

### Course Syllabus

COURSE: VNSG 1420 (4:4:0) Anatomy and Physiology for Allied Health (4 Credit Hours)  
 SEMESTER: Fall 2014 (August – December: 16 week Semester)  
 CLASS TIMES: Monday and Wednesday 1:00pm – 3:00pm (Lecture only, no lab)  
 INSTRUCTOR: Kristie Cole, BAS, CST  
 OFFICE: RC 528  
 OFFICE HOURS: Monday through Thursday 8:30am-4:00pm  
 OFFICE PHONE: 806-716-4643  
 E-MAIL: kcole@southplainscollege.edu  
 PROGRAM FACEBOOK: <https://www.facebook.com/SPCSurgicalTechnology>

**The Surgical Technology Program has a Facebook page at <https://www.facebook.com/SPCSurgicalTechnology>. In addition to the South Plains College website, this Facebook page will be used to keep students up-to-date on program activities, weather delays, South Plains College announcements and will help with program recruitment. “Liking” the Surgical Technology Facebook page is not mandatory, nor are personal Facebook accounts, in order to access this page.**

Blackboard is an e-Education platform designed to enable educational innovations everywhere by connecting people and technology. This educational tool will be used in this course throughout the semester.

*“South Plains College improves each student’s life.”*

## GENERAL COURSE INFORMATION

### COURSE DESCRIPTION

This course is an introduction to the normal structure and function of the body, including an understanding of the relationship of body systems in maintaining homeostasis.

### STUDENT LEARNING OUTCOMES:

Students will be able to:
1. Identify the basic organizational structures of the human body, including body planes, general organization, and terms of reference. F-1, F-2, F-5, F-6, F-10, F-11, F-12, F-13, C-5, C-6, C-7
2. Analyze the basic structure of cells and relate cellular components to integrate to cell function. F-1, F-5, F-7, F-8, F-9, F-12, C-5, C-6, C-7
3. Analyze the types of tissue that make up organs and the characteristics of each. F-1, F-5, F-7, F-8, F-9, F-12, C-5, C-6, C-7
4. Analyze the different body systems for composition and function. F-1, F-5, F-7, F-8, F-9, F-12, C-5, C-6, C-7
5. Discuss abnormalities, anomalies, and diseases of the different body systems. F-1, F-5, F-6, F-7, F-8, F-9, F-12, C-5, C-6, C-7,

### COURSE OBJECTIVES

#### The Cognitive Domain Objectives:

- Name and describe body planes
- Classify organs under appropriate body systems
- List the major closed cavities of the body and their contents
- Describe basic structure of cells and related cellular components
- Identify types of tissue that make up body organs and the characteristics of each

- Describe the organs and identify them
- Recognize different phases of cell division
- Outline the functions and composition of the skin
- Describe the layers of skin and the components of each
- List the categories of bones in the body
- Identify the different parts of long bones
- Name the prominent features of the bones, joints, and cartilage
- Discuss the characteristics of the types of muscle
- List, locate, and describe the major anatomic and functional parts of the nervous system
- Define the special senses and the anatomical features of the eye and ear
- Describe blood components and their functions
- Define the anatomic structures and the physiologic functions of the heart
- List the various types of blood vessels, their anatomic differences, and the major arteries and veins
- Describe the components and functions of the lymphatic system and its relationship to the circulatory system
- List and describe the structure, function and regulatory mechanisms of the respiratory system
- Describe the structure and function of the digestive system
- List the structure, function, and regulatory mechanisms of the urinary system
- List and describe the structure and functions of the male and female reproductive systems
- Identify and locate the major endocrine glands and list the major hormones and their functions

#### **The Psychomotor Domain Objectives:**

- Locate all major bones
- Locate all major muscles
- Describe actions of different muscles
- Explain actions and functions of the different joint types
- Sketch the process of cell division
- Describe the mechanism of muscle contraction
- Explain the difference between the Central and Peripheral Nervous systems
- Locate all major organs
- Explain the primary function of major organs
- Describe the flow of blood through the chambers of the heart
- Differentiate between blood types and Rh factors
- Describe the digestive and elimination processes
- Describe functions of the male and female reproductive systems
- Locate all major arteries, veins, and nerves

#### **The Affective Domain Objectives:**

- Discuss pros and cons of blood transfusions
- Discuss pros and cons of organ donation
- Discuss how the body maintains homeostasis
- Evaluate the importance of cell movement and responsiveness
- Discuss the techniques of tissue typing and the importance of DNA testing
- Compare and contrast negative and positive feedback

- Discuss organ replacement problems and methods of solving them
- Order and explain the types and stages of wound healing
- Discuss the functions of bones and joints
- Evaluate the factors that are important to the Surgical Technologist's understanding of muscle anatomy and physiology
- Compare and Contrast the functions of the lobes of the brain
- Discuss the anatomy and physiology associated with the senses
- Evaluate clinical signs of myocardial infarction
- Discuss the mechanisms of HIV
- Compare and contrast specific and non-specific immune defenses

## **OUTCOMES ASSESSMENT METHODS**

Assessment methods for the course are both formative and summative.

