

GROSS HUMAN ANATOMY (A550) Fall 2011

Course Director and Lecturer:
Dr. Valerie Dean O'Loughlin (VDO)
010A Jordan Hall
855-7723
vdean@indiana.edu

Lecturer:
Dr. Andy Notebaert (AN)
010 Jordan Hall
855-3788
anotebae@indiana.edu

Laboratory Director:
Mr. Jim Heersma
Classroom Building 126
855-0948
jheersma@indiana.edu

Assistant Laboratory Director:
Mr. Jim Knowlton
Jordan Hall 003
855-9742
jrknowlt@indiana.edu

Associate Instructor
Audra Schutte (AS)
afschutt@indiana.edu

Associate Instructor:
Stacey Dunham (SD)
dunhams@indiana.edu

Classrooms:
Lecture - Jordan Hall 009

Laboratory – Jordan Hall 312

Required Texts:

1. Essential Clinical Anatomy, Keith Moore, Anne Agur, and Arthur Dalley, Lippincott Williams & Wilkins, Baltimore, 2011, Fourth Edition (**ma**)
OR
Clinically Oriented Anatomy, Keith Moore, Arthur Dalley and Anne Agur, Lippincott Williams & Wilkins, Baltimore, 2010, Sixth Edition. (**MD**)
2. Langman's Medical Embryology, T.W. Sadler, Lippincott Williams & Wilkins, Baltimore, 2010, Eleventh Edition. (**S**)
3. Grant's Dissector, P.W. Tank, Lippincott Williams & Wilkins, Baltimore, 2008, Fourteenth Edition.
4. Bates' Guide to Physical Examination and History Taking, Lynn Bickley and Peter Szilagy, Lippincott, Philadelphia, 2010, Tenth Edition.
5. Grant's Atlas of Anatomy, Anne Agur and Art Dalley, Lippincott Williams and Wilkins, Baltimore, 2008, Twelfth Edition. (**ONE PER LAB TABLE**)

Course Website URL: <http://www.indiana.edu/~anat550>

The course website contains copies of the lecture and lab syllabi, contact information, and anatomical and clinically related web links. It also contains multiple embryology animations developed in part by Valerie O'Loughlin – the url for this site is:
http://www.indiana.edu/~anat550/embryo_main

Course Description:

This course examines the gross anatomy of the human. Developmental anatomy and regional anatomy of the back, thorax, abdomen, pelvis and perineum are examined. Cadaver-based dissection labs accompany lecture topics.

Learning Goals:

1. You will learn the anatomy vocabulary necessary to communicate effectively as a physician.
2. You will develop an understanding of the three-dimensionality of the body, and the relationships of body structures. This understanding is essential for interpreting medical images such as CTs, MRI, etc.
3. You will learn the surface and deep anatomy that is necessary to perform and understand a physical examination of a patient.
4. You will develop a better understanding of anatomical “hot spots” and why these anatomical areas are clinically relevant.
5. You will understand the origin of anatomical structure (embryology) and the basis for developmental abnormalities (birth defects).
6. You will develop an appreciation for human variation.
7. You will learn what information is essential in a typical autopsy report, and you will complete your first autopsy report based on the dissection of your donor.

Graded Assessments:

- Three (3) **Lecture Exams** will range in value from 90 points to 140 points. These exams will include multiple choice questions, matching questions, 4X questions, and short answer/essay questions. The lecture instructors will provide a copy of last year’s exams for study purposes. In addition, sample lecture exam questions may be found in your A550 Course Guide (distributed on the 1st day of class).
- Three (3) **Lab Exams** take place in the Gross Anatomy lab. Exam questions ask for the correct identification of pinned anatomical structures on cadavers, MRIs, bones and cross sections.
- There will be two (1) **Team Based Learning (PBL) writeups** worth 10 points each due during the semester. Students will work in groups on for the TBL exercises and each group must turn in their writeup (A set of questions will be given to each group to answer).

