

CHAPTER 1: AN INTRODUCTION TO A&P 1

TEXT READING ASSIGNMENT:

Preface: To the Student pages xxii-xxxv. Read the instructions for using the text. Review the supplements to the text book.

Chapter 1: text pages 1-14 for lecture. Text pages 15-22 for laboratory 1.

Who will you contact if you miss class or need help with notes?

Name	E-mail	Phone number

I. Syllabus (see Syllabus)

II. Introduction to Computer Aids to A&P I

Blackboard demonstration	Notes:
A.D.A.M. demonstration	Notes:
Interactive CD-ROM	Notes:
Companion Website www.aw.com/martini/	Notes:

III. Study Habits (yes, you'll have to study in A&P).

HOMEWORK ASSIGNMENT – Use your textbook and pages 1-14 to complete pages 2-6 of your notes. See me if you need help with the homework assignment. Complete before class on Friday.

Define the following terms:

Anatomy –

Physiology –

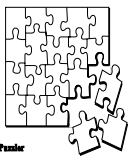
Systemic Anatomy –

Systemic Physiology –

Gross Anatomy –

Cell Physiology –

Pathological physiology –

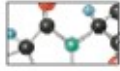
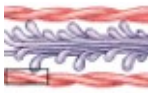

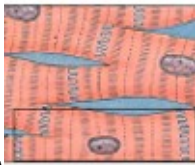
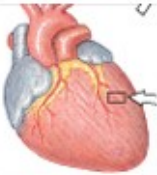



True or False. Read the statements about the heart and determine whether they are T or F. If False, then correct the statement to make it true.

- _____ 1) Anatomists measure how much blood is pumped per minute and determine how heart rate is regulated.
- _____ 2) Physiologists measure the number chambers in the heart and the thickness of the walls of each chamber.
- _____ 3) Anatomical descriptions of the heart provide the underlying basis for explaining how the heart pumps blood

V. Levels of Biological Organization

A. Hierarchical Organization

Level	What
1) Atoms 	
 2) Molecules (chemicals)	
 3) Cells	
 4) Tissues	
 5) Organs	
6) Organ systems	

<p>7) Organism</p> 	
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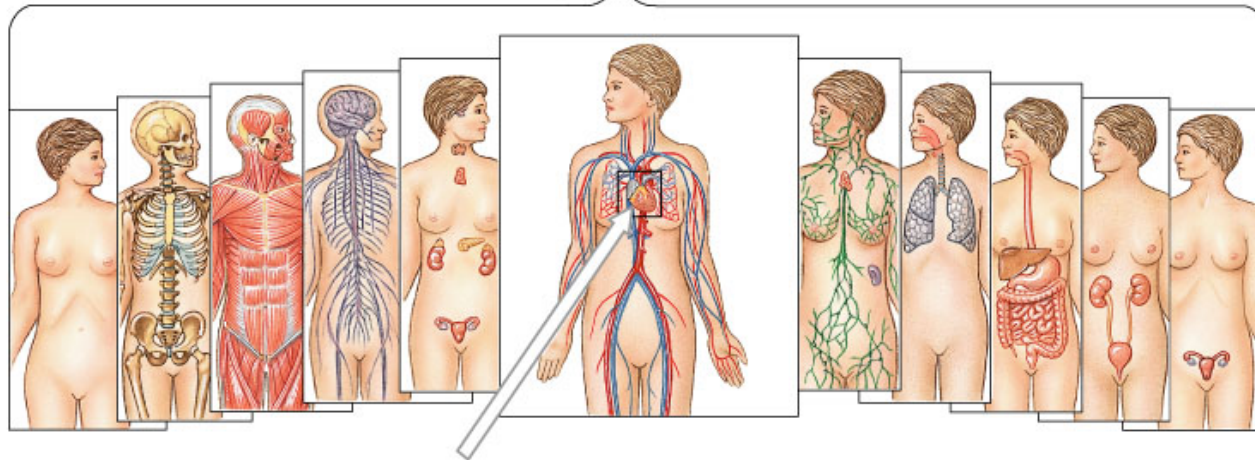
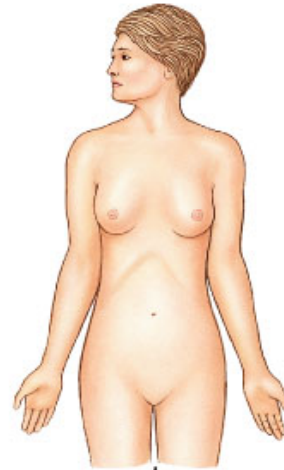
B. Introduction to the Organ Systems

