

NAS 101
NURSING AIDE I

COURSE DESCRIPTION:

Prerequisites: COMPASS Reading score of 70 or greater, OR successful completion of Reading 80, 90, DRE 098 OR ENG 111

Corequisites: None

The Nurse Aide curriculum prepares individuals to work under the supervision of licensed nursing professionals in performing nursing care and services for persons of all ages. Topics include growth and development, personal care, vital signs, communication, nutrition, medical asepsis, therapeutic activities, accident and fire safety, household environment and equipment management, family resources and services, and employment skills. Upon completion, the student may be eligible for listing as a Nurse Aide I and other selected Nurse Aide registries as determined by the local program.

Course Hours Per Week: Class 3 Lab 4 Clinical 3 Work 0 Credit 6

LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

- a. Perform basic patient care skills
- b. Describe the mental, social, physical, and environmental needs of the patient
- c. Act in a safe manner while providing care
- d. Develop critical thinking skills
- e. Communicate appropriately with staff, peers, residents and faculty
- f. Display professional behavior
- g. Utilize the course content to prepare for the NNAAP exam for the North Carolina Nurse Aide I

CORE CONCEPTS EXAMINED:

- A.** The Nurse Aide I
- B.** Infection Prevention
- C.** The Resident's Environment: Safety and Emergency
- D.** Communication
- E.** Law and Ethics
- F.** Dignity
- G.** Basic Restorative Care
- H.** Body Systems
- I.** Body Mechanics

- J.** Nutrition and Fluids
- K.** Restraint Elimination, Reduction, Appropriate Use
- L.** Communicating with the Health Care Team
- M.** The Nursing Process and Nursing Care Plan
- N.** Incident Report
- O.** Critical Thinking
- P.** Family and Family Support
- Q.** Person Centered Care
- R.** Cognitive Changes Due to Aging
- S.** Psychological Effects of Aging
- T.** Dementia and Alzheimer's Disease
- U.** Mental Health and Mental Illness
- V.** Pain
- W.** End of Life Care

REQUIRED TEXTBOOK AND MATERIAL:

Nursing Assisting: A Foundation in Caregiving by Diana L. Dugan, RN 3rd edition Hartman Publishing

Skills Manual

Equipment and Supplies: uniform (white shoes, scrubs), stethoscope, gait belt, watch with a second hand, BP cuff

NAS 102
NURSING AIDE II

COURSE DESCRIPTION:

Prerequisites: NAS 101, Health care provider CPR certification.

Corequisites: None

This course provides training in Nurse Aide II tasks. Emphasis is placed on the role of the Nurse Aide II, sterile technique and specific tasks such as urinary catheterization, wound care, respiratory procedures, ostomy care, peripheral IV assistive activities, and alternative feeding methods. Upon completion, students should be able to demonstrate knowledge and skills and safe performance of skills necessary to be eligible for listing on the North Carolina Nurse Aide II Registry.

Course Hours Per Week: Class 3 Lab 2 Clinical 6 Work 0 Credit 6

LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

- a. Demonstrate an understanding of the role of the NA II as a member of the health care team.
- b. Describe the Decision Tree for Delegation to a UAP as it pertains to a NA II.
- c. Demonstrate desirable patterns of organizational skills and the execution of good work habits.
- d. Recognize and report patient symptoms that deviate from normal patterns.
- e. Exhibit the technical skills of bedside care including safety and infection prevention, selected therapeutic procedures, selected restorative procedures, and personal care skills.
- f. Demonstrate culture awareness/sensitivity towards patients, family members, community members and members of the healthcare team.
- g. Complete the application process for listing on the NC Board of Nursing as a Nurse Aide II.

CORE CONCEPTS EXAMINED:

- A. Role of the NA II
- B. Oxygen therapy
- C. Sterile technique
- D. Wound care
- E. Suctioning
- F. Tracheostomy care
- G. Peripheral IV care
- H. Urinary catheterization

- I. Feeding tubes
- J. Ostomy care
- K. Fecal impaction
- L. Finger-stick blood glucose testing

REQUIRED TEXTBOOK AND MATERIAL:

North Carolina Nurse Aide II, 2nd Ed. (2011) by Hegner, Acello, & Needham. Cengage Learning; 978-1133440079

Equipment and Supplies: uniform (white shoes, hunter green scrubs), stethoscope, watch with a second hand, BP cuff

NET 110 NETWORKING CONCEPTS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces students to the networking field. Topics include network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

- a. Configure for networking a personal computer system, including the operating system, interface cards, and peripheral devices
- b. Plan and install a home or small business network and connect it to the Internet
- c. Verify and troubleshoot network and Internet connectivity
- d. Share resources such as files and printers among multiple computers
- e. Recognize and mitigate security threats to a home network
- f. Configure and verify common Internet applications
- g. Configure basic IP services on network connectivity devices

OUTLINE OF INSTRUCTION:

- I. Networking in the Enterprise
 - a. Describing the Enterprise Network
 - b. Identifying Enterprise Applications
 - c. Supporting Remote Workers
- II. Exploring the Enterprise Network Infrastructure
 - a. Describing the Current Network
 - b. Supporting the Enterprise Edge
 - c. Reviewing Routing and Switching
- III. Switching in an Enterprise Network
 - a. Describing Enterprise Level Switching
 - b. Preventing Switching Loops
 - c. Configuring VLANs
 - d. Trunking and Inter-VLAN Routing
 - e. Maintaining VLANs on an Enterprise Network
- IV. Addressing in an Enterprise Network
 - a. Using a Hierarchical IP Network Address Scheme
 - b. Using VLSM
 - c. Using Classless Routing and CIDR
 - d. Using NAT and PAT
- V. Routing with a Distance Vector Protocol
 - a. Managing Enterprise Networks
 - b. Routing Using the RIP Protocol
 - c. Routing Using the EIGRP Protocol
 - d. Implementing EIGRP
- VI. Routing with a Link-State Protocol
 - a. Routing Using the OSPF Protocol
 - b. Implementing Single-Area OSPF
 - c. Using Multiple Routing Protocols
- VII. Implementing Enterprise WAN Links
 - a. Connecting the Enterprise WAN
 - b. Comparing Common WAN Encapsulations
 - c. Using Frame Relay

- VIII. Filtering Traffic Using Access Control Lists
 - a. Using Access Control Lists
 - b. Using a Wildcard Mask
 - c. Configuring Access Control Lists
 - d. Permitting and Denying Specific Types of Traffic
 - e. Filtering Traffic Using Access Control Lists

- IX. Troubleshooting an Enterprise Network
 - a. Understanding the Impact of Network Failure
 - b. Troubleshooting Switching and Connectivity Issues
 - c. Troubleshooting Routing Issues
 - d. Troubleshooting WAN Configurations
 - e. Troubleshooting ACL Issues

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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NET 125

NETWORKING BASICS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols. Course Hours Per Week: Class, 1. Lab, 4. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

- a. Explain the importance of data networks and the Internet in supporting business communications and everyday activities
- b. Explain how communication works in data networks and the Internet
- c. Recognize the devices and services that are used to support communications across an Internetwork
- d. Use network protocol models to explain the layers of communications in data networks
- e. Explain the role of protocols in data networks
- f. Describe the importance of addressing and naming schemes at various layers of data networks
- g. Describe the protocols and services provided by the application layer in the OSI and TCP/IP models and describe how this layer operates in various networks
- h. Analyze the operations and features of transport layer protocols and services
- i. Analyze the operations and feature of network layer protocols and services and explain the fundamental concepts of routing
- j. Design, calculate, and apply subnet masks and addresses to fulfill given requirements
- k. Describe the operation of protocols at the OSI data link layer and explain how they support communications
- l. Explain the role of physical layer protocols and services in supporting communications across data networks
- m. Explain fundamental Ethernet concepts such as media, services, and operation
- n. Employ basic cabling and network designs to connect devices in accordance with stated objectives
- o. Build a simple Ethernet network using routers and switches
- p. Use command-line interface (CLI) commands to perform basic router and switch configuration and verification
- q. Analyze the operations and features of common application layer protocols such as HTTP, Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), Simple Mail Transfer Protocol (SMTP), Telnet, and FTP
- r. Utilize common network utilities to verify small network operations and analyze data traffic

OUTLINE OF INSTRUCTION:

- I. Living in a Network-Centric World
 - a. Communicating in a Network-Centric World
 - b. Communication – An Essential Part of Our Lives
 - c. The Network as a Platform

- d. The Architecture of the Internet
- e. Trends in Networking
- II. Communicating Over the Network
 - a. The Platform for Communications
 - b. LANs, WANs, and Internetworks
 - c. Protocols
 - d. Using Layered Models
 - e. Network Addressing
- III. Application Layer Functionality and Protocols
 - a. Applications – The Interface Between the Networks
 - b. Making Provisions for Applications and Services
 - c. Application Layer Protocols and Services Examples
- IV. OSI Transport Layer
 - a. Roles of the Transport Layer
 - b. The TCP Protocol – Communicating with Reliability
 - c. Managing TCP Sessions
 - d. The UDP Protocol – Communicating with Low Overhead
- V. OSI Network Layer
 - a. IPv4
 - b. Networks – Dividing Devices into Groups
 - c. Routing – How Our Data Packets are Handled
 - d. Routing Processes: How Routes are Learned
- VI. Addressing the Network – IPv4
 - a. IPv4 Addresses
 - b. Addresses for Different Purposes
 - c. Assigning Addresses
 - d. Is It On My Network?
 - e. Calculating Addresses
 - f. Testing the Network Layer
- VII. Data Link Layer
 - a. Data Link Layer – Accessing the Media
 - b. Media Access Control Techniques
 - c. Media Access Control Addressing and Framing Data
- VIII. OSI Physical Layer
 - a. The Physical Layer – Communication Signals
 - b. Physical Signaling and Encoding: Representing
 - c. Physical Media – Connecting Communication
- IX. Ethernet
 - a. Overview of Ethernet
 - b. Ethernet – Communication through the LAN
 - c. The Ethernet Frame
 - d. Ethernet Media Access Control
 - e. Ethernet Physical Layer
 - f. Hubs and Switches

g. Address Resolution Protocol (ARP)

X. Planning and Cabling Networks

- a. LANs – Making the Physical Connection
- b. Device Interconnections
- c. Developing an Addressing Scheme
- d. Calculating the Subnets
- e. Device Interconnections

XI. Configuring and Testing Your Network

- a. Configuring Cisco Devices – IOS Basics
- b. Applying a Basic Configuration Using Cisco IOS
- c. Verifying Connectivity
- d. Monitoring and Documenting Networks

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

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NET 126 ROUTING BASICS

COURSE DESCRIPTION:

Prerequisites: NET 125

Corequisites: None

This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs. Course Hours Per Week: Class, 1. Lab, 4. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

- a. Describe the purpose, nature, and operations of a router
- b. Explain the critical role routers play in enabling communications across multiple networks
- c. Describe the purpose and nature of routing tables
- d. Describe how a router determines a path and switches packets
- e. Explain the route lookup process and determine the path packets will take in a network
- f. Configure and verify basic operations for a newly-installed router
- g. Describe the purpose of static routes and the procedure for configuring them
- h. Configure and verify static and default routing
- i. Describe the role of dynamic routing protocols and place these protocols in the context of modern network design
- j. Describe how metrics are used by routing protocols and identify the metric types used by dynamic routing protocols
- k. Identify the characteristics of distance vector routing protocols
- l. Describe the network discovery process of distance vector routing protocols using Routing Information Protocol (RIP)
- m. Describe the functions, characteristics, and operations of the RIPv1 protocol
- n. Compare and contrast classful and classless IP addressing
- o. Describe classful and classless routing behaviors in routed networks
- p. Design and implement a classless IP addressing scheme for a given network
- q. Describe the main features and operations of the Enhanced Interior Gateway Routing Protocol (EIGRP)
- r. Use advanced configuration commands with routers implementing EIGRP and OSPF
- s. Describe the basic features and concepts of link-state routing protocols
- t. Describe the purpose, nature, and operations of the Open Shortest Path First (OSPF) Protocol

- u. Configure and verify basic RIPv1, RIPv2, single area OSPF, and EIGRP operations in a small routed network
- v. Use router commands to troubleshoot common errors that occur in small routed networks.

OUTLINE OF INSTRUCTION:

- I. Introduction to Routing and Packet Forwarding
 - a. Inside the Router
 - b. CLI Configuration and Addressing
 - c. Building the Routing Table
 - d. Path Determination and Switching Functions
- II. Static Routing
 - a. Routers in Networks
 - b. Router Configuration Review
 - c. Exploring Directly-Connected Networks
 - d. Static Routes with “Next Hop” Addresses
 - e. Static Routes with Exit Interfaces
 - f. Summary and Default Static Routes
 - g. Managing and Troubleshooting Static Routes
- III. Introduction to Dynamic Routing Protocols
 - a. Introduction and Advantages
 - b. Classifying Dynamic Routing Protocols
 - c. Metrics and Administrative Distances
 - d. Routing Protocol and Subnetting Activities
- IV. Distance Vector Routing Protocols
 - a. Introduction to Distance Vector Routing Protocols
 - b. Network Discovery
 - c. Routing Table Maintenance
 - d. Routing Loops
 - e. Distance Vector Routing Protocols Today
- V. RIP Version 1
 - a. RIPv1: Distance Vector, Classful Routing Protocol
 - b. Basic RIPv1 Configuration
 - c. Verification and Troubleshooting
 - d. Automatic Summarization
 - e. Default Route and RIPv1
- VI. VLSM and CIDR
 - a. Classful and Classless Addressing
 - b. VLSM
 - c. CIDR
 - d. VLSM and Route Summarization Activity

- VII. RIPv2
 - a. RIPv1 Limitations
 - b. Configuring RIPv2
 - c. VLSM and CIDR
 - d. Verifying and Troubleshooting RIPv2
- VIII. The Routing Table: A Closer Look
 - a. The Routing Table Structure
 - b. Routing Table Lookup Process
 - c. Routing Behavior
- IX. EIGRP
 - a. Introduction to EIGRP
 - b. Basic EIGRP Configuration
 - c. EIGRP Metric Calculation
 - d. DUAL
- X. Link-State Routing Protocols
 - a. Link-State Routing Protocols
 - b. Implementing Link-State Routing Protocols
- XI. OSPF
 - a. Introduction to OSPF
 - b. Basic OSPF Configuration
 - c. The OSPF Metric
 - d. OSPF and Multi-Access Networks

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

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NET 225 ROUTING & SWITCHING I

COURSE DESCRIPTION:

Prerequisites: NET 126

Corequisites: None

This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in pre-requisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP. Course Hours Per Week: Class, 1. Lab, 4. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

- a. Explain basic switching concepts and switch operation
- b. Describe switching technologies of VLANs, 802.1q, and Spanning Tree
- c. Describe the logical operations of VLANs in separating networks and how routing occurs between them
- d. Interpret network diagrams
- e. Install, configure, verify, and troubleshoot switches and routers with VLANs, trunks, and Spanning Tree
- f. Identify and correct common network problems at layers 1, 2, 3, and 7 using a layered model approach
- g. Verify network status and problems using ping, traceroute, arp, and other utilities
- h. Identify basic wireless networks and devices, including access points and end stations, along with potential implementation issues
- i. Define SSID, BSS, ESS, beaconing, association, and authentication
- j. Compare and contrast wireless encryption standards, including Open, WEP, and WPA, along with their variants
- k. Configure Wi-Fi devices with basic parameters to ensure valid connections

OUTLINE OF INSTRUCTION:

- I. LAN Design
 - a. Switched LAN Architecture
 - b. Matching Switches to Specific LAN Functions

- II. Basic Switch Concepts and Configuration
 - a. Introduction to Ethernet/802.3 LANs
 - b. Forwarding Frames Using a Switch
 - c. Switch Management Configuration
 - d. Configuring Switch Security
- III. VLANs
 - a. Introducing VLAN
 - b. VLAN Trunking
 - c. Configure VLANs and Trunks
 - d. Troubleshooting VLANs and Trunks
- IV. VTP
 - a. VTP Concepts and Operation
 - b. Configure VTP
- V. STP
 - a. Redundant Layer 2 Topologies
 - b. Introduction to STP
 - c. STP Convergence
 - d. PVST+, RSTP, and Rapid PVST+
- VI. Inter-VLAN Routing
 - a. Inter-VLAN Routing
 - b. Configuring Inter-VLAN Routing
 - c. Troubleshooting Inter-VLAN Routing
- VII. Basic Wireless Concepts and Configuration
 - a. The Wireless LAN
 - b. Wireless LAN Security
 - c. Configure Wireless LAN Access
 - d. Troubleshooting Simple WLAN Problems.

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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NET 226
ROUTING & SWITCHING II

COURSE DESCRIPTION:

Prerequisites: NET 225

Corequisites: None

This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network routing problems, identify ISDN protocols, and describe the Spanning Tree protocol. Course Hours Per Week: Class, 1. Lab, 4. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, student will be able to:

- a. Describe the impact of Voice Over IP or Video Over IP applications on networks
- b. Identify and correct common network problems at layers 1, 2, 3, and 7 using a layered model approach
- c. Interpret network diagrams
- d. Describe the components required for network and Internet communications
- e. Implement basic switch security measures such as port security, trunk access, and management VLANs
- f. Explain the operation and benefits of DHCP and DNS
- g. Configure, verify, and troubleshoot DHCP and DNS operations on a router
- h. Describe current network security threats and explain how to implement a comprehensive security policy to mitigate common threats to network devices, hosts, and applications
- i. Describe the functions of common security appliances and applications
- j. Describe recommended security practices to secure network devices
- k. Describe the purpose and types of access control lists (ACLs)
- l. Configure and apply ACLs based on network filtering requirements
- m. Verify, monitor, and troubleshoot ACLs in a network environment
- n. Explain the basic operation of Network Address Translation (NAT)
- o. Configure NAT for given network requirements
- p. Troubleshoot NAT issues
- q. Describe different methods for connecting to a WAN
- r. Configure and verify a basic WAN serial connection
- s. Configure and verify a Point-to-Point Protocol (PPP) connection between routers
- t. Configure and verify Frame Relay connections
- u. Troubleshoot WAN implementation issues
- v. Describe the importance, benefits, role, impact, and components of VPN technology.

OUTLINE OF INSTRUCTION:

- I. Introduction to WANs
 - a. Providing Integrated Services to the Enterprise
 - b. WAN Technology Concepts
 - c. WAN Connection Options

- II. PPP
 - a. Serial Point-to-Point Links
 - b. PPP Concepts
 - c. Configuring PPP
 - d. Configuring PPP with Authentication
- III. Frame Relay
 - a. Basic Frame Relay Concepts
 - b. Configuring Frame Relay
 - c. Advanced Frame Relay Concepts
 - d. Configuring Advanced Frame Relay
- IV. Network Security
 - a. Introduction to Network Security
 - b. Securing Routers
 - c. Secure Router Network Services
 - d. Secure Router Management
- V. ACLs
 - a. Using ACLs to Secure Networks
 - b. Configuring Standard ACLs
 - c. Configuring Extended ACLs
 - d. Configuring Complex ACLs
- VI. Teleworker Services
 - a. Business Requirements for Teleworker Services
 - b. Broadband Services
 - c. VPN Technology
- VII. IP Addressing Services
 - a. DHCP
 - b. Scaling Networks with NAT
 - c. IPv6
- VIII. Network Troubleshooting
 - a. Establishing the Network Performance Baseline
 - b. Troubleshooting Methodologies and Tools
 - c. Common WAN Implementation Issues
 - d. Network Troubleshooting

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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NET 289 NETWORKING PROJECT

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: NET 226

This course provides an opportunity to complete a significant networking project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation. Course Hours Per Week: Class, 1. Lab, 4. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

- a. Design, develop, implement, test and document an IT project
- b. Use best practices of systems development and project management
- c. Participate and contribute as a member of an IT project team
- d. Apply learning outcomes of previous security courses to an IT project

OUTLINE OF INSTRUCTION:

- I. Six Phases of Project Management
 - a) Project Initiation
 - b) Project Definition
 - c) Project Design
 - d) Project Implementation
 - e) Project Test
 - f) Project Documentation
- II. Project Management Components
 - a) Team
 - b) Goal
 - c) Limited Resources
 - d) Uncertainty (risk)
 - e) Control Factors
 - i. Time
 - ii. Money
 - iii. Quality
 - iv. Organization
 - v. Information

III. Work Products of Project Management

- a) Defining team roles
- b) Project Charter
- c) Project Plan
- d) Budget and Financial Statement
- e) Action-and-Decision Lists
- f) Issue Logs
- g) Risk Logs
- h) Meeting Reports

IV. Communication and Collaboration Tools

- a) Email
- b) Discussion Board
- c) Instant Messaging, Chat
- d) Audio- and web- conferences
- e) Shared Calendars
- f) Websites
- g) Shared file storage

V. Working in Teams

- a) Creating effective work groups (keys, obstacles, functions)
- b) Elements, issues and diseases work groups face
- c) What to observe in a group
- d) Influence Tactics used in groups
- e) Running effective meetings
- f) Techniques in group decision making
- g) Phases of group development

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

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NOS 110 OPERATING SYSTEMS CONCEPTS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is place on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Explain basic operating system concepts
- b. Describe operating system components
- c. Describe computer hardware components and how they are managed by OSs
- d. Describe OS virtualization and virtualization software categories
- e. Describe computer I/O and device driver interaction with OSs
- f. Compare single- and multitasking, and single- and multiuser OSs
- g. Install, update, and configure Windows and Linux operating systems in physical and/or virtualized computers
- h. Identify file management system purpose and function
- i. Compare file systems used by different OSs
- j. Explain data storage technologies and media, including backup processes
- k. Identify the basic characteristics of networks and OS network services
- l. Explain and implement basic file and print resource sharing over networks
- m. Perform operating system maintenance procedures

OUTLINE OF INSTRUCTION:

- I. Operating Systems
 - a. Concepts
 - b. Components (kernel, resource managers, device drivers, applications)
 - c. Types (single- versus multi-tasking, single- versus multi-user)
 - d. History
 - e. CPU and Buses
 - f. Input / Output
 - g. Memory

II. Virtualization and Virtual Machines

- a. Hypervisor Environments
- b. Operating System Virtualization
- c. Application Virtualization

III. Early and Current Operating Systems

- a. DOS
- b. Windows
- c. UNIX/Linux
- d. MacOS
- e. Desktop OS versus Server OS

IV. File Systems

- a. Disk storage basics and block allocation
- b. Directory structure
- c. Drive partitions and formatting
- d. Appropriate formats for different media

V. Installing and Updating Operating Systems

- a. Requirements and compatibility
- b. Upgrade versus new install
- c. Windows simple install
- d. Linux simple install
- e. Update and patch systems

VI. Input and Output Devices

- a. Device drivers
- b. Input (keyboard, mouse, touch, microphone, scanner, video camera)
- c. Output (display adapter and monitor, printer, sound card)
- d. Installing boards and adapters

VII. Storage Devices

- a. Hard drive storage (disks, SSD, RAID)
- b. Optical storage (Blu-Ray, DVD, CD, read-only, recordable, rewriteable)
- c. Network storage (Storage Area Network vs Network Attached Storage)
- d. Storage management tools

VIII. Communication and Networks

- a. Network basics and protocols
- b. Interfaces (modems, wired and wireless network interfaces)

IX. Resource sharing

- a. Data storage
- b. Printing
- c. Application or desktop sharing

- X. Maintenance Procedures
 - a. File system and data maintenance
 - b. Backup and restoration

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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NOS 120

LINUX/UNIX SINGLE USER

COURSE DESCRIPTION:

Prerequisites: NOS 110 or CET 211

Corequisites: None

This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Become familiar with the Linux desktop and basic tasks
- b. Utilize Linux in physical and virtual environments
- c. Find appropriate assistance with installation or configuration problems
- d. Describe the directory structure of the Linux file system
- e. Manipulate file and directories
- f. Utilize the shell and command line interface to perform tasks
- g. Describe regular expressions and implement basic examples
- h. Create and manage users, groups, and their file system permissions
- i. Edit configuration files with command line and graphical editors
- j. Manage software installation with package management tools

OUTLINE OF INSTRUCTION:

- I. Linux desktop introduction
 - a. X-windows
 - b. GNOME and KDE environments
 - c. Access GUI and command line interfaces
- II. Locate and use help resources
 - a. man and info pages
 - b. GUI-based help
 - c. Online assistance

III. Manage Linux filesystem

- a. File System Hierarchy standard (FHS)
- b. Mount points
- c. File types (files, directories, links, devices)
- d. Directory navigation and listing
- e. Creating, copying, moving, viewing files
- f. Searching directories for files
- g. Basic regular expressions (regex) with *, ?, \, \$, ^, ., +,
- h. Searching within files

IV. Command line and shells

- a. Login vs. non-Login shell, Interactive shells
- b. History, shell variables, aliases
- c. Shell interpretation and escaping with \, `, `, and “
- d. Piping and redirection of stdin, stdout, and stderr with |, <, >, >> and 2>
- e. Basic shell programming with && and ||

V. Manage users, groups, and permissions

- a. Creating user and group accounts with GUI and command line
- b. root user, su, and sudo
- c. UIDs and passwords: /etc/passwd, /etc/shadow, and /etc/group
- d. File permissions: read, write, execute, and special for user, group, other
- e. chmod, chown, chgrp, umask
- f. ACL implementation, benefits, and drawbacks

VI. Linux text editors

- a. Command line editors
- b. GUI editors

VII. Software package management

- a. RPM
- b. APT

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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NOS 130

