1. Course Information

Course Number: Anatomy & Cell Biology 3319
Course Name: Systemic Human Anatomy

Year: Fall/Winter Terms 2014 – 2015
Sections: Face-to-Face Lectures and Labs (Section 01)
On-line Lectures and Labs (Section 650)

Anatomy & Cell Biology 3319 is a full course which uses a systems approach to study the gross anatomical structures of the human body. In most cases, structure will be related to function by using clinical examples of the normal and diseased states. Systems covered include the central and peripheral nervous systems and special senses, skeletal, muscular, cardiovascular, respiratory, digestive, urinary and reproductive systems. Lectures will be mounted as pdf files on the course website prior to each class and will constitute course notes. Students are also required to purchase the Marieb textbook from the University Bookstore. This is available as hard copy textbook or electronic textbook (eBook) and supplemental material. See textbook details below. This is not a laboratory course but there is a mandatory 1 hour demonstration each week. The laboratory demonstration will complement the lecture material by using models, cadaveric material (ie. prosections), videos and diagrams to describe anatomical structures and relationships in 3 dimensions. Students in the On-Line course will be able to view both lectures and labs in real time and interact with the instructors remotely. Lectures will also be recorded and all students (F2F and OL) will have access to these archived lectures. There will be four quarterly tests during the academic year. Each term test will consist of 30 questions on lab material and 75 multiple choice questions on lecture material and readings and will last 2.5 hours. Each test will cover material for that quarter of the course and will account for 20% of the final mark. The lab mark will account for the final 20% of the final mark.

Lectures:

Face-to-Face course (001): Tuesday, Thursday 9:30 – 10:20; Room 101, North Campus Building.

On-line course (650): lectures are broadcast live Tuesday, Thursday 9:30 – 10:20 AM using Blackboard Collaborate virtual classroom software. Attendance during live times is not mandatory and all online lectures are recorded for future viewing (available to both F2F and OL students).

Laboratories:

Face-to-Face course (001): Labs are held in Dental Science Building Rm. 2005 on Fridays, 9:30 - 3:30 (6 sections; 1 hr each)

On-line course (650): Labs are broadcast on Thursdays, 3:30 – 5:00. Students in the on-line course (Section 650) can access the archived lab material at a later date.

Requisites:

Antirequisite(s): Anatomy and Cell Biology 2221

Prerequisite(s): Biology 2382B and registration in third or fourth year of a module offered by one of the Basic Medical Science departments or the Department of Biology; or permission of the department.

Corequisite(s): None

Extra Information: 2 lecture hours, 1 demonstration hour, 1.0 course. This is not a laboratory course.

Senate regulations regarding the student's responsibility regarding requisites:

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Please contact the course instructor if you require material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

2. Instructor Information

Instructors	Email	Office	Phone	Office Hr
Dr. Peter Merrifield (Course Coordinator)	pmerrifi@uwo.ca	MSB 428	86819	Appointment via e-mail
Dr. David Cechetto Dr. Steven Laviolette	David.Cechetto@schulich.uwo.ca Steven.Laviolette@schulich.uwo.ca	MSB 432 MSB 468	84166 80302	Appointment via e-mail

Sakai website:

All course information will be communicated via the course Sakai website. Students with Sakai issues should contact the Computer Support Centre at 519 661-3800.

3. Course Materials

1) Anatomy and Cell Biology 3319 Class Notes available on-line via Sakai

2) Human Anatomy, Marieb, Mallatt and Wilheld; 7th edition (eBook including MasteringA&P Web support) and a hard print copy of Brief Atlas of the Human body; 2nd Edition. Pearson/ Cummins Pub. Co. 2013. (ISBN-10: 0134016998 – cost $94.00). A print version of the textbook is also available as ISBN10: 0134033655 – cost $193.90).

3) OL course (Section 650) only: http://360anatomy.uwo.ca/

4) OL course (Section 650) only: Netter's 3D Interactive Anatomy: http://www.interactelsevier.com/netter (Access code will be supplied with course – do not purchase)

4. Evaluation:

There will be four quarterly exams. Each quarterly term exam will consist of 30 questions on laboratory material and 75 multiple choice questions from lectures and assigned textbook readings. There will be a total of 105 questions and the exam will last 2.5 hours.