Organ System	Major Organs	Functions
Integumentary		
Skeletal		
Muscular		
Nervous		
Endocrine		

Cardiovascular		
Lymphatic		
Respiratory		
Digestive		
Urinary		
Reproductive		

QUESTION: Does structure (anatomy) of the human body determine function (physiology)? Explain.

Label the systems below



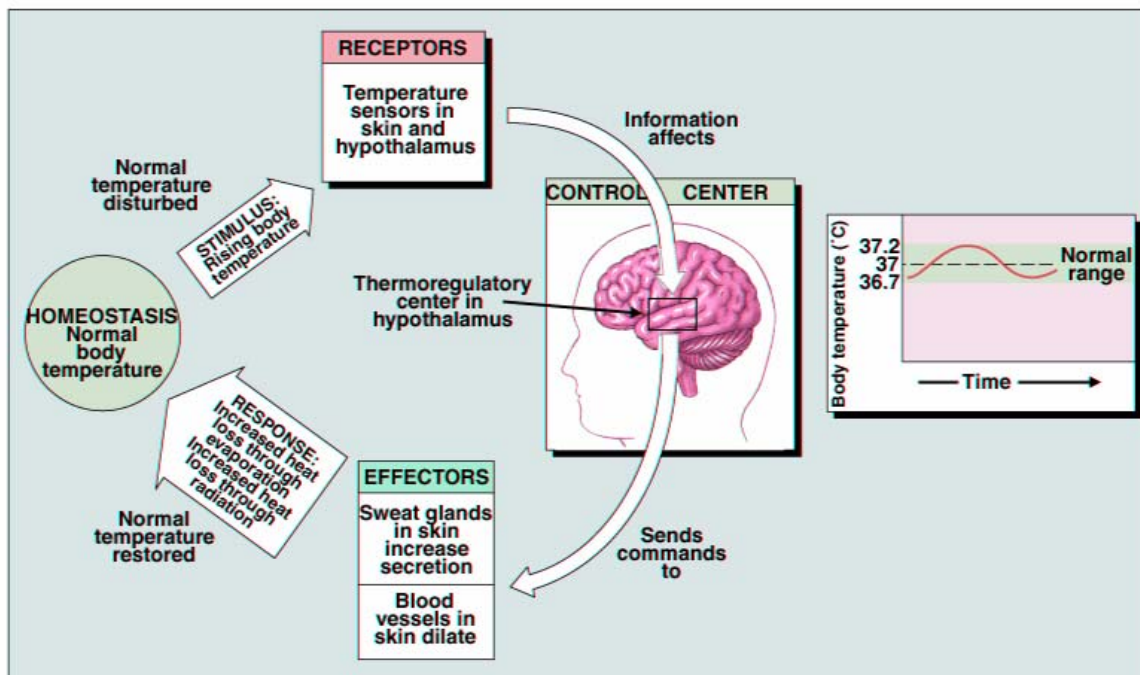
VI. Regulation of Body Function

A. Purpose

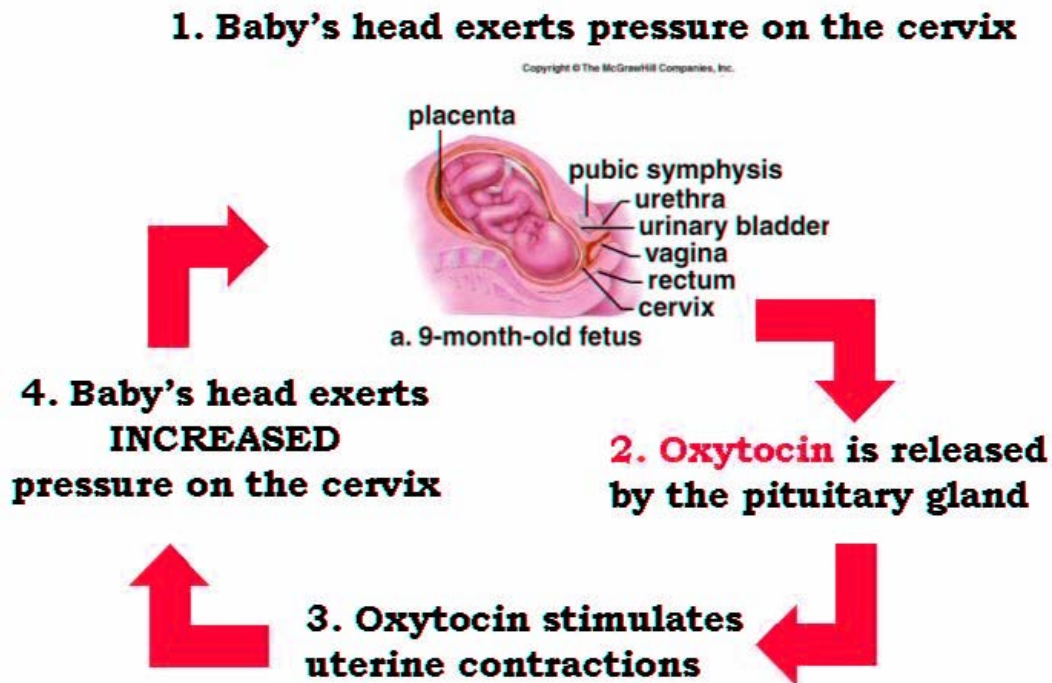
Homeostasis -

B. Feedback Control Mechanisms

1) Negative Feedback Control -



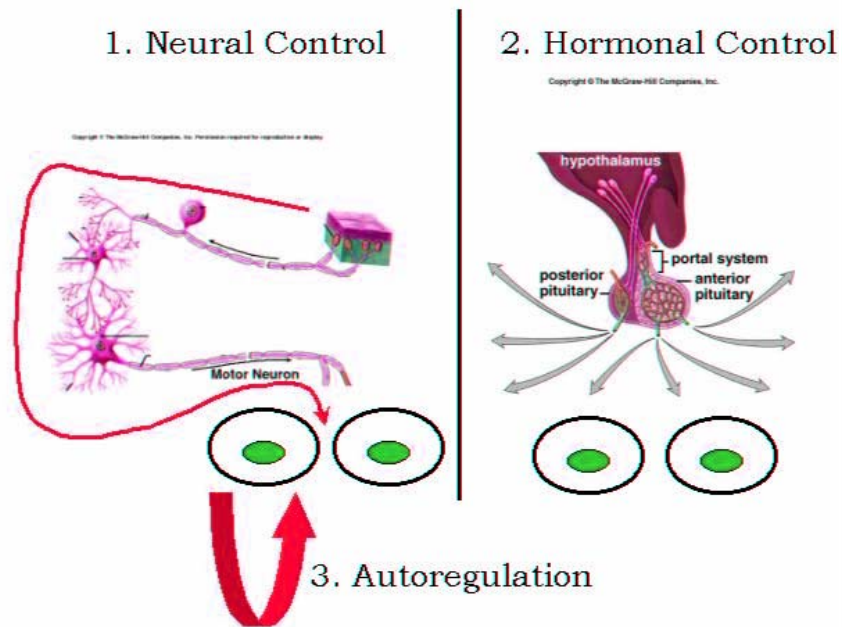
2) Positive Feedback Control -



C. Control (Organ) Systems of the Body

Extrinsic Control –

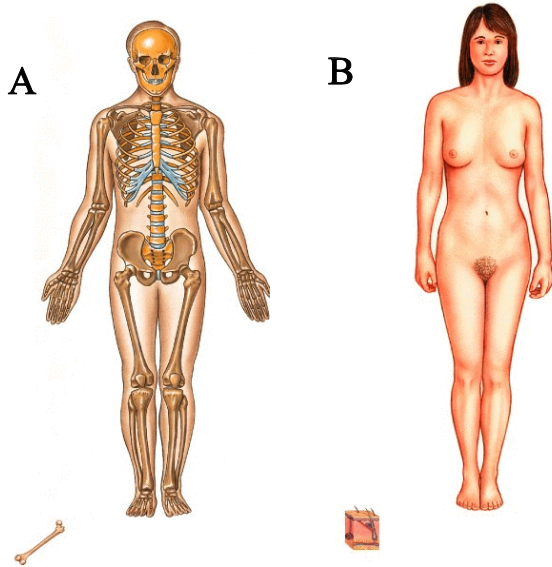
Autoregulation –



Chapter 1 Assignments

Lecture Guide

1. Define anatomy, physiology. Explain the difference between the two terms and how anatomy and physiology are interrelated.
2. Define homeostasis.



3. Identify the systems labeled A and B above

A _____ B _____

4. Name the levels of biological organization that are below the level of organization depicted in A and B above.