WINDOWS SINGLE USER

COURSE DESCRIPTION:

Prerequisites: NOS 110 or CET 211

Corequisites: None

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Interact with operating system users to determine their needs
- b. Install windows desktop operating systems
- c. Setup user and group accounts
- d. Install, administer, and troubleshoot network printers
- e. Demonstrate the ability to install and utilize network utilities
- f. Configure basic IP addressing, netmasks, subnetting, and IP security
- g. Recommend network applications
- h. Troubleshoot common booting problems
- i. Troubleshoot network connectivity issues

OUTLINE OF INSTRUCTION:

- I. Windows Installation
 - a) Windows versions
 - b) Upgrading from previous versions
 - c) Installation sources
 - d) User profile and data migration
 - e) Active Directory and Group Policy integration
- II. System Images
 - a) Image Preparation
 - i. Automated Installations
 - ii. Unattended Installation Facts
 - iii. Creating an Answer File
 - b) Image Capture with Windows PE and ImageX
 - c) Manual Image Deployment with ImageX
 - d) Image Servicing
 - i. Mounting and Unmounting Images
 - ii. Image Servicing with DISM
 - iii. Changing Image Settings and Drivers
 - iv. Applying Updates to Images
 - v. Advanced DISM Options
 - e) Virtual Hard Disk (VHD) installation and creation

- f) Domain Image Deployment
 - i. Microsoft Deployment Toolkit (MDT)
 - ii. Windows Deployment Services (WDS)
 - iii. Deploying Images with WDS

III. Hardware and Applications

- a) Device Drivers: Managing, Staging, Configuration and Troubleshooting
- b) Partitions and Volumes: Creating, Resizing Volumes
- c) Disk Optimization: maintenance and quotas
- d) Removable Storage Policies and Group Policy Settings
- e) Application Compatibility
- f) User Account Control (UAC)
- g) Internet Options
- h) Internet Explorer (IE) 8: Security, InPrivate mode, Compatibility View
- i) Software Restriction Policies and AppLocker

IV. Networking

- a) IPv4 (Addresses, subnetting)
- b) IPv6 (Features, addresses, and implementation)
- c) IP Address Configuration for IPv4 and IPv6
- d) TCP/IP Troubleshooting Tools
- e) Configuring and Troubleshooting IPv4 and IPv6
- f) Configure IPv4 and IPv6 Settings
- g) Internet Connection Sharing (ICS)
- h) Wireless Networking (connecting, profiles)
- i) Windows Firewall and Advanced Security

V. Resource Access

- a) Authentication and Authorization
 - i. Authentication Management
 - ii. Using Credential Manager
 - iii. Using Run As
 - iv. Managing User Rights and Account Policies
 - v. Manage Account Policies
- b) NTFS Permissions
- c) Resource Sharing (Shared Folders, Libraries, HomeGroups)
- d) Printer Sharing and Management
- e) Auditing
- f) Encryption and Encrypting File System (EFS)
- g) BranchCache

VI. Mobile Computing

- a) Network Access Protection (NAP)
- b) Virtual Private Network (VPN) creation and configuration
- c) DirectAccess
- d) BitLocker and BitLocker To Go
- e) Mobility Options: tools, offline files, and power plans

VII. Monitoring and Maintenance

- a) Troubleshooting tools, configuring Services and Startup Items

- b) System Events: Event Viewer, Subscriptions
- c) Performance Monitoring
 - i. Performance Information and Tools Console
 - ii. Viewing the Windows Experience Index
 - iii. Windows Experience Index Facts
 - iv. Update the Windows Experience Index
 - v. Performance Monitor Console
 - vi. Monitoring Performance
 - vii. Windows Performance Toolkit (WPT)
- d) Resource Monitoring
 - i. Task Manager
 - ii. Resource Monitor and Process Explorer
- e) Reliability Monitor and Action Center
- f) Windows Defender
- g) Optimization
- h) System Updates
 - i. Windows Updates
 - ii. Configure Windows Update
 - iii. Update Deployment and Management
 - iv. Configuring WSUS Clients
 - v. Update Group Policy Settings
 - vi. Remote Management: Remote Desktop and Remote Assistance

VIII. Backup and Recovery

- a) System Backup
- b) File Recovery: Backups and Shadow Copies
- c) System Recovery and Restore Point

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

NOS 220 LINUX/UNIX ADMIN I

COURSE DESCRIPTION:

Prerequisites: NOS 120

Corequisites: None

This course introduces the Linux file system, group administration, and system hardware controls. Topics include installation, creation and maintaining file systems, NIS client and DHCP client configuration, NFS, SMB/Samba, Configure X, Gnome, KDE, basic memory, processes, and security. Upon completion, students should be able to perform system administration tasks including installation, configuring and attaching a new Linux workstation to an existing network. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Install Linux server and desktop for physical or virtual environments
- b. Manage system boot and initialization
- c. Administer active processes and system services
- d. Create and manage file systems and storage
- e. Configure networking
- f. Manage hardware devices
- g. Configure remote access
- h. Monitor a system
- i. Automate tasks
- j. Manage backup and recovery
- k. Administer user access and security

OUTLINE OF INSTRUCTION:

- I. Linux system installation
 - a. Physical installation with DVD media or network install
 - b. Virtual installation with ISO image
 - c. Desktop vs. server components
- II. System initialization
 - a. BIOS and poweron
 - b. Kernel, init, and initramfs
 - c. GRUB, lilo, syslinux, and boot management
 - d. Runlevels, runlevel directories, and service initialization

- III. Administer Linux processes and services
 - a. Processes and jobs
 - b. Foreground, background, and daemon processes
 - c. Prioritization
 - d. Stopping and killing processes
- IV. Administer Linux file system
 - a. File system capabilities and comparisons
 - b. Journaling
 - c. Partition naming conventions
 - d. Creating and managing partitions with GUI and command line
 - e. Creating and managing file systems with GUI and command line
 - f. Configuring LVM and software RAID
 - g. Setup and manage disk quotas
- V. Network configuration
 - a. IP basics and required configurations (IP, netmask, router, dns)
 - b. Viewing IP configuration with command line and GUI tools
 - c. Configuring interfaces with command line and GUI tools
 - d. Testing network configurations and troubleshooting tools
- VI. Manage hardware
 - a. Device drivers – kernel and kernel modules
 - b. sysfs and udev
- VII. Configure remote access
 - a. Command line using SSH
 - b. GUI using VNC or RDP
- VIII. Monitor Linux
 - a. Gathering hardware information
 - b. Monitoring disk space utilization
 - c. System logging with syslog and logrotate
 - d. Login tracking
 - e. Automating tasks with cron and at
- IX. Backup and Recovery
 - a. Strategies, methods, media, and schedules
 - b. tar, including gz and bzip2 compression
 - c. dd and drive images
 - d. Mirroring with rsync

- X. User access and systems security
 - a. PAM and modules
 - b. sudo and appropriate root usage
 - c. ACLs and permissions
 - d. Firewalls and packet filtering

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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NOS 230 WINDOWS ADMIN I

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and Managing/Implementing Disaster Recovery. Upon completion, students should be able to manage and maintain a Windows Server environment. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Install and configure Windows Server 2008 and Active Directory
- b. Create and manage user, group, and computer accounts
- c. Manage access to Server Resources
- d. Implement Active Directory Domain Services
- e. Implement and manage Active Directory Rights Management Services
- f. Manage and Maintain a Windows Server Environment
- g. Manage and Implement Disaster Recovery Procedures

OUTLINE OF INSTRUCTION:

- I. Overview and Implementation of Active Directory services
 - a. Design requirements and hierarchy
 - b. AD Schema
- II. Installing Windows Server 2008 and Active Directory
 - a. Requirements and prerequisites
 - b. Installation and roles
 - c. Trust relationships
 - d. Siteplan, subnets, and managing replication
 - e. Global Catalog and FSMO roles
- III. Active Directory Administration
 - a. Create and manage User, Group, and Computer accounts
 - b. Default, local, and Special Identify groups

- IV. Security Planning and Group Policy
 - a. Password security: enforcement and user education
 - b. Organization Unit planning and delegation
 - c. Group Policy architecture, container, and templates
 - d. Management Console
 - e. Configuring account and local policies
 - f. Audit policies
 - g. Application installation and packaging
 - h. Managing Group Policy Objects
- V. Maintenance, Troubleshooting, and Disaster Recovery
 - a. Backup and Restore
 - b. Monitoring – Event log, Reliability and Performance Monitor
- VI. Configuring DNS and Securing Services
 - a. Server types
 - b. Zones and zone transfers
 - c. DHCP integration
 - d. PKI and certificates
 - e. Certificate services (Certificate Authority or CA) installation
 - f. Certificate management and revocation

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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NOS 231 WINDOWS ADMIN II

COURSE DESCRIPTION:

Prerequisites: NOS 230

Corequisites: None

This course covers implementing, managing, and maintaining a Windows Server network infrastructure. Topics include implementing, managing, and maintaining IP addressing, name resolution, network security, routing and remote access, and managing a network infrastructure. Upon completion, students should be able to manage and maintain a Windows Server environment. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Install and configure network server and network services
- b. Create user, group, and computer accounts
- c. Monitor, maintain, and troubleshoot network services
- d. Manage access to resources
- e. Implement a security policy and procedures
- f. Manage data storage
- g. Manage disaster recovery
- h. Maintain software installations and upgrades

OUTLINE OF INSTRUCTION:

- I. Networking Concepts Review
 - a. IPv4 addressing, netmask, gateways
 - b. DNS and WINS
 - c. DHCP
- II. Installing and Configuring Windows Server 2008
 - a. Server Roles and Features
 - b. Server Core Installation
 - c. Server Manager
- III. The Domain Name System (DNS)
 - a. Installing the DNS Server Role
 - b. Configuring the DNS Server Role
 - c. Configuring DNS Zones
 - d. Configuring DNS Zone Transfers
 - e. DNS Maintenance

- IV. Configuring and Troubleshooting DHCP
 - a. Installing DHCP Server Role
 - b. DHCP Scopes and Options
 - c. Monitoring and Troubleshooting DHCP
 - d. DHCP Security
- V. Routing and Remote Access
 - a. Configuring Network Access
 - b. Installing Remote Access Service
 - c. Configuring VPN Access
 - d. Overview of Network Policies
 - e. Troubleshooting RRAS
- VI. Configuring File Services
 - a. Disk and volume types
 - b. Shares, Permissions, and Access Control
 - c. Distributed File System (DFS)
- VII. Configuring Print Services
 - a. Deploying a Print Server
 - b. Print Services Role
- VIII. Maintain Server Security
 - a. Windows Infrastructure Security
 - b. Securing Servers with Security Templates
 - c. Windows Server Update Services
 - d. Managing WSUS
- IX. Configuring IPsec
 - a. Overview of IPsec
 - b. Configuring IPsec Settings
 - c. Configuring Connection Security Rules
 - d. Working with IPsec NAP Enforcement
 - e. Monitoring and Troubleshooting IPsec
- X. Network connectivity control and certificates
 - a. Active Directory Certificate Services
 - b. Certificate Authority configuration
 - c. Configure Key Archive and Recovery
 - d. Network Access Protection
 - e. Configuration of NAP
 - f. Maintaining NAP

XI. Configuring and Managing Storage Technologies

- a. File Server Resource Manager
- b. Configuring Quota Management
- c. Backing Up Data
- d. Configuring Shadow Copies

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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NUR 111 INTRODUCTION TO HEALTH CONCEPTS

COURSE DESCRIPTION:

Prerequisites: Admission to the Associate Degree Nursing program; listing as a Nursing Assistant I on North Carolina Nurse Aide Registry

Corequisites: ACA 122 (or waiver), ENG 111, PSY 150, BIO 168

This course introduces the concepts within the three domains of the individual, healthcare and nursing. Emphasis is placed on the concepts within each domain, including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in the course. Course Hours per Week: Class, 4 Lab, 6 Clinical, 6. Semester Hours Credit, 8. Placement in the curriculum: First Semester

LEARNING OUTCOMES:

Upon completion of this course, the student will:

A. Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings, specifically:

- 1) Assess the patient's health status by completing a health history and performing a physical assessment utilizing subjective and objective data.
- 2) Assess the patient's ability to meet basic human physiological and psychosocial needs.
- 3) Discuss developmental, emotional, cultural, religious, and spiritual influences on a patient's health status.
- 4) Demonstrate caring behavior towards the patient.
- 5) Protect the patient's dignity.
- 6) Identify the influence of the patient's own power and self healing processes on their health.
- 7) Provide the patient with choices about daily care.
- 8) Identify patient coping strategies.
- 9) Identify nursing measures that assist the patient in completion of current developmental stage.
- 10) Identify realistic and measurable patient-centered outcomes with the patient.
- 11) Describe factors to consider when making healthcare and end of life decisions.
- 12) Identify environment factors that may impact a patient's health status.
- 13) Identify resources and needs of patients within the context of their community.
- 14) Identify types of health care settings.
- 15) Describe the problem solving process.
- 16) Discuss roles of members of the nursing team.

17) Identify risks to patient safety in the clinical area.

B. Make judgments in practice, substantiated with evidence that integrates nursing science in the provision of safe, quality care and promote the health of patients within a family and community context, specifically:

- 1) Implement a plan of care for one patient problem ensuring accurate and safe care.
- 2) Utilize the patient, significant support person(s), and printed and/ or electronic records to obtain subjective and objective assessment data.
- 3) State if patient outcomes were met or not met.
- 4) Revise plan of care as needed.
- 5) Define evidence-based standards of care and identify the importance of nursing research.
- 6) Discuss the use of information technology to support and communicate the provision of care.
- 7) Identify patient's priority nursing problem.
- 8) Provide organized care for one patient.
- 9) Discuss time management principles related to patient care.
- 10) Discuss the roles of members of the nursing team.
- 11) Discuss the role of the nursing instructor in teaching and supervision of nursing students.
- 12) Describe the cost effectiveness of health promotion/ maintenance relative to illness.
- 13) Discuss the use of information technology to support and communicate the provision of care.
- 14) Define types of communication.
- 15) Describe age appropriate verbal and non-verbal communication which conveys a caring attitude toward the patient and significant support person(s).
- 16) Communicate relevant, accurate, and complete information to patient, co-assigned RN, and instructor.
- 17) Report and document assessments.
- 18) Protect confidential information.
- 19) Describe appropriate channels of communication in health care settings.

C. Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context, specifically:

- 1) Describe the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
- 2) Describe professional nursing behaviors as defined in the Associate Degree Nursing Handbook.
- 3) Report nursing care errors or omissions to instructor/care nurse promptly.
- 4) Complete assigned care, recognizing and reporting significant data and changes in the patient health status to the instructor immediately.

- 5) Describe the AHA Patient Bill of Rights.
- 6) Maintain patient confidentiality.
- 7) Discuss the use of evidence to support decision making.
- 8) Practice within the parameters of individual knowledge.
- 9) Explain the functions and purpose of selected professional nursing organizations.
- 10) Identify appropriate professional boundaries in the nurse-patient relationship.
- 11) Provide a safe physical environment for the patient.
- 12) Identify the patient's values, customs, culture, and/or habits.
- 13) Perform nursing skills competently.
- 14) Identify learning needs of selected patients.
- 15) Identify health promotion activities.
- 16) Define delegation.
- 17) Define nursing leadership.
- 18) Report and document assessments.
- 19) Demonstrate universal precautions and principles of safety.

D. Examine the evidence that underlies clinical nursing practice to challenge the status-quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities, specifically:

- 1) Describe the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
- 2) Identify factors that are important in working with others.
- 3) Identify self care behaviors.
- 4) Identify personal learning goals and resources to assist in meeting these learning goals.
- 5) Identify the importance of lifelong learning.
- 6) Seek assistance as necessary.
- 7) Identify appropriate resources for continued learning.
- 8) Define positive and negative group communication.
- 9) Identify how to find current nursing literature.
- 10) Discuss ethical and legal issues in nursing.
- 11) Explain the functions and purpose of selected professional nursing organizations.
- 12) Discuss the Nursing Practice Act.
- 13) Identify the importance of standards of care.
- 14) Identify economic, political, social, and demographic forces on the delivery of health care.
- 15) Identify other health care team members.
- 16) Define Quality Improvement.

I. CONCEPTS IN COURSE:

A. Concepts related to Nursing

- 1) Assessment (Class, Lab, Clinical)
- 2) Medication administration (Lab)
- 3) Nutrition (Class, Clinical)
- 4) Interdisciplinary teams (Class, Clinical)
- 5) Communications (Class, Clinical)
- 6) Clinical decision making – reasoning (Class, Clinical)
- 7) Teaching and learning (Class, Clinical)
- 8) Caring interventions – individual centered care (Class, Clinical)
- 9) Collaboration (Class, Clinical)

B. Concepts related to the Individual

- 1) Health, wellness and illness (Class, Clinical)
- 2) Oxygenation (Class, Lab, Clinical)
- 3) Perfusion (Class, Lab, Clinical)
- 4) Sensory/ Perception (Class, Lab, Clinical)
- 5) Mobility (Class, Lab, Clinical)
- 6) Cognition (Class, Lab, Clinical)
- 7) Tissue integrity (Lab, Clinical)
- 8) Infection (Class, Lab, Clinical)
- 9) Inflammation (Class, Lab, Clinical)
- 10) Elimination (Class, Lab, Clinical)
- 11) Self (Class, Clinical)
- 12) Family (Class, Clinical)
- 13) Diversity (Class, Clinical)
- 14) Culture (Lecture, Clinical)
- 15) Spiritual (Lecture, Clinical)
- 16) Stress and coping (Lecture, Clinical)
- 17) Fluid-electrolytes (Lecture, Lab, Clinical)
- 18) Comfort (Class, Lab, Clinical)
- 19) Sleep (Class, Clinical)
- 20) Fatigue (Class, Clinical)
- 21) Thermoregulation

C. Concepts related to Healthcare

- 1) Health care systems (Class, Clinical)
- 2) Ethics (Class, Clinical)
- 3) Informatics (Class, Clinical)
- 4) Evidence-based practice (Class, Clinical)
- 5) Quality improvement (Class, Clinical)
- 6) Legal Issues (Class, Clinical)
- 7) Accountability (Class, Clinical)
- 8) Safety (Class, Lab, Clinical)

Methods of Instruction and Learning Activities

Teaching methods may include, but not be limited to:

Audiovisuals	Computer-assisted instruction
Lecture, discussion, demonstration	Selected patient care assignments
Group work, Case studies, role-playing	Clinical worksheets and nursing care plans
Group Presentation	Problem-based learning scenarios

Course Instruction Faculty Information

Course Leader

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Meeting Times

Class:	Monday and Tuesday	Sections 001/ 002	8:45-10:45
	Monday and Tuesday	Sections 003/ 004	1:00-3:00
Clinical:	Thursday or Friday	All sections	7:00 AM–12:30PM

(You may be required to meet prior to this time for clinical preparation.)

Required Texts:

Hoefler, P. (2007). Test-Taking Strategies for Beginning Nursing Students. 5th Ed.
Meds Publishing: (978-1-56533-514-1)

Karch, A. (2008). Focus on Nursing Pharmacology. 5th Ed. Lippincott, Williams & Wilkins
(978-07817-89820)

Taber's Cyclopedic Medical Dictionary (2009). 21st Ed. F. A. Davis. (9780803615601)

HESI RN Patient Reviews (access card) Elsevier Health ISBN: (9781437767650)

Delune, S.C. & Ladner, P.K. (2012). Fundamentals of Nursing: Standards and Practice. 4th Ed. ISBN: (9781435480674).

Van Leeuwen A. & Poelhuis-Leth, D. (2009) Davis's Comprehensive Handbook of Laboratory And Diagnostic Tests with Nursing Implications. 3rd Ed. ISBN: (9780766815070) **OR**

Pagana, K.D. & Pagana, T.J. (2010). Mosby's Manual of Diagnostic and Laboratory Tests. 4th Ed. ISBN: (978-0-323-05747-9)

Pickar, G.D. & Abernethy, A.P. (2011). Dosage Calculations: A Ratio-Proportion Approach. 3rd Ed. ISBN (978-1-4354-5410-1)

Suggested Texts:

Hogan, M. A., Bowles, D., & White, J. E., (2007). Nursing Fundamentals Reviews & Rationales. 2nd Ed. Prentice Hall. (9-7801-3224078-9)

Myers, E. (2007) RNotes Nurse's Clinical Pocket Guide. F. A. Davis (9780803623132)

Nugent, P. (2011). Fundamentals Success. F. A. Davis (0803627793)

Wilson, B. A. Nursing Drug Guide 2011. Prentice Hall. (2010 edition is OK)
OR Any drug guide *for nurses* published within the past 2 years

Gulanick, M. & Myers J. (2011). Nursing Care Plans Diagnoses, Interventions, and Outcomes. 7th Ed. Elsevier/Mosby ISBN (978-0-323-06537-5)

Delune, S.C. & Ladner, P.K. (2012). Fundamentals of Nursing: Standards and Practice. 4th Ed. EBook. ISBN: 97814354892

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

NUR 112

HEALTH ILLNESS CONCEPTS

COURSE DESCRIPTION:

Prerequisites: NUR 111, BIO 168, PSY 150, ENG 111, ACA 122

Corequisites: PSY 241, BIO 169

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. Course Hours per Week: Class, 3. Clinical, 6. Semester Hours Credit, 5. Placement in the curriculum: Second Semester

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- A. Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings specifically:
 - 1) Assess the patient's health status by completing a health history and performing a physical and psycho-social, assessment utilizing subjective and objective data.
 - 2) Assess the patient's response to actual health problems.
 - 3) Identify developmental emotional, cultural, religious, and spiritual influences on the patient's health status.
 - 4) Demonstrate caring behavior towards the patient and significant support person(s).
 - 5) Protect and promote the patient's dignity, uniqueness, integrity, and self-determination.
 - 6) Recognize the effect of patient's own power and self-healing processes on care.
 - 7) Provide the patient with the information to make choices regarding daily care.
 - 8) Demonstrate use of patient coping strategies.
 - 9) Utilize nursing measures that assist the patient in completion of current developmental stage.
 - 10) Establish and evaluate realistic and measurable patient-centered outcomes with the patient.
 - 11) Discuss ways to support the patient when making healthcare and end of life decisions.
 - 12) Describe environmental factors that may impact the patient's health status.
 - 13) Describe the resources and needs of the patient within the context of their community.
 - 14) Implement discharge teaching including appropriate follow up care.
 - 15) Interact with instructor and clinical group to solve problems to achieve patient goals and outcomes.
 - 16) Describe functions of various members of the health care team.
 - 17) Identify ways to reduce risks to patient safety.

- B. Make judgments in practice, substantiated with evidence that integrates nursing science in the provision of safe, quality care and promote the health of patients within a family and community context, specifically:
- 1) Implement a plan of care for two patient problems ensuring accurate and safe care.
 - 2) Utilize data from a complete holistic assessment of patients in the plan of care.
 - 3) Evaluate plan of care for one to two patients by utilizing identified outcomes.
 - 4) Revise plan of care and priorities as appropriate.
 - 5) Select evidence-based standards of care from resources identified by faculty.
 - 6) Demonstrate the use of information technology to support and communicate the provision of care.
 - 7) Establish priorities when caring for one to two patients.
 - 8) Provide organized care for one to two patients and significant support person(s).
 - 9) Apply time management principles to patient care.
 - 10) Discuss principles of delegation.
 - 11) Discuss teaching and supervision of other personnel when aspects of care are delegated.
 - 12) Identify ways to prevent waste and minimize cost in the clinical area.
 - 13) Demonstrate the use of information technology to support and communicate the provision of care.
 - 14) Describe the interaction patterns of the individual patient.
 - 15) Demonstrate use of age appropriate verbal and non-verbal communication which conveys a caring attitude toward the patient and significant support person(s).
 - 16) Communicate relevant, accurate, and complete information to patient, significant support person(s) (as appropriate), co-assigned RN, and instructor.
 - 17) Report and document assessments and interventions.
 - 18) Protect confidential information.
 - 19) Demonstrate use of appropriate channels of communication.
- C. Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context, specifically:
- 1) Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
 - 2) Demonstrate professional nursing behaviors.
 - 3) Report nursing care errors or omissions to instructor/care nurse promptly.
 - 4) Complete assigned care and documentation, recognizing and reporting significant data and changes in the patient health status to the instructor and health care team immediately.
 - 5) Adhere to the AHA Patient Bill of Rights.
 - 6) Maintain organizational and patient confidentiality.
 - 7) Apply evidence to support decision making.
 - 8) Practice within the parameters of individual knowledge and experience.
 - 9) Discuss the functions and purpose of professional nursing organizations.
 - 10) Demonstrate appropriate professional boundaries in the nurse-patient relationship.
 - 11) Provide a safe physical and psycho-social environment for the patient.
 - 12) Recognize the effect of patient's values, customs, culture, and/or habits on care.

