Human Anatomy and Physiology (Biol 2105) – Fall/Winter 2009/2010
Information about the course

Course instructor: Dr. Carolyn Gagne
Office
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Office hours: immediately before lectures or by appointment (Send an e-mail indicating several times that suit you and I will pick one that fits my schedule.)

Prerequisites: none

Required Text: **(Lecture)** E. Marieb 2009. *Essentials of Human Anatomy & Physiology*, 9th ed. Pearson/Benjamin Cummings. ISBN: 978-0-321-51353-3.
(Lab) E.N. Marieb & S.J. Mitchell 2009. *Human Anatomy & Physiology Laboratory Manual*, 9th ed. Pearson/ Benjamin Cummings. ISBN: 978-0-321-54246-5.

Lectures (3hrs/week): Tuesdays @ 7:00pm

Labs (3 hrs/week): Will be held at the Great Lakes Forestry Centre on Thursdays at 7:00 p.m.

General course description: This course describes basic human anatomy and physiology at the cellular, tissue, organ, and system levels of organization. Concentrates on the clinical applications of anatomy and physiology. *Students may not retain credit for both BIOL 2105 E and BIOL1700 E or 2107 E. (LEC 3, LAB 3) (6 cr)*

Course learning objectives: This course will introduce you to concepts and principles of human anatomy and physiology. Students will learn about: the appropriate terminology related to the organization of the human body, the chemical composition of the body and important chemical processes, the cellular level of performance in the human body, the various body systems and how they are integrated, `the concept of homeostasis and the interaction of all life processes.

Learning Outcomes:
This course will enable students to:

- **Define and explain** key terminology related to the organization, structure and function of the human body;
- **Gain a deeper understanding** of the chemical composition and chemical processes of the human body;
- **Gain a deeper understanding** of the cellular level of function and energy metabolism at the cellular level.
- **Develop an appreciation of** the various types of tissue in the human body and their function.
- **Develop an appreciation for** the relationship between the structure and function of the human body.

- **Gain a deeper understanding** of the location, structure and function of the tissues and organs related to each organ system of the body.
- **Understand and apply** the clinical relevance of anatomic structures.
- **Understand and apply** the concept of homeostasis and the integration of all body systems.

Lecture Outline: Fall Semester 2009

Week	Subject	Chapter in Text
September 15	1. The Human Body: Orientation	1
September 22	2. Basic Chemistry: Matter and Energy, Chemical Bonds, Chemical Reactions	2
September 29	3. Biochemistry	2
October 6	4. Cellular Anatomy and Physiology	3
October 13	FOUNDER'S DAY – NO CLASS	
October 20	5. Body Tissues	3
October 27	Midterm Exam I (in-class) 6. Skin and Body Membranes	4
November 3	7. The Skeletal System	5
November 10	8. The Appendicular Skeleton, Joints	5
November 17	9. The Muscular System	6
November 24	Midterm Exam II (in-class) 10. The Nervous System	7
December 1	11. Special Senses	8
December 8	12. The Endocrine System	9
	Fall Final Exam	

Lecture Outline: Winter Semester 2010

January 5	13. Blood	10
January 12	14. The Cardiovascular System	11
January 19	15. The Lymphatic System and Body Defenses	12
January 26	Midterm Exam III (in-class)	

	16. The Respiratory System: Functional Anatomy	13
February 2	17. Respiratory Physiology	13
February 9	18. The Digestive System	14
February 23	19. Body Metabolism	14
March 2	Midterm Exam IV (in-class) 20. The Urinary System: Structure and Function of the Kidney	15
March 9	21. The Urinary System: Formation of Urine, Maintaining Fluid Balance	15
March 16	22. The Reproductive System	16
March 23	23. Pregnancy and Embryonic Development	16
March 30	24. Integration of Body Systems: Final Review	

Winter Final Exam

Method of Evaluation:

Fall Term	
Midterm tests (2)	20%
In-class Quizzes	10%
Final Exam	35%
Laboratory	35%
	100%

Winter Term	
Midterm tests (2)	20%
In-class Quizzes	10%
Final Exam	35%
Laboratory	35%
	100%

BIOL 2105 – Human Anatomy and Physiology

Lab Schedule: Fall/Winter 2009; Lab: Monday 7:00-10:00 p.m. (3 hours)

Please note that you are required to view an instructional video and take a short quiz before using

the lab. This is to be done outside of lab time. The link to the video is:

Biology Lab Safety http://courses.algomau.ca/course/category.php?id=12
Enrollment Key= biolab

Week	Subject
Lab 1 (Sept. 17):	Orientation of the Human Body
Lab 2 (Sept. 24):	Organ Systems Overview
Lab 3 (Oct. 1):	The Microscope
Lab 4 (Oct. 8)	The Cell: Anatomy and Division
Lab 5 (Oct. 15)	The Cell: Transportation and Permeability
Lab 6 (Oct. 22):	Classification of Tissues
Lab 7 (Oct. 29):	Mid-term Exam (first hour) The Integumentary System and Body Membranes
Lab 8 (Nov. 5):	The Skeletal System, The Axial Skeleton
Lab 9 (Nov. 12):	The Appendicular Skeleton, Articulations and Movements
Lab 10 (Nov. 19):	The Muscular System (please bring shorts)
Lab 11 (Nov. 26):	The Nervous System: Histology, The Brain and Cranial Nerves
Lab 12 (Dec. 3) :	The Spinal Cord, Spinal Nerves and Autonomic Nervous System, Reflexes
Fall Final Exam	
Lab 13 (Jan. 7) :	Endocrine System Blood
Lab 14 (Jan. 14)	The Heart : Sheep Heart Dissection
Lab 15 (Jan. 21)	The Lymphatic System
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Lab 16 (Jan. 28)	The Respiratory System
Lab 17 (Feb. 4)	Respiratory System Physiology
Lab 18 (Feb. 11)	Mid-term Exam (first hour) The Digestive System
Lab 19 (Feb. 25)	Digestive Processes

Lab 20 (Mar. 4) Structure and Function of the Urinary System

Lab 21 (Mar. 11) Urinalysis

Lab 22(Mar. 18) Reproductive Anatomy

Lab 23 (Mar. 25) Embryology and Principles of Heredity

Winter Final Exam

Required Lab Reports: Lab exercises are included in the required lab manual. Exercises are to be completed during lab time and submitted at the end of each lab.

Method of Evaluation:

Fall Term	
Weekly Exercises	50%
Mid-term Exam	20%
Final Exam	30%
	100%

Winter Term	
Weekly Exercises	50%
Mid-term Exam	20%
Final Exam	30%
	100%

Penalty for Late Assignments: Late assignments will result in a deduction of 10% in your grade for every late day, to a maximum of 50%. If you have a legitimate reason that the work cannot be finished in a timely fashion, please discuss it with me beforehand.

AUC Attendance Policy: *The general regulations of the university require punctual and regular attendance at the various academic exercises. If there are extenuating circumstances related to an absence, the instructor should be notified. Absences in excess of 20% may jeopardize receipt of credit for the course.*

Academic Integrity. Algoma University College values academic integrity and takes a very serious view of such offences such as cheating, plagiarism and impersonation. Penalties with dealing with such offences will be strictly enforced. For a comprehensive description of these offences and penalties, students are encouraged to consult the Student Code of Conduct and Disciplinary Procedures (please see the Academic Calendar and/or www.algomau.ca/policies for more information).