Component Date	**% of Final Mark**
Quarterly Exams:	
October 17, 2014 -	20%
December, 2014 -	20%
February 27, 2015 -	20%
April, 2015 -	20%
Quarterly lab quizzes -	20% (5% each quarter)

A. Absence for medical illness:

Students must familiarize themselves with the Policy on Accommodation for Medical Illness: https://studentservices.uwo.ca/secure/index.cfm

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Dean's office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information please see: http://www.uwo.ca/univsec/handbook/appeals/medical.pdf
A student requiring academic accommodation due to illness, should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be found at: https://studentservices.uwo.ca/secure/medical_document.pdf

The Policy on Accommodation for Medical Illness is also available on the BMSUE secure site: www.uwo.ca/bmsc

B. Absence for non-medical reasons:

If you are unable to meet a course requirement for **non-medical reasons**, you must provide valid supporting documentation to the Dean's office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately

C. Special Examinations:

In the event that students cannot write the regularly scheduled Quarterly Course Exam for valid health or personal reasons, they must obtain permission to write a Make-up Exam from an Academic Counsellor in the Faculty of Science. Make-up Quarterly Exams will have a similar format to the regularly scheduled exams. The make-up exam will generally be scheduled for the week after the regularly scheduled exam. **Students who cannot write the scheduled class exam or the make-up exam will be required to write a Special Exam on the next quarterly test date which includes questions from the course material from the preceding two quarters.**

D. Support Services:

Registrar Services: http://www.registrar.uwo.ca
Academic Counselling (Science and Basic Medical Sciences):
http://www.uwo.ca/sci/counselling/index.html
USC Student Support Services: http://westernusc.ca/service
Student Development Services: http://www.sdc.uwo.ca
Student Health Services: http://www.shs.uwo.ca/

Students that are in emotional/mental distress should refer to Mental Health@Western http://www.uwo.ca/uwocom/mentalhealth/ for a complete list of options about how to obtain help.

E. Additional Information/Statements

Statement on Academic 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 Web site: http://www.uwo.ca/univsec/handbook/appeals/scholoff.pdf .

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.

5. Course Syllabus

LECTURES: FALL TERM, 2014

SECTION	DATE	TOPIC	MARIEB 7TH ED. (6TH ED.)
Introduction (Dr. Peter Merrifield)	Sept. 4	Introduction; Planes of Reference; Descriptive Terminology	pp 6-13 (6-12)
Embryology	9	Embryonic Period; Derivatives of the Germ Layers	pp 48-57 (48-57)
CNS (Dr. David Cechetto)	11	Introduction to the CNS	pp 350-357 (348-355),
	16	Development of the CNS	pp 53-54 (53-54); 369-371 (367-369); 375-377 (379-381)
	18	Cerebral Hemispheres	pp 388-397 (394-403; 405)
	23	Basal Ganglia	pp 398-399 (402-405)
	25	Diencephalon	pp 385-387 (390-393)
	30	Brain Stem and Cerebellum	pp 378-385; 432-434 (383-390; 431-432)
October	2	Spinal Cord	pp 407-413 (374-379); 363-364 (360-362); 444-446 (439-442)
	7	Sensory Pathways	pp 413-416 (412-415)
	9	Motor Pathways	pp 416-419 (415-417); 363-364 (361-362)
	14	Higher Functions and Limbic System	pp 388-399 (394-403); 399-401 (406-407)
	16	**Review**	

First Quarter Lab Quiz and Exam – Friday, October 17 (7:00 PM, NCB 101)

LECTURE SCHEDULE

FALL TERM, 2014 (con't)

