

Honors Anatomy and Physiology Syllabus Spring, 2012

Note: While all of these topics will be covered this semester, Mrs. Kohli reserves the right to adjust this schedule as she deems necessary.

Textbook: “Essentials of Human Anatomy & Physiology, Eighth Edition” – Elaine N. Marieb

Textbook Website: http://wps.aw.com/bc_marieb_ehap_8/

The **class website** (accessible from the school website) has Power Points, study guides, and other useful files.

Jan. 4 – Intro to class. Policies & procedures. Root words.

Jan. 5 – Intro to A & P, levels of organization, anatomical terminology (Ch. 1)

Jan. 6 – Organ systems, tissue types (Ch. 1, Ch. 3)

Jan. 9 – Organ systems, body cavities, and homeostasis (Ch. 1)

Jan. 10 – Review stations

Jan. 11 – **Unit test** (discuss if time permits)

Jan. 12 – Membranes, overview of the integumentary system (Ch. 4)

Jan. 13 – **Root Word Quiz 1**, Skin overview & skin proteins - melanin, elastin, collagen, & keratin. (Ch. 4)

Jan. 16 – **No School – Martin Luther King, Jr.**

Jan. 17 – Skin appendages – glands, hair, nails (Ch. 4)

Jan. 18 – Dermal layers and degrees of burning (Ch. 4)

Jan. 19 – **Skin box due**, Homeostatic issues, skin cancer (Ch. 4)

Jan. 20 – **Root Word Quiz 2, Integumentary Quiz**, Intro to bones (Ch. 5)

Jan. 23 – Bone formation, growth, and healing (Ch. 5)

Jan. 24 – Skeletal anatomy (Ch. 5)

Jan. 25 – Joints (Ch. 5)

Jan. 26 – Homeostatic issues (Ch. 5)

Jan. 27 – **Root Word Quiz 3, Skeletal Quiz**, Intro to muscles (Ch. 6)

Jan. 30 – Action potentials and muscle contractions (Ch. 6)

Jan. 31 – Aerobic and anaerobic exercise and muscle fatigue (Ch. 6)

Feb. 1 – Tendons, ligaments, flexors and extensors (Ch. 6)

Feb. 2 – Aging muscles, identifying muscles, (Ch. 6)

Feb. 3 – **Root Word Quiz 4**, Catch up/review

Feb. 6 – **Unit Test**, Intro to the nervous system – structural & functional classification (Ch. 7)

Feb. 7 – Structure and function of neural tissue (Ch. 7)

Feb. 8 – Neural function continued (Ch. 7) (Short day – District PLC)

Feb. 9 – Types of neurons, reflex arcs, and nerves (Ch. 7)

Feb. 10 – **Root Word Quiz 5**, Structure & function of the central nervous system. **Dress for lab.** (Ch. 7)

Feb. 13 – Somatic vs. autonomic nervous system, sympathetic vs. parasympathetic nervous system

Feb. 14 – Dysfunctions of the nervous system (Ch. 7)

Feb. 15 – Alcohol and the central nervous system

Feb. 16 – Review/catch up

Feb. 17 – **Root Word Quiz 6, Nervous System Quiz**, eye structure & function (Ch. 8)

Feb. 20 – **No School – President’s Day**

Feb. 21 – **Eye dissection (dress for lab)**. Eye dysfunctions. (Ch. 8)

Feb. 22 – Taste & smell (Ch. 8)

Feb. 23 – Ear structure & function (Ch. 8)

Feb. 24 – Special Senses Quiz, Overview of the endocrine system – feedback mechanisms, steroidal vs. nonsteroidal hormones. (Ch. 9)

Feb. 27 – Hormones and disorders of the hypothalamus and pituitary. (Ch. 9)

Feb. 28 – Fight or flight response. (Ch. 9) (*Short period - AIMS Writing*)

Feb. 29 – Thyroid hormones (Ch. 9) (*Short period -AIMS Reading*)

Mar. 1 – Pancreatic hormones & diabetes. (Ch. 9)

Mar. 2 – Other hormone producers, review for unit test. (Ch. 9)

Mar. 5 – **Unit test**, review for finals

Mar. 6 – Review for finals

Mar. 7 – Review for finals.

Mar. 8 – **Midterm exams.**

Mar. 9 – **Midterm exams.**

Mar. 19 – Composition of blood, blood clotting (Ch. 10)

Mar. 20 – Blood formation, homeostatic imbalances of blood (Ch. 10)

Mar. 21 – Heart anatomy and contractions (Ch. 11)

Mar. 22 – **Heart dissection (dress for lab)**

Mar. 23 – Effects of drugs on heart rate (Ch. 11)

Mar. 26 – Pulmonary & systemic circuits, arteries, veins, & capillaries (Ch. 11)

Mar. 27 – Blood pressure lab, hypertension & atherosclerosis (Ch. 11)

Mar. 28 – **Blood & Circulatory Quiz.** Respiratory structure & function. (Ch. 13) (*Substitute – NSTA Conference*)

Mar. 29 – Respiratory physiology & respiratory volumes. (Ch. 13) (*Substitute – NSTA Conference*)

Mar. 30 – Control of respiration. (Ch. 13) (*Substitute – NSTA Conference*)

Apr. 2 – Review of respiration material, respiratory disorders. (Ch. 13)

Apr. 3 – **Respiratory Quiz.** Intro to the lymphatic system – lymphatics, and lymphoid organs. (Ch. 12)

Apr. 4 – Nonspecific defenses (Ch. 12)

Apr. 5 – Specific defenses (Ch. 12)

Apr. 6 – Immune response and disorders of immunity (Ch. 12)

Apr. 9 – HIV and AIDS (Ch. 12)

Apr. 10 – **AIMS Math (Probably no class)**

Apr. 11 – (*Short period -AIMS Science*) Catch up/review

Apr. 12 – **Unit Test**, Intro to the digestive system (Ch. 14)

Apr. 13 – Digestion (Ch. 14)

Apr. 16 – **Digestive lab (dress)** (Ch. 14)

Apr. 17 – Nutrition & metabolism (Ch. 14)

Apr. 18 – Digestive disorders & other homeostatic imbalances (Ch. 14)

Apr. 19 – **Digestive quiz.** overview of the urinary system & micturition (Ch. 15)

Apr. 20 – **Holiday – No School**

Apr. 23 – Nephron function (Ch. 15)

Apr. 24 – **Kidney dissection & urine lab (dress)** (Ch. 15)

Apr. 25 – Hot Dog Day

Apr. 26 – Disorders of the urinary system (Ch. 15)

Apr. 27 – Catch up/review

April 30 – **Unit Test, parent permission due.** Female anatomy (Ch. 16)

May 1 – Oogenesis & hormonal regulation of the menstrual cycle (Ch. 16)

May 2 – Male anatomy & spermatogenesis (Ch. 16)

May 3 – Contraception & STD's (Ch. 16)

May 4 – Fertilization & implantation & development (Ch. 16)

May 7 – Pregnancy, fetal development, labor & delivery (Ch. 16)

May 8 – Catch up/review

May 9 – **Unit Test**

May 10 – **Fetal pig dissection (dress for lab)**

May 11 – **Fetal pig dissection (dress for lab)**

May 14 – Review for finals

May 15 – Review for finals, **Senior Finals**

May 16 – **Final Exams**

May 17 – **Final Exams**