

# Anatomy and Physiology Semester 1 Final Exam Study Guide

(Introduction, Chemical Level of Organization, Cell Structure and Function, Tissues, Integumentary System, Skeletal System, Urinary System)

**For the Final:** You can bring in one piece of paper no larger than 8 ½ x 11 inches (standard size). It can contain any information you would like as long as it is hand-written. No photocopying allowed. No pop-outs or fold-outs that increase the surface area of your paper. You can hand-draw pictures, but cannot cutout pictures from the internet or use previously drawn pictures. My advice is to use the terms and topics to guide you in putting information you don't remember on your review sheet, but I would have your essay answers written out on your review sheet.

## Important Terms

abdominopelvic cavity	cell membrane	DNA	glomerular capsule
abduction	centriole	dorsal	glomerulus
absorption	ceruminous glands	dorsal cavity	glucose
acid	chondrocyte	dorsiflexion	golgi apparatus
acne	chromatid	efferent arteriole	hilus
activation energy	chromatin	elastin	hinge joint
active transport	chromosome	electrolytes	histology
adduction	cilia	electron	holocrine
adenosine triphosphate	circumduction	element	homeostasis
ADH (antidiuretic hormone)	codon	endochondral bones	hormone
adipocyte	cofactors	endochondral ossification	hyaline
afferent arteriole	collagen	endocrine system	hydrogen ions
alkaline	collecting tubule	endocytosis	hydrolysis
amino acid	columnar	endoplasmic reticulum	hydroxide ions
amphiarthrosis	compact bone	enzymes	hypertonic
anaphase	connective tissue	epidermal injections.	hypodermis
anions	coronal plane	epidermis	hypotonic
apocrine	coronal suture	epiphyseal line	intercalated discs
apocrine sweat glands	cuboidal	epiphyses	interphase
appendicular	cutaneous membrane	epithelial tissue	intervertebral disc
arrector pili muscles	cuticle	eversion	intramembranous bones
assimilation	cytology	excretion	intramuscular injections
atlas	dehydration synthesis	extension	inversion
atom	dense connective tissue	external auditory meatus	ion
axial	deoxyribose	extracellular fluid	ionic bonds
base	dermis	facilitated diffusion	ionization
basement membrane	diaphragm	fatty acid	isotonic
buffer	diaphysis	fibroblast	isotope
canaliculi	diarthrosis	fibrocartilage	juxtaglomerular apparatus
carbohydrates	diffusion	fibrous capsule	lacunae
carboxyl groups	digestion	filtration	lambdoidal suture
cardiac muscle	digestive system	flagella	lamellae
cardiovascular system	disaccharide	flexion	lateral
cartilage	distal	frontal	lipids
cations	distal convoluted tubule	gliding joint	loose connective tissue

lymphatic system  
lysosomes  
macrophage  
major calyx  
marrow  
mass number  
mast cell  
mastoid process  
maxilla  
medial  
medullary cavity  
melanin  
melanocyte  
merocrine  
metabolism  
metaphase  
midsagittal plane  
minor calyx  
mitochondria  
mitosis  
monosaccharide  
mRNA  
mucous membranes  
muscle tissue  
nail bed  
nail root  
negative feedback  
nephron  
nervous tissue  
neuroglia  
neurons  
neutrons  
nucleic acid  
nucleoli  
nucleotide  
nucleus  
occipital

organ  
organ systems  
organs  
osmosis  
ossification centers  
osteoblasts  
osteoclast  
osteocytes  
osteon  
parasagittal  
parietal  
parietal pleura  
passive transport  
peptide bond  
pericardial  
pericardium  
perichondrium  
periosteum  
peritoneal cavity  
pH  
phospholipid  
pituitary gland  
pivot joint  
plantar flexion  
pleural cavity  
polysaccharide  
polyunsaturated  
positive feedback  
pronation  
prophase  
protein  
protons  
protraction  
proximal  
proximal convoluted tubule  
pseudostratified columnar  
renal column

renal corpuscle  
renal cortex  
renal cortex  
renal medulla  
renal pelvis  
renal pyramid  
renal sinus  
renal tubule  
respiratory system  
reticular fibers  
retraction  
retroperitoneal  
ribosomes  
ribosomes  
RNA  
rotation  
rough ER  
rRNA  
saddle joint  
sagittal plane  
sagittal suture  
saturated fat  
sebaceous glands  
selectively permeable  
serous membrane  
simple columnar  
simple cuboidal  
skeletal muscle  
smooth ER  
smooth muscle  
sphenoid  
squamosal suture  
squamous  
starch  
steroids  
stratified columnar  
stratified cuboidal

styloid process  
subcutaneous injections  
supination  
sutures  
synarthrosis  
synovial membranes  
telophase  
temporal  
temporal  
thoracic cavity  
thymine  
tissue  
transcription  
transitional epithelium  
translation  
transverse  
triglycerides  
tRNA  
uracil  
ureter  
urethra  
urinary bladder  
urinary system  
ventral  
ventral cavity  
vesicle  
visceral peritoneum  
visceral pleura  
vitamin D  
voluntary muscle  
zygomatic  
zygomatic arch

**Know the following concepts:**

Base pairing of Nucleic Acids(ch 2)  
Body cavities(ch1)  
Body planes(ch1)  
Body regions(ch1)  
Body Sections(ch1)  
Bone Disorders (terms)  
Bones of the skeleton(ch6)

Cell Structures(ch3)  
Phases of Mitosis(ch3)  
Skin Disorders(ch5)  
Structures of the Skin(ch5)  
Types of Tissues(ch5)

**Essays:**

- What is homeostatic regulation, and what is its physiological importance? (ch 1)
- What is the difference between exocrine secretion and endocrine secretion? (ch 4)
- Vanessa notices that even though her 80-year-old grandmother keeps her thermostat at 80<sup>0</sup>F, she still wears a sweater in her house. When Vanessa asks her grandmother why, her grandmother tells her she is very cold. Vanessa can't understand this and asks you for an explanation. What would you tell her?(ch 5)
- Ed "turns over" his ankle while playing tennis. He experiences swelling and pain, but is told there are no torn ligaments and that the structure of the ankle is not affected. On the basis of the signs and symptoms and the examination results, what do you think happened to Ed's ankle? (ch 6)