

CHAPTER 1

THE HUMAN ORGANISM

CHAPTER OVERVIEW: This chapter introduces some of the key concepts that are elaborated throughout the rest of the text. Students are given some possible frameworks for organizing the facts and ideas of human anatomy and physiology. A basic orientation to the human body plan is presented, including body cavities and serous membranes. The need for precision and reference points in understanding anatomical terminology is touched on briefly here but is fundamental to future discussions of anatomical location. The key physiological ideas of positive and negative feedback are introduced here and are continually revisited in later discussions of internal control systems and coordination of body function.

OUTLINE (one fifty-minute lecture)
Seeley, A&P, 5/e

Chapt. Topic Outline, Chapter 1
Object.

Figures & Tables Transparency
Acetates

1; 2	I. Anatomy - definition and approaches to human anatomy, p.2		
3	A. Microscopic Anatomy 1. Cytology 2. Histology B. Gross Anatomy 1. Systemic		
10	2. Regional		
10	C. Surface Anatomy D. Anatomical Imaging	Clinical Focus, p. 4-5	
1; 2	II. Physiology - definition and approaches to human physiology, p. 2 A. Cell physiology (cell level) B. Neurophysiology (system level) C. Human physiology (organism level)		
3	III. Levels of Structural and Functional Organization, p. 3 A. Chemical B. Organelle D. Cell E. Tissue	Fig. 1.1, p.3	TA-1

Chapt. Object.	Topic Outline, Chapter 1	Figures & Tables	Transparency Acetates
	F. Organ	Fig. 1.2, p.6-7	
4	G. Organ system	Fig. 1.2, p.6-8	TA-2
	H. Organism		
	IV. The Human Organism, p. 3		
5	A. Characteristics of Life		
	1. Organization		
	2. Metabolism		
	3. Responsiveness		
	4. Growth and Development		
	a. Differentiation		
	b. Morphogenesis		
	5. Reproduction		
6	B. Biomedical Research	Clinical Note, p.9	
7	V. Homeostasis, p. 9	Fig. 1.3, p.9	TA-3
7	A. Negative Feedback		
	1. Definition	Fig. 1.4, p. 10	TA-4
	2. Examples	Fig. 1.5, p.11 Predict Quest. 2	TA-5
7	B. Positive Feedback		
	1. Definition		
	2. Examples	Fig. 1.6, p.12 Fig. 1.7, p.12 Fig 1.8, p. 13 Predict Quest. 3	TA-6 TA-7 TA-7
	VI. Terminology and the Body Plan, p. 12		
8	A. Directional Terms	Table 1.1, p.14 Fig. 1.9, p.15 Predict Quest. 4, 5	TA-8
9	B. Planes of Section	Fig. 1.10, p. 16 Fig. 1.11, p. 17	TA-9 TA-10
10; 11	C. Body Regions	Fig. 1.12, p. 18	TA-11

Chapt. Object.	Topic Outline, Chapter 1	Figures & Tables	Transparency Acetates
		Fig. 1.13, p. 18 Predict Quest. 6	TA-12
12	D. Body Cavities	Fig. 1.14, p. 19	TA-13
13,14; 15,16	E. Serous Membranes	Fig. 1.15, p. 19 Fig. 1.16, p. 19	TA-14 TA-15

IMPORTANT CONSIDERATIONS: The first lecture can help set the tone, goals and expectations for a course. Textbooks and outlines are of minimal aid to teaching by themselves. Those of us involved with the development of this textbook and its ancillary materials certainly hope they were adopted with the intent of helping students develop their thinking skills in the process of learning anatomy and physiology. As such it is recognized that not all of the factual content contained in the book will necessarily be "covered" by every faculty in every department that adopts the text. The context and intended purposes of the course should strongly influence the relative weight given to any particular topic.

No two populations of students have the same background or the same ultimate objectives in studying anatomy and physiology. A course primarily meant to produce detailed and specialized content mastery will be different in design and focus compared with courses taught primarily for general education science purposes. Regular meetings with the course supervisor or department chair to discuss the thrust of the course you are being asked to teach can only help you make sure the course of instruction you are providing is congruent with the intended outcomes for the course. If possible meet with him/her as the course progresses to discuss your impressions of how the course is going and how students are reacting to what takes place in class and as they work on their own.

SEE INSTRUCTOR'S MANUAL AND COURSE SOLUTIONS MANUAL FOR ADDITIONAL RESOURCES.