- 13) Perform nursing skills competently.
 - 14) Develop an individualized teaching plan for one to two patients based on assessed patient needs.
 - 15) Demonstrate use of health promotion information in patient teaching.
 - 16) Identify aspects of care that could be delegated to others.
 - 17) Describe nursing leadership roles.
 - 18) Report and document assessments and interventions.
 - 19) Utilize universal precautions and principles of safety.
- D. Examine the evidence that underlies clinical nursing practice to challenge the status-quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities, specifically:
- 1) Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
 - 2) Describe the role of teamwork in health care.
 - 3) Describe positive self care and nursing behaviors.
 - 4) Demonstrate progress in meeting personal goals utilizing evidence-based information and resources.
 - 5) Describe methods of participating in lifelong learning.
 - 6) Seek assistance and help others as necessary.
 - 7) Identify methods of collecting evidence-based information and resources for personal development and continuing g learning.
 - 8) Identify reasons for conflict in the work setting.
 - 9) Identify how clinical agency utilizes current nursing literature to improve patient care.
 - 10) Describe the role of the ADN student in the ethical and legal frameworks of nursing.
 - 11) Discuss the functions and purpose of professional nursing organizations.
 - 12) Function within the Nursing Practice Act.
 - 13) Describe standards of care utilized in the clinical agency.
 - 14) Discuss economic, political, social, and demographic forces on the delivery of health care.
 - 15) Discuss the role of the RN as supervisor in a health care setting.
 - 16) Describe the purpose and process of quality improvement activities.

COURSE CONCEPTS

Concepts related to Nursing

- 1) Managing care
- 2) Professional behaviors
- 3) Communication
- 4) Caring interventions

Concepts related to the Individual

- 1) Perioperative
- 2) Fluids and electrolytes
- 3) Infection

- 4) Inflammation
- 5) Acid-base balance
- 6) Cellular regulation
- 7) Metabolism
- 8) Oxygenation
- 9) Health, wellness, illness

Concepts related to Healthcare

- 1) Safety
- 2) Quality improvement
- 3) Informatics

OUTLINE OF INSTRUCTION

- I. The client undergoing surgery
 - A. The preoperative client
 - B. The intra-operative client
 - C. The postoperative client
 - D. The client with anemia from blood loss
- II. Fluids and electrolytes
 - A. The client with fluid and electrolyte imbalance
- III. Infection
 - A. The client with pneumonia
 - B. The client with influenza
 - C. The client with RSV
- IV. Inflammation
 - A. The client with appendicitis
 - B. The client with peritonitis
 - C. The client with gastroenteritis
- V. Metabolism
 - A. The client with diabetes mellitus
- VI. Acid-base
 - A. The client with acid base imbalances
- VII. Oxygenation
 - A. The client with COPD
 - B. The client with asthma
 - C. The client with cystic fibrosis

REQUIRED TEXTBOOKS AND MATERIALS:

Gahart, B. 2013 Intravenous Medications. 29th Ed. Saunders/Elsevier (978-0-323-08481-9)

Hoefler, P. (2007). Test-Taking Strategies for Beginning Nursing Students. 5th Ed. Meds Publishing: (978-1-56533-514-1)

HESI RN Patient Reviews (access card) Elsevier Health ISBN: (978-1-455741427)

Hockenberry, M. & Wilson, D. (2012) Wong's Essentials of Pediatric Nursing. 9th, Ed. Elsevier ISBN: (9780323083430) **OR**

Hockenberry, M. (2012) Wong's Essentials of Pediatric Nursin. 9th Ed. Elsevier ISBN: EBook. (9781455743308)

Ignatavicius, Workman. *Medical-Surgical Nursing: Patient-Centered Collaborative Care*. 7th, Ed. W.B. Saunders Company, ISBN: (978-1-4377-2801-9) **OR**

Ignatavicius, Workman. *Medical-Surgical Nursing: Patient-Centered Collaborative Care*, 7th, Ed. W.B. Saunders Company. EBook. ISBN: (978-1-455-74053-6)

Karch, A. (2011). Focus on Nursing Pharmacology. 5th Ed. Lippincott, Williams & Wilkins (978-0-7817-8982-0)

Townsend, M. (2012). *Psychiatric Mental Health Nursing*. 7th Ed. F. A. Davis. (978-0-8036-2767-3)

Van Leeuwen A. & Poelhuis-Leth, D. (2011) Davis's Comprehensive Handbook of Laboratory and Diagnostic Tests with Nursing Implications. 3rd Ed. ISBN: (978-0803623040) **OR**

Pagana, K.D. & Pagana, T.J. (2010). Mosby's Manual of Diagnostic and Laboratory Tests. 4th Ed. ISBN: (978-0-323-05747-9)

RECOMMENDED TEXTS:

Cadenhead Colgrove & Hargrove-Huttel (2011) *Med-Surg Success: A Course Review Applying Critical Thinking to Test Taking*. 2nd Ed. F. A. Davis. ISBN :(978-0-8036-2504-4)

Curtis. C. (2009) *Psychiatric Mental Health Nursing Success: A course Review Applying Critical Thinking to Test Taking*. F.A. Davis, ISBN: (9780803618794)

Delune, S.C. & Ladner, P.K. (2012). Fundamentals of Nursing: Standards and Practice. 4th Ed. Delmar Cengage Learning. ISBN: 978-1-4354-8067-4

Delune, S.C. & Ladner, P.K. (2012). Fundamentals of Nursing: Standards and Practice. 4th Ed. Delmar Cengage Learning. EBook. ISBN: 97814354892

Gulanick, M. & Myers J. (2011). Nursing Care Plans Diagnoses, Interventions, and Outcomes. 7th Ed. Elsevier/Mosby ISBN (978-0-323-06537-5)

Hogan, M. A., Bowles, D., & White, J. E., (2007). Nursing Fundamentals Reviews & Rationales. 2nd Ed. Prentice Hall. (9-7801-3224078-9)

Kee, J. L., Paulanka, B. J. (2010). *Fluids and Electrolytes with Clinical Applications: A Programed Approach*. 8th Ed. Delmar Cengage Learning. ISBN (978-1-4354-5367-8)

Kee, J. L., Paulanka, B. J. & Polek, C. (2010). Handbook of Fluid, Electrolyte and Acid Base Imbalances. 3rd Ed. Delmar Cengage Learning. ISBN (978-1-4354-5368-5) **OR**

Zerwekh, J., Gaglione, T., & Miller, C. J. (2010) *Mosby's Fluids and Electrolytes Memory Notecards Visual, Mneumonic, and Memory Aids for Nurses*. 2nd Ed. Mosby/Elsevier. ISBN (978-0323067461)

Myers, E. (2010) RNotes Nurse's Clinical Pocket Guide. 3rd Ed. F. A. Davis 978-0803623132

Pickar, G.D. & Abernethy, A.P. (2011). Dosage Calculations: A Ratio-Proportion Approach. 3rd Ed. ISBN (978-1-4354-5410-1)

Mosby's Medical, Nursing & Allied Health Dictionary. 7th Ed. Mosby. (2006). ISBN: (139780323035620) **OR**

Taber's Cyclopedic Medical Dictionary (2009). 21st Ed. F. A. Davis. (9780803615601)

Wilson, B. A. Nursing Drug Guide 2011. (978-0132149266) Prentice Hall. **OR**
Any drug guide for nurses published within the past 2 years.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

NUR 113 FAMILY HEALTH CONCEPTS

COURSE DESCRIPTION:

Prerequisites: NUR 111, NUR 112, NUR 114, NUR 212, BIO 169, BIO 271, PSY 150, PSY 241

Corequisites: NUR 211, ENG 112

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in the course. Course Hours Per Week: Class: 3. Lab: 0. Clinical: 6. Semester Hours Credit: 5. Placement in the curriculum: Third Semester.

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- A. Practice professional nursing behaviors incorporating personal responsibility and accountability for continued competence, specifically:
 - 1. Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice, examining common ethical/legal dilemmas that impact nursing care.
 - 2. Report nursing care errors or omissions to instructor/care nurse promptly, assessing the situation for risk potential.
 - 3. Assure that assigned care and documentation are completed, recognizing and reporting significant data and changes in the client health status to the instructor and health care team immediately.

4. Practice within the policies/procedures and standards of care of the clinical agency, utilizing evidence-based standards of care in performing nursing measures.
 5. Advocate for client-centered care, respecting individual client's rights.
 6. Identify actual or potential breeches of client confidentiality.
 7. Practice within the parameters of individual knowledge and experience.
 8. Compare and contrast the functions and purpose of various professional nursing organizations.
 9. Serve as a positive role model within the role of the ADN student.
 10. Recognize the impact of economic, political, social, and demographic forces on the delivery of inpatient care.
 11. Identify resources for participation in lifelong learning.
 12. Propose ways of improving own nursing practice, utilizing evidence-based information and resources.
 13. Maintain appropriate professional boundaries in the nurse-client relationship.
- B. Communicate professionally and effectively with individuals, significant support person(s), and members of the interdisciplinary healthcare team, specifically:
1. Utilize age appropriate verbal and non-verbal communication which conveys a caring attitude toward the client, significant support person(s), staff and colleagues.
 2. Communicate relevant, accurate, and complete information in a concise and clear manner to client, significant support person(s) (as appropriate), co-assigned RN, instructor, and nursing team members.
 3. Report and document assessments, interventions, and progress toward client outcomes.
 4. Protect confidential information.
 5. Identify breeches and report or act to correct.
 6. Utilize information technology to support and communicate the planning and provision of care.
 7. Utilize appropriate channels of communication with the nursing team to achieve positive client outcomes.
- C. Integrate knowledge of the holistic needs of the individual to provide an individual centered assessment.
1. Assess the interaction patterns of individual client.
 2. Assess the impact of developmental, emotional, cultural, religious, and spiritual influences on the client's health status.
 3. Assess the client's health status by completing a health history and performing a physical, psycho-social, and functional assessment.
 4. Assess client for learning strengths, capabilities, barriers, and educational needs.
 5. Assess the client's response to actual or potential health problems.
 6. Assess the client's response to interventions.
 7. Assess the client's ability to access available community resources.
 8. Assess the hospital environment for factors that may impact the client's health status.
 9. Assess the strengths, resources, and needs of clients within the context of their community.

- D. Make clinical judgments and management decisions using the nursing process, evidence based findings, and informatics to ensure quality patient care, specifically:
 - 1. Make clinical judgments in implementing a plan of care for two clients ensuring accurate and safe care.
 - 2. Evaluate and utilize data from a complete holistic assessment of clients in the plan of care.
 - 3. Evaluate client care for two clients by utilizing identified outcomes.
 - 4. Revise and update nursing plan of care and priorities as appropriate.
 - 5. Utilize evidence-based standards in performing nursing measures.
- E. Implement safe, caring interventions for individuals and significant support person(s), in diverse settings using evidence-based practice, specifically:
 - 1. Protect and promote the client's dignity.
 - 2. Identify and honor the emotional, cultural, religious, and spiritual influences on the client's health.
 - 3. Demonstrate caring behavior towards the client, significant support person(s), and peers.
 - 4. Provide accurate and safe nursing care to two clients in diverse settings.
 - 5. Implement and prescribed care regimen within the legal ethical, and regulatory framework of nursing practice.
 - 6. Provide a safe physical and psycho-social environment for two clients.
 - 7. Perform nursing skills competently.
 - 8. Assist the clients and significant support person(s) with intervention, treatment modalities, and self-care.
 - 9. Assist the client to achieve optimum comfort and functioning.
 - 10. Prepare the client and significant support person(s) for intervention, treatment modalities, and self-care.
 - 11. Support the client when making healthcare and end of life decisions.
 - 12. Adapt care in consideration of the client's culture, and/or habits.
- F. Develop a teaching plan for individuals, and/or the nursing team, incorporating teaching and learning principles, specifically:
 - 1. Develop an individualized teaching plan for a client and significant support person(s) based on assessed client needs.
 - 2. Provide the client and significant support person(s) with the information to make choices regarding health care.
 - 3. Implement teaching plan for clients and their significant support person(s).
 - 4. Evaluate the effectiveness of the teaching plan for the client and significant support person(s).
 - 5. Revise teaching plan as needed.
 - 6. Identify necessary teaching and supervision of other personnel when identified aspects of care are delegated.

- G. Collaborate with the interdisciplinary health care team to advocate for positive individual and organizational outcomes, specifically:
 - 1. Collaborate with the client and significant support person(s) to establish realistic and measurable client-centered outcomes.
 - 2. Work cooperatively with others to achieve client outcomes.
 - 3. Collaborate with the client, significant support person(s), and members of the health care team in evaluating the client's response to treatments and client outcome criteria.
 - 4. Interact with others to solve problems to achieve client goals and outcomes.
 - 5. Collaborate with the health care team for the purpose of achieving positive client outcomes.
- H. Manage health care for individuals using cost effective nursing strategies, quality improvement processes, and current technologies, specifically:
 - 1. Establish priorities when caring for two clients.
 - 2. Organize care to meet priority needs of two clients.
 - 3. Demonstrate appropriate communication with health care settings to facilitate continuity of care.
 - 4. Identify aspects of care that may be delegated to other care givers.
 - 5. Identify necessary teaching and supervision of other personnel when aspects of care are delegated.
 - 6. Identify ways of meeting needs of clients with decreasing hospital stays.
 - 7. Identify the pros and cons of utilizing a variety of current health care technologies.
 - 8. Identify an area of patient care that should be considered for a quality improvement assessment.

CONTENT AND CONCEPTS

I. Concepts related to Nursing

- A. Communication
- B. Caring interventions
- C. Managing care

II. Concepts related to the Individual

- A. Oxygenation
- B. Sexuality
- C. Reproduction
- D. Grief/loss
- E. Mood/affect
- F. Behaviors
- G. Development
- H. Family
- I. Health-wellness-illness
- J. Cellular regulation

III. Concepts related to Healthcare

- A. Safety
- B. Advocacy

Methods of Instruction and Learning Activities

Teaching methods may include, but not be limited to:

Audiovisuals	Computer-assisted instruction
Lecture, discussion, demonstration	Selected patient care assignments
Group work, Case studies, role-playing	Clinical worksheets and nursing care plans
Group Presentation	Problem-based learning scenarios

REQUIRED TEXTBOOKS:

Hockenberry, Marilyn and David Wilson. *Wong's Essentials of Pediatric Nursing 8th Edition*. St Louis: Mosby, Inc. 2009. Print

Lowdermilk, Deitra L., Shannon Perry, and Kitty Cashion. *Maternity Nursing 8th Edition*. Mariland heights, MO: Mosby, Inc. 2010. Print.

RECOMMENDED TEXTBOOKS:

DeSevo, Margot. *Maternal and Newborn Success, A course Review Applying Critical Thinking to Test Taking*. Philadelphia: F.A. Davis Company. 2009. Print

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NUR 113
OUTLINE OF INSTRUCTION

Module 1 - Reproduction

- A. The antepartum client
 - 1) Normal antepartum care
 - 2) High-risk antepartum care
 - 3) Prenatal substance exposure
 - 4) The client with third trimester bleeding
 - 5) The client with preterm labor
 - 6) Diabetes in pregnancy
- B. The intrapartum client
 - 1) Normal labor and delivery
 - 2) Labor and delivery Complications and variations
- C. The newborn
 - 1) The normal newborn
 - 2) The high risk/premature newborn
 - 3) Sudden infant death syndrome
- D. The postpartum client
 - 1) Normal postpartum care
 - 2) Postpartum complications
 - 3) The client with postpartum depression

NUR 114 HOLISTIC HEALTH CONCEPTS

COURSE DESCRIPTION:

Prerequisites: NUR 111, NUR 112, BIO 168, PSY 150, ENG 111, ACA 122

Corequisites: PSY 241, BIO 169

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, inflammation, sensory perception, stress/ coping, cognition, self, violence, health-wellness-illness, professional behaviors, caring interventions and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. Course Hours per Week: Class, 3 Clinical, 6. Semester Hours Credit, 5.

Placement in the curriculum: Second Semester

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- A. Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings, specifically:
 - 1) Assess the patient's health status by completing a health history and performing a physical and psycho-social, assessment utilizing subjective and objective data.
 - 2) Assess the patient's response to actual health problems.
 - 3) Identify developmental emotional, cultural, religious, and spiritual influences on the patient's health status.
 - 4) Demonstrate caring behavior towards the patient and significant support person(s).
 - 5) Protect and promote the patient's dignity, uniqueness, integrity, and self-determination.
 - 6) Recognize the effect of patient's own power and self-healing processes on care.
 - 7) Provide the patient with the information to make choices regarding daily care.
 - 8) Demonstrate use of patient coping strategies.
 - 9) Utilize nursing measures that assist the patient in completion of current developmental stage.
 - 10) Establish and evaluate realistic and measurable patient-centered outcomes with the patient.
 - 11) Discuss ways to support the patient when making healthcare and end of life decisions.
 - 12) Describe environmental factors that may impact the patient's health status.
 - 13) Describe the resources and needs of the patient within the context of their community.
 - 14) Implement discharge teaching including appropriate follow up care.
 - 15) Interact with instructor and clinical group to solve problems to achieve patient goals and outcomes.
 - 16) Describe functions of various members of the health care team.
 - 17) Identify ways to reduce risks to patient safety.

- B. Make judgments in practice, substantiated with evidence that integrates nursing science in the provision of safe, quality care and promote the health of patients within a family and community context, specifically:
- 1) Implement a plan of care for two patient problems ensuring accurate and safe care,
 - 2) Utilize data from a complete holistic assessment of patients in the plan of care.
 - 3) Evaluate plan of care for one patient by utilizing identified outcomes.
 - 4) Revise plan of care and priorities as appropriate.
 - 5) Select evidence-based standards of care from resources identified by faculty.
 - 6) Demonstrate the use of information technology to support and communicate the provision of care.
 - 7) Establish priorities when caring for one patient.
 - 8) Provide organized care for one patient and significant support person(s).
 - 9) Apply time management principles to patient care.
 - 10) Discuss principles of delegation.
 - 11) Discuss teaching and supervision of other personnel when aspects of care are delegated.
 - 12) Identify ways to prevent waste and minimize cost in the clinical area.
 - 13) Demonstrate the use of information technology to support and communicate the provision of care.
 - 14) Describe the interaction patterns of the individual patient.
 - 15) Demonstrate use of age appropriate verbal and non-verbal communication which conveys a caring attitude toward the patient and significant support person(s).
 - 16) Communicate relevant, accurate, and complete information to patient, significant support person(s) (as appropriate), co-assigned RN, and instructor.
 - 17) Report and document assessments and interventions.
 - 18) Protect confidential information.
 - 19) Demonstrate use of appropriate channels of communication.
- C. Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context, specifically:
- 1) Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
 - 2) Demonstrate professional nursing behaviors.
 - 3) Report nursing care errors or omissions to instructor/care nurse promptly.
 - 4) Complete assigned care and documentation, recognizing and reporting significant data and changes in the patient health status to the instructor and health care team immediately.
 - 5) Adhere to the AHA Patient Bill of Rights.
 - 6) Maintain organizational and patient confidentiality.
 - 7) Apply evidence to support decision making.
 - 8) Practice within the parameters of individual knowledge and experience.
 - 9) Discuss the functions and purpose of professional nursing organizations.
 - 10) Demonstrate appropriate professional boundaries in the nurse-patient relationship.
 - 11) Provide a safe physical and psycho-social environment for the patient.
 - 12) Recognize the effect of patient's values, customs, culture, and/or habits on care.
 - 13) Perform nursing skills competently.
 - 14) Develop an individualized teaching plan for one patient based on assessed patient needs.

- 15) Demonstrate use of health promotion information in patient teaching.
- 16) Identify aspects of care that could be delegated to others.
- 17) Describe nursing leadership roles.
- 18) Report and document assessments and interventions.
- 19) Utilize universal precautions and principles of safety.

D. Examine the evidence that underlies clinical nursing practice to challenge the status-quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities specifically:

- 1) Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
- 2) Describe the role of teamwork in health care.
- 3) Describe positive self care and nursing behaviors.
- 4) Demonstrate progress in meeting personal goals utilizing evidence-based information and resources.
- 5) Describe methods of participating in lifelong learning.
- 6) Seek assistance and help others as necessary.
- 7) Identify methods of collecting evidence-based information and resources for personal development and continuing g learning.
- 8) Identify reasons for conflict in the work setting.
- 9) Identify how clinical agency utilizes current nursing literature to improve patient care.
- 10) Describe the role of the ADN student in the ethical and legal frameworks of nursing.
- 11) Discuss the functions and purpose of professional nursing organizations.
- 12) Function within the Nursing Practice Act.
- 13) Describe standards of care utilized in the clinical agency.
- 14) Discuss economic, political, social, and demographic forces on the delivery of health care.
- 15) Discuss the role of the RN as supervisor in a health care setting.
- 16) Describe the purpose and process of quality improvement activities.

I. Concepts related to Nursing

- A. Professional behaviors
- B. Caring interventions

II. Concepts related to the Individual

- A. Cognition
- B. Violence
- C. Self
- D. Elimination
- E. Inflammation
- F. Cellular regulation
- G. Stress and coping
- H. Sensory/ perception
- I. Perfusion
- J. Health, wellness, and illness

III. Concepts related to Healthcare

- A. Safety

OUTLINE OF INSTRUCTION

- I. Cognition
 - a. Concepts of cognition
 - b. The client with schizophrenia
- II. Self
 - a. The client with an eating disorder
 - b. The client with a personality disorder
- III. Elimination
 - a. The client with urinary retention and incontinence
 - b. The client with infectious disorders of the urinary tract
 - c. The client with urinary calculi
 - d. The client with congenital disorders of the urinary tract
 - e. The client with obstructive disorders of the urinary tract
 - f. The client with cancers of the urinary system
 - g. The client with motility, structural and malabsorption syndromes of the GI tract
 - h. The client with irritable bowel syndrome
 - i. The client with a hernia
- IV. Inflammation
 - a. The client with peptic ulcer disease
 - b. The client with Inflammatory bowel diseases
 - c. The client with gall bladder inflammation
 - d. The client with GERD
- V. Cellular regulation
 - a. Concepts of cellular regulation
 - b. The client with benign prostatic hyperplasia
 - c. The client with prostate cancer
 - d. The client with colon cancer
- VI. Sensory/ perception
 - a. The client with cataracts
 - b. The client with glaucoma
 - c. The client with an eye infection
 - d. The client with an eye injury
 - e. The client with macular degeneration
- VII. Perfusion
 - a. Concepts of circulation and perfusion
 - b. The client with hypertension
 - c. The client with heart failure
 - d. The client with coronary artery disease
 - e. The client with uncomplicated MI
 - f. The client with congenital heart defects

REQUIRED TEXTBOOKS AND MATERIALS:

Gahart, B. 2012 Intravenous Medications. 28th Ed. Saunders/Elsevier (978-0-323-05799-8)

Hoefler, P. (2007). Test-Taking Strategies for Beginning Nursing Students. 5th Ed. Meds Publishing: (978-1-56533-514-1)

HESI RN Patient Reviews (access card) Elsevier Health ISBN: 9781437767650

Hockenberry M., and Wilson D. (2009). Hockenberry. 8th Ed. Mosby/Elsevier. ISBN: (978-0-323-05353-2) **OR**

Hockenberry, M. (2012) *Wong's Essentials of Pediatric Nursing*, 9th, Ed. Elsevier ISBN: EBook. (9781455743308)

Ignatavicius, D. and Workman, L. (2010). Medical-Surgical Nursing. 6th Ed. Saunders/Elsevier ISBN: (978-1-4160-4903-6) **OR**

Ignatavicius, Workman. *Medical-Surgical Nursing: Patient-Centered Collaborative Care*, 7th, Ed. W.B. Saunders Company. EBook. ISBN: (978-1-455-74053-6)

Karch, A. (2011). Focus on Nursing Pharmacology. 5th Ed. Lippincott, Williams & Wilkins

Townsend, M. (2012). Psychiatric Mental Health Nursing. 7th Ed. F. A. Davis. (978-0-8036-2767-3)

Van Leeuwen A. & Poelhuis-Leth, D. (2009) Davis's Comprehensive Handbook of Laboratory and Diagnostic Tests with Nursing Implications ISBN: (9780766815070) 0803623040) **OR**

Pagana, K.D. & Pagana, T.J. (2010). Mosby's Manual of Diagnostic and Laboratory Tests. 4th Ed. ISBN: (978-0-323-05747-9)

RECOMMENDED TEXTBOOKS:

Cadenhead Colgrove & Hargrove-Huttel (2011) Med-Surg Success: A Course Review Applying Critical Thinking to Test Taking. 2nd, Ed. F. A. Davis. ISBN : (978-0-8036-2504-4)

Curtis C., Baker A., and Tuzo C., (2009), Psychiatric Mental Health Success, F. A. Davis Company. ISBN: (9780803618794)

Delune, S.C. & Ladner, P.K. (2012). Fundamentals of Nursing: Standards and Practice. 4th Ed. Delmar Cengage Learning. ISBN: 978-1-4354-8067-4

Delune, S.C. & Ladner, P.K. (2012). Fundamentals of Nursing: Standards and Practice. 4th Ed. Delmar Cengage Learning. EBook. ISBN: 97814354892

Gulanick, M. and Myers J. (2011). Nursing Care Plans Diagnoses, Interventions, and Outcomes. 7th Ed. Elsevier/Mosby ISBN (978-0-323-06537-5)

Hogan, M. A., Bowles, D., & White, J. E., (2007). Nursing Fundamentals Reviews & Rationales. 2nd Ed. Prentice Hall. (9-7801-3224078-9)

Kee, J. L., Paulanka, B. J. (2010). *Fluids and Electrolytes with Clinical Applications: A Programed Approach*. 8th Ed. Delmar Cengage Learning. ISBN (978-1-4354-5367-8)

Kee, J. L., Paulanka, B. J. & Polek, C. (2010). *Handbook of Fluid, Electrolyte and Acid Base Imbalances*. 3rd Ed. Delmar Cengage Learning. ISBN (978-1-4354-5368-5) OR

Zerwekh, J., Gaglione, T., & Miller, C. J. (2010) *Mosby's Fluids and Electrolytes Memory Notecards Visual, Mnemonic, and Memory Aids for Nurses*. 2nd, Ed. Mosby/Elsevier ISBN (978-0323067461)

Myers, E. (2010) RNotes *Nurse's Clinical Pocket Guide*. 3rd Ed. F. A. Davis 978-0803623132

Pickar, G.D. & Abernethy, A.P. (2011). *Dosage Calculations: A Ratio-Proportion Approach*. 3rd Ed. ISBN (978-1-4354-5410-1)

Mosby's Medical, Nursing & Allied Health Dictionary. 7th Ed. Mosby. (2006). ISBN: (139780323035620) **OR**

Taber's Cyclopedic Medical Dictionary(2009). 21st Ed. F. A. Davis. ISBN: (0-8036-11559-5)

Wilson, B. A. Nursing Drug Guide 2011. Prentice Hall. (2010 edition is OK) **OR** Any drug guide *for nurses* published within the past 2 years.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

NUR 211 HEALTH CARE CONCEPTS

COURSE DESCRIPTION

Prerequisites: NUR 111, NUR 112, NUR 114, NUR 212, BIO 169, BIO 271, PSY 150, PSY 241,

Corequisites: NUR 113, ENG 112

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in the course. Course Hours Per Week: Class, 3. Clinical, 6. Semester Hours Credit, 5. Placement in the curriculum: Third Semester

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- A. Practice professional nursing behaviors incorporating personal responsibility and accountability for continued competence, specifically:
 - 1) Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice, examining common ethical/legal dilemmas that impact nursing care.
 - 2) Report nursing care errors or omissions to instructor/care nurse promptly, assessing the situation for risk potential.
 - 3) Assure that assigned care and documentation are completed, recognizing and reporting significant data and changes in the client health status to the instructor and health care team immediately.

