Plexus <i>Upper Limb chapter (sections listed above for Lectures 06 & 07).</i>
WEEK 5:	Sept 19 th	Lecture 08. Arm, Cubital Fossa, Forearm Flexors <i>Upper Limb chapter (sections listed above for Lecture 08).</i>
	Sept 21 st	Lecture 09. Forearm Extensors, Hand, Joints of Upper Limb <i>Upper Limb chapter (sections listed above for Lecture 09).</i>
WEEK 6:	Sept 26 th	Lecture 10. Start Head and Neck, Intro Skull and Cranial Nerves <i>Head & Review of Cranial Nerves chapters (sections listed above for Lecture 10).</i>
	Sept 28 th	Lecture 11. Cranial Nerves, Triangles of Neck, Face <i>Head & Neck chapters (sections listed above for Lecture 11).</i>
WEEK 7:	Oct 3 rd	Lecture 12. Temporal Region, Infratemporal Fossa, Brain (including Ventricular System, Blood Supply, and Venous Drainage), Begin Special Senses <i>Head chapter (sections listed above for Lecture 12).</i>
	Oct 5 th	Lecture 13. Finish Special Senses and Associated Structures, Pharynx, and Larynx <i>Head & Neck chapters (sections listed above for Lecture 13).</i>
WEEK 8:	Oct 10 th	Review for Final

Assignments and Due Dates

BIO 514: Tentative Laboratory/Recitation Schedule

Listed accompanying readings/instructions are from *Grant's Dissector* (abbreviated *GD*)

Dissection videos should be viewed on *Grant's Anatomy Lab* (abbreviated *GAL*) before coming to lab

WEEK 1:	Aug 24 th	Intro/Lab Safety. Begin Vertebral Column and Muscles of the Back <i>GD: Introduction chapter.</i> <i>GD: The Back chapter. Skin and Superficial Fascia and Superficial Muscles sections</i> <i>Video 1: GAL. The Back > Skin and Superficial Fascia > Dissection Overview</i> <i>Video 2: GAL. The Back > Superficial Muscles of the Back > Dissection Overview</i>
	Aug 25 th	Complete above dissections
WEEK 2:	Aug 29 th	Deep Back Muscles; Laminectomies, Suboccipital Triangle; Prosected Hypaxial mm <i>GD: The Back chapter. Intermediate and Deep Muscles, Suboccipital Region, and Vertebral Canal, Spinal Cord, and Meninges sections</i> <i>Video 1: GAL. The Back > Intermediate and Deep Muscles > Dissection Overview</i> <i>Video 2: GAL. The Back > Suboccipital Region > Dissection Overview</i> <i>Video 3: GAL. The Back > Vert. Canal, Spinal Cord, Meninges > Dissect. Overview</i> Case Study 1 <u>Note:</u> Once completed, view prosected anterolateral abd. wall and inguinal region <i>GD: The Abdomen chapter. Superf. Fascia & Muscles of Anterolateral Wall sections</i> <i>Video 1: GAL. The Abdomen > Superf. Fascia Anterolateral > Dissection Overview</i> <i>Video 2: GAL. The Abdomen > Muscles of Anterolateral Wall > Dissection Overview</i>
	Aug 31 st	Superficial Lower Limb Dissection; Gluteal, Lateral Rotators, Post. Thigh, Popliteal <i>GD: The Lower Limb chapter. Superficial Veins and Cutaneous Nerves, Gluteal Region, and Posterior Compartment of Thigh and Popliteal Fossa sections</i> <i>Video 1: GAL. The Lower Limb > Superficial Veins and Cutaneous Nerves > Dissection Overview</i> <i>Video 2: GAL. The Lower Limb > Gluteal Region > Dissection Overview</i> <i>Video 3: GAL. The Lower Limb > Posterior Compartment of the Thigh and Popliteal Fossa > Dissection Overview</i>
	Sept 1 st	Complete previous dissections
WEEK 3:	Sept 5 th	Anterior & Medial Thigh, Anterior & Lateral Leg, Dorsum of Foot <i>GD: The Lower Limb chapter. Anterior Thigh, Medial Thigh, Anterior Leg & Dorsum of Foot, and Lateral Leg sections</i> <i>Video 1: GAL. The Lower Limb > Anterior Compt. of Thigh > Dissection Overview</i> <i>Video 2: GAL. The Lower Limb > Medial Compt. of Thigh > Dissection Overview</i> <i>Video 3: GAL. The Lower Limb > Ant. Leg & Dorsum of Foot > Dissection Overview</i> <i>Video 4: GAL. The Lower Limb > Lateral Compt. of Leg > Dissection Overview</i> Case Study 2
	Sept 7 th	Posterior Compartment of Leg, Sole of Foot. Will view prosected LL joints later <i>GD: The Lower Limb chapter. Posterior Compartment of the Leg, Sole of Foot, and Joints of Lower Limb sections</i> <i>Video 1: GAL. The Lower Limb > Posterior Compt. of Thigh > Dissection Overview</i> <i>Video 2: GAL. The Lower Limb > Sole of the Foot > Dissection Overview</i> <i>Video 3: GAL. The Lower Limb > Joints of the Lower Limb > Dissection Overview</i>
	Sept 8 th	Complete previous dissections; Case Study 3, Review for Exam 1
WEEK 4:	Sept 12 th Sept 14 th	EXAM 1 – LECTURE AND LAB Superficial Dissection of Shoulder/Proximal Upper Limb, Back and Shoulder, Prosected Pectoral Region, and Axilla <i>GD: The Upper Limb chapter. Scapular Region, Superficial Veins and Cutaneous Nerves, Muscles of the Pectoral Region, and Axilla sections</i> <i>Video 1: GAL. The Upper Limb > Scapular Region > Dissection Overview</i> <u>Note:</u> Just first half on scapular region (through 07:45), not posterior arm <i>Video 2: GAL. The Upper Limb > Superf. Veins & Cut. Nerves > Dissect. Overview</i> <i>Video 3: GAL. The Upper Limb > Pectoral Region > Dissection Overview</i>

