

# HUMAN ANATOMY AND PHYSIOLOGY HONORS 2017-2018

Mr. Aboulafia

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Room 108

Please use email to contact me... it is the best way to guarantee a timely response.

**Textbook:** Essentials of Human Anatomy and Physiology; Pearson Cost of replacement: \$152

**Course Description:** This is an introductory course in human anatomy and physiology. This course will develop your understanding regarding the structure and function of the human body. It is a science elective and it is strongly suggested the student has a considerable and profound interest in the study of the systems of the human body.

**Topics of Study:** Please note that the time spent on each chapter may vary.

<b>1. Organization of the Human Body</b>	<b>Chap. 1</b>	<b>1.5 weeks</b>
<b>2. Cells and Tissues</b>	<b>Chap. 3</b>	<b>2 weeks</b>
<b>3. Integumentary System</b>	<b>Chap. 4</b>	<b>2 weeks</b>
<b>4. Skeletal System</b>	<b>Chap. 5</b>	<b>3.5 weeks</b>
<b>5. Nervous System</b>	<b>Chap. 7</b>	<b>2 weeks</b>
<b>6. Sensations</b>	<b>Chap. 8</b>	<b>2 weeks</b>
<b>7. Endocrine System</b>	<b>Chap. 9</b>	<b>2 weeks</b>
<b>8. Urinary System</b>	<b>Chap. 15</b>	<b>2 weeks</b>
<b>9. Muscular System</b>	<b>Chap. 6</b>	<b>3 weeks</b>
<b>10. Digestive system</b>	<b>Chap. 14</b>	<b>4 weeks</b>
<b>11. Reproductive System</b>	<b>Chap. 16</b>	<b>3 weeks</b>
<b>12. Blood</b>	<b>Chap. 10</b>	<b>2 weeks</b>
<b>13. Cardiovascular system</b>	<b>Chap. 11</b>	<b>3.5 weeks</b>
<b>14. Lymphatic &amp; Respiratory Systems</b>	<b>Chap. 12-13</b>	<b>2 weeks</b>

**SAP1. Students will analyze anatomical structures in relationship to their physiological functions.**

- Apply correct terminology when explaining the orientation of body parts and regions.
- Investigate the interdependence of the various body systems to each other and to the body as a whole.
- Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.
- Relate cellular metabolism and transport to homeostasis and cellular reproduction.
- Describe how structure and function are related in terms of cell and tissue types.

**SAP2. Students will analyze the interdependence of the integumentary, skeletal, and muscular systems as these relate to the protection, support and movement of the human body.**

- a. Relate the structure of the integumentary system to its functional role in protecting the body and maintaining homeostasis.
- b. Explain how the skeletal structures provide support and protection for tissues, and function together with the muscular system to make movements possible.

**SAP3. Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.**

- a. Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.
- b. Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.
- c. Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.

**SAP4. Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.**

- a. Describe the chemical and physical mechanisms of digestion, elimination, transportation, and absorption within the body to change food and derive energy.
- b. Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.
- c. Relate the role of the urinary system to regulation of body wastes (i.e. water/electrolyte balance, volume of body fluids).
- d. Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.
- e. Describe the effects of aging on body systems.

**SAP5. Students will analyze the role of the reproductive system as it pertains to the growth and development of humans.**

- a. Explain how the functions of the reproductive organs are regulated by hormonal interactions.
- b. Describe the stages of human embryology and gestation including investigation of gestational and congenital disorders (e.g. ectopic pregnancy, miscarriage, cleft palate, hydrocephaly, fetal alcohol syndrome).
- c. Describe the stages of development from birth to adulthood (i.e. neonatal period, infancy, childhood, adolescence and puberty, and maturity).

**Grade Determination:** Fulton County Grading Scale will be used.

A = 100-90    B = 89-80    C = 79-70    Below 70 is failing

<b>Tests</b>	<b>35%</b>
<b>Quizzes</b>	<b>15%</b>
<b>Classwork/Homework</b>	<b>10%</b>
<b>Labs</b>	<b>25%</b>
<b>Final Exam/Research Project</b>	<b>15%</b>

**Honors Points:** Seven honors points will be added to the grade (over 70) at the end of each semester. They will not appear on the 6-week progress reports.

**Northview Recovery Procedure**

Opportunities for students to recover from a low/failing *cumulative* grade will be provided when all work required to date has been completed and the student has demonstrated a legitimate effort to meet all course requirements. *Students who have not attempted to complete all course requirements are not eligible for recovery.*

Students must contact the teacher concerning recovery opportunities at the time his/her grade falls below 74. Recovery work must be completed within ten school days prior to the end of the semester. The nature and type of recovery assignment is given at the discretion of the teacher.

**Honor Code:** As explained in the student handbook, cheating is defined as "the giving or receiving, in any form, information relating to a gradable experience." Violations of the honor code will result in a zero for the assignment, plus an honor code violation form placed in the student's disciplinary file. Read the handbook carefully to fully understand what constitutes a violation.

**Home Access Center:** All parents may access student grades at any time using Home Access Center. Please visit the school web site [www.northviewhigh.com](http://www.northviewhigh.com) and go to parent information to register for Home Access Center. A few days after you register you may come by the school office to receive your password and begin accessing student grades and attendance.

### **Classroom Guidelines:**

1. When the tardy bell rings you should be in the classroom and in your seat so that roll can be taken. Tardy guidelines are in the student handbook.
2. Please bring your textbook, notebook, and something to write with to class every day.
3. No food or drink will be allowed in the classroom.
4. Please do your best to keep the classroom neat and orderly. This includes proper lab cleanup, clearing your desktop, and putting chairs back.
5. If you have a question or want to give an answer, please raise your hand. It is considered unacceptable behavior to talk while the teacher is talking or giving instructions without being recognized by the teacher.
6. Tests will be announced well in advanced of the date given. Therefore, an absence the day before a test does not excuse you from that test unless you miss new material or are involved in special circumstances to be determined by the teacher.
7. Any makeup work will be discussed on an individual basis. It is the responsibility of the student to initiate makeup requests.
8. Extra help is always available and will be discussed on an individual basis. Please ask for help!
9. Every student in the classroom is entitled to a safe and respectful environment. This will be adhered to without exception on a daily basis.