- 4) Practice within the policies/procedures and standards of care of the clinical agency, utilizing evidence-based standards of care in performing nursing measures.
 - 5) Advocate for client-centered care, respecting individual client's rights.
 - 6) Identify actual or potential breeches of client confidentiality.
 - 7) Practice within the parameters of individual knowledge and experience.
 - 8) Compare and contrast the functions and purpose of various professional nursing organizations.
 - 9) Serve as a positive role model within the role of the ADN student.
 - 10) Recognize the impact of economic, political, social, and demographic forces on the delivery of inpatient care.
 - 11) Identify resources for participation in lifelong learning.
 - 12) Propose ways of improving own nursing practice, utilizing evidence-based information and resources.
 - 13) Maintain appropriate professional boundaries in the nurse-client relationship.
- B. Communicate professionally and effectively with individuals, significant support person(s), and members of the interdisciplinary healthcare team, specifically:
- 1) Utilize age appropriate verbal and non-verbal communication which conveys a caring attitude toward the client, significant support person(s), staff and colleagues.
 - 2) Communicate relevant, accurate, and complete information in a concise and clear manner to client, significant support person(s) (as appropriate), co-assigned RN, instructor, and nursing team members.
 - 3) Report and document assessments, interventions, and progress toward client outcomes.
 - 4) Protect confidential information.
 - 5) Identify breeches and report or act to correct.
 - 6) Utilize information technology to support and communicate the planning and provision of care.
 - 7) Consistently utilize appropriate channels of communication with the nursing team to achieve positive client outcomes.
- C. Integrate knowledge of the holistic needs of the individual to provide an individual centered assessment.
- 1) Assess the interaction patterns of individual client.
 - 2) Assess the impact of developmental, emotional, cultural, religious, and spiritual influences on the client's health status.
 - 3) Assess the client's health status by completing a health history and performing a physical, psycho-social, and functional assessment.
 - 4) Assess client for learning strengths, capabilities, barriers, and educational needs.
 - 5) Assess the client's response to actual or potential health problems.
 - 6) Assess the client's response to interventions.
 - 7) Assess the client's ability to access available community resources.
 - 8) Assess the hospital environment for factors that may impact the client's health status.
 - 9) Assess the resources and needs of clients within the context of their community.
- D. Make clinical judgments and management decisions using the nursing process, evidence based findings, and informatics to ensure quality patient care, specifically:
- 1) Make clinical judgments in implementing a plan of care for two clients ensuring accurate and safe care.

- 2) Evaluate and utilize data from a complete holistic assessment of clients in the plan of care.
 - 3) Evaluate client care for two clients by utilizing identified outcomes.
 - 4) Revise and update nursing plan of care and priorities as appropriate.
 - 5) Utilize evidence-based standards in performing nursing measures.
- E. Implement safe, caring interventions for individuals and significant support person(s), in diverse settings using evidence-based practice, specifically:
- 1) Protect and promote the dignity of two clients.
 - 2) Identify and honor the emotional, cultural, religious, and spiritual influences on the client's health.
 - 3) Demonstrate caring behavior towards the client, significant support person(s), and peers.
 - 4) Provide accurate and safe nursing care to two clients in diverse settings.
 - 5) Implement and prescribed care regimen within the legal ethical, and regulatory framework of nursing practice.
 - 6) Provide a safe physical and psycho-social environment for two clients.
 - 7) Perform nursing skills competently.
 - 8) Assist the clients with interventions, treatment modalities, and self-care.
 - 9) Assist the client to achieve optimum comfort and functioning.
 - 10) Prepare the client for interventions, treatment modalities, and self-care.
 - 11) Support the client when making healthcare and end of life decisions.
 - 12) Adapt care in consideration of the client's culture, and/or habits.
- F. Develop a teaching plan for individuals, and/or the nursing team, incorporating teaching and learning principles, specifically:
- 1) Develop an individualized teaching plan for a client and significant support person(s) based on assessed client needs.
 - 2) Provide the client and significant support person(s) with the information to make choices regarding health care.
 - 3) Implement teaching plan for clients and their significant support person(s).
 - 4) Evaluate the effectiveness of the teaching plan for the client and significant support person(s).
 - 5) Revise teaching plan as needed.
 - 6) Identify necessary teaching and supervision of other personnel when specific aspects of care are delegated.
- G. Collaborate with the interdisciplinary health care team to advocate for positive individual and organizational outcomes, specifically:
- 1) Collaborate with the client and significant support person(s) to establish realistic and measurable client-centered outcomes.
 - 2) Work cooperatively with others to achieve client outcomes.
 - 3) Collaborate with the client and members of the health care team in evaluating the client's response to treatments and client outcomes.
 - 4) Interact with others to solve problems to achieve client goals and outcomes.
 - 5) Collaborate with the health care team for the purpose of achieving positive client outcomes.
- H. Manage health care for individuals using cost effective nursing strategies, quality improvement processes, and current technologies, specifically:
- 1) Establish priorities when caring for two clients.

- 2) Organize care to meet priority needs of two clients.
- 3) Demonstrate appropriate communication with health care settings to facilitate continuity of care.
- 4) Identify aspects of care that may be delegated to other care givers.
- 5) Identify necessary teaching and supervision of other personnel when aspects of care are delegated.
- 6) Identify ways of meeting needs of clients with decreasing hospital stays.
- 7) Identify the pros and cons of utilizing a variety of current health care technologies.
- 8) Identify an area of patient care that should be considered for a quality improvement assessment.

COURSE CONCEPTS

I. Concepts related to Nursing

- A. Caring interventions
- B. Managing care
- C. Collaboration
- D. Clinical decision making

II. Concepts related to the Individual

- A. Cellular regulation
- B. Perfusion
- C. Infection
- D. Immunity
- E. Mobility
- F. Comfort
- G. Behaviors
- H. Metabolism
- I. Intracranial regulation
- J. Health-wellness-illness

III. Concepts related to Healthcare

- A. Safety

Methods of Instruction and Learning Activities

Teaching methods may include, but not be limited to:

Audiovisuals

Lecture, discussion, demonstration

Group work, Case studies, role-playing

Group Presentation

Computer-assisted instruction

Selected patient care assignments

Clinical worksheets and nursing care plans

Problem-based learning scenarios

NUR 211

OUTLINE OF INSTRUCTION

I. Cellular regulation

- 1) Concepts of cellular regulation
- 2) The client with leukemia
- 3) The client with skin cancer
- 4) The client with breast cancer
- 5) The client with lung cancer
- 6) The client with sickle cell anemia
- 7) The client with multiple myeloma
- 8) The client with Hodgkin's or Non-Hodgkin's Disease
- 9) The client with polycythemia vera
- 10) The client with MDS

II. Perfusion

- 1) Concepts of perfusion
- 2) The client with cerebral vascular accident

III. Infection

- 1) Concepts of infection
- 2) The client with tuberculosis
- 3) The client with osteomyelitis
- 4) The client with meningitis
- 5) The client with encephalitis

IV. Immunity

- 1) Concepts of immunity
- 2) The client with rheumatoid arthritis
- 3) The client with lupus

V. Mobility

- 1) Concepts of mobility
- 2) The client with fractures
- 3) The client with hip fractures
- 4) The client with osteoarthritis
- 5) The client with Parkinson's disease
- 6) The client with multiple sclerosis

- 7) The client with spinal disc disease
- 8) The client with spinal cord injury
- 9) The client with Guillain-Barré syndrome

VI. Comfort

- 1) Alternative therapies for chronic pain
- 2) The client with fibromyalgia

VII. Behaviors

- 1) Addiction
- 2) Nicotine use
- 3) Alcohol abuse
- 4) Substance abuse

VIII. Metabolism

- 1) The client with osteoporosis

IX. Intracranial regulation

- 1) Concepts of intracranial regulation
- 2) The client with increased intracranial pressure
- 3) The client with seizure disorders
- 4) The client with traumatic brain injury
- 5) The client with various headache disorders

X. Clinical decision making

- 1) Problem solving
- 2) Decision making
- 3) Critical thinking
- 4) Priority setting

XI. Managing care

- 1) Prioritizing care for one and two patients

STATEMENT FOR STUDENTS WITH DISABILITIES:

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NUR 213 COMPLEX HEALTH CONCEPTS

COURSE DESCRIPTION:

Prerequisites: NUR 111, NUR 112, NUR 113, NUR 114, NUR 212A, NUR 212B, BIO 168, BIO 169, BIO 271, PSY 150, PSY 241, ENG 111, ENG 112

Co-requisites: HUM Elective

This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, oxygenation, perfusion, tissue integrity, mobility, stress/coping, violence, immunity, health-wellness-illness, professional behaviors, caring interventions, managing care, health care systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care. Course Hours per Week: Class, 4. Laboratory, 3. Clinical, 15. Semester Hours Credit, 10. Placement in the curriculum: Second Semester

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- A. Practice professional nursing behaviors incorporating personal responsibility and accountability for continued competence, specifically:
 - 1) Practice within the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
 - 2) Report unsafe practices of healthcare providers using appropriate channels of communication.
 - 3) Demonstrate accountability for nursing care given by self and/or delegated to others.
 - 4) Use standards of nursing practice to perform and evaluate client care.
 - 5) Advocate for client rights.
 - 6) Identify actual or potential breeches of organizational and confidentiality.
 - 7) Practice within the parameters of individual knowledge and experience.
 - 8) Evaluate the advantages of participating as a member of professional organizations.
 - 9) Serve as a positive role model within health care settings and the community at large.
 - 10) Recognize the impact of economic, political, social, and demographic forces on the delivery of health care.
 - 11) Develop a plan for participating in lifelong learning.
 - 12) Develop and implement a plan to meet self learning needs.
 - 13) Delineate and maintain appropriate professional boundaries in the nurse-client relationship.

- B. Communicate professionally and effectively with individuals, significant support person(s), and members of the interdisciplinary healthcare team, specifically:
 - 1) Utilize therapeutic communication skills when interacting with clients and significant support person(s) and members of the interdisciplinary health care team.
 - 2) Communicate relevant, accurate, and complete information in a concise and clear manner to client, significant support (person(s) (as appropriate), co-assigned RN, instructor, nursing and interdisciplinary team members.
 - 3) Report and document assessments, interventions, and progress toward client outcomes
 - 4) Protect confidential information.
 - 5) Identify actual or potential breeches and report or act to correct.
 - 6) Utilize information technology to support and communicate the planning and provision of client care.
 - 7) Utilize appropriate channels of communication to achieve positive client outcomes.
- C. Integrate knowledge of the holistic needs of the individual to provide an individual centered assessment.
 - 1) Assess the interaction patterns of individual client or significant support person(s).
 - 2) Assess the impact of developmental, emotional, cultural, religious, and spiritual influences on the client's health status.
 - 3) Assess the client's health status by completing a health history and performing a physical, cognitive, psycho-social, and functional assessment.
 - 4) Assess client and significant support person(s) for learning strengths, capabilities, barriers, and educational needs.
 - 5) Assess the client's response to actual or potential health problems.
 - 6) Assess the client's response to interventions.
 - 7) Assess the client's ability to access and utilize available community resources.
 - 8) Assess the client's hospital and home environment for factors that may impact the client's health status.
 - 9) Assess the strengths, resources, and needs of clients within the context of their community.
- D. Make clinical judgments and management decisions using the nursing process, evidence based findings, and informatics to ensure quality patient care, specifically:
 - 1) Make clinical judgments and management decisions to ensure accurate and safe care for two or more clients.
 - 2) Analyze and utilize assessment and reassessment data in plan of care.
 - 3) Evaluate the effectiveness of care provided for two or more clients in meeting client outcomes and explore reasons for unmet client outcomes and explore reasons for unmet client outcomes.
 - 4) Modify client care as indicated by the evaluation of outcomes.
- 5) Use evidenced-based information, collected electronically or through other means, to support clinical decision-making.
- E. Implement safe, caring interventions for individuals and significant support person(s), in diverse settings using evidence-based practice, specifically:
 - 1) Protect and promote dignity of two or more clients.
 - 2) Identify and honor the emotional, cultural, religious, and spiritual influences on the client's health and health care practices.

- 3) Demonstrate caring behavior towards the client, significant support person(s), peers, and other members of the health care team.
 - 4) Provide accurate and safe nursing care to two or more clients in diverse settings.
 - 5) Implement the prescribed care regimen within the legal, ethical, and regulatory framework of nursing practice.
 - 6) Provide a safe physical and psycho-social environment for the client.
 - 7) Perform nursing skills competently.
 - 8) Assist the clients and significant support person(s) for intervention, treatment modalities, and self-care.
 - 9) Assist two or more clients to achieve optimum comfort and functioning.
 - 10) Prepare the client and significant support person(s) for intervention, treatment modalities, and self-care.
 - 11) Support the client and support person(s) when making healthcare and end of life decisions.
 - 12) Adapt care in consideration of the client's values, customs, culture, and/or habits.
- F. Develop a teaching plan for individuals, and/or the nursing team, incorporating teaching and learning principles, specifically:
- 1) Develop an individualized teaching plan for two or more clients based on assessed client needs.
 - 2) Provide the client and significant support person(s) with the information to make choices regarding health care.
 - 3) Teach the client and significant support person(s) the information and skills needed to achieve desired learning outcomes.
 - 4) Evaluate the progress of the client and significant support person(s) toward achievement of identified learning outcomes.
 - 5) Modify the teaching plan based on evaluation of progress toward meeting identified learning outcomes.
 - 6) Provide assistive personnel with relevant instruction to support achievement of client goals.
- G. Collaborate with the interdisciplinary health care team to advocate for positive individual and organizational outcomes, specifically:
- 1) Collaborate with the client and significant support person(s), and members of the health care team to establish realistic and measurable client-centered outcomes.
 - 2) Work cooperatively with others to achieve client and organizational outcomes.
 - 3) Collaborate with the client, significant support person(s), and other members of the healthcare team to evaluate progress toward achievement of outcomes.
 - 4) Interact creatively and openly with others to solve problems to achieve client goals and outcomes.
 - 5) Collaborate to bring about fair solutions that balance differing needs, values, and motivations for the purpose of achieving positive client outcomes.
- H. Manage health care for individuals using cost effective nursing strategies, quality improvement processes, and current technologies, specifically:
- 1) Prioritize client care for two or more clients.
 - 2) Coordinate the implementation of an individualized plan of care for clients and significant support person(s).
 - 3) Facilitate the continuity of care within and across healthcare settings.

- 4) Delegate aspects of client care to changing healthcare settings and management systems.
- 5) Supervise and evaluate the activities of assistive personnel.
- 6) Adapt the provision of client care to changing healthcare settings and management systems.
- 7) Assist the client and significant support person(s) to access available resources and services.
- 8) Implement nursing strategies to provide cost efficient care.
- 9) Demonstrate competence with current technologies.
- 10) Participate in problem identification and data collection for research, quality control, or improvement processes to meet client outcomes.

COURSE CONCEPTS

- I. Concepts related to Nursing**
 - A. Professional behaviors
 - B. Caring interventions
 - C. Managing care
- II. Concepts related to the Individual**
 - A. Fluid/electrolytes
 - B. Metabolism
 - C. Oxygenation
 - D. Perfusion
 - E. Tissue Integrity
 - F. Mobility
 - G. Stress/coping
 - H. Violence
 - I. Immunity
 - J. Health-wellness-illness
- III. Concepts related to Healthcare**
 - A. Health care systems
 - B. Quality improvement

OUTLINE OF INSTRUCTION

- I. Fluid and electrolytes**
 - a) Concepts of Fluid and electrolyte balance
 - b) Acute renal failure
 - c) Chronic renal failure
- II. Metabolism**
 - a) Concepts of metabolism
 - b) Liver disease

- III. Oxygenation
 - a) Concepts of oxygenation
 - b) The client with acute respiratory distress syndrome
 - c) The client with pulmonary embolism
 - d) The client on a ventilator

- IV. Perfusion
 - a) Concepts of perfusion
 - b) The client with life threatening dysrhythmias
 - c) The client in shock
 - d) The client with cardiomyopathy
 - e) The client with myocardial infarction
 - f) The client with pregnancy induced hypertension
 - g) The client with disseminated intravascular coagulopathy

- V. Tissue integrity
 - a) Concepts of tissue integrity
 - b) The client with burns

- VI. Mobility
 - a) Concepts of mobility
 - b) The client with spinal cord injury

- VII. Stress and coping
 - a) The client with post traumatic stress disorder

- VIII. Immunity
 - a) Concepts of immunity
 - b) The client with HIV
 - c) The client with AIDS

- IX. Violence
 - a) Sources of violence in society
 - b) The client with multiple trauma

- X. Health, wellness, illness
 - a) Consumer education (global, community)

- XI. Professional behaviors
 - a) Leadership

- XII. Caring interventions
 - a) IV Insertion

- XIII. Managing care
 - a) Prioritizing care for individuals and groups
 - b) Delegation
- XIV. Health care systems
 - a) Emergency preparedness (disasters, triage, bioterrorism, first response)
- XV. Quality improvement
 - a) Quality improvement cycle
 - b) Root cause analysis
 - c) Breech in care

REQUIRED TEXTBOOKS AND MATERIALS:

No new books are required for this course. Books from previous courses will be used for this course. The following book is strongly recommended but is not required:

- LaCharity, L.A., Kumagai, C. K., & Bartz, B. (2011). *Prioritizations, delegation, assignment: Practice exercises for medical-surgical nursing* (2nd ed.). St. Louis, MO: Mosby.
- Ignatavicius, D. D., & Workman, M. L. (2010). *Medical-Surgical nursing: Patient-centered collaborative care* (6th ed.). St. Louis, MO: Saunders. 5th ed. will work.
- Smeltzer, S. C., Bare, B. G., Hinkle, J. L., & Cheever, K. H. (2009). *Brunner & Suddarth's Textbook of Medical-Surgical Nursing* (12th ed.). Philadelphia: Lippincott Williams & Wilkins. 11th ed. will work.

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NUR 214 NURSING TRANSITION CONCEPTS

COURSE DESCRIPTION

Prerequisites: Admission to the ADN Program; Licensed as a Practical Nurse in North Carolina.
Corequisites: ACA 122, BIO 168, PSY 150, ENG 111

This course is designed to introduce concepts within the three domains of the individual, healthcare, and nursing as the LPN transitions to the ADN role. Emphasis is placed on the concepts within each domain including evidenced-based practice, quality improvement, communication, safety, interdisciplinary team, clinical decision-making, informatics, assessment, caring, and health-wellness-illness. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. Course Hours Per Week: Class 3, Clinical 3, Semester Hours Credit 4. Placement in the curriculum: Second Semester.

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- A. Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings, specifically:
 - 1) Assess the patient's health status by completing a health history and performing a physical and psycho-social, assessment utilizing subjective and objective data.
 - 2) Assess the patient's response to actual health problems.
 - 3) Identify developmental emotional, cultural, religious, and spiritual influences on the patient's health status.
 - 4) Demonstrate caring behavior towards the patient and significant support person(s).
 - 5) Protect and promote the patient's dignity, uniqueness, integrity, and self-determination.
 - 6) Recognize the effect of patient's own power and self-healing processes on care.
 - 7) Provide the patient with the information to make choices regarding daily care.
 - 8) Demonstrate use of patient coping strategies.
 - 9) Utilize nursing measures that assist the patient in completion of current developmental stage.
 - 10) Establish and evaluate realistic and measurable patient-centered outcomes with the patient.

- 11) Discuss ways to support the patient when making healthcare and end of life decisions.
- 12) Describe environmental factors that may impact the patient's health status.
- 13) Describe the resources and needs of the patient within the context of their community.
- 14) Implement discharge teaching including appropriate follow up care.
- 15) Interact with instructor and clinical group to solve problems to achieve patient goals and outcomes.
- 16) Describe functions of various members of the health care team.
- 17) Identify ways to reduce risks to patient safety.

B. Make judgments in practice, substantiated with evidence that integrates nursing science in the provision of safe, quality care and promote the health of patients within a family and community context, specifically:

- 1) Implement a plan of care for two patient problems ensuring accurate and safe care,
- 2) Utilize data from a complete holistic assessment of patients in the plan of care.
- 3) Evaluate plan of care for one patient by utilizing identified outcomes.
- 4) Revise plan of care and priorities as appropriate.
- 5) Select evidence-based standards of care from resources identified by faculty.
- 6) Demonstrate the use of information technology to support and communicate the provision of care.
- 7) Establish priorities when caring for one patient.
- 8) Provide organized care for one patient and significant support person(s).
- 9) Apply time management principles to patient care.
- 10) Discuss principles of delegation.
- 11) Discuss teaching and supervision of other personnel when aspects of care are delegated.
- 12) Identify ways to prevent waste and minimize cost in the clinical area.
- 13) Demonstrate the use of information technology to support and communicate the provision of care.
- 14) Describe the interaction patterns of the individual patient.
- 15) Demonstrate use of age appropriate verbal and non-verbal communication which conveys a caring attitude toward the patient and significant support person(s).
- 16) Communicate relevant, accurate, and complete information to patient, significant support person(s) (as appropriate), co-assigned RN, and instructor.
- 17) Report and document assessments and interventions.
- 18) Protect confidential information.
- 19) Demonstrate use of appropriate channels of communication.

C. Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context, specifically:

- 1) Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
- 2) Demonstrate professional nursing behaviors.
- 3) Report nursing care errors or omissions to instructor/care nurse promptly.

- 4) Complete assigned care and documentation, recognizing and reporting significant data and changes in the patient health status to the instructor and health care team immediately.
 - 5) Adhere to the AHA Patient Bill of Rights.
 - 6) Maintain organizational and patient confidentiality.
 - 7) Apply evidence to support decision making.
 - 8) Practice within the parameters of individual knowledge and experience.
 - 9) Discuss the functions and purpose of professional nursing organizations.
 - 10) Demonstrate appropriate professional boundaries in the nurse-patient relationship.
 - 11) Provide a safe physical and psycho-social environment for the patient.
 - 12) Recognize the effect of patient's values, customs, culture, and/or habits on care.
 - 13) Perform nursing skills competently.
 - 14) Develop an individualized teaching plan for one patient based on assessed patient needs.
 - 15) Demonstrate use of health promotion information in patient teaching.
 - 16) Identify aspects of care that could be delegated to others.
 - 17) Describe nursing leadership roles.
 - 18) Report and document assessments and interventions.
 - 19) Utilize universal precautions and principles of safety.
- D. Examine the evidence that underlies clinical nursing practice to challenge the status-quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities specifically:
- 1) Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
 - 2) Describe the role of teamwork in health care.
 - 3) Describe positive self care and nursing behaviors.
 - 4) Demonstrate progress in meeting personal goals utilizing evidence-based information and resources.
 - 5) Describe methods of participating in lifelong learning.
 - 6) Seek assistance and help others as necessary.
 - 7) Identify methods of collecting evidence-based information and resources for personal development and continuing g learning.
 - 8) Identify reasons for conflict in the work setting.
 - 9) Identify how clinical agency utilizes current nursing literature to improve patient care.
 - 10) Describe the role of the ADN student in the ethical and legal frameworks of nursing.
 - 11) Discuss the functions and purpose of professional nursing organizations.
 - 12) Function within the Nursing Practice Act.
 - 13) Describe standards of care utilized in the clinical agency.
 - 14) Discuss economic, political, social, and demographic forces on the delivery of health care.
 - 15) Discuss the role of the RN as supervisor in a health care setting.
 - 16) Describe the purpose and process of quality improvement activities.