3 Lecture Exams	320 points
3 Lab Exams	260 points
<u>2 TBL Writeups</u>	<u>20 points</u>
Semester TOTAL	600 points

Evaluation and Grading Policies:

The following evaluation criteria are used for evaluation and grades:

1. The Indiana University School of Medicine evaluation program guidelines:

Honors (H)	10-20% of the class
High Pass (HP)	30-50% of the class
Pass (P)	40-60% of the class
Fail (F)	0-5% of the class
2. Comparison to performances of previous classes: The class mean (A550 and A551) for previous classes has ranged from 79% to 86%. For graduate students, one standard deviation from the mean is approximately a B. The cutoff line between Pass and Fail has been 70% (about 2 standard deviations from the mean). Graduate students will receive letter grades: A, B, C, D or F.
3. Class distribution curves are taken into consideration when determining the exact cutoff line between grades.
4. All Medical Students will be required to take a comprehensive shelf exam (in the form of a final exam) at the end of the spring semester. There is no pass-fail requirement for the exam, but the exam will count 20% of your total grade. Graduate students do not need to take the comprehensive shelf exam.

Competencies Assessed in Gross Anatomy:

- A. **Effective Communication** is evaluated by: (1) successfully completing the TBLs and (2) examining oral communication on a one-to-one basis as students interact with each other and respond to faculty questions in the laboratory.
- B. **Life-long Learning** is addressed by: (1) active participation in lab and lecture activities and (2) completing the TBL exercises.
- C. **Self-awareness, Self-care, and Personal Growth** are assessed by completing a questionnaire examining the student's attitude toward the donors (cadavers) (*See sample of Gross Anatomy Laboratory Experience Questionnaire*).
- D. **Professionalism and Role Recognition** are evaluated by (1) observing students' attitudes regarding teamwork in their dissection groups and in their PBLs, (2) completion of the individual limb dissection, and (3) completing the Gross Anatomy Laboratory Experience Questionnaire.
- E. **Basic Clinical Skills** are assessed by (1) learning to evaluate x-rays, CT scans, MR images and integrating these radiological techniques with anatomical structure and (2) completing a *Donor Report* (autopsy report) based on the dissection of your donor. The *Donor Report* can be downloaded from the A550 website.

Cheating and Plagiarism:

Students are instructed to make themselves aware of University regulations concerning plagiarism, the maintenance of academic honesty and the definitions of unacceptable behavior and cheating. Academic misconduct of any sort will not be tolerated and will be dealt with as outlined in the *IU/IUPUI Code of Student Rights, Responsibilities, and Conduct*, which can be viewed at: <http://www.iupui.edu/code/>

Examples of misconduct include but are not limited to:

1. Cheating

A student must not use or attempt to use unauthorized assistance, materials, information, or study aids in any academic exercise

2. Fabrication

A student must not falsify or invent any information or data in an academic exercise including, but not limited to, records or reports, laboratory results, and citations to the sources of information.

3. Plagiarism

A student must not adopt or reproduce ideas, words, or statements of another person without appropriate acknowledgment. A student must give credit to the originality of others and acknowledge an indebtedness whenever he or she does any of the following:

- a. Quotes another person's actual words, either oral or written
- b. Paraphrases another person's words, either oral or written
- c. Uses another person's idea, opinion, or theory; or
- d. Borrows facts, statistics, or other illustrative material, unless the information is common knowledge.

4. Interference

- a. A student must not steal, change, destroy, or impede another student's work.
- b. A student must not give or offer a bribe, promise favors, or make threats with the intention of affecting a grade or the evaluation of academic performance.

Potential consequences for academic misconduct:

If the instructor has information that one of his/her students committed an act of academic misconduct, the faculty member will hold an informal conference with the student. The conference will be prompt and private. If the faculty member concludes that the student is responsible for the misconduct, then the faculty member will impose an appropriate academic sanction (e.g., lower or failing grade on the assignment, assessing a lower or failing grade for the course).

DISABILITIES:

If you need any special accommodations due to a disability and you are a student in the School of Medicine please contact the IU School of Medicine Committee on Students with Disabilities.

Patricia Ann Wade, Ph.D.
Learning Specialist, Office for Mentoring and
Student Development
(317) 274-2042
patwade@iupui.edu

Mary Alice Bell, MS
Director, Office for Mentoring and Student
Development
(317) 274-7173
mbell@iupui.edu

If you are a student outside of the IU School of Medicine and you need any special accommodations due to a disability, please contact Disability Services for Students at (317)-855-7578 or <http://www2.dsa.indiana.edu/dss/> .

