

Gross Anatomy: Neuromusculoskeletal Dissection of the Spine & Extremities

KIN 475 Spring 2018

INSTRUCTOR INFORMATION

Location: Ryan Science Lab 119	Instructor: Leon M. Kugler PhD "Kug"
Prerequisites: BIO 130	Contact Information: 619. 993.1727 Office 619.849.2376
Days: Monday, Wednesday	E-mail: lkugler@pointloma.edu
Dates: January 9 to April 30	Professor Office Hours: Monday - Thursday 6am to 11:50am
Final Exam: April 30, 7:30-10a.m.	

"Anatomy is the foundation for the language of medicine: the language health-care professionals use for communication about patients."

Todd Olson, Anatomist, Albert Einstein College of Medicine, New York.

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

DESCRIPTION and OUTCOMES

COURSE DESCRIPTION

This course is appropriate for undergraduate students including pre-medical and pre-allied health students, seeking to gain a better appreciation of the anatomical/functional relationship of the human body. This course covers aspects of human functional and clinical gross anatomy.

COURSE AIM

To provide students with 3 dimensional dissection studies of the the neuromusculoskeletal systems of the Spine and Extremities of the human body in with typical anatomy as the pre-lab study and comparative anatomical study during lab dissection. Prosection study of the Thorax, Abdomen, Brain, Spinal Cord and Eye will be utilized. Pre-Lab study, in lab dissection and prosection investigation comprise the **Anatomical Structure** portion of the course. **Function** of those structures and **Clinical Implications** will be addressed in student presentations, discussion groups, online research, and demonstrations with models, in addition to lectures and dissection.

INSTITUTIONAL LEARNING OUTCOMES (ILO)

1. **Learning, Informed by our Faith in Christ**
Students will acquire knowledge of human cultures and the physical and natural world while developing skills and habits of the mind that foster lifelong learning.
2. **Growing, In a Christ-Centered Faith Community**
Students will develop a deeper and more informed understanding of others as they negotiate complex professional, environmental, and social contexts.
3. **Serving, In a Context of Christian Faith**
Students will serve locally and/or globally in vocational and social settings.

PROGRAM LEARNING OUTCOMES (PLO)

The Point Loma Nazarene University MS-KIN graduate will be able to

1. Appraise current research data in Kinesiology and integrate it into professional practice to solve relevant problems and make effective decisions.
2. Work independently and with a team to persuasively communicate essential information in their discipline.
3. Demonstrate appropriate breadth of knowledge of the background and principle research in their specialization in order to conduct an independent research project.
4. Serve various populations, integrating compassionate care and the Christian faith with their professional practice.
5. Pursue an active and growing involvement in their discipline by achieving advanced certification and/or membership in a related professional organization.

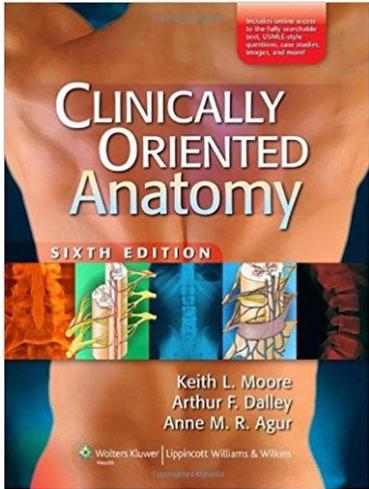
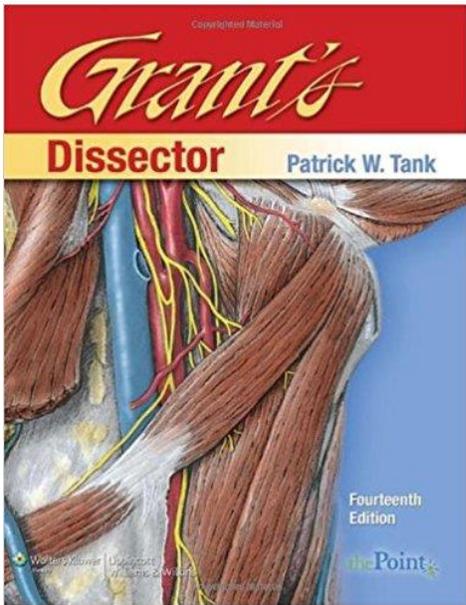
COURSE LEARNING OUTCOMES (CLO)