COURSE CONCEPTS

I. Concepts related to Nursing

- A. Communication
- B. Clinical decision-making
- C. Assessment
- D. Caring
- E. Teaching and Learning

II. Concepts related to the Individual

- A. Health-wellness-illness
- B. Sensory Perception
- C. Oxygenation
- D. Perfusion
- E. Inflammation
- F. Infection
- G. Tissue Integrity
- H. Elimination
- I. Fluid and Electrolytes
- J. Metabolism
- K. Cellular Regulation
- L. Mobility
- M. Cognition

III. Concepts related to Healthcare

- A. Evidenced-based practice
- B. Quality improvement
- C. Safety
- D. Interdisciplinary team
- E. Collaboration
- F. Informatics

NUR 214
OUTLINE OF INSTRUCTION

- I. Health, wellness, illness
 - a. Basic needs to health status
 - b. Relationship of variables such as lifestyle, locus of control, self-efficacy, health care attitudes, and self- concept to health behaviors.
 - c. Impact of holism on health and health care delivery.
 - d. Nursing's role in health promotion.
- II. Caring and Communication
 - a. Meaning of caring
 - b. Role of nurses
 - c. Caring interventions
 - d. Caring communication with peers and clients
 - e. Therapeutic communication
 - f. Assertive communication
 - g. Blocks to communications
 - h. SBAR procedure
- III. Clinical decision making
 - a. The Nursing Process
 - b. Critical Thinking
 - c. Problem solving
 - d. Decision making
- IV. Collaboration, Quality improvement, Safety, Evidence-based practice and Informatics
 - a. The role of the registered nurse
 - b. Chain of command
 - c. Conflict resolution
 - d. Working in groups and teams
 - e. Identifying areas benefiting from quality Improvement
 - f. Effect on cost of care
 - g. Nurse's role in improving quality
 - h. Environmental safety
 - i. Injury and illness prevention
 - j. National Patient Safety Goals
 - k. Sources of nursing knowledge
 - l. Scientific research
 - m. Role of nurses in research
 - n. Technology in healthcare
 - o. Investigating and evaluating research questions
 - p. Identifying best practices
 - q. Clinical decision support systems
 - r. Individual information at point of care

- s. Accessing and sharing electronic information
- t. Protecting personal health information

V. Fluid and Electrolyte Balance

- a. Core concepts relative to balance and imbalances
- b. Patients at risk for complications
- c. Laboratory data and clinical manifestations
- d. Interpret blood chemistry
- e. Nursing diagnoses and goals for clients
- f. Key indicators to evaluate client achievement of expected outcomes

VI. Acid-Base Balance

- a. Patients at risk for acid-base imbalances
- b. Roles of the respiratory system and the renal system in maintaining acid-base balance
- c. Role of oxygen in maintaining acid-base balance
- d. Interpret arterial blood gases
- e. Nursing diagnoses and goals for clients
- f. Key indicators to evaluate client achievement of expected outcomes

VII. Metabolism, Teaching and Learning

- a. Risk factors for diabetes mellitus
- b. Effects of insulin on carbohydrate, protein, and fat metabolism
- c. Effectiveness of the prescribed dietary, drug, and exercise therapies for diabetes mellitus.
- d. Learning needs of the diabetic patient.
- e. Nursing diagnoses and goals for clients
- f. Key indicators to evaluate client achievement of expected outcomes
- g. The nurse as teacher
- h. Formulating, implementing and evaluating teaching plan

VIII. Cellular Regulation

- a. Assessment findings for patients with CRC (Colorectal Cancer)
- b. Response to a diagnosis of CRC.
- c. Role of the nurse in managing the patient with CRC.
- d. Perioperative and postoperative plan of care for colon resection and colostomy.
- e. Community-based resources for patients with colorectal cancer (CRC).
- f. Promotion practices to prevent CRC
- g. Caring for a colostomy.
- h. Cancer grading, and staging reports.

IX. Concepts for Clinical Simulations

- A. Assessment of the individual
 - 1) Body areas and systems
 - 2) Obtaining the health history
 - 3) Assessing mental status and cognition
 - 4) Assessing functional status
 - 5) Assessment of children and the elderly

- 6) Holistic assessment simulations
- B. Sensory/Perception
 - 1) Oxygenation
 - 2) Perfusion
 - 3) Mobility
 - 4) Elimination
 - 5) Tissue Integrity
 - 6) Inflammation
 - 7) Infection
 - 8) Fluids and Electrolytes
 - 9) Medication Administration
 - 10) National Patient Safety Goals

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Methods of Instructions and Learning Activities

Teaching methods will include, but not be limited to:

Class Lecture, discussion, demonstration, worksheets, case studies, audiovisuals/visual aids, group work, role-play, individual and group projects, self-study packets, problem based learning, computer assisted instruction (CAI).

Clinical Simulation Computer assisted instruction, demonstration, return demonstrations, and required reading assignments.

REQUIRED TEXTBOOKS AND MATERIALS

DeLaune S. C. & Ladner P. K. *Fundamentals of Nursing: Standards and Practice 4th Edition*
Delmar ISBN: (978-1-4354-8067-4)

Gahart, B. *2012 Intravenous Medications. 28th Edition*, Saunders/Elsevier (978-0-323-05799-8)

HESI RN Patient Reviews (access card) Elsevier Health ISBN: (978-1-437-76765-0)

Ignatavicius, Workman. *Medical-Surgical Nursing: Patient-Centered Collaborative Care, 7th Edition*. W.B. Saunders Company, ISBN: (978-1-4377-2801-9)

Van Leeuwen A. *Davis's Comprehensive Handbook of Laboratory And Diagnostic Tests with Nursing Implications 4th Edition* Davis (978-0-803-62655-3)

Wilson, *Pearson Nurse's Drug Guide 2011*, Pearson Education. ISBN (978-0-132-14926-6)

RECOMMENDED TEXTBOOKS:

Colgrove *Med-Surg Success. 2nd Edition*. F. A. Davis. ISBN: (978-0-803-62504-4)

Gulanick, M. and Myers J. *Nursing Care Plans Diagnoses, Interventions, and Outcomes. 7th Ed.* Elsevier/Mosby ISBN (978-0-323-06537-5)

Myers, E. *RNotes Nurse's Clinical Pocket Guide*. F. A. Davis ISBN: (0-8036-1060-2)

Dosage Calculations: A Ratio-Prop Approach (w/CD) Cengage Learning 3rd Edition. ISBN: (1-4354-5410-3)

Taber, *Cyclopedic Medical Dictionary 21st (Plain)(w/DVD)* F. A. Davis Company: ISBN (978-0-803-61560-1)

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

NUR 221
LPN to ADN CONCEPTS I

COURSE DESCRIPTION

Prerequisites: NUR 214, ACA 122, BIO 168, PSY 150, ENG 111

Corequisites: BIO 169, PSY 241

This course is designed for the LPN to ADN student to explore the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of safety, perfusion, inflammation, oxygenation, mood/affect, behavior, development, family, health-wellness-illness, sensory perception, stress/coping, cognition, self, violence, and professional behaviors. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. Course Hours Per Week: Class, 6 Clinical, 9 Semester Hours Credit, 9.

Placement in the curriculum: Second Semester

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- A. Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings, specifically:
 - 1) Assess the patient's health status by completing a health history and performing a physical, psycho-social, and functional assessment utilizing subjective and objective data.
 - 2) Assess the patient's response to actual or potential health problems.
 - 3) Assess the impact of developmental, emotional, cultural, religious, and spiritual influences on the patient's health status.
 - 4) Demonstrate advocacy skills and caring behavior towards the patient, significant support person(s), and peers.
 - 5) Demonstrate respect for the patient's dignity, uniqueness, integrity, and self-determination.
 - 6) Adapt care in consideration of the patient's own power and self healing processes.
 - 7) Provide the patient with the information to make choices regarding health care.
 - 8) Integrate patient coping strategies in the plan of care.
 - 9) Incorporate nursing measures that assist the patient in completion of the current physical and developmental stage.
 - 10) Collaborate with the patient, significant support person(s), to establish and evaluate realistic and measurable patient-centered outcomes.
 - 11) Support the patient when making healthcare and end of life decisions.
 - 12) Assess the hospital environment for factors that may impact the patient's health status incorporating principles of quality and safety to find solutions for identified problems.
 - 13) Assess the resources and needs of patients within the context of their community.

- 14) Demonstrate appropriate communication with health care settings to facilitate continuity of care.
 - 15) Interact with members of the health care team to solve problems to achieve patient goals and outcomes.
 - 16) Work with other members of the health care team, recognizing the importance of contributions of self and others.
 - 17) Recognize risks and develop methods to reduce risks.
- B. Make judgments in practice, substantiated with evidence that integrates nursing science in the provision of safe, quality care and promote the health of patients within a family and community context, specifically:
- 1) Make clinical judgments in implementing a plan of care for two patients ensuring accurate and safe care.
 - 2) Evaluate and utilize data from a complete holistic assessment of patients in the plan of care.
 - 3) Evaluate patient care for two patients by utilizing identified outcomes.
 - 4) Revise and update nursing plan of care and priorities as appropriate.
 - 5) Utilize evidence-based standards in performing nursing measures.
 - 6) Utilize information technology to support and communicate the planning and provision of care.
 - 7) Establish priorities when caring for two patients.
 - 8) Organize care to meet priority needs of two patients.
 - 9) Apply time management principles to the care of two of patients.
 - 10) Identify aspects of care that may be delegated to other care givers.
 - 11) Identify necessary teaching and supervision of other personnel when aspects of care are delegated.
 - 12) Identify ways of meeting needs of patients with decreasing hospital stays.
 - 13) Utilize information technology to support and communicate the planning and provision of care.
 - 14) Assess the interaction patterns of the individual patient.
 - 15) Utilize age appropriate verbal and non-verbal communication which conveys a caring attitude toward the patient, significant support person(s), staff and colleagues.
 - 16) Communicate relevant, accurate, and complete information in a concise and clear manner to patient, significant support person(s) (as appropriate), co-assigned RN, instructor, and nursing team members.
 - 17) Report and document assessments, interventions, and progress toward patient outcomes.
 - 18) Protect confidential information. Identify breeches and report or act to correct.
 - 19) Consistently utilize appropriate channels of communication with the nursing team to achieve positive patient outcomes.

C. Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context, specifically:

- 1) Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice, examining common ethical/legal dilemmas that impact nursing care.
- 2) Serve as a positive role model within the role of the ADN student.
- 3) Report nursing care errors or omissions to instructor/care nurse promptly, assessing the situation for risk potential.
- 4) Assure that assigned care and documentation are completed, recognizing and reporting significant data and changes in the patient health status to the instructor and health care team immediately.
- 5) Advocate for patient-centered care, respecting individual patient's rights.
- 6) Identify actual or potential breeches of patient confidentiality.
- 7) Evaluate and apply evidence to support decision making.
- 8) Practice within the parameters of individual knowledge and experience.
- 9) Compare and contrast the functions and purpose of various professional nursing organizations.
- 10) Maintain appropriate professional boundaries in the nurse-patient relationship.
- 11) Provide a safe physical and psycho-social environment for two patients.
- 12) Adapt care in consideration of the patient's values, customs, culture, and/or habits.
- 13) Perform nursing skills competently.
- 14) Develop an individualized teaching plan for a patient and significant support persons(s) based on assessed patient needs.
- 15) Incorporate health promotion teaching into nursing plan of care for two patients.
- 16) Identify necessary teaching and supervision of other personnel when aspects of care are delegated.
- 17) Compare and contrast the types of leadership roles.
- 18) Report and document assessments, interventions, and progress toward patient outcomes.
- 19) Utilize universal precautions and principles of safety, identifying safety issues.

D. Examine the evidence that underlies clinical nursing practice to challenge the status-quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities, specifically:

- 1) Demonstrate the role of the ADN student in the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice, examining common ethical/legal dilemmas that impact nursing care.
- 2) Demonstrate behaviors that lead to effective teamwork.
- 3) Demonstrate self care and nursing behaviors consistent with a positive role model.
- 4) Propose ways of improving own nursing practice, utilizing evidence-based information and resources.
- 5) Identify resources for participation in lifelong learning.
- 6) Work cooperatively with others to achieve patient outcomes.

- 7) Utilize evidence-based information, collected electronically or through other means, as a resource for continuous learning, professional development and advancing nursing practice.
- 8) Utilize principles of conflict management in working with peers.
- 9) Relate current nursing research literature to the care of patients.
- 10) Describe ethical dilemmas in the health care setting.
- 11) Compare and contrast the functions and purpose of various professional nursing organizations.
- 12) Adhere to the Nursing Practice Act.
- 13) Utilize standards of care in caring for two patients.
- 14) Recognize the impact of economic, political, social, and demographic forces on the delivery of inpatient health care.
- 15) Describe various educational preparation of RNs.
- 16) Identify an area of patient care that should be considered for a quality improvement assessment.

COURSE CONCEPTS

- I. Concepts related to Nursing
 - A. Professional Behaviors
- II. Concepts related to the Individual
 - A. Perfusion
 - B. Inflammation
 - C. Oxygenation
 - D. Mood/affect
 - E. Behavior
 - F. Development
 - G. Family
 - H. Sensory perception
 - I. Stress/coping
 - J. Cognition
 - K. Self
 - L. Violence
- III. Concepts related to Healthcare
 - A. Safety

OUTLINE OF INSTRUCTION

- I. Oxygenation
 - A. Concepts of oxygenation
 - B. Assessing oxygenation
 - C. The client with COPD
 - D. The client with asthma

II. Perfusion

- A. Concepts of circulation and perfusion
- B. The client with atherosclerosis
- C. The client with hyperlipidemias
- D. The client with hypertension
- E. The client with heart failure
- F. The client with deep vein thrombosis
- G. The client with pulmonary embolism
- H. The client with cerebral vascular accident

III. Sensory

- A. Concepts of sensory function
- B. The client with cataracts
- C. The client with glaucoma
- D. The client with an eye injury
- E. The client with macular degeneration
- F. The client with peripheral neuropathies

IV. Inflammation

- A. Concepts of inflammation
- B. Gall bladder Disease
- C. Nephritis

V. Mood and affect

- A. Concepts of mood
- B. The client with bipolar illness
- C. The client with depression
- D. The client with postpartum depression

VI. Cognition

- A. Concepts of cognition
- B. The client with schizophrenia
- C. The client with dementia
- D. The client with delirium

VII. Behavior

- A. Substance abuse
- B. Nicotine use
- C. Alcoholism

VIII. Grief/Loss

- A. Situational loss/depression

IX. Stress

- A. Sources of stress
- B. Coping mechanisms
- C. The client with obsessive-compulsive disorder

- D. The client with post traumatic stress disorder
- E. The client with phobias
- F. The client with panic disorder
- G. The client with generalized anxiety disorder

X. Self

- A. Concepts of self and identity
- B. The client with an eating disorder
- C. The client with a personality disorder

XI. Development

- A. Concepts of development
- B. Attention Deficit Disorder
- C. Hyperactivity
- D. Autism
- E. Failure to thrive
- F. Cerebral Palsy

XII. Violence

- A. Sources of violence in society
- B. The suicidal client
- C. The client who is a victim of abuse (elder/child/spouse)
- D. The client who is a victim of trauma (rape/unintentional trauma)

XIII. Health – wellness-illness

- A. Educating health care consumers
- B. Incorporating alternative therapies

XIV. Safety

- A. National Patient Safety Goals
- B. Assessment of risk potential

XV. Professional behaviors

- A. Principles of leadership
- B. Delegation
- C. Managing care
- D. Ethics

REQUIRED TEXTBOOKS AND MATERIALS

- HESI RN Patient Reviews* (access card) Elsevier Health ISBN: (978-1-455741427)
- Ignatavicius, Workman. *Medical-Surgical Nursing: Patient-Centered Collaborative Care, 7th Edition*. W.B. Saunders Company, ISBN: (978-1-4377-2801-9)
- Karch, A. (2011) *Focus On Nursing Pharmacology, 5th Edition*. Lippincott, ISBN: (978-0-7817-8982-0)
- Hockenberry, M. (2012) *Wong's Essentials of Pediatric Nursing, 9th Edition*, Elsevier ISBN: (9780323083430)
- Townsend, M. (2012). *Psychiatric Mental Health Nursing, 7th Ed.* F. A. Davis. (978-0-8036-2767-3)
- Van Leeuwen A. *Davis's Comprehensive Handbook of Laboratory And Diagnostic Tests with Nursing Implications 4th Edition* Davis (978-0-803-62655-3)
- Wilson, *Pearson Nurse's Drug Guide 2011*, Pearson Education. ISBN(978-0-132-14926-6)

RECOMMENDED TEXTBOOKS:

- Curtis C. (2009) *Psychiatric Mental Health Nursing Success: A course Review Applying Critical Thinking to Test Taking*. F.A. Davis, ISBN: (9780803618794)
- Colgrove *Med-Surg Success, 2nd Edition*. F. A. Davis. ISBN: (978-0-803-62504-4)
- Gulanick, M. and Myers J. *Nursing Care Plans Diagnoses, Interventions, and Outcomes*. 7th Ed. Elsevier/Mosby ISBN (978-0-323-06537-5)
- Myers, E. *RNotes Nurse's Clinical Pocket Guide*. F. A. Davis ISBN: (0-8036-1060-2)
- Dosage Calculations: A Ratio-Prop Approach (w/CD)* Cengage Learning 3rd Edition. ISBN: (1-4354-5410-3)
- Taber, *Cyclopedic Medical Dictionary 21st (Plain)(w/DVD)* F. A. Davis Company: ISBN: (978-0-803-61560-1)

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NUR 223
LPN to ADN CONCEPTS II

COURSE DESCRIPTION:

Prerequisites: NUR 221, BIO 168, BIO 169, BIO 271, PSY 150, PSY 241, ENG 111, ENG 112, HUM Elective
Co-requisites: None

This course is designed for the LPN to ADN student to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, thermoregulation, oxygenation, tissue integrity, infection, perfusion, mobility, reproduction, sexuality, health-wellness-illness, professional behaviors, accountability, advocacy, and collaboration. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry-level nursing care. Course Hours per Week: Class, 6; Clinical, 9; Semester Hours Credit, 9.

Placement in the curriculum: Third Semester

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- A. Practice professional nursing behaviors incorporating personal responsibility and accountability for continued competence, specifically:
 - 1) Practice within the ethical, legal, and regulatory frameworks of nursing and standards of professional nursing practice.
 - 2) Identify and report unsafe practices of healthcare providers using appropriate channels of communication.
 - 3) Demonstrate accountability for nursing care given by self and/or delegated to others.
 - 4) Use standards of nursing practice to perform and evaluate client care.
 - 5) Advocate for client rights.
 - 6) Identify actual or potential breeches of organizational and confidentiality.
 - 7) Practice within the parameters of individual knowledge and experience.
 - 8) Evaluate the advantages of participating as a member of professional organizations.
 - 9) Serve as a positive role model within health care settings and the community at large.
 - 10) Recognize the impact of economic, political, social, and demographic forces on the delivery of health care.
 - 11) Develop a plan for participating in lifelong learning.
 - 12) Develop and implement a plan to meet self learning needs.
 - 13) Delineate and maintain appropriate professional boundaries in the nurse-client relationship.
- B. Communicate professionally and effectively with individuals, significant support person(s), and members of the interdisciplinary healthcare team, specifically:
 - 1) Utilize therapeutic communication skills when interacting with clients and significant support person(s) and members of the interdisciplinary health care team.
 - 2) Communicate relevant, accurate, and complete information in a concise and clear manner to client, significant support (person(s) (as appropriate), co-assigned RN, instructor, nursing and interdisciplinary team members.
 - 3) Report and document assessments, interventions, and progress toward client outcomes.
 - 4) Protect confidential information.
 - 5) Identify actual or potential breeches and report or act to correct.
 - 6) Utilize information technology to support and communicate the planning and provision of client care.

- 7) Consistently utilize appropriate channels of communication to achieve positive client outcomes.
- C. Integrate knowledge of the holistic needs of the individual to provide an individual centered assessment.
- 1) Assess the interaction patterns of individual client or significant support person(s).
 - 2) Assess the impact of developmental, emotional, cultural, religious, and spiritual influences on the client's health status and ability to access and utilize health care.
 - 3) Assess the client's health status by completing a health history and performing a physical, cognitive, psycho-social, and functional assessment.
 - 4) Assess client and significant support person(s) for learning strengths, capabilities, barriers, and educational needs.
 - 5) Assess the client's response to actual or potential health problems.
 - 6) Assess the client's response to interventions.
 - 7) Assess the client's ability to access and utilize available community resources.
 - 8) Assess the client's hospital and home environment for factors that may impact the client's health status.
 - 9) Assess the strengths, resources, and needs of clients within the context of their community.
- D. Make clinical judgments and management decisions using the nursing process, evidence based findings, and informatics to ensure quality patient care, specifically:
- 1) Make clinical judgments and management decisions to ensure accurate and safe care for two or more clients.
 - 2) Analyze and utilize assessment and reassessment data in plan of care.
 - 3) Evaluate the effectiveness of care provided for two or more clients in meeting client outcomes and explore reasons for unmet client outcomes and explore reasons for unmet client outcomes.
 - 4) Modify client care as indicated by the evaluation of outcomes.
 - 5) Use evidenced-based information, collected electronically or through other means, to support clinical decision-making.
- E. Implement safe, caring interventions for individuals and significant support person(s), in diverse settings using evidence-based practice, specifically:
- 1) Protect and promote the dignity of two or more clients.
 - 2) Identify and honor the emotional, cultural, religious, and spiritual influences on the client's health and health care practices.
 - 3) Demonstrate caring behavior towards the client, significant support person(s), peers, and other members of the health care team.
 - 4) Provide accurate and safe nursing care to two or more clients in diverse settings.
 - 5) Implement the prescribed care regimen within the legal, ethical, and regulatory framework of nursing practice.
 - 6) Provide a safe physical and psycho-social environment for two or more clients.
 - 7) Perform nursing skills competently.
 - 8) Assist the clients and significant support person(s) for intervention, treatment modalities, and self-care.
 - 9) Assist two or more clients to achieve optimum comfort and functioning.
 - 10) Prepare the client and significant support person(s) for intervention, treatment modalities, and self-care.
 - 11) Support the client and support person(s) when making healthcare and end of life decisions.
 - 12) Adapt care in consideration of the client's values, customs, culture, and/or habits.
- F. Develop a teaching plan for individuals, and/or the nursing team, incorporating teaching and learning principles, specifically:
- 1) Develop an individualized teaching plan for two or more clients based on assessed client needs.
 - 2) Provide the client and significant support person(s) with the information to make choices regarding health care.

- 3) Teach the client and significant support person(s) the information and skills needed to achieve desired learning outcomes.
 - 4) Evaluate the progress of the client and significant support person(s) toward achievement of identified learning outcomes.
 - 5) Modify the teaching plan based on evaluation of progress toward meeting identified learning outcomes.
 - 6) Provide assistive personnel with relevant instruction to support achievement of client goals.
- G. Collaborate with the interdisciplinary health care team to advocate for positive individual and organizational outcomes, specifically:
- 1) Collaborate with the client and significant support person(s), and members of the health care team to establish realistic and measurable client-centered outcomes.
 - 2) Work cooperatively with others to achieve client and organizational outcomes.
 - 3) Collaborate with the client, significant support person(s), and other members of the healthcare team to evaluate progress toward achievement of outcomes.
 - 4) Interact creatively and openly with others to solve problems to achieve client goals and outcomes.
 - 5) Collaborate to bring about fair solutions that balance differing needs, values, and motivations for the purpose of achieving positive client outcomes.
- H. Manage health care for individuals using cost effective nursing strategies, quality improvement processes, and current technologies, specifically:
- 1) Prioritize client care for two or more clients.
 - 2) Coordinate the implementation of an individualized plan of care for clients and significant support person(s).
 - 3) Facilitate the continuity of care within and across healthcare settings.
 - 4) Delegate aspects of client care to changing healthcare settings and management systems.
 - 5) Supervise and evaluate the activities of assistive personnel.
 - 6) Adapt the provision of client care to changing healthcare settings and management systems.
 - 7) Assist the client and significant support person(s) to access available resources and services.
 - 8) Implement nursing strategies to provide cost efficient care.
 - 9) Demonstrate competence with current technologies.
 - 10) Participate in problem identification and data collection for research, quality control, or improvement processes to meet client outcomes.