5. Name the levels of biological organization that are above the level of organization depicted in A and B above.
6. Using your textbook, name the tissues in system A above.
7. Using your textbook, name some cell types found in system B above.
8. If heart rate is regulated by a negative feedback control mechanism, when heart rate increases above the set point feedback control will (increase/decrease/not change) heart rate. (Circle your answer)

9. Fill in the table below by identifying the type of feedback control associated with each of the paired stimulus-response conditions.

Stimulus	Response	Type of Feedback Control
increased blood pressure increases vascular "stretch"	decreased blood pressure reduces vascular "stretch"	
increased bacterial endotoxins during infection	increased body temperature during infection	
increased CO ₂ in blood	increased breathing rate lowering CO ₂ in blood	

10. Fill in the table below by identifying the type of control system associated with the responses below. Use your textbook if necessary.

Response	Control System
Release of an ovum during ovulation.	
Constriction of the pupil by the iris when the eye is presented with bright light.	
Regulation of basal metabolic rate.	
Extension of the lower leg when the patellar tendon is struck with a reflex hammer (knee-jerk reflex).	

Textbook

Chapter 1 (pages 25) – answers are on Page A-1 of your text.

Level 1 Reviewing Facts and Terms: 1-10, 16-19

Level 2 23, 28

Level 3 Critical Thinking and Clinical Application: 29, 30

Student Study Guide (Optional)

Chapter 1 (pages 1-19)

(L1): Multiple choice: 1, 2, 4-11 (for lab do 12-20)

Completion: 1-14; (for lab do 15-21)

Matching: part 1

Drawing/illustrating (for lab do figure 1, 1-5)

(L2): Concept Synthesis: Map I (for lab Map II)

Multiple choice: 1-3 (for lab do 4-6, 12)

Body Trek

Completion: omit

Short answer essay: 2-4 (for lab do 5-7)

(L3): Critical Thinking/Application: 7

Note: Much of the Chapter 1 material on anatomical terminology and body organization will be introduced in lab. An assignment will be given in lab.

Answers to Chapter 1 Study Guide questions are located on pages 603-605 of the study guide.

Anatomy 360 CD

FOR LAB: Review learning activities under Anatomy Introduction: Surface Anatomy/Orientation/Topography