Health Sciences

3300A



ANATOMY OF THE HUMAN BODY – PART II

Course Coordinator: Daniel Belliveau, Ph.D.

School of Health Studies Faculty of Health Sciences

2011

HS 3300A

ANATOMY OF THE HUMAN BODY: A DESCRIPTION OF SYSTEMIC STRUCTURE AND FUNCTION: PART II

The prerequisite for this course is HS 2330A/B, HS 2300A/B (formerly 203a/b) or KIN 2222A (formerly KIN222a). If you do not have this prerequisite (or special permission to take the course), you are not eligible to take this course and must drop it immediately in order to make room for fellow students who have the prerequisite. Taking a course without the prerequisite is not grounds for appeal.

September to December, 2011

COURSE OUTLINE

THE HUMAN BODY: A gross anatomical description of the structure and function of the human body focusing on systems responsible for maintaining the body (nervous, respiratory, digestive, urinary, endocrine), and for its continuation through the transmission of genes (reproductive system, developmental anatomy). Emphasis will be on the biological functions as they relate to the anatomical structure. The impact of disease and/or trauma to the various organ systems will be discussed and related to the relevant anatomy. Students will be tested by multiple choice exams and case material integrating function and structure.

There are 3 lecture hours per week. (**Tuesday**, **8:30 am** – **9:30 am and Thursday**, **8:30 pm** – **10:30 am; Health Sciences Building** – **room 40**). There will be three assessments during the course consisting of multiple-choice questions, K-type (multiple-multiple), diagrams and case studies, completed by each student during in-class examinations. In preparation for the exams, students will be provided an opportunity to complete system reviews using WebCT based practice examinations in order to assess preparedness. The assessments are designed to encourage regular review and should be used as a way to keep up with the material.

COURSE OBJECTIVE

To give each student a advanced understanding of human gross anatomy and working knowledge of the anatomical systems of the human body with particular reference to cavity systems and human development. At the end of this course each student should know the anatomical, physiological, and pathological issues regarding the nervous, endocrine, respiratory, digestive and urinary systems. In addition, a strong working knowledge of human reproduction and development will be attained.

COURSE ADMINISTRATION

INSTRUCTOR

Dr. Dan Belliveau Health Sciences Building, room 221 Ext. 88235

OFFICE HOURS

Monday, Tuesday, Wednesday 1:30 – 3:30 OR by appointment

Due to the nature of research, there are times when unforeseen circumstances may prevent me from being present during scheduled office hours. I am always interested in hearing from students so feel free to contact me with some potential meetings times and I will respond with a mutually suitable date and time.

COURSE CONTACT

<u>Course E-mail address</u>: use the web site mail for course related questions. Anything of a sensitive nature may be addressed to the instructor's personal e-mail (<u>dbellive@uwo.ca</u>). Responses to inquiries via the web site email are sent to a mailbox on the web site and NOT to your personal account. Some external email services may encounter SPAM blocking or filtering. Important and timely information may not get to you if you are using another email service.

<u>Web site address</u>: http://webct.uwo.ca, Log onto WebCT OWL using your user name and password. You must be registered in this course to have access to the site and you must have an account established with UWO. All course-related materials are delivered through WebCT OWL.

EXAMINATIONS

The exams are two hours in length. Exams will consist of multiple-choice questions including standard and k-type questions (multiple-multiple). In addition there will be diagrams associated with some questions. The examinations are not cumulative. Please be aware that completion of the teaching material and the examination may be close together so it is important to keep up with the lectures.

	Examination 1 Friday October 14 th 5:00 – 7:00 PM Nervous and Endocrine systems Examination 2 Friday November 11 th 5:00 – 7:00 PM	30%	Each exam is two hours in duration and will consist of 75 questions. There will be multiple choice and K-type questions. Images will be used in the assessments. There will be questions based on the clinically relevant material reviewed in class or similar health-relevant issues.
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Respiratory, Digestive and Urinary systems Examination 3 December exam period Reproductive systems and human development	30%	
System Reviews * (There are 8 system reviews in total; the best 6 will be used to calculate the grade. There is no opportunity to make up these reviews. A missed quiz will count as 0)	5%	WebCT OWL will be the delivery mechanism for multiple choice-based questions following each body system. This will provide an opportunity to assess preparedness and familiarity with course material. Each review will be available for a period of 72 hours after the last lecture of a particular system.
Class Engagement *	5%	Active participation in the classroom will be assessed through a unique tool, <i>Top Hat Monocle</i> . A 70% participation rate would yield <u>full</u> class engagement marks. Proportional marks will be assigned for lower participation levels. (3 out of 5 marks) Some questions offered in class will be used as review and graded accordingly where a correct answer will be assigned a grade and an incorrect answer would not. (2 out of 5 marks)

^{*} In cases where a student is unable or unwilling to participate using Top Hat Monocle, they may elect to have the 5% grade moved to the systems review portion of the course. This election must be made by October 1st and is a permanent decision. The absence of registration for Top Hat Monocle by October 1st will be used to determine the students electing to move their class engagement grade.