COURSE CONCEPTS

I. Concepts related to Nursing

- a) Professional behaviors
- b) Accountability
- c) Caring Interventions
- d) Managing care

II. Concepts related to the Individual

- a) Fluid/electrolytes
- b) Metabolism
- c) Thermoregulation
- d) Oxygenation
- e) Tissue integrity
- f) Immunity
- g) Infection
- h) Violence
- i) Behaviors
- j) Perfusion

- k) Mobility
- l) Reproduction
- m) Sexuality
- n) Health-wellness-illness

III. Concepts related to Healthcare

- a) Health care systems
- b) Advocacy
- c) Collaboration
- d) Quality Improvement

OUTLINE OF INSTRUCTION

I. Fluid/electrolytes

- a) Concepts of fluid and electrolyte balance
- b) The client with fluid volume imbalances
- c) The client with electrolyte imbalances
- d) The client with acute renal failure
- e) The client with chronic renal failure
- f) Caring interventions

IV Insertion,

Care of Central Venous Access Devices

II. Metabolism

- a) The client with pancreatitis
- b) The client with adrenal disease
- c) The client with diabetes
- d) The client with liver disease
- e) The client with thyroid disease

III. Oxygenation

- a) The client with adult respiratory distress syndrome
- b) The client on a ventilator

IV. Perfusion

- a) The client with a myocardial infarction
- b) The client with a ventricular septal defect
- c) The client with cardiomyopathy
- d) The client with disseminated Intravascular Coagulation
- e) The client with heart failure
- f) The client with life threatening dysrhythmias
- g) The client with pregnancy induced hypertension
- h) The client with pulmonary embolism
- i) The client with shock
- j) The client with multisystem failure

V. Tissue Integrity

- a) The client with burns

VI. Mobility

- a) The client with spinal cord injury
- b) The client with parkinson's disease
- c) The client with multiple sclerosis
- d) The client with arthritis
- e) The client with hip Fracture

- f) The client with spinal disc disease
- g) The client with osteoporosis

VII. Cellular regulation

- a) Concepts of cellular growth and regulation
- b) The client with breast cancer
- c) The client with leukemia
- d) The client with lung cancer
- e) The client with skin cancer
- f) The client with Sickle Cell Anemia

VIII. Thermoregulation

- a) Concepts of thermoregulation
- b) The newborn with hypo/hyperthermia

IX. Behavior

- a) The perinatal client with substance use

X. Infection

- a) The client with septicemia

XI. Professional behaviors

- a) Leadership

XII. Health Care Systems

- a) Types of reimbursement
- b) Allocation of resources
- c) Resource utilization
- d) Emergency preparedness
- e) Types of reimbursement
- f) Ethics
- g) Advocacy

XIII. Legal Issues

- a) Whistle-blowing
- b) Obligation to report
- c) Risk management

XIV. Sexuality

- a) Concepts of sexuality
- b) Family planning
- c) The client experiencing menopause
- d) The client with menstrual dysfunction
- e) The client with sexually transmitted disease

XV. Reproduction

- a) The Premature client
- b) The client with third trimester bleeding

XVI. Violence

- a) Sources of violence in society
- b) The client with multiple trauma

XVII. Immunity

- a) The client with HIV, AIDS

Methods of Instructions and Learning Activities

Teaching methods will include, but not be limited to:

Class: Lecture, discussion, demonstration, worksheets, case studies, audiovisuals/visual aids, group work, role-play, individual and group projects, computer-assisted instruction (CAI), and online debate.

Clinical: Pre and post conferences, selected client care assignments
Application of theoretical concepts
Performance of psychomotor skills
Application of pharmacological theory and concepts

REQUIRED TEXTBOOKS AND MATERIAL:

No new books are required for this course. Books from previous courses will be used for this course. The following book is strongly recommended but is not required:

LaCharity, L.A., Kumagai, C. K., & Bartz, B. (2011). *Prioritizations, delegation, assignment: Practice exercises for medical-surgical nursing* (2nd ed.). St. Louis, MO: Mosby.

Ignatavicius, D. D., & Workman, M. L. (2010). *Medical-Surgical nursing: Patient-centered collaborative care* (6th ed.). St. Louis, MO: Saunders. **5th ed. will work**

Smeltzer, S. C., Bare, B. G., Hinkle, J. L., & Cheever, K. H. (2009). *Brunner & Suddarth's Textbook of Medical-Surgical Nursing* (12th ed.). Philadelphia: Lippincott Williams & Wilkins. **11 ed. will work**

The Ignatavicius and the Smeltzer textbooks are on reserve in the library.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OPH 101 MATH FOR OPTICIANS

COURSE DESCRIPTION:

Prerequisites: MAT 070 or satisfactory score or DMA 010, 020, 030, 040, 050,
placement test and Enrollment in the OpticalApprentice Certificate program
Corequisites: None

This course covers the arithmetic, algebra, geometry, and trigonometry necessary to evaluate optical formulas. Topics include signed arithmetic, evaluation and solution of equations, use of the calculator, and basic trigonometric functions. Upon completion, students should be able to evaluate formulas as used in opticianry courses. This course is intended for a certificate program.
Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

With at least 77% competency, the student will demonstrate the following:

- a. Convert measurement numbers within the English and metric systems and between the two systems.
- b. Perform arithmetic operations with signed numbers.
- c. Use algebraic terminology and perform operations with algebraic expressions.
- d. Solve linear equations.
- e. Use linear equations to solve application problems.
- f. Calculate ratios, solve proportions, and use proportions to solve practical application problems.
- g. Use the Pythagorean Theorem.
- h. Find the values of the trigonometric functions.

OUTLINE OF INSTRUCTION:

- I. The metric system of measurement
 - A. The English and the metric systems
 - B. The metric system
- II. Signed numbers
 - A. Negative numbers
 - B. Addition and subtraction of signed numbers
 - C. Multiplication of signed numbers
 - D. Division of signed numbers
 - E. Order of operations

- III. Introduction to algebra
 - A. Literal numbers
 - B. Algebraic terms and definitions
 - C. Grouping symbols and grouping
- IV. Simple equations
 - A. Basic ideas about equations
 - B. Solving first-degree equations in one variable
 - C. Solving application problems using first-degree equations in one variable
- V. Fractional equations and formulas
 - A. Fractional equations
 - B. Literal equations: formulas
 - C. Evaluation of formulas
- VI. Ratio and proportion
 - A. Ratio
 - B. Proportion
 - C. Proportion applications
- VII. Right triangle trigonometry
 - A. The right triangle and the Pythagorean Theorem
 - B. Definitions of the trigonometric ratios
 - C. Values of the trigonometric functions

REQUIRED TEXTBOOK AND MATERIALS:

Christopher, John. Introductory Technical Mathematics. 2ed. Prentice Hall, 1991.

Scientific calculator

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 102 OPHTHALMIC LAB CONCEPTS

COURSE DESCRIPTION

Prerequisites: OPH 141 and Enrollment in the Optical Apprentice Certificate program

Corequisites: None

This course introduces the operations of the ophthalmic laboratory. Emphasis is on surfacing and finishing formulas; materials, procedures, and equipment used to fabricate glasses; and ANSI, EPA, and OSHA requirements. Upon completion, students should be able to perform laboratory-related calculations, describe safety and environmental regulations, and identify materials and procedures used in ophthalmic laboratories. Course Hours Per Week: Class, 2. Semester Hours Credit, 2.

COURSE OBJECTIVES:

Upon completion of the course the student will be able to:

- a. Describe layout and blocking for surfacing and finishing of single vision and multifocal lenses.
- b. Describe surfacing procedures.
- c. Describe finishing procedures.
- d. Use formulas involved in surfacing and finishing operations.
- e. Neutralize single vision, multifocal, and prismatic eyewear.

OUTLINE OF INSTRUCTION:

- I. Laboratory safety
 - A. Clothing safety
 - B. Eye safety
 - C. MSDS sheets, OSHA and EPA requirements
- II. Lens design
 - A. Plus, minus, compound lens characteristics
 - B. Optical power cross
 - C. Single vision and multifocal lens designs
 - D. Measurements and terminology
 - E. Indices of common Ophthalmic materials

- III. Lensmeter
 - A. Lensmeter nomenclature and operation
 - B. Neutralizing spherical, compound and multifocal lenses
 - C. Optical Center and Major Reference Point (Prism Reference Point)
 - D. Prism base notation and identification
 - E. ANSI standards for power, axis, and prism
- IV. Geneva Lens Measure
 - A. ANSI standards for curves
- V. Surfacing procedures
 - A. Base Curve selection using formulas and tables
 - B. Layout and markup of spherical, compound and multifocal lenses
 - C. Blocking procedures---lens preparation
 - D. Tool curves and tool selection
 - 1) Nominal power formula
 - 2) True power formula
 - E. Generating lenses---operation of generator
 - F. Emeries and polishing compounds
 - G. Handling of common ophthalmic materials
 - H. Inspection of finished lenses
- VI. Basic formulas
 - A. Sag (thickness)
 - B. Lens center and edge thickness calculations
 - C. Transposition
 - D. Oblique meridian (Tables and sine squared method)
- VII. Prism applications
 - A. Prism base direction notation
 - B. Prism formulas
 - 1) Prentice Rule
 - 2) Prism thickness
 - C. Grinding prism for decentration
 - D. Grinding requested prism
 - E. Yoked prism or prism thinning
 - F. Correcting unwanted prism thinning
 - G. Bicentric grind
- VIII. Edging Processes
 - A. Minimum blank size calculations
 - B. Lay-out and mark-up for edging
 - C. Patterns and pattern making
 - D. Edging equipment
 - E. Methods of handling common ophthalmic materials
 - F. Beveling

- G. Mounting lenses
- H. Interpreting prescriptions of multifocal lenses
 - 1) Measurements and calculations
 - 2) Franklin style bifocal design
- I. Layout using boxing system
- J. Mark-up and blocking multifocal lenses
- K. Heat and chemical tempering of glass lenses
- L. Lens tinting-dyes and their application
- M. Benchwork
- N. Progressive lens finishing
- O. Final Inspections
 - 1) ANSI standards

REQUIRED TEXTBOOKS AND MATERIALS:

Brooks. Understanding Lens Surfacing. Butterworth-Heinemann, 1992.

Brooks. Essentials for Ophthalmic Lens Finishing. 2nd ed. Elsevier, 2003.

EQUIPMENT REQUIRED:

Non-programmable Scientific Calculator. The least complicated calculator that contains the keys 'sin,' 'cos,' and 'tan' will do.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 111 OPHTHALMIC LAB I

COURSE DESCRIPTION:

Prerequisites: OPH 141 and Enrollment in the Opticianry program

Corequisites: None

This course introduces optical laboratory practices and procedures. Emphasis is on safety, OSHA and EPA requirements, equipment and instrumentation, and lens fabrication to ANSI standards. Upon completion, students should be able to duplicate lenses, use basic formulas, and identify materials and procedures used to safely fabricate prescription lenses to specifications. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

Upon completion of the course the student will be able to:

- a. Demonstrate safe use of surfacing equipment.
- b. Layout and block single vision and multifocal lenses for surfacing.
- c. Neutralize single vision and multifocal eyewear.

OUTLINE OF INSTRUCTION:

- I. Laboratory safety, OSHA and EPA requirements
 - A. Clothing safety
 - B. Eye safety
 - C. Safe use and disposal of laboratory chemicals
- II. Spherical, spherocylindrical, and multifocal lens design
- III. Neutralizing lenses
- IV. Surfacing Procedures:
 - A. Layout and markup of spherical, compound and multifocal lenses
 - B. Blocking procedures
 - C. Generating of lenses
 - D. Lap selection and lap truing
 - E. Fining and polishing
 - F. Deblocking
 - G. Inspection

- V. Basic Formulas
 - A. Index of Refraction
 - B. Nominal power
 - C. Sag (thickness)
 - D. True power
 - E. Transposition
 - F. Prentice's rule
 - G. Oblique meridian
 - H. Lens sizing (MBS)

REQUIRED TEXTBOOKS AND MATERIALS:

Brooks. Understanding Lens Surfacing. Butterworth-Heinemann, 1992.

Brooks. Essentials for Ophthalmic Lens Finishing. 2nd ed. Elsevier, 2003.

Non-programmable scientific calculator. The least complicated calculator that contains the keys 'sin,' 'cos,' and 'tan' will do.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OPH 112 OPHTHALMIC LAB II

COURSE DESCRIPTION:

Prerequisites: OPH 111

Corequisites: None

This course continues the study of optical laboratory procedures introduced in OPH 111. Emphasis is on prescription interpretation, focimetry, and finishing techniques. Upon completion, students should be able to duplicate lenses, use intermediate formulas, and identify materials and procedures used to safely fabricate prescription eyewear to specifications. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

Upon completion of the course the student will be able to

- a. Layout and block using prism calculations for surfacing and finishing of single vision and multifocal lenses.
- b. Neutralize single vision, multifocal, and prismatic eyewear.
- c. Demonstrate finishing procedures for specialty lens designs.
- d. Demonstrate faceting, grooving, and drilling of lenses.
- e. Chemically temper/Heat treat glass lenses.
- f. Tint lenses.
- g. Solder metal frames.
- h. Repair zyl frames.
- i. Safely complete Rx glasses to within ANSI standards from job ticket through bench alignment and final inspection.

OUTLINE OF INSTRUCTION:

- I. Laboratory safety
- II. Neutralization of Single Vision, Multifocal, and prismatic eyewear.
- III. Prism applications
 - A. Formulas
 - B. Prescriber and lab prism notation
 - C. Grinding prism for decentration and for prescribed prism
 - D. Yoked prism or prism thinning
 - E. Correcting unwanted prism
- IV. Chem Tempering/Heat treating glass lenses

- V. Tinting
- VI. Surfacing and finishing specialty lenses
- VII. Faceting lenses
- VIII. Drilled rimless lenses, Grooved lenses
- IX. Solder metal frames
- X. Perform hidden hinge and shield repairs on zyl frames.

REQUIRED TEXTBOOK AND MATERIALS:

Brooks. Understanding Lens Surfacing: Butterworth-Heinemann, 1992.

Brooks. Essentials for Ophthalmic Lens Work: Butterworth-Heinemann, 1983.

Non-programmable scientific calculator. The least complicated calculator that contains the keys 'sin,' 'cos,' and 'tan' will do.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OPH 121
ANATOMY AND PHYSIOLOGY OF THE EYE

COURSE DESCRIPTION:

Prerequisites: ENG 090 AND RED 090 or DRE 098; or satisfactory score on placement test;
Enrollment in the Opticianry or Optical Apprentice Certificate programs

Corequisites: None

This course covers the anatomical and physiological functions of the eye and its associated structures. Emphasis is on normal vision and common disorders of the visual system. Upon completion, students should be able to describe the visual process as well as label and describe the function of each part of the eye. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

Upon completion of the course the student will be able to demonstrate knowledge of the human eye structure, functions, and pathology, including:

- a. Identify the major components of the eye.
- b. Identify the associated structures of the eye.
- c. Relate the anatomical composition of the eye to the process of vision.
- d. Relate the function of the eye in accommodation.
- e. Relate eye movements in vision.
- f. Identify the refractive errors in the visual process.
- g. Define photopic and scotopic vision.
- h. Describe theories of color vision.
- i. Describe higher levels of binocular vision.
- j. Demonstrate knowledge of pathological anomalies of the eye.

OUTLINE OF INSTRUCTION:

- I. Basic anatomy
 - A. Cell and tissues
 - B. Mitosis
 - C. Terminology
- II. Terminology
- III. Gross ocular anatomy
 - A. Major components of the eye
- IV. Parts of the eye, structure and function
 - A. Cranial nerves
 - B. Ocular adnexa
 - C. Conjunctive

- D. Cornea
 - E. Sclera
 - F. Pupil
 - G. Uvea
 - H. Aqueous humor
 - I. Crystalline lens
 - J. Accommodation
 - K. Vitreous humor
 - L. Retina
 - M. Visual pathway
 - N. Extraocular muscles
 - O. Orbit
- V. Refractive errors
- VI. Common anomalies of the eye
- VII. Common surgical procedures
- VIII. Basic pharmacological agents

REQUIRED TEXTBOOK:

Remington, Lee Ann. Clinical Anatomy of the Visual System. 2nd ed. Elsevier, 2004.

SUGGESTED REFERENCES:

One of the following medical dictionaries, current edition:

Solomon and Cassin. Dictionary of Eye Terminology, Triad Publication.
Thomas, Taber's Cyclopedic Medical Dictionary. F.A. Davis. Current edition
Mosby's Medical Dictionary. Current edition.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 131 OPTICAL DISPENSING I

COURSE DESCRIPTION:

Prerequisites: Enrollment in Opticianry or Optical Apprentice Certificate program; MAT 070 or satisfactory score on placement test; ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test

Corequisites: None

This course introduces the historical and modern dispensing practices and the laws governing opticianry. Topics include basic eyeglass choices, measurements, dispensing, adjustments, and record keeping. Upon completion, students should be able to evaluate patient needs and wearing success. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

- a. Define terms used to describe eyewear;
- b. Demonstrate knowledge of frame and lens materials;
- c. Determine face shapes and lifestyle needs
- d. Understand difference between datum and boxing system;
- e. Recognize and demonstrate usage of optical tools in frame adjustments;
- f. Fill out job tickets, maintain records, etc.;
- g. Perform measurements of frames, PD's, multifocal heights;
- h. Adjust frames to proper fit and comfort;
- i. Dispense eyewear to consumer;
- j. Demonstrate proper telephone skills;
- k. Perform minor repairs;
- l. Analyze Rx and determine customer's Rx needs;
- m. Select appropriate multifocal lens;
- n. Identify all types of multifocal and demonstrate product knowledge;
- o. Identify unknown progressive addition lenses;
- p. Fit reading glasses, half-eyes and other presbyopic eyewear;
- q. Evaluate patient success;
- r. Demonstrate knowledge of and regulations affecting safety eyewear;
- s. Demonstrate knowledge of all rules and regulations as they relate to eyewear dispensing at the state and federal level, including NC Law, FTC, FDA and EPA;
- t. Describe the training and functions of eyecare professionals;
- u. Describe purpose and membership requirements of major optical associations;
- v. Describe the historical development of optics and eyewear.

OUTLINE OF INSTRUCTION:

- I. History of optics and eyewear
 - A. Pre-nineteenth century
 - B. Nineteenth century
 - C. Modern developments
- II. Training, functions and types of eyecare professionals
 - A. Job descriptions
 - B. Optical dispensaries
 - C. Educational requirements
 - D. Optical organizations
- III. Measurements
 - A. Pupillary measurements
 - B. Frame measurements
 - C. Lens measurements
- IV. Single-vision & multifocal lenses
 - A. Types
 - B. Materials
 - C. Progressive addition lenses
 - D. Selection of the correct multifocal
- V. Frame materials
 - A. Terminology
 - B. Materials
- VI. Frame alignment and adjustment
 - A. Standard alignments
 - B. Using optical hand tools
- VII. Frame selection
 - A. Face shape analysis
 - B. Rx analysis
 - C. Specialty eyewear
 - D. Lifestyle dispensing
- VIII. Eyewear repair
 - A. Broken screws
 - B. Hidden hinge repair
 - C. Restringing
- IX. Optical office / Customer care
 - A. Record keeping
 - B. Telephone skills

- C. Interpersonal skills
- D. Lens and frame pricing strategies
- X. Accommodative Mechanism
 - A. Ocular structures
 - B. Definition of accommodation
 - C. Description of presbyopia
- XI. Rules and regulations
 - A. Federal laws
 - 1.) FTC
 - 2.) OSHA
 - 3.) FDA
 - B. State laws

REQUIRED TEXTBOOK AND MATERIALS:

Brooks & Borish. Systems for Ophthalmic Dispensing. 2nd ed. The Professional Press, 1996.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OPH 132
OPTICAL DISPENSING II

COURSE DESCRIPTION:

Prerequisites: OPH 131 and OPH 141

Corequisites: None

This course continues the study of optical dispensing begun in OPH 131. Emphasis is on advanced dispensing skills. Upon completion, students should be able to design and dispense appropriate eyewear for a variety of patients. Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

COURSE OBJECTIVES:

- a. Describe the effect of wanted and unwanted prism in eyewear.
- b. Use basic optical principles to describe the function of multifocals.
- c. Analyze prescriptions according to the classification of ametropia.
- d. Perform single-vision and multifocal vertical imbalance computations.
- e. Determine methods of correction for vertical imbalance.
- f. Describe the effect of changing the vertex distance of eyewear.
- g. Classify lenses and frames based on customer's needs.
- h. Describe frame adjustments to ensure patient comfort.
- i. Describe the effects of radiation on the eye.
- j. Classify absorptive lenses according to their properties and uses.
- k. Demonstrate knowledge of safety eyewear and regulations affecting the dispensing of safety eyewear.
- l. Identify ANSI standards.

OUTLINE OF INSTRUCTION:

- I. Frame Fitting Theory
 - A. Frame selection
 - B. Mechanical fitting procedures
 - C. Frame shape and color analysis
 - D. Special fitting requirements
- II. Multifocals
 - A. Conventional multifocals
 - B. Occupational multifocals
 - C. Special designs
 - D. Multifocal optics
- III. Radiation and the Eye
 - A. Ultraviolet spectrum
 - B. Absorptive lenses
 - C. Specialty tints
- IV. Anisometropia
 - A. Definition of anisometropia
 - B. Cause of anisometropia

- V. Single vision vertical imbalance
 - A. Reading level calculation
 - B. Definition of vertical imbalance
 - C. Formula to solve vertical imbalance
 - 1.) Prentice's rule
 - 2.) Oblique meridian formula
- VI. Multifocal vertical imbalance
 - A. Calculation of vertical imbalance
 - B. Correction of vertical imbalance
- VII. Prism
 - A. Power calculations
 - B. Base direction
 - C. Practical prism applications
- VIII. Vertex Power Considerations
 - A. Effective power
 - B. Compensated power
 - C. Practical vertex applications
- IX. Dispensing safety eyewear
 - A. ANSI standards
 - B. Frame and lens types
- X. Lens Cross Applications
- XI. ABO Review

REQUIRED TEXTBOOKS AND MATERIALS:

Brooks and Borish. Systems for Ophthalmic Dispensing. 2nd ed. Butterworth-Heinemann 1996.

SUGGESTED REFERENCES:

Any of the following textbooks, current edition:

Fannin and Grosvenor. Clinical Optics. Butterworth-Heinemann.

Stein and Slatt. The Ophthalmic Assistant. 4th ed. C.V. Mosby Company.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 141 OPTICAL THEORY I

COURSE DESCRIPTION:

Prerequisites: Enrollment in Opticianry or Optical Apprentice Certificate programs, MAT 070 or satisfactory score on placement test or OPH 101

Corequisites: MAT 121

This course introduces the principles of optics and ophthalmic lens design. Topics include basic theory and basic optical formulas. Upon completion, students should be able to use the metric system, define basic optical terms, and perform basic optical calculations. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

- a. Use the metric system.
- b. Describe refraction at an interface.
- c. Define ophthalmic terms.
- d. Perform basic optical calculations.
- e. Discuss spherical and astigmatic refractive errors of the eye.
- f. Identify information contained in a written prescription for eyeglasses.
- g. Discuss basic cylinder optics.
- h. Use the optical cross.
- i. Use prism formulas.

OUTLINE OF INSTRUCTION:

- I. Theories of light
 - A. History
 - B. Definition of light
- II. Refractive Errors
 - A. Major parts of the eye
 - B. Emmetropia
 - C. Ametropia
 - 1.) Hyperopia
 - 2.) Myopia
 - 3.) Astigmatism
 - 4.) Presbyopia
- III. Lens measurements and terminology
 - A. Standard abbreviations and optical terms
 - B. Metric system
 - C. Dioptric definitions.

- IV. Single vision lens design
 - A. Flat and bent designs
 - B. Compound lens designs
 - C. Characteristics of single vision lenses
 - D. Optical cross
- V. Refraction at an interface
 - A. Definition.
 - B. Index of refraction
 - C. Snell's law.
- VI. Basic optical formulas
 - A. Focal length and power
 - B. Nominal power
 - C. Oblique meridian
 - D. Flat transposition
 - E. Lensmakers formula
 - F. Prentice's rule
 - G. Vertex distance compensation
 - H. Front and back vertex power
- VII. Prisms
 - A. Definitions & formulas
 - B. Characteristics of prisms
 - C. Use of prisms
 - D. Monocular and binocular effects of prisms
 - E. Fresnel prisms and lenses
 - F. ANSI standards for prism

REQUIRED TEXTBOOK AND MATERIALS:

Brooks and Borish. System for Ophthalmic Dispensing. 2nd ed. Butterworth-Heineman, 1996.

Stoner & Perkins. Optical Formulas Tutorial. Butterworth-Heinemann, 1997.

SUGGESTED REFERENCES:

Fannin and Grosvenor. Clinical Optics. Butterworth, 1997.

Brooks. Understanding Lens Surfacing. Butterworth-Heinemann, 1992.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 142 OPTICAL THEORY II

COURSE DESCRIPTION:

Prerequisites: OPH 141

Corequisites: None

This course continues the study of optical theory begun in OPH 141. Topics include intermediate and advanced theory and formulas. Upon completion, students should be able to perform intermediate and advanced optical calculations. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

- a. Perform slab off calculation
- b. Convert between various prism notations.
- c. Discuss lens aberrations
- d. Perform lens reflection and absorption calculations.
- e. Discuss the effects of pantoscopic tilt and face form on effective lens power.
- f. Perform thin lens ray tracing and demonstrate image formation.
- g. Discuss thick lens image formation.
- h. Identify common types of multi-lens systems.
- i. Perform lens magnification calculations.

OUTLINE OF INSTRUCTION:

- I. Lens aberrations
- II. Anisometropia
 - A. Spectacle magnification
 - B. Bicentric grind
- III. Fresnel's formula for lens reflection
- IV. Lens absorption and transmission
- V. Martin's formula for tilt

- VI. Ray tracing and image formation
 - A. Thin lenses
 - B. Thick lenses
 - C. Mirrors
 - D. Microscopes and telescopes
- VII. Prism notation
 - A. Horizontal and vertical components
 - B. Perscriber's notation
 - C. Laboratory notation

REQUIRED TEXTBOOKS AND MATERIALS:

Stoner, Perkins, & Ferguson. Optical Formulas Tutorial. 2nd ed. Elsevier, 2005.

Non-programmable calculator, containing sine, cosine and tangent functions.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 215 LABORATORY PROFICIENCY

COURSE DESCRIPTION:

Prerequisites: Final Semester of the program

Corequisites: OPH 243, OPH 262

This course provides preparation for the NC State Board of Opticians Examination. Emphasis is on speed and accuracy in all items on the competence list. Upon completion, students should be able to safely and accurately demonstrate proficiency in all items on the laboratory competence list. Course Hours Per Week: Lab, 6. Semester Hours Credit, 2.