Study Tips:

1. We strongly encourage you to study together and work in groups when preparing for both lecture and lab. Discuss complex topics and quiz each other. Working in a group will allow all involved to better understand the material and help clarify any misconceptions.
2. Make sure you examine and study ALL of the bodies in the gross lab. As you will learn, variation is considerable and structures can look completely different in different bodies.
3. Do NOT try to “cram” for the exams. Lecture exams ask you not only to identify material, but to apply and synthesize your knowledge. Instead, try to study a little bit every day.
4. If you have questions, or aren't doing as well as you'd like, please see one of the instructors right away! We want you to succeed and we are here to help. However, we do not know if you need help unless you come and speak with us!

Good luck!!!

GROSS HUMAN ANATOMY (A550): Lecture Schedule - Fall 2011

<u>DATE</u>	<u>AREA</u>	<u>LECTURER</u>	<u>READING IN BIG MOORE (MD), little moore (ma) OR SADLER (S)</u>
8/16 Tu	Introduction Medical Imaging	VDO	ma: 42-46 MD: 2-12, 66-70
ONLINE REVIEW	Intro to Systems Anatomy (2 lectures) <i>(watch these if you've never had an anatomy course before – will not be on exam)</i>	VDO	ma: 2-43 MD: 12-46
8/18 Th	Back, Suboccipital Triangle, and Vertebral Column	AN	ma: 274-295, 301-315 MD: 441-452, 482-488, 492-495 S: 142-145
ONLINE LECTURE	Embryology I (2 lectures)	VDO	S: 3-5, 13-46
8/23 Tu	Spinal Cord and Spinal Nerves	AN	ma: 31-37, 294-301 MD: 496-507
8/25 Th	Embryology II (2 lectures)	VDO	S: 47-84, 302-303, 316-7
8/30 Tu	Autonomic Nervous System	AN	ma: 36-42, 186 MD: 57-65
9/01 Th	Thoracic Wall	AN	ma: 47-67, 185-191 MD: 72-78, 81-106, S: 155-164
9/06 Tu	Abdominal Wall	AN	ma: 116-135 MD: 182-206 S: 260-263
9/08 Th	Embryology III (2 lectures)	SD	S: 85-124
9/13 Tu	<u>EXAMINATION</u> (130 points: 70 pts gross, 60 pts embryology)		
9/20 Tu	Mediastinum and Lungs	VDO	ma: 68-80, 102-113 MD: 78-79, 108-120, 127-8, 160- 70 S: 197-8, 201-207
9/22 Th	Heart	AS	ma: 80-102, 114-5 MD: 128-160

GROSS HUMAN ANATOMY (A550): Lecture Schedule - Fall 2011

<u>DATE</u>	<u>AREA</u>	<u>LECTURER</u>	<u>READING IN BIG MOORE (MD), little moore (ma) OR SADLER (S)</u>
9/27 Tu	Embryology of Heart	VDO	MD: 128-160 S: 165-179
9/29 Th	Embryology of Heart (cont.) Introduction to GI tract	VDO	S: 180-192, 196-200 ma: 117-118, 135-143 MD: 217-218, 219-221, 226-228
10/04 Tu	Embryology of the GI Tract	VDO	S: 189, 209-230
10/06 Th	GI Tract I	AS	ma: 143-152, 159-165 MD: 229-241, 263-268
10/11 Tu	GI Tract II	VDO	ma: 152-159, 165-174 MD: 268-273, 277-280, 241-253
10/13 Th	GI Tract III	VDO	ma: 173-175, 180-186 MD: 280-281, 288 S: 192-196
10/20 Th	<u>EXAMINATION (100 points)</u>		
10/25 Tu	<i>Team Based Learning Exercise (3 hrs)</i> VDO & AN		
10/27 Th	Posterior Abdominal Wall; Kidneys and Ureters	AN	ma: 192-203, 174-180 MD: 309-325
11/01 Tu	Intro To Pelvis and Perineum (Pelvic Diaphragm); Development of Urogenital System (Kidney and Ureter)	AN	ma: 204-217 MD: 326-343 S: 230-232, 235-246
11/03 Th	Innervation of pelvis and perineum (Sacral plexus and ANS), Introduction To Perineum	AN	ma: 217-220, 250-51 MD: 357-362, 402-4
11/08 Tu	Perineum: Anal & Urogenital Triangles	AN	ma: 245-273 MD: 368-372, 402-434
11/10 Th	Development of Genital System	AN	S: 246-263
11/15 Th	Pelvis; Urinary Bladder; Male Internal Genital Organs	AN	ma: 211-217, 220-236 MD: 344, 349-357, 361-369, 373-382

