

Anatomy and Physiology I and II
2017 – 2018 Syllabus and Survival Guide
Dover High School

You are required to read, sign and date this syllabus.

Forward by email a photograph of the [Academic Honesty Policy](#) on or before September 7, 2017.

Instructor

Mr. LeClair

Room 312

Email a.leclair@dover.k12.nh.us
(Please include a subject line in your email)

Availability I am available from 7:00AM until Block 1; no appointment necessary. I available for students until 3:30PM most days after school; an appointment is recommended.

Course Materials

Assigned Text

Essentials of Human Anatomy and Physiology 7th edition by Elaine N. Marieb
(ISBN: 0-8053-4938-3)

Supplemental Text

Human Anatomy & Physiology 8th edition by Elaine N. Marieb
(ISBN: 978-0-8053-9569-3)

Lab Manual

Essentials of Anatomy & Physiology by Elaine N. Marieb
(ISBN: 0-8053-4943-X)

Supplemental Lab Manual

Human Anatomy & Physiology Laboratory Manual 9th edition by Elaine N. Marieb
(ISBN-13: 978-0-321-54245-8)

Print Resource

Anatomy and Physiology Coloring Workbook: A Complete Study Guide, 6th edition
(ISBN: 0-8053-4913-8)

Websites/Electronic References

<http://www.d.umn.edu/~mniereng/hlth2030/lecture.htm>
<http://www.lionden.com/>

Required Materials

- 3-ring binder (21/2" minimum)
- Please organize your binder by units. Organization is essential to success in A&P!

Class Expectations

- **Come to class on time, prepared, and ready to learn.**
- Be alert and engaged. It is your responsibility to learn. Head down or sleeping are behavior infractions.
- Don't abuse bathroom privileges. Sign out and use the protocols posted in the classroom.
- All students have the right to learn. No one has the right to disrupt the education of others.
- The instructor has the right to teach.
- Everyone is to be treated with fairness and respect at all times; no put downs, explicit or implied.
- Try your best. Believe in yourself. I will believe in you.
- Everyone is entitled to a safe and orderly environment.
- Cell phone policy: cell phones are off and in the wall pockets **before** class begins.

Consequences

- If I have to address your behavior in this class, you are most likely not ready for this type of academic experience.

Syllabus

In addition to the big picture (syllabus); I send out a weekly assignment sheet so you will be aware of daily/ weekly course content and requirements.

| Semester I | | | |
|-------------|------|---------------------------------------|---|
| Date | Days | Topic | Major Concepts(s) |
| 8/30-9/8 | 6 | The Human Body: An Orientation | <ul style="list-style-type: none"> ▪ The Language of Anatomy ▪ Homeostasis ▪ Body cavities and organs ▪ Biometrics |
| 9/11- 9/19 | 7 | Cells and Tissues | <ul style="list-style-type: none"> ▪ Tissue Types ▪ Cell processes <ul style="list-style-type: none"> ▪ Membranes ▪ Tissue repair |
| 9/20 – 9/28 | 7 | Integumentary System | <ul style="list-style-type: none"> ▪ Skin layers and appendages ▪ Skin disorders ▪ Burns |
| 9/29-10/27 | 19 | Skeletal System | Anatomy <ul style="list-style-type: none"> ▪ Axial and Appendicular Anatomy ▪ Microscopic bone structure ▪ Joints and articulations ▪ Breaks and disorders Physiology <ul style="list-style-type: none"> ▪ Bone Remodeling and Regrowth |
| 10/30-11/21 | 15 | Muscular System | <ul style="list-style-type: none"> ▪ Muscle types and functions ▪ Body movements ▪ Gross anatomy ▪ Kinesiology Physiology <ul style="list-style-type: none"> ▪ Neuromuscular junction ▪ Sliding Filament Theory ▪ Muscle Metabolism ▪ |
| Semester I | | | |

| Date | Days | Topic | Major Concepts(s) |
|---|------|---|--|
| 11/27 – 12/21 | 10 | Nervous System | Anatomy <ul style="list-style-type: none"> ▪ Neurons and Neuroglia ▪ Central and Peripheral components ▪ Spinal and Cranial Nerves ▪ Autonomic components Physiology <ul style="list-style-type: none"> ▪ Membrane Potential ▪ Action Potential ▪ Synaptic transmission |
| 1/2/18-1/12 | 9 | Special Senses and Anatomy Physiology I Review | <ul style="list-style-type: none"> ▪ Eye and Ear Anatomy and Physiology ▪ Intensive Review of Semester I |
| 1/16-1/19 | 4 | Mid Term/Final Exams | |
| Anatomy and Physiology II | | | |
| Semester II | | | |
| Date | Days | Topic | Major Concepts(s) |
| 1/22 – 2/6 | 11 | Endocrinology | <ul style="list-style-type: none"> ▪ Types of hormones ▪ Hormone and Homeostasis ▪ Pathophysiology of hormone imbalance |
| 2/7 – 2/23 | 13 | Blood and Blood Pressure | <ul style="list-style-type: none"> ▪ Erythrocytes and leukocytes ▪ Hemostasis ▪ Pathophysiology of Blood Disorders ▪ Blood Pressure |
| WINTER RECESS February 24 – March 4 | | | |
| 3/5- 3/16 | 9 | Cardiovascular | <ul style="list-style-type: none"> ▪ Heart anatomy and physiology ▪ Stroke and Infarction ▪ Vascular |
| 3/19-3/30 | 9 | Lymphatic and Immune System | <ul style="list-style-type: none"> ▪ Lymph nodes and vessels ▪ Nonspecific and specific immune responses ▪ Active and passive humoral immunity ▪ Immunoglobulin classes ▪ Cellular immunity |
| 4/2-4/13 | 10 | Respiration | <ul style="list-style-type: none"> ▪ Functional anatomy ▪ Physics of breathing ▪ Respiratory physiology ▪ Respiratory disorders and treatment ▪ Kinesiology |
| 4/16 – 5/2 | 8 | Digestion | <ul style="list-style-type: none"> ▪ Anatomy of the GI tract ▪ Functions of digestive mechanismd ▪ Accessory digestive organs ▪ Nutrition and Metabolism |
| SPRING RECESS April 21 – April 29 | | | |
| 5/3-5/11 | 7 | Urinary | <ul style="list-style-type: none"> ▪ Kidney anatomy ▪ Urology ▪ Acid-base equilibrium ▪ Characteristics of urine ▪ Renal failure |
| 5/14 – 5/24 | 8 | Reproduction | <ul style="list-style-type: none"> ▪ Male and Female Anatomy ▪ Menstrual cycle ▪ Survey of pregnancy and embryonic development ▪ Contraception and controversy |
| 5/29 – 6/4 | 5 | Systems Review | |