COURSE OBJECTIVES:

- a. Apply the rules and regulations for the surfacing and finishing laboratory as stated by OSHA, ANSI, and EPA.
- b. Layout, block, surface and finish a variety of lens materials to a variety of frames.
- c. Neutralize eyewear prescriptions.

OUTLINE OF INSTRUCTION:

- I. Review and observe lab safety and OSHA Regulations
 - A. Clothing safety
 - B. Eye safety
 - C. Safe use and disposal of laboratory chemicals
- II. Single Vision Lenses
 - A. Analyze
 - B. Layout
 - C. Rework to shape
- III. Multifocal/Progressive
 - A. Analyze / Identify
 - B. Layout
- IV. Timed Neutralizations
- V. Lens processing
 - A. Tinting
 - B. Impact treating
 - C. Drilling/grooving

- VI. Frame repairs
 - A. Plastic frame repairs
 - B. Metal frame repairs
- VII. Record keeping/Cost/Inventory

REQUIRED TEXTBOOKS AND MATERIALS:

Brooks. Understanding Lens Surfacing. Butterworth-Heinemann, 1992.

Brooks. Essentials for Ophthalmic Lens Finishing. 2nd ed. Elsevier, 2003.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 222
OPTICAL BUSINESS MANAGEMENT

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Opticianry program
Corequisites: None

This course covers basic optical business management and current eyecare trends and practices. Topics include professional ethics, inventory, accounting, personnel, insurance, advertising, litigation, equipment, and future trends. Upon completion, students should be able to apply basic principles of management to the optical business setting. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

- I. Demonstrate an understanding of the role of sales in maintaining a profitable eyewear business.
 - a. Discuss professional ethics and make sound individual decisions regarding professional conduct.
 - b. Relate frame bar management to a profitable practice.
 - c. Apply business principles to an Opticianry practice.
 - d. Develop an understanding of sales techniques and marketing for professional growth.
 - e. Describe job opportunities and future trends affecting Opticianry and the optical industry.
 - f. Demonstrate the use of effective inventory control methods for an optical enterprise.
 - g. Demonstrate effective employee staffing skills.
- II. Demonstrate the ability to maintain records and file reports following guidelines set forth by the State of North Carolina, FTC, Medicare and other third party plans.
 - h. Understand methods of professional “self-defense” in a litigious society.
 - I. Demonstrate knowledge of third party insurance and the importance of its provision.

OUTLINE OF INSTRUCTION:

- I. Professional ethics
 - A. Marketing/advertising
 - B. Positioning of products

- II. Business/practice management
 - A. Buying groups
 - B. Pricing strategies
 - C. Frame bar management
 - D. Inventory control
 - E. Office management
 - 1) Hiring and training standards
 - 2) Laws and legal considerations
- III. Sales techniques
 - A. Individual
 - B. product specific
 - C. Marketing techniques
 - 1) Creating a marketing plan
 - 2) Identifying target market
- IV. Third party programs
 - A. HMO's
 - B. Insurance companies
 - C. Private programs
 - D. Other
- V. Future trends
 - A. Practice expansion
 - B. Niche areas
- VI. Inventory control
 - A. Standardizing books and records
 - B. Methods of inventory control
 - 1) Manual systems
 - 2) Computerized systems
 - C. Tracking breakage/remake
- VII. Employee staffing
 - A. Staffing sources
 - B. Interviewing skills
 - C. Staff scheduling
 - D. Employee termination
- VIII. Job opportunities
 - A. Franchise opportunities
 - B. Medical practices
 - C. Optometry offices
 - D. Optical dispensaries
 - E. Other

REQUIRED TEXTBOOK AND MATERIAL:

Appler, Dennis, Muth, White. Management for Opticians. 2nd ed. Butterworth-Heinieman, 1999.

SUGGESTED REFERENCES:

None

STATEMENT OF STUDENTS WITH DISABILITIES:

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OPH 233
ADVANCED OPTICAL PROCEDURES

COURSE DESCRIPTION:

Prerequisites: OPH 131, OPH 132, OPH 141, and OPH 142

Corequisites: None

This course introduces special optical procedures. Topics include advanced optical assessments and calculations. Upon completion, students should be able to describe appropriate patient care. Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to display an understanding of all parts of the normal eye exam, demonstrate effective communications with the prescriber and patients in situations requiring advanced fitting knowledge.

- a. Select low-vision aids to improve the vision of consumers with partial sight.
- b. Demonstrate how to use a variety of low vision aids.
- c. Determine and make recommendations for children's eyewear.
- d. Determine and make recommendations for elderly patients' eyewear.
- e. Determine and make recommendations for patients with physical disabilities
- f. Demonstrate a basic knowledge of procedures used during an ocular examination.

OUTLINE OF INSTRUCTION:

- I. Dispensing low-vision aids
 - A. Introduction to low-vision
 - B. Causes of low-vision
 - C. Identification and classification of low-vision aids
- II. Pediatric Dispensing
 - A. Problems associated with
 - B. Special considerations
 - C. Practical fitting considerations
- III. Geriatric Dispensing
 - A. Problems associated with
 - B. Special Considerations
 - C. Practical fitting considerations

- IV. Specialty Lenses
 - A. Lens designs
 - B. Materials
 - C. Lens treatments and coatings
- V. Patients with Disabilities
 - A. Visual
 - B. Hearing
 - C. Medically related
- VI. The Eye Examination
 - A. Case histories
 - B. Entrance tests
 - C. The ocular exam
 - D. Equipment
- VII. Advanced Prescription Analysis
 - A. Case histories

REQUIRED TEXTBOOKS AND MATERIALS:

None

SUGGESTED REFERENCES:

Brooks and Borish. Systems for Ophthalmic Dispensing. 2nd ed. Butterworth-Heinemann, 1996.

Fannin and Grosvenor. Clinical Optics. 2nd ed.. Butterworth-Heinemann, 1996.

Carlson. Clinical Procedures for Ocular Examination. 2nd ed. Appleton & Lange, 1996.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OPH 243
TECHNICAL PROFICIENCY

COURSE DESCRIPTION:

Prerequisites: Final semester of program, and OPH 142, OPH 233

Corequisites: OPH 215 and OPH 262

The course provides preparation for the NC State Board of Opticians Examination. Emphasis is on topics relevant to written portions of this examination. Upon completion, students should be able to pass each part of a capstone examination with a grade of 70 or better. Course hours per week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVE:

Upon completion of this course, the student should be prepared to take the written portions of the NC State Board of Opticians Examination, except for contact lenses, which are covered in OPH 262.

- I. Theory of light review
- II. Measurements of the face review
- III. Surfacing and finishing review
- IV. Anatomy and physiology review

REQUIRED TEXTBOOKS AND MATERIALS:

Texts required in OPH 111, OPH 112, OPH 121, OPH 131, OPH 141.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 251 OPTICAL INTERNSHIP I

COURSE DESCRIPTION:

Prerequisites: OPH 132, OPH 141, and OPH 142

Corequisites: None

This course provides practical experience under the direct supervision of an opticianry instructor. Emphasis is on communication and dispensing skills. Upon completion, students should be able to demonstrate competence in all course objectives. Course Hours Per Week: Clinical, 3. Semester Hours Credit, 1.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

- a. Demonstrate the correct selection of frames and lenses according to customer vocational and avocational needs.
- b. Demonstrate the ability to prepare orders, dispense eyewear, and maintain records according to the guidelines set forth by the State of North Carolina.

OUTLINE OF INSTRUCTION:

- I. Customer relations
 - A. Telephone skills
 - B. Resolving customer complaints
- II. Frame and lens selection
 - A. Frame materials
 - 1.) Advantages and disadvantages
 - B. Frame selection
 - 1.) Determining face shapes
 - 2.) Color analysis
 - 3.) Rx influence on frame choice
 - C. Lens material
 - 1.) Advantages and disadvantages
 - D. Bifocal selection
- III. Measurements
 - A. Taking PD's
 - B. Measuring OC's
 - C. Measuring seg/fitting cross height
 - D. Determining proper frame measurements

- IV. Taking job orders
 - A. Completion of job ticket
 - B. Pricing sheet
 - C. MBS selection
 - D. Telephone order
 - E. Record log
- V. POS computer entry
 - A. Log-on
 - B. Creating order
 - C. Creating invoice
- VI. Final inspection
 - A. Rx verification
 - 1.) Lens power, measurements, add-ons
 - B. Standard alignment check
 - C. Frame and lens cleaning
- VII. Eyewear dispensing
 - A. Patient notification
 - B. Frame adjustment
 - 1.) Nosepads, temples
 - C. Eyeglass usage and care information
- VIII. Minor repair
 - A. Parts replacement
 - 1.) Screws, nosepads, temples
 - B. Restringing rimless

REQUIRED TEXTBOOK AND MATERIALS:

To be announced.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OPH 252
OPTICAL INTERNSHIP II

COURSE DESCRIPTION:

Prerequisites: OPH 251

Corequisites: None

This course provides continued practical experience under the direct supervision of an Opticianry instructor. Emphasis is on communication and dispensing skills. Upon completion, students should be able to demonstrate competence in all course objectives. Course Hours Per Week: Clinical, 3. Semester Hours Credit, 1.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

- a. Demonstrate correct selection of proper frames and lenses according to customer vocational and avocational needs.
- b. Demonstrate the ability to prepare orders, dispense eyewear, and maintain records according to the guidelines set forth by the State of North Carolina.

OUTLINE OF INSTRUCTION:

Students will show competency in each of the following areas, as indicated by the initials of both the student and the supervising instructor.

- I. Customer relations
 - A. Telephone skills
 - B. Resolving customer complaints
- II. Frame and lens selection
 - A. Frame materials
 - 1) Advantages and disadvantages
 - B. Frame selection
 - 1) Determining face shapes
 - 2) Color analysis
 - 3) Rx influence on frame choice
 - C. Lens material
 - 1) Advantages and disadvantages
 - D. Bifocal selection

- III. Measurements
 - A. Taking PD's
 - B. Measuring OC's
 - C. Measuring seg/fitting cross height
 - D. Determining proper frame measurements
- IV. Taking job orders
 - A. Completion of job ticket
 - B. Pricing sheet
 - C. MBS selection
 - D. Telephone order
 - E. Record log
- V. POS computer entry
 - A. Log-on
 - B. Creating an order
 - C. Creating an invoice
- VI. Final inspection
 - A. Rx verification
 - 1) Lens power, measurements, add-ons
 - B. Standard alignment check
 - C. Frame and lens cleaning
- VII. Eyewear dispensing
 - A. Patient notification
 - B. Frame adjustment
 - 1) Nosepads, temples
 - C. Eyeglass usage and care information
- VIII. Minor repair
 - A. Parts replacement
 - 1) Screws, nosepads, temples
 - B. Restringing rimless

REQUIRED TEXTBOOK AND MATERIALS:

To be announced.

STATEMENT OF STUDENTS WITH DISABILITIES

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OPH 260

BASIC CONTACT LENS CONCEPTS

COURSE DESCRIPTION:

Prerequisites: OPH 121 and OPH 141

Corequisites: None

This course introduces the theory of contact lens fitting. Emphasis is on rigid and soft contact design and fitting concepts. Upon completion, students should be able to describe basic contact lens fitting concepts. Class Hours Per Week: Class, 3. Semester hours Credit, 3.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

- a. cite the major landmarks in contact lens development.
- b. describe current rigid and soft contact lens materials and manufacturing techniques.
- c. describe the optics associated with rigid and soft contact lenses.
- d. interpret rigid and soft contact lens prescriptions.
- e. record patient history.
- f. describe use of contact lens fitting and verification instruments.
- g. describe fitting contact lenses using the universal method.
- h. relate patient symptoms to rigid and soft contact lens adjustment.
- i. describe modifying rigid contact lenses.
- j. select lens material/brands/products.
- k. instruct patient in soft and rigid lens care and wearing schedules.
- l. describe the principles behind extended-wear lenses.
- m. assess patients as candidates for each type of contact lens.
- n. discuss multifocal contact lenses.
- o. discuss aphakic and minus Lenticular contact lenses.
- p. conform to federal and state regulations regarding contact lenses.
- q. troubleshoot.
- r. use FDA guidelines to assess the safety of prolonged lens wear.

OUTLINE OF INSTRUCTION:

- I. Ocular anatomy
 - A. Cornea
 - B. Lids

- C. Adnexa
- II. Rigid and soft contact lens history
 - A. First applied lenses
 - 1. Period of 18th century
 - 2. Period of 19th century
 - B. Contact Lenses in America
 - 1. Glass lenses
 - 2. Plastic lenses
 - C. Modern developments
 - 1. Single vision
 - 2. Multifocal
 - D. The future of contact lenses
- III. Optics of contact lenses
 - 1. Refraction in contact lenses
 - 2. Prism in contact lenses
 - 3. Determination of lens power
 - a. Front vertex
 - b. Back vertex
- IV. Rigid and soft contact lens designs and parameters
 - A. Rigid contact lens designs
 - 1. Single vision
 - 2. Multifocal
 - 3. Lenticular
 - B. Single curve contact lenses
 - C. Multi-curve contact lenses
 - D. Prism ballast contact lenses
 - E. Truncated contact lenses
 - F. Junctions
 - G. Measurements
- V. Rigid and soft contact lens terms and symbols
 - A. Abbreviations
 - B. Dioptric increments
 - C. Keratometric terms
- VI. Rigid and soft contact lens formulas and computations
 - A. Radius of curvature formula
 - B. Nominal power formula
 - C. Vertex distance calculations
 - D. Sag formula
 - E. Determination of toric curvature
 - F. The tear lens
 - G. Front vertex power

- H. Back vertex power
- VII. Rigid and soft contact lens materials and manufacture
 - A. Basic chemistry
 - B. PMMA material
 - C. Gas-permeable materials
 - D. Manufacturing process
- VIII. Rigid and soft contact lens instrumentation
 - A. Ophthalmometer – basic optics and procedure
 - B. Keratometer – basic optics and procedures
 - C. Slit lamp
 - D. Radiuscope
 - E. Measuring ruler
 - F. Measuring magnifier
 - G. Lensometer
 - H. Diameter gauge
 - I. Thickness meter
 - J. Evaluative testing: Fluorescence patterns and Schirmer's test
- IX. Evaluating patients as candidates for rigid and soft contact lenses
 - A. Patient selection: motivation; physical requirements
 - B. Good candidates for contact lenses
 - C. Poor candidates for contact lenses
- X. Interpreting rigid and soft contact lens prescriptions
 - A. Ophthalmic abbreviations
 - B. Prescription formats
 - 1. Spherical prescriptions
 - 2. Cylindrical prescriptions
 - 3. Prismatic prescriptions
 - 4. Multifocal prescriptions
 - C. Astigmatism
 - 1. With-the-rule
 - 2. Against-the-rule
 - 3. Oblique
- XI. Fitting methods for rigid and soft contact lenses
 - A. Patient's chart
 - B. Anterior parameters
 - C. Universal fitting method
 - 1. Spherical lenses
 - 2. Toric lenses
 - 3. Corneal astigmatism
 - D. Trial lens method
 - E. Special methods

- F. Vertex power recomputations
- G. The tear lens principle
- XII. Determining the initial lens
 - A. Case history
 - B. Fitting guides of major manufacturers
 - C. K readings
 - D. Ocular dimensions
 - E. Prescription interpretations
 - F. Indicators of well-fitting contact lenses
 - G. Indicators of poor-fitting contact lenses
- XIII. Evaluating the initial lens
 - A. Visual acuity
 - B. Corneal changes
 - C. Staining patterns
 - D. Injections
 - E. Diseases and infections
 - F. Instruments
 - G. Diagnostic tests
 - H. Patient reactions
- XIV. Adjusting and modifying rigid contact lenses
 - A. Signs and symptoms
 - 1. Common
 - 2. Adaptive
 - B. The modifying unit
 - C. Modification process
 - 1. Polishing
 - 2. Blending
 - 3. Power changes
 - 4. Edge restoration
 - 5. Diameter reduction
- XV. Inserting and removing rigid and soft contact lenses
 - A. Hygiene
 - B. Instruction tips
 - C. Alternate methods
 - D. Suction cup removal
- XVI. Arranging follow-up and referrals
 - A. Diagnostic testing
 - B. Signs and symptoms
 - C. Referring to the prescriber

REQUIRED TEXT:

Contact Lens Society of America. Contact Lens Manual – A Comprehensive Study & Reference Guide

SUGGESTED REFERENCE:

Stein, Slatt, and Stein. Fitting Guide for Rigid and Soft Contact Lenses, 3rd ed. C.V. Mosby, 1990.

STATEMENT OF STUDENTS WITH DISABILITIES:

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OPH 261 CONTACT LENS I

COURSE DESCRIPTION:

Prerequisites: OPH 121 and OPH 142

Corequisites: None

This course introduces rigid contact lens fitting. Emphasis is on clinical applications, patient selection, design parameters, instrumentation, and corneal physiology. Upon completion, students should be able to describe basic patient evaluation and fitting procedures for rigid and soft lenses, recognize problems, and determine effective and appropriate solutions. Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit, 4.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

- a. Cite the major landmarks in contact lens development.
- b. Describe current rigid contact lens materials and manufacturing techniques.
- c. Describe the optics associated with rigid contact lenses.
- d. Interpret rigid contact lens prescriptions.
- e. Record patient history.
- f. Use contact lens fitting instruments.
- g. Verify the base curve of a rigid contact lens.
- h. Measure the base curve of the corneal surface.
- i. Fit contact lenses using the universal fitting method.
- j. Relate patient symptoms to rigid contact lens adjustment.
- k. Adjust and modify rigid contact lenses.
- l. Describe the optics associated with soft contact lenses.

OUTLINE OF INSTRUCTION:

- I. Ocular anatomy
 - A. Cornea
 - B. Lids
 - C. Adnexa
- II. Rigid and soft contact lens history
 - A. First applied lenses
 - 1.) Period of 18th century
 - 2.) Period of 19th century
 - B. Contact lenses in America
 - 1.) Glass lenses
 - 2.) Plastic lenses
 - C. Modern developments
 - 1.) Single vision
 - 2.) Multifocal
 - D. The future of contact lenses
- III. Optics of contact lenses
 - A. Refraction in contact lenses
 - B. Prism in contact lenses

- C. Determination of lens power
 - 1.) Front vertex
 - 2.) Back vertex
- IV. Rigid and soft contact lens designs and parameters
 - A. Rigid contact lens designs
 - 1.) Single-vision
 - 2.) Multifocal
 - 3.) Lenticular
 - B. Single-curve contact lenses
 - C. Multi-curve contact lenses
 - D. Prism-ballast contact lenses
 - E. Truncated contact lenses
 - F. Junctions
 - G. Measurements
- V. Rigid and soft contact lens terms and symbols
 - A. Abbreviations
 - B. Dioptic increments
 - C. Keratometric terms
- VI. Rigid and soft contact lens formula and computations
 - A. Radius of curvature formula
 - B. Nominal power formula
 - C. Vertex distance calculations
 - D. Sag formula
 - E. Determination of toric curvature
 - F. The tear lens
 - G. Front vertex power
 - H. Back vertex power
- VII. Rigid and soft contact lens materials and manufacture
 - A. Basic chemistry
 - B. PMMA material
 - C. Gas-permeable materials
 - D. Manufacturing process
- VIII. Rigid and soft contact lens instrumentation
 - A. Ophthalmometry – basic optics and procedures
 - B. Keratometer – basic optics and procedures
 - C. Slit lamp
 - D. Radiuscope
 - E. Measuring ruler
 - F. Measuring magnifier
 - G. Lensometer
 - H. Diameter gauge
 - I. Thickness meter
 - J. Evaluative testing - Fluorescence patterns and Schirmer's test
- IX. Evaluating patients as candidates for rigid contact lenses
 - A. Patient selection – motivation, physical requirements
 - B. Good candidates for contact lenses

- C. Poor candidates for contact lenses
- X. Interpreting rigid and soft contact lens prescriptions
 - A. Ophthalmic abbreviations
 - B. Prescription formats
 - 1.) Spherical prescriptions
 - 2.) Cylindrical prescriptions
 - 3.) Prismatic prescriptions
 - 4.) Multifocal prescriptions
 - C. Astigmatism
 - 1.) With-the-rule
 - 2.) Against-the-rule
 - 3.) Oblique
- XI. Fitting methods for rigid and soft contact lenses
 - A. Patient's chart
 - B. Anterior parameters
 - C. Universal fitting method
 - 1.) Spherical lenses
 - 2.) Toric lenses
 - 3.) Corneal astigmatism
 - D. Trial lens method
 - E. Special methods
 - F. Vertex power recomputations
 - G. The tear lens principle
- XII. Determining the initial lens
 - A. Case history
 - B. Fitting guides of major manufacturers
 - C. K readings
 - D. Ocular dimensions
 - E. Prescription interpretations
 - F. Indicators of well-fitting contact lenses
 - G. Indicators of poor-fitting contact lenses
- XIII. Evaluating the initial lens
 - A. Visual acuity
 - B. Corneal changes
 - C. Staining patterns
 - D. Injections
 - E. Diseases and infections
 - F. Instruments
 - G. Diagnostic tests
 - H. Patient reactions
- XIV. Adjusting and modifying rigid contact lenses
 - A. Signs and symptoms
 - 1.) Common
 - 2.) Adaptive
 - B. The modifying unit
 - C. Modification processes
 - 1.) Polishing
 - 2.) Blending

- 3.) Power changes
- 4.) Edge restoration
- 5.) Diameter reduction

- XV. Inserting and removing rigid and soft contact lenses
 - A. Hygiene
 - B. Instruction tips
 - C. Alternate methods
 - D. Suction-cup removal
- XVI. Arranging follow-up and referrals
 - A. Diagnostic testing
 - B. Signs and symptoms
- XVII. Rigid and Soft contact lens designs and parameters
 - A. Single-vision designs
 - B. Multifocal designs
 - C. Lenticular designs
 - D. Toric designs
 - E. Junctions
 - F. Measurements
- XVIII. Soft contact lens history
 - A. Major innovations
 - B. The future of soft contact lenses

REQUIRED TEXTBOOK AND MATERIALS:

Contact Lens Society of America Manual – A comprehensive Study and Reference Guide, Volume #1.

SUGGESTED REFERENCES:

Bennett and Grohe. Rigid Gas-Permeable Contact Lenses.
 Bier. Contact Lens Correction.
 Hales. Contact Lenses - A Clinical Approach To Fitting.
 Jenkin and Tyler-Jones. Theory and Practice of Contact Lens Fitting.
 Rosenwasser. Malpractice and Contact Lenses.
 Lowther. Contact Lenses: Procedures and Techniques.
 Filderman and White. Contact Lens Practice and Patient Management.
 Stein, Slatt, and Stein. Fitting Guide for Rigid and Soft Contact Lenses, 3rd ed. C.V. Mosby Co., 1990.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 262 CONTACT LENSES II

COURSE DESCRIPTION:

Prerequisites: OPH 261

Corequisites: OPH 215 and OPH 243

This course continues the study of contact lens fitting. Emphasis is on soft contact lens advanced fitting design and techniques. Upon completion, students should be able to demonstrate the competence required for the National Contact Lens Examination and the NC State Board of Opticians Examination. Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit, 4.