SECTION	DATE		TOPIC	MARIEB 7TH ED. (6TH ED.)
CNS	Oct	21	Ventricles and Meninges (Jillian Phillips)	pp 377-378 (381-383); 401-407 (407-411)
Peripheral Nervous System		23	Cranial Nerves (TBA)	pp 432-444 (431-439)
		28	Spinal Nerves and Brachial Plexus (Oleksiy Zaika)	pp 444-453 (439-449)
			October 30 – 31 (Fall Study Break)	
	Nov	4	Autonomic Nervous System (Bayan Malakouti-Nejad)	pp 468-480 (463-474)
Special Senses		6	Taste and Olfaction (Eliot Winkler)	pp 489-492 (483-486)
Musculo-Skeletal System (Dr. Merrifield)		11	Introduction to the Skeletal System; Surface Landmarks of the Skull	pp 151-168 (148-165) 181 (178)
		13	Osteology of the Skull: Cranial Fossae and Foramina	pp 151-168 (148-165)
		18	Introduction to the Muscular System: Muscles of the Head (Facial Expression, Mastication and Tongue)	pp 262-263 (261-262); 266-270 (267-269); 270-285 (275-281)
		20	Axial Skeleton: Vertebral Column	pp 170-178 (167-174)
	.	25	Muscles of Thorax, Back and Neck	pp 178-181 (174-177); 284-292 (285-290)
		27	Bony Pelvis and Muscles of Abdomen	pp 194-198 (191-195) 293-295 (291-293)
	Dec	**2**	**Review**	

The Second Quarter Exam on Neuroanatomy and Musculoskeletal Structures of the Axial Skeleton will be scheduled during the December exam period on a date and time T.B.A. by the Registrar's Office

ANATOMY AND CELL BIOLOGY 3319

LABORATORY/DEMONSTRATION SCHEDULE

FALL TERM, 2014

Section		Date (650/001)	Topic
Intro/CNS	**Sept.**	4/5	No Lab
		11/12	Lab 1 – Anatomical Terminology / Intro to CNS
		18/19	Lab 2 - Cerebral Hemispheres; Basal Ganglia
		25/26	Lab 3 - Brain Stem and Cerebellum
	Oct.	2/3	Lab 4 - Spinal Cord
		9/10	Lab 5 - Motor and Sensory Pathways
		16/17	Lab 6 - Ventricles and Meninges

Friday October 17; Quarterly Exam 1 (7:00 PM, NCB 101)

		23/24	Lab 7 - Spinal Nerves and Brachial Plexus; Cranial Nerves

October 30 – 31 (Fall Study Break – No Lab)

	Nov.	6/7	Lab 8 – Autonomic Nervous System; Olfaction and Taste
	Nov.	13/14	Lab 9 - Osteology of the skull
		20/21	Lab 10 - Muscles of the Head; Vertebral Column
		27/28	Lab 11 - Axial Muscles – Thorax, Back, Neck, Abdomen

LECTURES: WINTER TERM, 2015

SECTION	DATE	TOPIC	MARIEB 7TH ED. (6TH ED.)
Musculoskeletal System - Appendicular (Dr. Steve Laviolette):			
January	6	Upper Extremity (Skeletal)	pp 186-194 (183-190) 298-303 (296-301)
	8	Upper Extremity	pp 302-308 (300-305)
	13	Upper Extremity	pp 305-310 (303-306)
	15	Upper Extremity	pp 310-314 (306-311)
	20	Lower Extremity	pp 194-204 (191-201); 315-318 (312-315)
	22	Lower Extremity	pp 318-322 (314-319)
	27	Lower Extremity	pp 323-328 (320-325)
	29	Joints	pp 209-232 (207-230)
Circulatory System: (Dr. Peter Merrifield)			
February	3	Heart: Structure and Function	pp 563-575 (556-568) 577-584 (570-576)
	5	Coronary and Pulmonary Circulation	pp 579-581 (572-573) 596-599 (589-592)
	10	Systemic Circulation: Principal Arteries	pp 600-606 (592-598)
	12	Principal Arteries and Veins	pp 606-618 (598-609)
		February 16– February 20 (Spring Study Break)	
Respiratory System:			
	24	**Review**	
	26	Nasal Cavity, Pharynx and Larynx	pp 646-654 (636-644) 166-168 (164-165)

Quarterly Exam 3: Friday, February 27 (7:00 PM, NCB 101)