MAKE-UP EXAMINATIONS

Only under exceptional circumstances will permission be granted for writing an exam on an alternate date. If the exam was missed due to illness, **proper documentation** must be provided to the School office (academic counselor) as soon as physically possible (see university policies below for further instruction). The counselor will contact the course instructor. *If approved*, *written makeup examinations will consist of short and long answer questions, case studies and image-based questions* based on anatomical and clinical material from lectures.

System Review quizzes offered through WebCT <u>cannot be made up</u>. Given the flexibility in the grading scheme, missed quizzes will be assigned a zero grade and considered one of the two grades that are dropped.

ROUNDING OF GRADES

This is a practice (for example, bumping a 79 to 80%) some students request. The practice will not occur in this course. The mark attained is the mark you achieved and the mark assigned; there is no rounding to the next grade level. Please don't ask me to do this for you. It degrades my experience as your professor and your experience as a student. We both have an appreciation of high standards

TOP HAT MONOCLE

I am excited to announce this class will be using the monocleCAT (monocle Computer Assisted Teaching) tool throughout the semester. monocleCAT is a web-based system that allows immediate interactive feedback and graphical simulations, to both aid and assess understanding of the course material. MonocleCAT feedback, questions and simulations are launched on demand by the professor during class. Students can participate using their laptops, netbooks, ipad, smartphones, or cell-phones. MonocleCAT questions, simulations and answers can also be reviewed by the student throughout the semester should they be made available by the professor. I anticipate utilizing a number of questions and the occasional demonstration in many lectures. Each student is expected to contribute actively to the questions and discussions. A class engagement grade of up to 5% is assigned to this contribution.

MonocleCAT is licensed by *student subscription*, *with unlimited courses per student*. (A student can access all of their courses using the system throughout the subscription term, with a single subscription.) Subscription keys are available at the university bookstore or directly on the Top Hat Monocle website at http://www.tophatmonocle.com/register/ Tutorials and technical support is available on the website once you register and login.

Questions will be asked throughout the lecture where challenging and interesting aspects of human anatomy are being discussed. This will allow an opportunity for the class to pause and consider how well a particular aspect of the material has been understood and could potentially be applied. Responses to the questions will be displayed immediately and taken up in class for discussion and clarification. For most questions, there is *no specific grade per individual question*. The evaluation is delivered in the form of a participation grade for your engagement during the entirety of the course. While Top Hat Monocle will require your cell phone number during the registration process, all information is used for the sole purpose of the course and to link participation (as correlated to a cell phone number or computer login) to a registered student in the course.

It is the responsibility of the student to ensure that they have registered an account with Top Hat Monocle and that it is current, activated and functional. Students must see their instructor if they have any concerns about whether or not they are using the technology correctly. Students must use their own login registration or cell phone. The use of somebody else's phone or login account in class constitutes a scholastic offence. The possession of a cell phone or computer belonging to another student will be interpreted as an attempt to commit a scholastic offence.

Student subscription: Can be obtained for the following durations: \$6.00 for 1 month

\$20.00 for 4 months \$59.00 for 24 months (2 years) \$129.00 for 60 months (5 years)

Technical Requirements:

Hardware / Software	Computer (PC or Mac)		
	Firefox 3.0 or later		
	IE 6.0 or later (requires Chrome Frame Plugin, System will prompt to install upon first usage)		
	Chrome 5.0 or later		
	Safari 4.0 or later		
	Adobe Flash Player		
Feature			
Questions and Feedback	PC, MAC, Smartphone or cellphone via text messaging capability		
Demonstrations	PC, MAC only. Smartphone currently in beta and scheduled for future release.		

EXPECTATIONS

You can expect me to be on time, answer your questions to the best of my ability, start class on time, and end class on time. I will arrive in the classroom 10 minutes prior to class time to field questions before the lecture. Class will begin promptly and end with sufficient time to exit the classroom and make your way to your next class. I may not know the answer to every one of your questions. I will however do my best to obtain an answer and discuss it at the next lecture.