### **Formative assessments include:**

- Discussions
- Quizzes
- Unit exams
- Classroom activities

### **Summative assessment will be:**

- a comprehensive final exam

## **ACADEMIC INTEGRITY**

It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension.

**Cheating** - Dishonesty of any kind on examinations or on written assignments, illegal possession of examinations, the use of unauthorized notes during an examination, obtaining information during an examination from the textbook or from the examination paper of another student, assisting others to cheat, alteration of grade records, illegal entry or unauthorized presence in the office are examples of cheating. Complete honesty is required of the student in the presentation of any and all phases of coursework. This applies to quizzes of whatever length, as well as final examinations, to daily reports and to term papers.

**Plagiarism** - Offering the work of another as one's own, without proper acknowledgment, is plagiarism; therefore, any student who fails to give credit for quotations or essentially identical expression of material taken from books, encyclopedias, magazines and other reference works, or from themes, reports or other writings of a fellow student, is guilty of plagiarism.

## **SCANS and FOUNDATION SKILLS**

Refer also to Course Objectives. SCANS and Foundation Skills attached.

## **VERIFICATION OF WORKPLACE COMPETENCIES**

This course does not contain a Capstone component.

## SPECIFIC COURSE INFORMATION

### TEXT AND MATERIALS



Anatomy and Physiology in a Flash, An Interactive Flash-Card Approach, Joy A. Hurst, F.A. Davis Company. ISBN# 978-0-8036-2361-3.

### METHODS OF TEACHING

- Lecture
- PowerPoint Presentation
- Question and Discussion
- Review
- Quizzes
- Examinations

### ATTENDANCE POLICY

Class attendance is mandatory. Students are allowed three (3) absences and will be administratively withdrawn on the fourth (4<sup>th</sup>) absence. A tardy will be given if the student is not present for the class or lab within the first 5 minutes of the class period. Two (2) tardies equal one (1) absence. If a student misses more than 30 minutes of any class session, an absence will be given for the day.

### ASSIGNMENT POLICY

The student is responsible for being prepared for class, which means reading the assigned chapters and/or pages from the textbook. In some instances, information from the reading assignments not covered during class may be included on a test.

**GRADING POLICY** - Grades in this course will be determined using the following criteria:

The course grade will be determined by a combination of major exams, chapter homework, quizzes, and a comprehensive final exam. Exam dates will be announced. The following guidelines will be followed regarding coursework:

1. The student is expected to complete the exam at the scheduled time. Make-up exams will **NOT** be given.
2. Late assignments will not be accepted.
3. The final exam is comprehensive.

(15)Homework	–	15%
(5)Exams	–	35%
(5)Quizzes	–	20%
(1)Comprehensive Final Exam	–	30%

<i>Grading Scale:</i>	<i>91 – 100 = A</i>
	<i>81 – 90 = B</i>
	<i>75 – 80 = C</i>
	<i>Below 75 is failing.</i>

A final grade average of C (75) must be maintained in all Surgical Technology classes. You must pass this course to proceed to the next semester.

## COMMUNICATION POLICY

Electronic communication between instructor and students in this course will utilize the South Plains College “My SPC” and email systems. Instructor will not initiate communication using private email accounts. Students are encouraged to check SPC email on a regular basis.

## STUDENT CONDUCT

Students in this class are expected to abide by the standards of student conduct as defined in the SPC Student Guide pages 11-14.

## SPECIAL REQUIREMENTS

**Cell Phones** – Cell phones are permitted in class. They **MUST** be turned to silent. A student whose phone sounds during class, or is observed to be using the phone in any way without permission from the instructor will be sent home for the day with an absence.