Winter Lecture Schedule 2015... continued

Section	Date	Topic	MARIEB 7TH ED. (6TH ED.)
Respiratory System:			
March	3	Trachea, Bronchial Tree, Pleura and Lungs	pp 655-667 (645-657)
Digestive System:			
	5	Upper Digestive Tract	pp 676-692 (666-680)
	10	Stomach and Small Intestine	pp 692-700 (680-688)
	12	Large Intestine/ Accessory Digestive Organs	pp 700-711 (688-699)
Urinary System	17	Kidney and Ureters	pp 720-731 (707-718)
	19	Urinary Bladder and Urethra	pp 731- 736 (718-722)
Reproduct. System	24	Male: Scrotum, Testis and Spermatic Ducts	pp 744-749 (731-736) 777-779 (765-766)
	26	Male: Accessory Glands, Urethra and Penis	pp 749-753 (736-739) 296-297 (294-295)
	31	Female: Ovaries, Uterine Tubes	pp 755-760 (742-746)
	2	Female: Uterus, Vagina and Perineum	pp 773-774 (753-754) 766-767 (760-761) 296-297 (294-295)
April	**7**	**Review**	

The Fourth Quarterly Exam will be held during the Final exam period on a date and time T.B.A. by the Registrars office

ANATOMY AND CELL BIOLOGY 3319
LABORATORY/DEMONSTRATION SCHEDULE

Winter Term, 2015

Section		Date (650/001)	Topic
Musculo-Skeletal System	Jan.	8/9	Lab 1 - Upper Limb - muscles of shoulder/arm
		15/16	Lab 2: Upper Limb - muscles of forearm/hand
		22/23	Lab 3 - Lower Limb - muscles of hip and thigh
Circulatory System:		29/30	Lab 4 - Lower Limb - muscles of leg; joints
	Feb.	5/6	Lab 5 - Heart & Coronary/Pulmonary Circulation
		12/13	Lab 6 - Major arteries and veins
		19/20	**No Lab (Spring Study Break: February 16-20)**
		26/27	Lab 7 - Respiratory System

Quarterly Exam 3: Friday, February 27; 7:00pm (NCB 101)

Digestive System:	March	5/6	Lab 8 - Upper Digestive Tract
		12/13	Lab 9 - Lower Digestive Tract & Accessory organs
Urinary system:		19/20	Lab 10 - Urinary system
Reproductive System:		26/27	Lab 11 - Reproductive System – Male and Female
	April	**2/3**	**No Lab (Good Friday: April 3)**

*** The last quarterly exam on the Respiratory, Digestive, Urinary and Reproductive Systems will be held during the final exam period.**

DEPARTMENT OF ANATOMY & CELL BIOLOGY
WESTERN UNIVERSITY

COURSE DESCRIPTION AND METHOD OF EVALUATION
ANATOMY AND CELL BIOLOGY 3319

This course will study the gross anatomy of the whole human body. This will take two full terms. There will be four tests during the academic year. Each exam will cover material for that quarter of the course and will account for 20 % of the final mark. **The fall mid-term test will be held on Friday, October 17, 2014. The winter mid-term exam will be held on February 27, 2015.** The two term tests (in December and April) will be held during the University scheduled end-of-term examination periods (times and dates T.B.A.). The remaining 20% of the final mark will be obtained from four quarterly lab quizzes (5% each) held concurrently with the course exam. The four laboratory quizzes will consist of 30 short answer questions based on the laboratory material. Students are reminded that approval for writing a make-up exam must be obtained by the student from the Science Councilors in the Deans Office, Faculty of Science (WSC 191). The make-up exam will be similar format to the class exam – 75 multiple choice questions from the lectures, readings and 30 questions from laboratory demonstrations. There will be one make-up exam scheduled after the class exam. Students who cannot write the scheduled class or make-up exam will be required to write a special exam on the next quarterly test date which includes 75 questions from the course material from the preceding two quarters.

SUMMARY OF MARK ALLOCATION

Date	Topic	Final Grade
October 17 (7:00 pm)	**Term Test 1** Introduction, Embryology, Central Nervous System	**20 %**
December (Time and Date: TBA by the Registrar's Office)	**Term Test 2** Central Nervous System (con't), Peripheral Nervous System, Special Senses, Axial Musculo-Skeletal Structures	**20 %**
February 27 (7:00 pm)	**Term Test 3** Musculoskeletal of Limbs; Cardiovascular System	**20 %**
April (TBA by the Registrar's Office)	**Term Test 4** Respiratory, Digestive, Urinary and Reproductive System	**20 %**

***The remaining 20% is obtained from the quarterly lab quizzes** (5% each).