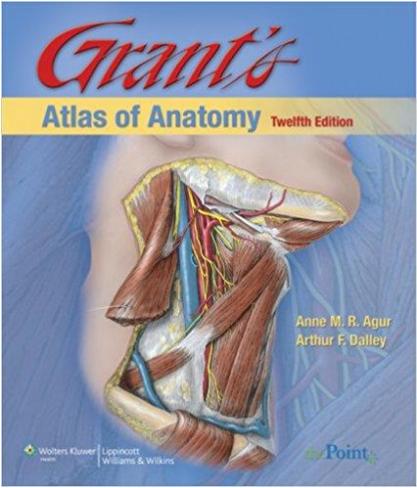
The following learning outcomes will be achieved by students in this course:

1. Describe the structural organization, functions and clinical implication of those structures in the context of the human body including the interrelatedness of bony structures, musculature, innervation and vasculature within each body region

2. Apply knowledge of the anatomic organization and relationships of structures to identify and interpret anatomic landmarks, and normal structures on cadaveric specimens
3. Explain the anatomic basis for common clinical conditions, injuries, pathologies, and diagnostic/interventional procedures
4. Demonstrate the communication and organizational skills necessary to accurately convey anatomic information with peers
5. Demonstrate respect, integrity, responsibility, and self-discipline toward donors, peers, and faculty
6. Articulate body structure, function and clinical application to peers, professors and novice observers

REQUIRED TEXTS

	Title	Clinically Oriented Anatomy
	Author	Keith L. Moore, Arthur F. Dalley, Anne M. R. Agur
	ISBN	978-0781775250
	Publisher	Lippincott Williams & Wilkins
	Publication Date	2010
	Price	\$20-\$35
	Title	Grant's Dissector 14 th ed. (Tank, Grant's Dissector)
	Author	Patrick W. Tank
	ISBN	978-0781774314
	Publisher	Lippincott Williams & Wilkins
	Publication Date	Mar 6, 2008
	Price	\$13.00

	Title	Grant's Atlas of Anatomy 12 th Ed.
	Author	Anne M. R. Agur, Arthur F. Dalley
	ISBN	0781796040
	Publisher	Lippincott Williams & Wilkins
	Publication Date	Feb 15, 2008
	Price	\$9.00

THE MECHANICS OF DISSECTION

Before coming to the laboratory, read the relevant sections in your textbook and in the dissection manual. Study the drawings in your atlas of the region to be dissected. Read any specific pre-lab material provided. Make sure that you understand the general developmental history of the structures in this region, and of the way in which blood supply and innervation reach them. (This last point is emphatically not the same thing as memorizing a list of paired anatomical names. This is really about making connections between anatomical parts that must work together and connecting that to what you are learning in other parts of this course). In short, please come as prepared as possible.

All students are expected to read the dissector prior to attending lab and must be prepared to perform the day's dissection.

The daily Dissection Captain is responsible for

1. Reading the dissector and encouraging team to read dissector prior to lab and coming prepared to perform the dissection
2. Leading their team through the dissection and delineate tasks
3. Leading a post session review of the major structures indentified, functional anatomy and clinical applications noted during dissection.
4. Making sure the dissection instruments are accounted for, organized, and cleaned following each dissection
5. Making sure the cadaver is wetted and properly stored following each dissection
6. Making sure your station is clean and the Lab ready for the next lab class to use the lab

During the first class section, each cadaver team will **produce a schedule of weekly Dissection Captains** to be approved by the gross anatomy professor. Dissection Captain assignments should

be evenly distributed among all the team members. Each team member must take a turn as Dissection Captain prior to any member taking a second turn. Your performance as Dissection Captain will be included in the final grade for this course.