## COURSE OUTLINE

**Course Outline is subject to change by instructor.**

### Lecture Topics

- Anatomical Organization
- Cells and Tissues
- The Integumentary System
- The Muscular System
- The Skeletal System
- Blood
- The Lymphatic System
- The Cardiovascular System
- The Respiratory System
- The Digestive System
- The Nervous System
- The Senses
- The Urinary System
- The Endocrine System
- The Reproductive System

**Monday 8/24:** *Lecture, PowerPoint Presentation, Question and answer*

**Introduction and signing of syllabus forms**

**CHAPTER 1– Organization and Direction of the body**

- Structural Organization
- Overview of body systems
- Functions of living things
- Directional terms

**Wednesday 8/26:** *Lecture, PowerPoint Presentation, Question and answer*

**Finish Chapter 1**

Homework: Chapter 1

**Monday 8/31:** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 1 Test**

**Chapter 1 Homework due**

**CHAPTER 2 – Cells and Tissues**

- Cells
- Body Tissues

**Wednesday 9/2** *Lecture, PowerPoint Presentation, Question and answer*

**Finish Chapter 2**

Homework: Chapter 2

Monday 9/7/2015-----Holiday NO lecture

**Wednesday 9/9** *Lecture, PowerPoint Presentation, Question and answer*

**CHAPTER 3 – The Integumentary System**

- Layers of the skin
- Structure of hair
- Structure of the nail
- Classification of burns
- Skin cancer

Homework: Chapter 3

**Monday 9/14** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 2 & 3 Test**

**Chapter 2&3 Homework due**

**CHAPTER 4 – The Muscular System**

- Types of muscle
- Muscle structure
- Action potential
- Muscle movement
- Muscles of the body

**Wednesday 9/16** *Lecture, PowerPoint Presentation, Question and answer*

**Finish Chapter 4**

Homework: Chapter 4

**Monday 9/21** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 4 Test**

**Chapter 4 Homework due**

**CHAPTER 5 – The Skeletal System**

- Bones
- Skeleton
- Bone Repair
- Types of Joints

**Wednesday 9/23** *Lecture, PowerPoint Presentation, Question and answer*

**Finish Chapter 5**

Homework: Chapter 5

**Monday 9/28** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 5 Test**

**Chapter 5 Homework due**

**CHAPTER 6 – Blood**

- Blood components
- Hematopoiesis
- Hemostasis
- Human blood groups

Homework: Chapter 6

**Wednesday 9/30** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 6 Test**

**Chapter 6 Homework due**

**CHAPTER 7 – The Lymphatic System**

- Structures of the lymphatic system
- Body defenses
- Immune response
- Types of immunity
- Organ and tissue rejection
- Autoimmune diseases
- Allergy

**Monday 10/5** *Lecture, PowerPoint Presentation, Question and answer*

**Continue Chapter 7**

Homework: Chapter 7

**Wednesday 10/7** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 7 Test**

**Chapter 7 Homework due**

**CHAPTER 8 – The Cardiovascular System**

- Structures of the Cardiovascular System
- Types of circulation
- Characteristics of cardiac cells
- Blood pressure

**Monday 10/12** *Lecture, PowerPoint Presentation, Question and answer*

**Finish Chapter 8**

Homework: Chapter 8

**Wednesday 10/14** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 8 Test**

**Chapter 8 Homework due**

**CHAPTER 9 – The Respiratory System**

- Structures of the respiratory system
- Respiratory cycle

Homework: Chapter 9

**Monday 10/19** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 9 Test**

**Chapter 9 Homework due**

**CHAPTER 10 – The Digestive System**

- Structures of the digestive system
- Metabolism

Homework: Chapter 10

**Wednesday 10/21** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 10 Test**

**Chapter 10 Homework due**

**CHAPTER 11 – The Nervous System**

- Cells of the Nervous System
- Action Potential
- Divisions of the nervous system
- Reflexes

**Monday 10/26** *Lecture, PowerPoint Presentation, Question and answer*

**Finish Chapter 11**

Homework: Chapter 11

**Wednesday 10/28** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 11 Test**

**Chapter 11 Homework due**

**CHAPTER 12 – The Senses**

- Sight
- Hearing
- Smell
- Taste
- Touch

Homework: Chapter 12

**Monday 11/2** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 12 Test**

**Chapter 12 Homework due**

**CHAPTER 13 – The Urinary System**

- Structures of the urinary system
- Urine production
- Water volumes
- Other kidney functions
- Hormones that maintain fluid balance
- Renal failure

**Wednesday 11/4** *Lecture, PowerPoint Presentation, Question and answer*

**Finish Chapter 13**



Homework: Chapter 13

**Monday 11/11** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 13 Test**

**Chapter 13 Homework due**

**CHAPTER 14 – The Endocrine System**

- Hormones
- Endocrine glands
- Hormones produced by other organs

Homework: Chapter 14

**Wednesday 11/16** *Lecture, PowerPoint Presentation, Question and answer*

**Chapter 14 Test**

**Chapter 14 Homework due**

**CHAPTER 15 – The Reproductive System**

- Types of reproduction
- Male reproductive system
- Menstrual cycle
- Pregnancy
- Birth
- Breasts

Homework: Chapter 15

**Monday 11/18**

**Chapter 15 Test**

**Chapter 15 Homework due**

**Monday 11/23**

**Test over Chapter 1-7/ Review/Research Day**

**\*Thanksgiving Break: Wednesday 11/25 – Sunday 11/27\***

**Monday 11/30/15**

**Review games for final**

**Wednesday 12/2**

**Last Class**

**Comprehensive Final**

(30% of overall grade) (Summative assessment linked to Student Learning outcomes 1, 2, 3, 4, 5)

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## ACCOMMODATIONS

### DIVERSITY STATEMENT

In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

### DISABILITIES STATEMENT

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability. For more information, call or visit the Disability Services Office at, Reese Center Building 8, 806-716-4675.

