NURSING and ALLIED HEALTH VIDEO COLLECTION

Jason Shiflet
HACC Biology Tutor
Lancaster Campus
WEB RESOURCES FOR STUDENTS IN NURSING AND ALLIED HEALTH TRACKS

This video list has been carefully compiled for students working through their prerequisite classes before entering clinical. Knowing that the student’s time is valuable, I’ve made every effort to pare it down to the bare essentials. I’ve noted where portions of the content under each heading can be skipped.

The majority of these resources are found within Khan Academy, an online learning website. How should you use this list? I recommend that you first create an account on Khan Academy (it’s free). By working within your own account you will be able to track your progress. Plus, Khan Academy uses some game-like elements to reward you for your hard work; kind of cheesy, but who doesn’t like earning points!? The videos that are not from Khan Academy are marked with a double asterisk **

Second, just start at the top and begin working your way through. Each of you will be starting from your own unique foundation, so use your best judgement as to what you can skip and what you should focus on. For example, if you’re well versed in the properties of water, hydrogen ion concentration, and understand the pH scale, you can skip #5 under General Biological Concepts. Enjoy, and be the Happy Scholar!

GENERAL BIOLOGICAL CONCEPTS
Under Science & Engineering -> Biology

1. Intro to Biology https://www.khanacademy.org/science/biology/intro-to-biology
2. Polar vs Non-Polar Molecules https://www.youtube.com/watch?v=c4iObbrDPOE
3. **Types of Chemical Bonds
   http://chemistry.about.com/od/chemicalbonding/a/chemicalbonds.htm
   (you can skip the Electron Shells and Orbitals section)
6. Properties of Carbon -&gt; Carbon -&gt; Carbon as a Building Block of Life


8. Energy and Enzymes -&gt; Energy in Metabolism

9. Energy and Enzymes -&gt; ATP and Reaction Coupling -&gt; ATP: Adenosine Triphosphate

10. Energy and Enzymes -&gt; Introduction to Enzymes

11. Membranes and Transport -&gt; The Plasma Membrane -&gt; Fluid Mosaic Model of Cell Membranes

12. Membranes and Transport -&gt; Diffusion and Osmosis -&gt; Diffusion

13. Membranes and Transport -&gt; Diffusion and Osmosis -&gt; Concentration Gradients
    https://www.khanacademy.org/science/biology/membranes-and-transport

    https://www.youtube.com/watch?v=IaZ8MtF3C6M

15. **YouTube: Biology: Cell Structure
    https://www.youtube.com/watch?v=URUJD5NEXC8

16. **YouTube: From DNA to Protein
    https://www.youtube.com/watch?v=D3fOXt4MrOM&amp;index=1&amp;list=PLRDeoovdwtqY4g2MBl6v9G2NUzuowYXxN
Microbiology
Under Science & Engineering -> Biology
1. Structure of a Cell -> Introduction to Cells -> Microscopy
   https://www.khanacademy.org/science/biology/structure-of-a-cell/introduction-to-cells/a/microscopy (this is a short article, not a video)
2. Structure of a Cell -> Prokaryotic and Eukaryotic Cells -> Prokaryotic and Eukaryotic Cells
3. The six classifications of microbes (hint: not all are microscopic)
   **http://www.microbeworld.org/types-of-microbes Be sure to click into the details for each classification.
4. Biology -> DNA as the genetic material -> Structure of DNA -> DNA

Cellular Respiration
Under Science & Engineering -> Biology
1. Cellular Respiration -> Introduction to Cellular Respiration -> ATP
2. Cellular Respiration -> Introduction to Cellular Respiration -> ATP Hydrolysis Mechanism
3. Cellular Respiration -> Introduction to Cellular Respiration -> Introduction to Cellular Respiration
4. Cellular Respiration -> Steps of Cellular Respiration -> Overview of Cellular Respiration

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5. Cellular Respiration->Glycolysis->Overview of Glycolysis

6. Cellular Respiration->Pyruvate Oxidation and the Citric Acid Cycle->Krebs/citric acid cycle

7. Cellular Respiration->Oxidative Phosphorylation->Oxidative Phosphorylation and the Electron Transport Chain

A&P I

Under Science & Engineering -> Biology -> Structure of a Cell -> Introduction to Cells

1. Scale of Cells
   https://www.khanacademy.org/science/biology/structure-of-a-cell/introduction-to-cells/v/scale-of-cells

2. Cell Theory
   https://www.khanacademy.org/science/biology/structure-of-a-cell/introduction-to-cells/v/cell-theory

Under Science -> Health and Medicine -> Human Anatomy and Physiology


The following headings can all be found under Human Anatomy and Physiology. There are several videos and readings for each body system. This list is arranged in the order that most HACC professors teach them:

1. Integumentary System Introduction
2. Skeletal System Introduction
3. Muscular System Introduction
4. Hematologic System Introduction
5. Circulatory System Introduction

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6. Lymphatic System Introduction
7. Immunologic System Introduction
8. Respiratory System Introduction

A&P II

Under Science -> Health and Medicine -> Human Anatomy and Physiology

The following headings can all be found under Human Anatomy and Physiology. There are several videos and readings for each body system. This list is arranged in the order that most HACC professors teach them:

1. Gastrointestinal System Introduction
2. Urinary System Introduction
3. Endocrine System Introduction
4. Reproductive System Introduction
5. Nervous System Introduction
6. **YouTube: Saltatory conduction in myelinated axons
   https://www.youtube.com/watch?v=mOgHC5G8LuI&index=8&list=PLRDeoovdw7qY4g2MBil6v9G2NUzuowYXxN

Miscellaneous

These videos are just for the pure joy and wonderment that the biological world holds. Check them out if you have some time. There’s nothing here to memorize. There’s no need to pause and look up terms (unless you want to). Just enjoy!

1. **YouTube: A fantastic TED talk about molecular biology
   https://www.youtube.com/watch?v=WFCvkkDSfIU&index=3&list=PLRDeoovdwtqY4g2MBil6v9G2NUzuowYXxN

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2. **YouTube: The inner life of the cell**
   https://www.youtube.com/watch?v=B_zD3NxSsD8

3. **YouTube: Current research on protein folding**
   https://www.youtube.com/watch?v=cAJQbSLlonI

4. **YouTube: A fun animation of the life of a motor protein**
   https://www.youtube.com/watch?v=tMKlPDBRJ1E

5. **YouTube: Flu Attack! How a virus invades your body**
   https://www.youtube.com/watch?v=Rpj0emEGShQ&list=PLRDeoovdwtqY4g2MBI6v9G2NUzuowYXxN&index=9