I expect you to be on time for class, respect the instructor and your classmates when sharing an idea in class, and listen without disturbing others in class. In this course, I *encourage*, and expect, the use of cell phones or other communication devices for the purpose of interactive learning through Top Hat Monocle. However, incoming calls *will no be tolerated* so please set your phones to work in quiet mode. I also welcome the use of computers to take notes. I *do not condone* their use for surfing the web, chatting on MSN or other non-academic use while in class. It is disrespectful to me, your instructor, and even more so to your peers sitting around you who may be distracted by your actions. Due to the large capacity of the lecture hall, it is imperative that students enter and exit the room in a timely fashion so that our class and subsequent classes can be started on time.

THE TEXTBOOK

Recommended Textbook

Tortora, G.J. and Nielsen, M.T. Principles of Human Anatomy. (12th ed.) Wiley: Hoboken, NJ. 2012.

Alternative Textbooks

Earlier editions of Tortora, G.J. and Nielsen, M.T. <u>Principles of Human Anatomy</u>. Wiley: Hoboken, NJ.

Marieb, E.N. Mallatt, J. and Wilhelm, P.B. <u>Human Anatomy</u> (5th ed) Benjamin/Cummings: Menlo Park, California, 2008.

Supplemental Material

Should you find the material difficult, study guides such as colouring books and atlases may be of assistance. The bookstore caries a variety of books of this nature. Some possibilities include:

Krieger, P.A. A Visual Analogy Guide to Human Anatomy. (2nd ed.) Morton: Englewood, CO. 2009.

Hull, K.L. Coloring Atlas of the Human Body. Lippincott Williams and Wilkins: Baltimore, MD. 2010.

YOU ARE NOT REQUIRED TO KNOW ALL THE DETAILS IN THE TEXT. USE THE TEXT AS A REFERENCE AND REVIEW GUIDE. CONCENTRATE ON THE MATERIAL PERTAINING TO THE LECTURES AND WEB POSTINGS, UNLESS OTHERWISE SPECIFIED (e.g. A SECTION WITHIN A CHAPTER MAY BE ASSIGNED FOR READING). MANY OF THE DIAGRAMS USED IN CLASS ARE FROM THE TEXT, SO IT WILL BE A VALUABLE TOOL. THE QUESTIONS AT THE END OF EACH CHAPTER IN THE TEXT, ARE A GOOD EXAMPLE OF THE TYPE OF MULTIPLE CHOICE QUESTIONS TO EXPECT ON THE MIDTERMS AND FINAL. AS WELL, THE MULTIPLE CHOICE QUIZZES ON THE WEB SITE ARE OLD EXAM QUESTIONS. THERE IS NO DATA BANK OF QUESTIONS IN THE LIBRARY

UNIVERSITY POLICIES

STUDENT CODE OF CONDUCT

The purpose of the Code of Student Conduct is to define the general standard of conduct expected of students registered at The University of Western Ontario, provide examples of behaviour that constitutes a breach of this standard of conduct, provide examples of sanctions that may be imposed, and set out the disciplinary procedures that the University will follow. For more information, visit http://www.uwo.ca/univsec/board/code.pdf

ENGLISH PROFICENCY FOR THE ASSIGNMENT OF GRADES

Visit the website http://www.uwo.ca/univsec/handbook/exam/english.pdf

ACCOMMODATION FOR MEDICAL ILLNESS OR NON-MEDICAL ABSENCES

http://www.uwo.ca/univsec/handbook/appeals/accommodation_medical.pdf

The University recognizes that a student's ability to meet his/her academic responsibilities may, on occasion, be impaired by medical illness. Illness may be acute (short term), or it may be chronic (long term), or chronic with acute episodes. The University further recognizes that medical situations are deeply personal and respects the need for privacy and confidentiality in these matters. However, in order to ensure fairness and consistency for all students, academic accommodation for work representing 10% or more of the student's overall grade in the course shall be granted only in those cases where there is documentation indicating that the student was seriously affected by illness and could not reasonably be expected to meet his/her academic responsibilities.

A UWO Student Medical Certificate (SMC) is required where a student is seeking academic accommodation. This documentation should be obtained at the time of the initial consultation with the physician or walk-in clinic. An SMC can be downloaded under the Medical Documentation heading of the following website: https://studentservices.uwo.ca/secure/index.cfm.