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## FOUNDATION SKILLS

### **BASIC SKILLS—Reads, Writes, Performs Arithmetic and Mathematical Operations, Listens and Speaks**

F-1 Reading—locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules.

F-2 Writing—communicates thoughts, ideas, information and messages in writing and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.

F-3 Arithmetic—performs basic computations; uses basic numerical concepts such as whole numbers, etc.

F-4 Mathematics—approaches practical problems by choosing appropriately from a variety of mathematical techniques.

F-5 Listening—receives, attends to, interprets, and responds to verbal messages and other cues.

F-6 Speaking—organizes ideas and communicates orally.

### **THINKING SKILLS—Thinks Creatively, Makes Decisions, Solves Problems, Visualizes and Knows How to Learn and Reason**

F-7 Creative Thinking—generates new ideas.

F-8 Decision-Making—specifies goals and constraints, generates alternatives, considers risks, evaluates and chooses best alternative.

F-9 Problem Solving—recognizes problems, devises and implements plan of action.

F-10 Seeing Things in the Mind's Eye—organizes and processes symbols, pictures, graphs, objects, and other information.

F-11 Knowing How to Learn—uses efficient learning techniques to acquire and apply new knowledge and skills.

F-12 Reasoning—discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.

## **PERSONAL QUALITIES—Displays Responsibility, Self-Esteem, Sociability, Self-Management, Integrity and Honesty**

F-13 Responsibility—exerts a high level of effort and perseveres towards goal attainment.

F-14 Self-Esteem—believes in own self-worth and maintains a positive view of self.

F-15 Sociability—demonstrates understanding, friendliness, adaptability, empathy and politeness in group settings.

F-16 Self-Management—assesses self accurately, sets personal goals, monitors progress and exhibits self-control.

F-17 Integrity/Honesty—chooses ethical courses of action.

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## **SCANS COMPETENCIES**

C-1 **TIME** - Selects goal - relevant activities, ranks them, allocates time, prepares and follows schedules.

C-2 **MONEY** - Uses or prepares budgets, makes forecasts, keeps records and makes adjustments to meet objectives.

C-3 **MATERIALS AND FACILITIES** - Acquires, stores, allocates, and uses materials or space efficiently.

C-4 **HUMAN RESOURCES** - Assesses skills and distributes work accordingly, evaluates performances and provides feedback.

### **INFORMATION - Acquires and Uses Information**

C-5 Acquires and evaluates information.

C-6 Organizes and maintains information.

C-7 Interprets and communicates information.

C-8 Uses computers to process information.

### **INTERPERSONAL—Works With Others**

C-9 Participates as members of a team and contributes to group effort.

C-10 Teaches others new skills.

C-11 Serves Clients/Customers—works to satisfy customer’s expectations.

C-12 Exercises Leadership—communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.

C-13 Negotiates-works toward agreements involving exchanges of resources; resolves divergent interests.

C-14 Works With Diversity—works well with men and women from diverse backgrounds.

### **SYSTEMS—Understands Complex Interrelationships**

C-15 Understands Systems—knows how social, organizational, and technological systems work and operates effectively with them.

C-16 Monitors and Corrects Performance—distinguishes trends, predicts impacts on system operations, diagnoses systems performance and corrects malfunctions.

C-17 Improves or Designs Systems—suggests modifications to existing systems and develops new or alternative systems to improve performance.

### **TECHNOLOGY—Works with a Variety of Technologies**

C-18 Selects Technology—chooses procedures, tools, or equipment, including computers and related technologies.

C-19 Applies Technology to Task—understands overall intent and proper procedures for setup and operation of equipment.

C-20 Maintains and Troubleshoots Equipment—prevents, identifies, or solves problems with equipment, including computers and other technologies.

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August 2013



VNSG1420 Anatomy & Physiology for Allied Health

I \_\_\_\_\_ have received a copy of the South Plains College Student Guide. I understand that I must comply with all areas of the Student Guide as a student in the Surgical Technology Program and South Plains College.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date