ACADEMIC ACCOMMODATIONS

While all students are expected to meet the minimum academic standards for completion of this course, students with disabilities may require academic accommodations. To request academic accommodations, you'll need to file documentation with the [Disability Resource Center \(DRC\)](#), located in the Bond Academic Center. Once documentation is filed, the DRC will contact your instructors and provide written recommendations for reasonable and appropriate accommodation to meet your needs. If you have questions or would like to discuss those or any learning problems, please feel free to contact me. *See [Academic Policies](#) for full text.*

FERPA POLICY

As a student at Point Loma, you have a legal right to privacy as outlined in the federal FERPA (Family Educational Rights and Privacy Act) legislation. If I post grades or return assignments, I'll do so in a way that does not publicly reveal your name, PLNU student ID, or social security number without your written permission. *See [Policy Statements](#) for full text.*

FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination **on its scheduled day**. The final examination schedule is posted on the [Class Schedules](#) site. No requests for early examinations or alternative days will be approved.

USE OF TECHNOLOGY

Point Loma Nazarene University encourages the use of technology for learning, communication, and collaboration. In this course, we will rely on Canvas for accessing course materials, and submitting assignments but in the lab there are threats to our electron devices not the least of which are the oils and preservatives that permeate the lab. Take advantage of our computer LabTechs to answer questions and help you with any technology issues. You may also call the Help Desk at x2222.

You are welcome to bring your laptop, iPad, and/or cell phone to class—but please turn them off and leave them in your back packs until asked to deploy them. *If a tech tool becomes a distraction or disruption while class is in session, I will ask you to put it away or invite you to no longer bring it to class.*

ACADEMIC DISHONESTY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. As stated in the university catalog, “Academic dishonesty is the act

of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. Such acts include plagiarism, copying of class assignments, and copying or other fraudulent behavior on examinations. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for a) that particular assignment or examination, and/or b) the course." See [Academic Policies](#) for full text.

ACTIVE LEARNING AND EVIDENCE BASED MEDICINE

Active Learning

Your active participation in this class will be required. You will be responsible for your own learning by reviewing class

material before and after class. I will guide you in this process; however, in the end the onus of learning will be your responsibility. **Become intrinsically motivated to improve yourself and prepare for you graduate school and the clients you will serve over your career.** If you do this you will succeed every time.

Here are some KEYS to success:

- EFFORT (Work hard)
- APPROACH (Work smart)
- ATTITUDE (Think positively)

COURSE REQUIREMENTS

Please Note: *The PLNU Catalog states that 1 semester unit represents an hour of class per week, and 2 hours of preparation are normal for each hour of class. Therefore, if you spend about 6 hrs per week outside of class in preparation, you will increase your chances of doing well!*

COURSE ASSIGNMENTS

Oral Quizzes- Spontaneous or announced quizzing may take the following forms:

1. Instructional staff asks and individual or an entire team to identify structures and/or structural function and/or clinical application.
2. Student may be asked to frame questions to peer or instructional staff regarding structure, function or clinical application.

Group Assignment

Within the group you are assigned to, students will be assigned a specific anatomic region and be required to do the following:

1. Report any unique discoveries during dissection

2. Dive into the literature and report on the anomalies that might be expected in their assignment region
3. Discuss the most common pathologies/injuries that occur
4. Report most surprising discovery
5. Describe and illustrate the eccentric and concentric actions of the major muscle groups

Oral Examination

Students will instruct peers and instructional staff on regional anatomy and field questions and feedback from their audience.

Laboratory Practicals

1. There will be a lab practical following each regional dissection. Students will be notified at least 2 days in advance of the lab practical date.
2. Lab practicals will be taken in RS 119, they will last approximately 30 minutes and will consist of anatomical structures that you and your peers have discovered.
3. For each practical exam you will have one minute to identify a structure either directly or by identifying a structure that attaches to another one (i.e. muscle to a part of a bone).
4. **Students must get a 60% or greater on any exam to pass.**

Oral Final Examination

Students knowledge and critical thinking capacity will be examined by the professor.

Evidence of Mastery

A. Oral Quizzes	7@20pts each	140
B. Group Assignment	150	150
C. Oral Exams	5@25pts each	125
D. Lab Practicals	5@20each	200
E. Oral Final Exam	125	125
	TOTAL	810

Grading

Grade	Range
A	\geq 93%
A-	90-92%
B+	87-89%
B	84-86%
B-	80-83%
C+	77-79%
C	74-76%
C-	70-73%
D+	67-69%
D	64-66%
D-	60-63%
F	\leq 59%