	Sept 15 th	<i>Video 4: GAL. The Upper Limb > Axilla > Dissection Overview</i> Complete previous dissections; Case Study 4
WEEK 5:	Sept 19 th	Arm, Cubital Fossa, Forearm Flexors <i>GD: The Upper Limb chapter. Arm (Brachium) & Cubital Fossa, and Flexor Region of the Forearm sections</i> <i>Video 1: GAL. The Upper Limb > Scapular Region > Dissection Overview</i> <i>Note: Go back and view just latter portion on posterior compt. of the arm (07:45 -10:40), already did scapular region at the beginning of this video</i> <i>Video 2: GAL. The Upper Limb > Arm & Cubital Fossa > Dissection Overview</i> <i>Video 3: GAL. The Upper Limb > Flexor Region of Forearm > Dissection Overview</i>
	Sept 21 st	Forearm Extensors and Hand. Will view prosected upper limb joints later <i>GD: The Upper Limb chapter. Extensor Region of Forearm & Dorsum of Hand, Palm of Hand, and Joints of the Upper Limb sections</i> <i>Video 1: GAL. The Upper Limb > Extensor Region of the Forearm & Dorsum of the Hand > Dissection Overview</i> <i>Video 2: GAL. The Upper Limb > Palm of the Hand > Dissection Overview</i> <i>Video 3: GAL. The Upper Limb > Joints of the Upper Limb > Dissection Overview</i>
	Sept 22 nd	Complete previous dissections; Case Study 5, Review for Exam 2
WEEK 6:	Sept 26 th Sept 28 th	EXAM 2 – LECTURE AND LAB Skull, Superficial neck dissection, Anterior & Posterior Triangles of Neck, Face, Parotid Region <i>GD: The Head & Neck chapter. Superficial Neck, Anterior Triangle, Thyroid & Parathyroid Glands, Face, and Parotid Region sections</i> <i>Video 1: GAL. The Head & Neck > Superficial Neck> Dissection Overview</i> <i>Video 2: GAL. The Head & Neck > Anterior Triangle of Neck > Dissection Overview</i> <i>Video 3: GAL. The Head & Neck > Thyroid & Parathyroids > Dissection Overview</i> <i>Video 4: GAL. The Head & Neck > Face > Dissection Overview</i> <i>Video 5: GAL. The Head & Neck > Partoid Region > Dissection Overview</i>
	Sept 29 th	Complete previous dissections, Mastery of skull, Case Study 6
WEEK 7:	Oct 3 rd	Scalp, Temporal & Infratemporal Regions, Skull Interior, Removal of Brain, Brain <i>GD: The Head & Neck chapter. Scalp, Temporal Region, Interior of Skull, Removal of Brain, Dural Sinuses, Gross Anatomy of Brain, and Cranial Fossae sections</i> <i>Video 1: GAL. The Head & Neck > Scalp > Dissection Overview</i> <i>Video 2: GAL. The Head & Neck > Temporal Region > Dissection Overview</i> <i>Video 3: GAL. The Head & Neck > Interior of Skull > Dissection Overview</i> <i>Video 4: GAL. The Head & Neck > Removal of Brain > Dissection Overview</i> <i>Video 5: GAL. The Head & Neck > Dural Sinuses > Dissection Overview</i> <i>Video 6: GAL. The Head & Neck > Gross Anatomy of Brain > Dissection Overview</i> <i>Video 7: GAL. The Head & Neck > Cranial Fossae > Dissection Overview</i>
	Oct 5 th	Continue Previous Dissections, Orbit, Ear, Pharynx, Root of Neck, and Larynx <i>GD: The Head & Neck chapter. Orbit, Ear, Root of Neck, and Larynx sections</i> <i>Video 1: GAL. The Head & Neck > Orbit > Dissection Overview</i> <i>Video 2: GAL. The Head & Neck > Ear > Dissection Overview</i> <i>Video 3: GAL. The Head & Neck > Root of Neck > Dissection Overview</i> <i>Video 4: GAL. The Head & Neck > Larynx > Dissection Overview</i>
	Oct 6 th	Complete previous dissections, Review for Final, Case Study 7
WEEK 8:	Oct 10 th	EXAM 3 – LECTURE AND LAB FINAL