Pathophysiology – Course Syllabus
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Classroom Expectations

- Enter the classroom, take your seat and immediately begin working on posted warm-up activity
- Arrive to class on time and in dress code with a **VISIBLE ID** (worn on lanyard around neck/above waist)
- Follow the school wide electronic policy
- Have all of your needed materials (composition or spiral notebook for notes, writing utensil, device for accessing online assignments/resources)
- Use positive language when talking to anyone and treat classmates and class materials with respect.
- **ABSOLUTELY NO FOOD OR DRINKS IN THE LABORATORY AREA.** This is for your health and safety.
- ***Follow ALL given safety instructions while in lab***. You and your guardian must sign a laboratory safety agreement and abide by it. **ZERO TOLERANCE FOR UNSAFE BEHAVIOR DURING LABS!** Discipline referrals will be used.
- Clean/sanitize your workspace before leaving the classroom or laboratory.

Grading Policy
Major Grades (Tests, Projects, Research Reports) 40%
Daily Grades (Quizzes, Participation, Labs, Daily Work) 60%

Tutorials are offered every Wednesday after school, or by appointment.
This is a difficult subject with challenging material. I am here to help you learn. Please ask for assistance before becoming completely lost and discouraged!

Course Description:
From TXCTE.org

The Pathophysiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Pathophysiology will study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.

Course Overview:

The major topics to be covered as well as major assignments that will accompany those units are outlined below. Additional minor grades and exams will also accompany each unit. Please consult Schoology for a complete list of assignments, tests, and due dates.

Overview of Units:

Unit 1 – History, Trends and the Future
- 1.1 - Introduction to Pathophysiology
  - Career investigation activity
- 1.2 – History of Pathophysiology
  - Timeline activity
- 1.3 – Issues in Organ Donation
  - Biomedical ethic debate
- 1.4 – Recombinant DNA
  - Recombinant paper plasmid activity

Unit 2 – Laboratory Safety and the Tools of Investigation
- 2.1 – Laboratory Safety
  - MSDS activity
  - Safety scenarios activity
- 2.2 – Laboratory Basics
  - SOP activity
  - Using the Microscope
  - Using the Triple Beam
  - Using a Microtome

Unit 3 – Fundamentals of Pathophysiology
- 3.1 – Pathophysiology Basics
  - Disease Report
- 3.2 – Dialysis
  - Dialysis Lab
- 3.3 – Naturally vs. Artificially Acquired Immunity
  - Vaccine disease report
- 3.4 – Impaired Senses
  - Impaired senses lab
- 3.5 – Inflammation
  - Stages of tissue repair activity

Unit 4 – Process of Pathophysiology
- 4.1 – Infectious Diseases and Microbial Agents
  - Disease report
  - Pathogenic Organisms lab
  - “The Case of Allison” case study
- 4.2 – Concepts of Neoplasia
  - Disease Report

- Neoplasms lab
- 4.3 – Cardiovascular Pathology
  - Heart dissection
  - Disease report
- 4.4 – Introduction to Toxicology
  - Herbal remedy report
- 4.5 – Blood Diseases and Disorders
  - Blood disorders lab

Unit 5 – Endocrine Pathology

- 5.1 – Endocrinology
  - Disease report

Unit 6 – Epidemiology

- 6.1 – Epidemiology
  - Transmission of pathogens lab
  - ClusterBusters epidemiologic study

Unit 7 – Pathology Across the Lifespan

- 7.1 – Genetic and Developmental Disorders
  - Disease Report
- 7.2 – Late Adulthood and Disease
  - Biomedical ethics debate
  - State of healthcare in the U.S. report

Unit 8 – Disease Prevention

- 8.1 - Wellness and Preventative Healthcare
  - Nutrition project
  - Disease report
  - Family medical tree