GROSS HUMAN ANATOMY (A550): Lecture Schedule - Fall 2011

<u>DATE</u>	<u>AREA</u>	<u>LECTURER</u>	<u>READING IN BIG MOORE (MD), little moore (ma) OR SADLER (S)</u>
11/17 Th	Pelvis; Female Internal Genital Organs	AN	ma: 236-245 MD: 344-349, 382-402, 434-438
11/22 Tu	<i>Team Based Learning Exercise (3 hrs) VDO & AN</i>		
11/23-11/27	<u>THANKSGIVING BREAK!!</u>		
11/29 Tu	<u>FINAL EXAMINATION (90 points)</u> Posterior Abdominal Wall, Perineum, Pelvis		

GROSS HUMAN ANATOMY (A550): Laboratory Schedule – Fall 2011

<u>DATE</u>	<u>AREA</u>	<u>ASSIGNMENT IN GRANT (14TH ED)</u>
8/16 Tu	Introduction	1-4 (and A550 course guide)
8/18 Th	Superficial Back	5-11
8/23 Tu	Deep Back, Back of Neck	12-15
8/25 Th	Spinal Cord	15-18 (CHECK WITH INSTRUCTOR BEFORE REMOVING MUSCLES)
8/30 Tu	Review/catch-up on dissection	
9/01 Tu	Body Wall (Thorax)	24-28, 54-59
9/06 Tu	Body Wall (Abdomen)	78-87
9/08 Th	Body Wall (Abdomen)	78-87
9/13 Tu	<u>EXAMINATION (60 points)</u> (Including osteology of the vertebral column & thoracic cage)	
9/20 Tu	Pleural Cavity, Lungs	59-63
9/22 Th	Mediastinum, Heart I	64-69
9/27 Tu	Heart II	67-73
9/29 Th	Superior and Posterior Mediastinum	73-77
10/04 Tu	Body wall (Abdomen), Peritoneal Cavity	87-91
10/06 Th	Celiac Trunk, Spleen, Liver, Gallbladder	91-96
10/11 Tu	Mesenteric Vessels and Intestines	96-101
10/13 Th	Duodenum, Pancreas and Hepatic Portal Vein	101-105 <u>DO NOT REMOVE GI TRACT</u>
10/20 Th	<u>EXAMINATION (100 points)</u>	
10/25 Tu	Team Based Learning exercise (no lab)	
10/27 Th	Posterior Abdominal Wall	103-109

GROSS HUMAN ANATOMY (A550): Laboratory Schedule – Fall 2011

<u>DATE</u>	<u>AREA</u>	<u>ASSIGNMENT IN GRANT (14TH ED)</u>
11/01 Tu	Posterior Abdominal Wall	109-112
11/03 Th	Posterior Abdominal Wall Spermatic Cord, Scrotum, Testis Determining Sex of the Pelvis	117-119 113-115
11/08 Tu	Perineum, Anal Triangle	113-117 <u>DO NOT DISARTICULATE HIP BONE</u>
11/10 Th	Male Urogenital Triangle Female Urogenital Triangle	119-124 133-137
11/15 Tu	Male Pelvis Female Pelvis	124-133 137-147 <u>DO NOT DO THE HEMISECTION DO NOT MOBILIZE LOWER EXTREMITY</u>
11/17 Th	Male Pelvis (continued) Female Pelvis (continued)	124-133 137-147
11/22 Tu	Team Based Learning exercise (no lab)	
11/23-11/27	<u>THANKSGIVING BREAK!!</u>	
11/29 Tu	<u>FINAL EXAMINATION (100 points)</u> (Including Osteology of the Pelvis)	