Grading

Your grade is calculated on a point system. Each component assigned and assessed is worth so many points. Your final grade is calculated as a percent of the total number of points assigned; for example, if you have earned 450 out of 500 ($450/500 = 0.9 \times 100$) you have a 90%. In general point values are as follows:

| Category | Point Range |
|------------------|-------------|
| Assignments | 5-10 |
| Quizzes | 20-30 |
| Tests | 100 - 200 |
| Labs | 50 |
| Projects | 25-50 |
| Participation | 10 |
| Notebook/Journal | 20 |

Participation – As a member of a ‘med team’ and as an individual, you are required to contribute verbally!

Study Tips

Learning Style – Know how you learn best.

It’s important to know if you learn best by hearing it, seeing it, feeling it, or reading about it. Once you know your personal learning style, create learning activities that fit your style – it’s more fun and more efficient. Learning in your preferred style just feels right! For example, I like to hear, see and do something with my hands – then I get it. Learning a new physiological process is easier if I see a diagram, listen to someone explain it, then I use my hands to make a model of it.

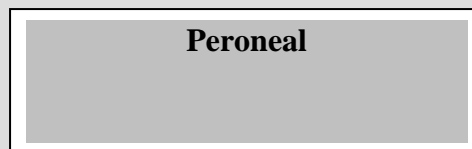
Did you notice that I have three learning styles? Most of us are bi or tri-modal learners; we like to use different styles for different concepts.

How do you figure out your learning style? Think about when and how you learned best in the past. If you would like a more formal method go to this web address: www.Vark.com

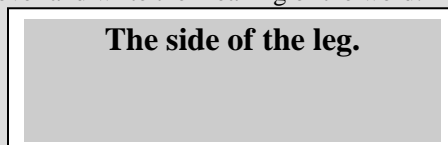
VAR K is an acronym for Visual (learning by seeing), Auditory (learning by hearing), Reading (learning by reading and writing), and Kinesthetic (learning by touching, or holding, or feeling).

New Vocabulary

You will learn as many new terms as you would in a world language course (research proven). The best method is still the flash card technique. As elementary as it sounds, it works! From assigned reading or activities in class, jot down the important terms you hear in class or read in your assignments. Most textbooks **BOLD** or provide a vocabulary list with each chapter. Next, take a 3”X 5” card and write down the term.



Then, turn the card over and write the meaning of the word.



Making the cards is one thing; using them is another. Like the old adage states - Use it or lose it. Find the time to learn the language of anatomy.

There are more advanced flash card methods. You could:

- Draw or paste pictures to your card
- Make a concept map by laying out your cards in related groups
- Use different colors for different organ systems.

- Compare cards with other students; quiz each other.

See me or one of the below links for more ideas:

<http://www.luminaresoft.com/>

Concept Maps – flow charts to help you visualize relationships between ideas/words within a concept.

Study Groups – two or more friends converse about material that needs to be learned.

There are plenty of other interactive and effective methods to learn content. I will use them as we progress through the course.

Overall Objectives

When you are finished with this course, you should know and be able to:

- Explain the basic body plan of the human organism
- Define homeostasis and explain its role in human function
- List the levels of biological organization and apply them to the study of human anatomy and physiology
- Apply basic concepts of physical science and physics to human biology
- Describe the structure and function of various cell types and tissues in the body
- Use data to analyze and draw conclusions about a patient’s physiological status.
- Create highly effective and scientifically accurate brochures about health and wellness.
- Assess and analyze patient health based on observations and simple measurements.
- Communicate anatomical and physiological concepts with a high degree of accuracy.
- Make connections between wellness choices and the effect on physiological systems.
- Use concepts to solve non-routine problems about health and wellness.
- Critique health and wellness recommendations and initiatives.

Academic Honesty Policy

1. During any type of assessment it is expected that each student constructs their responses individually.
2. Accessing and/or downloading answers to any materials passed out by your instructor are not acceptable and are considered cheating.
3. Photographing any print resources passed out by the instructor is not allowed and is considered a violation of the honesty policy.
4. Plagiarism whether by written text, diagrams, or photographs is a violation.
5. Students enrolled in Anatomy and Physiology I and II who are pursuing college credit must abide by the Dover High School and Southern New Hampshire University policies.

student signature

date