Documentation is required for non-medical absences where the course work missed is more than 10% of the overall grade. Students may contact their Faculty Academic Counselling Office for what documentation is needed. Whenever possible, students who require academic accommodation should provide notification and documentation in advance of due dates, examinations, etc. Students must follow up with their professors and their Academic Counselling office in a timely manner. Documentation for any request for accommodation shall be submitted, as soon as possible, to the appropriate Academic Counselling Office of the student's Faculty of registration. For BHSc students, you may go to the School of Health Studies Office in HSB room 222.

SCHOLASTIC OFFENCES

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website: http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf

Additionally,

- 1. All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).
- 2. Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

SUPPORT SERVICES

There are various support services around campus and these include, but are not limited to:

- $Student\ Development\ Centre -- \underline{http://www.sdc.uwo.ca/ssd/}$ 1.
- Student Health -- http://www.shs.uwo.ca/student/studenthealthservices.html
 Registrar's Office -- http://www.registrar.uwo.ca/ 2.
- 3.
- Ombuds Office -- http://www.uwo.ca/ombuds/ 4.

Health Sciences 3300A

Anatomy of the Human Body: Part II

Course Schedule - Fall 2011

Classes: Tuesday 8:30 – 9:30; Thursday 8:30 – 10:30 Health Sciences Building, room 40

	One-hour class	Two-hour class
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Date	Subject		Topic Areas
September 8, 2011		Chapter 16	Course introduction
		Chapter 17	Organization of the nervous system
	_	Chapter 20	Cells of the nervous system
			Sensory receptors
) te		Spinal nerves
September 13, 2011		Chapter 17	Spinal cord
September 15, 2011	Nervous System	Chapter 18	The Brain
	l Sp	Chapter 20	Cranial nerves
	8		Ascending pathways
September 20, 2011	1	Chapter 20	Descending pathways
	Ž	Chapter 19	Autonomic nervous system
September 22, 2011		Chapter 19	Autonomic nervous system (continued)
		Chapter 21	Special senses:
			smell, taste, sight, hearing and balance
		Chapter 22	Hormones
	ر _ه		Hypothalamus and pituitary gland
September 27, 2011	Endocrine System	Chapter 22	Hypothalamus and pituitary gland (cont.)
September 27, 2011	E CL	Chapter 22	Thyroid, parathyroid and pancreas
September 29, 2011	ndocrin System	Chapter 22	Adrenal glands
September 25, 2011	Sy	Chapter 22	Ovaries and testes
			Pineal gland and thymus
			Other endocrine organs
October 4, 2011		Chapter 23	Organization of the respiratory system
October 4, 2011	п	Chapter 25	Nasal cavity and pharynx
October 6, 2011	je je	Chapter 23	Larynx and voice production
October 0, 2011	\S/	Chapter 23	Trachea
	S.		Bronchi
	>		Pleural cavity
October 11, 2011	100	Chapter 23	Lungs
00000111, 2011	, at	Chapter 25	Respiratory division (cellular structures)
	ļ.		Respiration (centular structures)
	Si		Respiration
	Respiratory System		
October 13, 2011			Content Review Session

Friday October 14, 2011 5:00 – 7:00 PM		EXAM 1: N	Vervous system and Endocrine System	
October 18, 2011	n	Chapter 24	Alimentary canal Peritoneum	
October 20, 2011	Digestive System	Chapter 24	Oral cavity Esophagus Stomach Small intestines	
October 25, 2011		Chapter 24	Large intestines Rectum and anus	
October 27, 2011		Chapter 24	Accessory organs Abdominal quadrants	
November 1, 2011	χ. ι	Chapter 24	Introduction to the Kidney	
November 3, 2011	Urinary system	Chapter 25	Nephron Ureters Urinary bladder Uretha Urination	
November 8, 2011	/e	Chapter 26	Male reproductive system Scrotum and testicles	
November 10, 2011	ctiv		Content Review Session	
Friday November 11, 2011 5:00 – 7:00 PM	Reprodu System	EXAM 2: Respiratory, Digestive and Urinary systems		
November 15, 2011	Male Reproductive System	Chapter 26	Penis	
November 17, 2011		Chapter 27	Reproductive system ducts Accessory glands Semen	
	ve	Chapter 27	Female Reproductive system Ovaries and uterus	
November 22, 2011	Female Reproductive System	Chapter 27	Vagina External genitalia Mammary glands	
November 24, 2011			Reproductive cycle	
	Human Development	Chapter 4	Fertilization First week of development Implantation	
November 29 , 2011		Chapter 4	Gastrulation Primary Germ layers	
December 1, 2011	H Deve	Chapter 4	Organogenesis Fetal development Labour and parturition	
December 6, 2011			Content Review Session	

December 10-21

EXAM 3: Reproductive Systems; Human Development