

# V17SU Human Biology (BIO-1140-VO01)

Syllabus-Human Biology

Summer 2017 Instructor: Steven Rauch

Textbook: Human Biology by Sylvia Mader, 14th edition, 2016. There are older editions, the 11th 12th or 13th edition which are essentially identical to the 14th edition. Much cheaper. Actually going back a couple of editions of this text does not change it however going back more than the 11th is much different. I think this is a very good basic text and has good illustrations, which is one way to learn physiology, by creating a mental visual image of the inside of our living bodies. If you have another text you would like to use, let me know about it, as it may work.

## **Week One**

### [Introductions](#)

Textbook Readings: Chapters 1 and 2, Exploring Life and Science- the molecules that are the physical stuff of our bodies and the chemistry of converting food to energy

Weekly Discussion Forum

Clinical Scenario: none for the first two weeks

Internet Research: [Woman's Health Initiative](#) and Hormone (Estrogen) Replacement Therapy (HRT)-not due until the end of week 2.

Weekly Quiz

[First exam essay questions](#) listed

## **Week Two**

Textbook Readings: Chapters 3 and 4, Cell Structure and Organization of Body Systems-the components of the individual factories we call cells and how all effort is directed at maintaining homeostasis of the blood

Weekly Discussion Forum

Clinical Scenario: none

Internet Research: [Woman's Health Initiative](#) and Hormone (Estrogen) Replacement Therapy (HRT)

Weekly Quiz

Written report topic selection due

### **Week Three**

Textbook Readings: Chapter 21 DNA Biology and Technology-genetics and how we can alter them {sections}

Weekly Discussion Forum

Clinical scenario: A 36 year old man with a bee sting reaction

Internet Research: None this week

Weekly Quiz [First Exam](#)

### **Week Four**

Textbook Readings: Chapters 5 and 6, Cardiovascular system and Blood-the river of life and its pump

Weekly Discussion Forum

Clinical scenario: Angina

Internet Research: Hypertension

Weekly Quiz [Second exam essay questions](#)

### **Week Five**

Textbook Readings: Chapter 7, Immunity and the Infectious Disease Supplement-how we interact with all the bacteria on and in our bodies and keep out the invaders Weekly Discussion Forum

Clinical scenario: Antibiotic induced diarrhea and a novel new cure.... Internet Research: Herpes Zoster vaccine

Weekly Quiz

## **Week Six**

Textbook Readings: Chapter 8, Digestion and Nutrition -what our body needs and where it can be found in our food

Weekly Discussion Forum

Clinical scenario: Heartburn {GERD}

Internet Research: Cholesterol levels: The Good, the Bad, the Risk

Weekly Quiz

## **Week Seven**

Textbook Readings: Chapters 9 and 10, Respiratory and Urinary Systems-oxygen supplier and blood filter- regulator {sections}

Weekly Discussion Forum

Clinical scenario: Asthma

Internet Research: Sleep apnea or Cystic fibrosis Weekly Quiz [Second Exam](#)

## **Week Eight**

[Topical report](#) due

Clinical scenario: Congestive Heart Failure

Internet Research: Diabetes survival rates

[Third exam essay questions](#) listed

## **Week Nine**

Textbook Readings: Chapters 11 and 12, Muscular and Skeletal Systems {sections}

Weekly Discussion Forum

Clinical Scenario: Herniated disc or pain from ligament stretch?

Internet Research: Exercise and heart disease risk

Weekly Quiz

### **Week Ten**

Textbook Readings: Chapter 13, Nervous System {sections}

Clinical scenario: Alzheimer's Disease

Internet Research: Meyers-Briggs Personality evaluation Weekly Quiz

### **Week Eleven**

Textbook Readings: Chapters 16 and parts of 17, Reproduction and Delivery {sections}

Weekly Discussion Forum

Clinical scenario: Pregnancy and Delivery

Internet Research: Pregnancy induced hypertension {PIH}

Weekly Quiz

### **Third Exam**

### **Week Twelve**

Textbook Readings: Chapters 19 and 20 and 18.4, Cancer and Genetic Inheritance {sections}

Weekly Discussion Forum

Clinical scenario: Prostate Cancer

Internet Research: None this week

Weekly Quiz

### **Third Exam**

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