COURSE OBJECTIVES:

Upon completion of the course, the student will be able to:

- a. Evaluate, fit and dispense contact lenses
- b. Interpret soft contact lens prescriptions
- c. Record patient history
- d. Use fitting instruments associated with soft contact lenses
- e. Select lens materials/brands/products
- f. Fit soft contact lenses
- g. Instruct patient in soft lens care
- h. Describe the principles behind extended-wear lenses
- i. Assess patients as candidates for each type of contact lens
- j. Select most appropriate lens brand and type
- k. Fit extended-wear lenses
- l. Fit multifocal contact lenses
- m. Fit aphakic and minus lenticular contact lenses
- n. Instruct contact lens patients in wearing schedules and lens care procedures
- o. Discuss keratotomy
- p. Discuss keratoconus problems and bandage contact lenses
- q. Conform to federal and state regulations regarding contact lenses
- r. Troubleshoot
- s. Apply the rules and regulations for contact lenses as stated by FDA and ANSI
- t. Use FDA guidelines to assess the safety of prolonged lens wear

OUTLINE OF INSTRUCTION:

- I. Soft contact lens computations
 - A. Dioptic power computations
 - B. Spherical equivalents
 - C. Lens curve computations
 - D. Nominal power formula

- II. Soft contact lens materials
 - A. HEMA materials
 - B. Gas-permeable materials
 - C. Extended-wear contact lens materials
- III. Soft contact lens manufacturing
 - A. Major manufacturing companies
 - B. Manufacturing processes
 - 1.) Lathe-cut lenses
 - 2.) Spin-cast lenses
 - 3.) Molded lenses
- IV. Evaluating patients as candidates for soft contact lenses
 - A. Patient selection
 - 1.) Motivation
 - 2.) Physical requirements
 - B. Prescription limitations
 - C. Good candidates
 - D. Poor candidates
- V. Interpreting soft contact lens prescriptions
 - A. Ophthalmic abbreviations
 - B. Prescription formats
 - 1.) Spherical prescriptions
 - 2.) Cylindrical prescriptions
 - 3.) Prismatic prescriptions
 - 4.) Multifocal prescriptions
 - C. Astigmatism
 - 1.) With-the-rule
 - 2.) Against-the-rule
 - 3.) Oblique
- VI. Brands of rigid and soft contact lenses
 - A. Major trade names
 - B. Advantages
 - C. Disadvantages
- VII. Inspecting soft contact lenses
 - A. Visual inspection
 - B. Shadow-graph
 - C. Vertometer
- VIII. Fitting soft contact lenses
 - A. Patient chart
 - B. Anterior parameters
 - C. Fitting guides
 - D. Vertex power recomputations
- IX. Determining the initial lens
 - A. Case history
 - B. K readings

- C. Ocular dimensions
- D. Prescription interpretation
- E. Indicators of well-fitting lenses
- F. Indicators of poor fitting lenses

- X. Evaluating the initial lens
 - A. Visual acuity
 - B. Corneal changes
 - C. Injection
 - D. Diseases and infections
 - E. Instruments
 - F. Diagnostic tests
 - G. Patient reaction

- XI. Inserting and removing soft contact lenses
 - A. Elements of good hygiene
 - B. Instruction tips
 - C. Alternate methods

- XII. Instructing the patient in soft lens care
 - A. Hygiene
 - B. Cleaning instructions
 - C. Storage instructions
 - D. Disinfection instructions

- XIII. Selecting rigid and soft contact lens products
 - A. Basic chemistry
 - B. Products for cleaning
 - C. Products for storage
 - D. Products for wearing comfort

- XIV. Soft contact lens sterilization
 - A. Chemical disinfection
 - B. Heat disinfection
 - C. H₂O₂ disinfection

- XV. Arranging follow-ups and referrals
 - A. Signs and symptoms
 - B. Diagnostic tests
 - C. Referring to the prescriber

- XVI. Completing paperwork
 - A. Ordering of contact lenses
 - B. Patient's chart
 - C. Fees
 - D. Insurance
 - E. Checking and credit transactions

- XVII. Silicon materials
 - A. Elastomers
 - B. Rigid lenses
 - C. Patient selection
 - 1.) Evaluating patients
 - 2.) Types and brands of lenses available
- XVIII. Fitting multifocal contact lenses
 - A. Candidates for multifocal contact lenses
 - B. Types of multifocal contact lenses
 - 1.) Advantages
 - 2.) Disadvantages
 - C. Evaluative testing
 - D. Monocular suppression
- XIX. Fitting aphakic contact lenses
 - A. Candidates for aphakic contact lenses
 - B. Types of aphakic contact lenses
 - 1.) Advantages
 - 2.) Disadvantages
 - C. Hyperflange contact lenses
 - D. Evaluative testing
- XX. Fitting minus lenticular contact lenses
 - A. Candidates for minus lenticular contact lenses
 - B. Types of minus lenticular contact lenses
 - 1.) Conventional carrier designs
 - 2.) Myoflange contact lenses
 - 3.) Advantages
 - 4.) Disadvantages
 - C. Evaluative testing
- XXI. Fitting extended-wear lenses
 - A. Candidates for extended-wear lenses
 - B. Available extended-wear contact lenses
 - 1.) Advantages
 - 2.) Disadvantages
 - C. Evaluative testing
 - D. Patient instruction
- XXII. Fitting keratoconus contact lenses
 - A. Candidates for keratoconus contact lenses
 - B. Instrumentation for keratoconus contact lens fitting
 - 1.) Corneascopes
 - 2.) Placidodisk
 - 3.) Keratometer
 - 4.) Topogometer
 - C. Types of keratoconus contact lenses
 - 1.) Soper lenses
 - 2.) Piggy-back lenses
 - 3.) Advantages

- 4.) Disadvantages
- D. Radical surgery (keratotomy)
- E. Evaluative testing

- XXIII. Applications of contact lenses to treat ocular diseases and infections under medical supervision
- A. Recognizing common diseases and infections
 - B. Referring the consumer to prescriber

- XXIV. Bandage contact lenses
- A. Types of bandage lenses
 - B. Purpose of bandage lenses
 - C. Advantages of bandage lenses
 - D. Disadvantages of bandage lenses

- XXV. Contact lens regulations
- A. State
 - B. Federal
 - C. Record keeping to comply with law

- XXVI. Contact lens troubleshooting
- A. Signs and symptoms of good fits
 - B. Signs and symptoms of poor fits

REQUIRED TEXTBOOK AND MATERIALS:

CLSA – Advanced Contact Lens Manual Volume II

SUGGESTED REFERENCES:

CLSA - Contact Lens Fitting Procedures

Hales. Contact Lenses - A clinical Approach to Fitting.

Lowther. Contact Lenses: Procedures and Techniques.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OPH 282 OPTICAL EXTERNSHIP I

COURSE DESCRIPTION:

Prerequisites: OPH 112, OPH 142 and OPH 233

Corequisites: None

This course provides practical experience in assigned businesses, with emphasis on observation and practical application. Emphasis is on working conditions in different production settings and on time demands. Upon completion, students should be able to complete eyewear in a safe and timely manner to proper specifications and in collaboration with other employees. Course Hours Per Week: Clinical, 6. Semester Hours Credit, 2.

COURSE OBJECTIVES:

Upon completion of this course, the student will demonstrate basic competencies in each of the following areas:

- a. Demonstrate knowledge of ANSI standards
- b. Practice lab/OSHA safety procedures in the laboratory
- c. Laying-out and marking-up single vision and multifocal lenses for surfacing
- d. Generating spherical and spherocylindrical lenses
- e. Selecting and truing laps for spherical and spherocylindrical lenses
- f. Operating fining and polishing equipment
- g. Generating multifocal lenses
- h. Laying-out and marking-up prismatic lenses for surfacing
- i. Deblocking and inspection of lenses
- j. Troubleshooting surfacing tasks
- k. Care and maintenance of surfacing equipment
- l. Laying-out and marking-up of single-vision and multifocal lenses for edging
- m. Operating and maintaining edging equipment
- n. Computer use in edging and surfacing procedures
- o. Mounting and aligning lenses in frames
- p. Inspection and verification of finished eyewear
- q. Prescription interpretation for eyewear
- r. Facial measurements for eyewear
- s. Frame and lens selection for eyewear
- t. Adjustment and repair of eyeglasses
- u. Office and retail dispensary procedures for eyewear
- v. Evaluating consumer success
- w. Computer usage in dispensing
- x. Dispensing rules and regulations

OUTLINE OF INSTRUCTION:

- I. Lab safety/OSHA standards
 - A. Clothing safety
 - B. Eye safety
 - C. Safety procedures

- II. Laboratory rules and regulations
 - A. OSHA regulations
 - B. Hazardous waste
 - C. Record keeping
 - D. ANSI standards
- III. Generating single-vision lenses
 - A. Laying-out and marking-up single vision lenses
 - B. Blocking procedures for single vision lenses
 - C. Selection and trueing of laps for single vision lenses
 - D. Generating single vision lenses
- IV. Generating multifocal lenses
 - A. Laying-out and marking-up multifocal lenses
 - B. Blocking procedures for multifocal lenses
 - C. Selection and trueing of laps for multifocal lenses
 - D. Generating multifocal lenses
- V. Generating prismatic lenses
 - A. Laying-out and marking-up prismatic lenses
 - B. Blocking procedures for prismatic lenses
 - C. Selection of prism rings or prism wedges
 - D. Generating prismatic lenses
- VI. Fabricating prescription eyewear
 - A. Laying-out and marking-up single vision lenses for edging
 - B. Laying-out and marking-up multifocal lenses for edging
 - C. Making patterns for edging lenses
 - D. Operating edging machines
 - E. Use of the handstone in fabrication
 - F. Tempering lenses
 - G. Tinting lenses
 - H. Special lens treatments
 - I. Mounting and aligning lenses and frames
 - J. Final inspection of finished eyewear
- VII. Equipment maintenance and repair
 - A. Daily maintenance procedures for lab equipment
 - B. General maintenance of lab equipment
 - C. Basic equipment repairs
- VIII. Computer usage in the laboratory
 - A. Preparing job tickets
 - B. Computerized operation of equipment
- IX. Dispensing eyeglasses
 - A. Prescription analysis for eyewear
 - B. Facial measurements
 - C. Frame selection

- D. Lens selection
 - 1.) Single-vision lenses
 - 2.) Multifocal lenses
 - 3.) Absorptive lenses
- E. Frame adjustment and repair
- F. Special eyewear
 - 1.) High-plus patients
 - 2.) High-minus patients
 - 3.) Children
 - 4.) Low-vision patients
- X. Evaluating consumer success
 - A. Verification of eyewear
 - B. Consumer satisfaction
 - C. Troubleshooting consumer problems
- XI. Office and retail dispensary procedures
 - A. Patient management
 - B. Completion of paperwork
 - C. Computer usage
- XII. Dispensing rules and regulations
 - A. Knowledge and application of ANSI Standards
 - B. OSHA regulations
 - C. FDA regulations

REFERENCE TEXTBOOKS AND MATERIALS:

Dispensing tool kit

Brooks. Essentials for Ophthalmic Lens Finishing. 2nd ed. Elsevier, 2003.

Brooks and Borish. Systems for Ophthalmic Dispensing. 2nd ed. Butterworth Heinemann, 1996.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OST 130 COMPREHENSIVE KEYBOARDING

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course is designed to develop keyboarding skills and introductory document formatting. Emphasis is placed on keyboarding techniques and formatting basic business documents. Upon completion, students should be able to create documents in an ever-changing workplace. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

In successfully completing this course, students will:

- a. Identify computer system components.
- b. Demonstrate proper care of equipment and disks.
- c. Resolve common computer problems.
- d. Demonstrate proper keyboarding techniques.
- e. Demonstrate an acceptable level of keyboarding skills.
- f. Determine appropriate format.
- g. Proofread and edit copy.

OUTLINE OF INSTRUCTION:

- I. Identify computer system components
 - A. Prepare computer system for use
 - B. Explain the use of computer system components
- II. Demonstrate proper care of equipment and disks
 - A. Boot, access, and exit software
 - B. Care for floppy disks
 - C. Care for workstation and peripheral equipment
- III. Demonstrate proper keyboarding techniques.
 - A. Position hands and body during keying for maximum efficiency
 - B. Use proper fingers for touch keying alphabetic, numeric and alphanumeric keys, and the ten-key number pad
 - C. Use function keys
 - D. Use mouse or other appropriate input device

- IV. Demonstrate an acceptable level of keyboarding skills
 - A. Key timed drills at a minimum of 32 words per minute for 3 minutes
 - B. Key timed material within an acceptable error limit
- V. Proofread and edit copy
 - A. Proofread for accuracy, content, correct grammar, spelling and punctuation
 - B. Use proofreader's marks
 - C. Edit copy
- VI. Demonstrate an acceptable level of communication skills
 - A. Capitalization
 - B. Number expression
- VII. Orientation to Word Processing
 - A. Letters
 - B. Memos
 - C. Reports

REQUIRED TEXTBOOKS AND MATERIALS:

Ober, Johnson, Rice, and Hanson. Gregg College Keyboarding, A Total Learning System. 11th ed. (Lessons 1-60 or Lessons 1-120). Glencoe, McGraw-Hill Publishers, 2009.

OTHER MATERIALS REQUIRED:

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OST 131 KEYBOARDING

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course covers basic keyboarding skills. Emphasis is on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at acceptable speed and accuracy using the touch system. Course Hours Per Week: Class, 1. Lab, 2. Semester Hours Credit, 2.

LEARNING OUTCOMES:

In successfully completing this course, students will:

- a. Identify computer system components.
- b. Demonstrate proper care of equipment and disks.
- c. Resolve common computer problems.
- d. Demonstrate proper keyboarding techniques.
- e. Demonstrate an acceptable level of keyboarding skills.
- f. Determine appropriate format.
- g. Proofread and edit copy.

OUTLINE OF INSTRUCTION:

- I. Identify computer system components
 - A. Prepare computer system for use
 - B. Explain the use of computer system components
- II. Demonstrate proper care of equipment and disks
 - A. Boot, access, and exit software
 - B. Care for floppy disks
 - C. Care for workstation and peripheral equipment
- III. Demonstrate proper keyboarding techniques.
 - A. Position hands and body during keying for maximum efficiency
 - B. Use proper fingers for touch keying alphabetic, numeric and alphanumeric keys, and the ten-key number pad
 - C. Use function keys
 - D. Use mouse or other appropriate input device

- IV. Demonstrate an acceptable level of keyboarding skills
 - A. Key timed drills at a minimum of 32 words per minute for 3 minutes
 - B. Key timed material within an acceptable error limit
- V. Proofread and edit copy
 - A. Proofread for accuracy, content, correct grammar, spelling and punctuation
 - B. Use proofreader's marks
 - C. Edit copy
- VI. Demonstrate an acceptable level of communication skills
 - A. Capitalization
 - B. Number expression
- VII. Orientation to Word Processing
 - A. Letters
 - B. Memos
 - C. Reports

REQUIRED TEXTBOOKS AND MATERIALS:

Ober, Johnson, Rice, and Hanson. Gregg College Keyboarding, A Total Learning System. 10th ed. (Lessons 1-60 or Lessons 1-120). Glencoe, McGraw-Hill Publishers, 2006.

Other Materials Required: one disk

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OST 132 KEYBOARD SKILL BUILDING

COURSE DESCRIPTION:

Prerequisites: OST 131

Corequisites: None

This course provides accuracy- and speed-building drills. Emphasis is on diagnostic tests to identify accuracy and speed deficiencies followed by corrective drills. Upon completion, students should be able to keyboard rhythmically with greater accuracy and speed. Course Hours Per Week: Class, 1. Lab, 2. Semester Hours Credit, 2.

COURSE OBJECTIVES:

In successfully completing this course, students will:

- a. Measure keyboarding speed and accuracy.
- b. Determine specific keyboarding problems through an analysis of the results of diagnostic tests.
- c. Select appropriate practice lessons based on diagnostic test.
- d. Establish particular skill-improvement goals.
- e. Measure overall skill-development progress at regular intervals.

OUTLINE OF INSTRUCTION:

- I. Basic Keyboarding Skills Review
 - A. Use proper techniques to key accurately and rapidly.
 - B. Vocabulary Builder
 - C. Review computer terms
 - D. Review Language and Grammar
- II. Course Entry and Exit
 - A. Measure speed and accuracy at beginning of course
 - B. Measure speed and accuracy at end of course
- III. Select appropriate Module at the Skillbuilding Sessions Menu
 - A. Alphabetic Practice
 - B. Individual Finger Practice
 - C. Word-Level Keystroking Practice
 - D. Frequently Used Word Practice
 - E. Horizontal/Vertical Reaches
 - F. Word Family Practice

- G. Concentration Practice
 - H. Frequently Misspelled Words Practice
 - I. Alternate-Hand Word Practice
 - J. Double-Letter Word Practice
 - K. Right-Hand and Left Hand Practice
 - L. Punctuation Practice
 - M. Word Problems
 - N. Symbol Practice
 - O. Keypad Practice
 - P. Number Practice
 - Q. Timed Evaluation
- IV. Diagnostic Test
- A. Pretest/Posttest Diagnostic Test
 - B. Supplemental Diagnostic Test
- V. Demonstrate an Acceptable level of keyboarding skills.
- A. Key timed drills at a minimum of 40 words per minute for 5 minutes
 - B. Key timed material with 5 or fewer errors.

REQUIRED TEXTBOOK AND MATERIALS:

Mach, J. L., Mach, K. A., and Mitchell, William. Paradigm Skillbuilding: Keyboarding with Speed and Control. EMC Paradigm, 2000.

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OST 134
TEXT ENTRY & FORMATTING

COURSE DESCRIPTION:

Prerequisites: OST 130

Corequisites: None

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce mailable documents and key timed writings at speeds commensurate with employability.

Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

In successfully completing this course, students will:

- a. Prepare computer for use.
- b. Determine appropriate format.
- c. Use appropriate language.
- d. Keyboard outlines.
- e. Keyboard drafts from copy and handwritten material.
- f. Keyboard reports and manuscripts.
- g. Keyboard minutes of meetings.
- h. Keyboard memoranda.
- i. Keyboard statistical data.
- j. Keyboard charts and tables.
- k. Keyboard financial statements
- l. Determine appropriate letter style
- m. Keyboard business and personal letters.
- n. Use proofreading symbols
- o. Proofread and correct copy

OUTLINE OF INSTRUCTION:

- I. Review
 - A. Computer system components
 - B. Technique development
- II. Specialized Skill Refinement
 - A. Letter styles
 - B. Special letter parts
 - C. Two-page letters
 - D. Letters on special stationery
 - E. Letters with special features

- III. Specialized reports
 - A. Itineraries
 - B. Minutes of meetings
 - C. Procedures manual
 - D. Report with author/year citations
 - E. Legal documents
- IV. Specialized forms and tables
 - A. Order forms
 - B. Billing forms
 - C. Financial statements
 - D. Balance sheets
 - E. Complex tables
- V. Word processing applications
 - A. Window envelopes
 - B. Report headers and footers
- VI. In-Basket Review (Simulated office environment)
- VII. Demonstrate an acceptable level of keyboarding skills
 - A. Key timed drills at a minimum of 40 words per minutes for **five** minutes
 - B. Key timed material within an acceptable error limit

REQUIRED TEXTBOOKS AND MATERIALS:

Ober, Johnson, and Zimmerly. Gregg College Keyboarding, A Total Learning System. 10th ed. (Lessons 1-60), (Lessons 61-120). Glencoe/McGraw-Hill, 2006.

SUGGESTED REFERENCES:

Ober, Johnson, Rice, and Hanson. Microsoft Word 2000 Manual for Gregg College Keyboarding and Document Process. 9th ed. (Lessons 1-120).

Merriam-Webster. Webster's New Collegiate Dictionary. 10th ed. G&C Merriam Company, 2000.

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OST 136 WORD PROCESSING

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course is designed to introduce word processing concepts and applications. Topics include preparation or a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment. Course Hours per Week: Class, 2. Lab, 2. Semester Hours, 3.

LEARNING OUTCOMES:

- A. To offer an in-depth presentation of Microsoft Word 2013
- B. To expose students to practical examples of the computer as a useful tool
- C. To acquaint students with the proper procedures to create documents suitable for coursework, professional purposes, and personal use
- D. To help students discover the underlying functionality of Word 2013 so they can become more productive
- E. To develop an exercise-oriented approach that allows learning by doing

OUTLINE OF INSTRUCTION

- I. Creating, Formatting, and Editing A Word Document with a Picture
 - A. Objectives
 - B. Introduction
 - C. Project
 - D. Entering Text
 - E. Formatting Paragraphs and Characters
 - F. Correcting Errors and Revising a Document
 - G. Applying Your Knowledge
- II. Creating a Research Paper with Reference and sources
 - A. Changing Document Settings
 - B. Creating a Header
 - C. Typing the Research Paper Text
 - D. Creating an Alphabetical Works Cited Page
 - E. Apply Your Knowledge
- III. Creating a Business Letter with a Letterhead and Table
 - A. Creating a Letterhead
 - B. Creating a Business Letter
 - C. Addressing and Printing Envelope and Mailing Labels
 - D. Apply Your Knowledge
- IV. Creating a Document with a Title Page, Lists, Tables, and a Watermark
 - A. Creating a Title Page
 - B. Inserting and Existing Document in an Open Document
 - C. Creating Headers and Footers
 - D. Editing and Formatting Lists

- E. Editing and Formatting Tables
 - F. Creating a Watermark
 - G. Apply your Knowledge
- V. Using a Template to Create a Resume and Sharing a Finished document
- A. Using a Template to Create a Resume
 - B. Sharing a Document with Others
 - C. Get a Sharing Link To Change the Style Set
 - D. Apply Your Knowledge
- VI. Creating a Newsletter with a Pull-Quote and Graphics
- A. Creating the Nameplate
 - B. Formatting the First Page of the Body of the Newsletter
 - C. Creating a Pull-Quote
 - D. Formatting the Second Page of the Newsletter
 - E. Apply Your Knowledge
- VII. Using Document Collaboration, Integration, and Charting Tools
- A. Memo with Chart
 - B. Reviewing a Document
 - C. Charting a Word Table
 - D. Creating a Blog Post
 - E. Apply Your Knowledge
- VIII. Creating a Reference document with a Table of Contents and an Index
- A. Preparing a Reference Document
 - B. Working with a Master Document
 - C. Organizing a Reference Document
 - D. Apply Your Knowledge
- IX. Creating a Template for an Online Form
- A. Saving a Document as a Template
 - B. Changing Document Settings
 - C. Enter Content in the Online Form
 - D. Working with Templates
 - E. Apply Your Knowledge
- X. Enhancing an online Form and Using Macros
- A. Modifying Text and Form Content Controls
 - B. Enhancing with Color, Shapes, Effects, and Graphics
 - C. To use a Fill Effect for the Page Color
 - D. To Apply a Shadow with a Picture
 - E. Apply Your knowledge

REQUIRED TEXTBOOK AND MATERIALS

Shelly Cashman Series, “Microsoft Word 2013, Comprehensive, Cengage Learning Publishers

OST 138
ADVANCED SOFTWARE APPLICATIONS

COURSE DESCRIPTION:

Prerequisite: CIS 110

Corequisite: None

This course is designed to improve the proficiency in the utilization of software applications used in business offices through a hands-on approach. Emphasis is placed on in-depth usage of software to create a variety of documents applicable to current business environments. Upon completion, students should be able to master the skills required to design documents that can be customized using the latest software applications. Course Hours Per Week: Class, 2; Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

- A. Learn, review, and apply Word, Excel, Power Point, Access, Publisher, Outlook, One Note, and Office Web Apps commands.
- B. Develop job knowledge and skills
- C. Apply document themes and styles
- D. Work with comments and track changes
- E. Create effective Word document.
- F. Paste an Excel chart in a report
- G. Create presentations with Power Point
- H. Link Excel chart in Power Point presentations.
- I. Work with Access objects
- J. Create effective Publications.
- K. Schedule and change appointments and change calendar views.
- L. Create Notebooks
- M. Create documents using Web Computing with Office Web Apps
- N. Work independently with limited supervision.

OUTLINE OF INSTRUCTION:

- I. Business Documents with Word
 - A. Block Letters
 - B. Memos
 - C. Multiple-Page Documents
 - D. Unbound Reports with Track Changes
 - E. Leftbound Reports with Cover Pages

- II. Presentations with PowerPoint
 - A. Create Presentations Using Themes
 - B. Work with Tables and Graphics
 - C. Add Transition and Animations
 - D. Print Notes, handouts, and Slides
- III. Spreadsheets with Excel
 - A. Create Worksheets
 - B. Insert Formulas and Functions
 - C. Print Worksheets
 - D. Insert 3-D Cell References
- IV. Integrating Word, PowerPoint, and Excel
 - A. Integrate two or three of the applications in a job.
- V. Create Publications Using Templates
 - A. Work with Text Boxes and Picture Placeholders
 - B. Customize Templates
 - C. Create a Template from a blank Page
- VI. Databases with Access
 - A. Create and Modify Tables
 - B. Create Simple Queries
 - C. Create and Customize Forms
- VII. Information Management with Outlook
 - A. Getting Started with Outlook and E-mail
 - B. Create and Manage Contacts
 - C. Use Calendar to Schedule Appointments
 - D. Use Notes and Journal
- VIII. Digital Notebooks with OneNote
 - A. Create Notebooks
 - B. Collect and Organize Content
 - C. Access and Print Content
- IX. Web Computing with Office Web Apps
 - A. Excel and PowerPoint on the SkyDrive
 - B. OneNote on the SkyDrive
- X. Integrating All Microsoft Office Applications
 - A. Create effective document using:
 - 1. Word
 - 2. PowerPoint
 - 3. Excel
 - 4. Access

5. Publisher
6. Use Outlook to maintain contact lists and manage tasks
7. Use OneNote to maintain and share company files on the SkyDrive

REQUIRED TEXTBOOK:

VanHuss, Susie H., Forde, Connie M. and Woo, Donna L. *Integrated Computer Applications*. Microsoft Office 2010. 6 Edition, 2012 South-Western, Cengage Learning.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling (919) 536-7207, ext. 1413, or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OST 140
Internet Communications/Research

COURSE DESCRIPTION:

Prerequisite: None

Corequisites: None

This course provides a working knowledge of Internet usage and research for the modern office. Emphasis is placed on using search engines, email, Web sites, Web servers, communication services, and e-business to obtain information vital to the current office environment. Upon completion, students should be able to use the Internet to research any office topics required for employment. Course Hours Per Week: Class, 1; Lab, 2.

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- A. Describe how the Internet was developed and how it works.
- B. Compare available Internet connection methods appropriate to user needs.
- C. Identify Internet threat and appropriate security measures to be applied.
- D. Illustrate how to use Web browser features.
- E. Develop Internet search strategies to find information efficiently and effectively.
- F. Compare methods of downloading and storing information
- G. Explore multimedia applications and how they impact Web pages.
- H. Demonstrate how to use e-mail and manage messages and folders.
- I. Differentiate between the various asynchronous Internet communication methods.
- J. Compare the functions of a variety of synchronous Internet communication methods.

OUTLINE OF INSTRUCTION:

- I. Understanding the Internet
 - A. What is the Internet
 - B. A Brief History of the Internet
 - C. Living on the Net
 - D. Internet Protocol
 - E. Development of Internet Applications
 - F. World Wide Web (WWW)
- II. Accessing the Internet
 - A. Living on the Net
 - B. Internet Infrastructure
 - C. Internet Service Providers
 - D. The Internet Backbone

- E. Connecting to the Internet
- F. Wireless Internet Connections
- G. Internet Services

III. Ensuring Internet Security

- A. Antivirus Programs
- B. Firewalls
- C. Password Protection
- D. Internet Explore Security Settings
- E. Encryption and Authentication
- F. Privacy Countermeasures

IV. Using a Web Browser

- A. Browser Basics
- B. Internet Explorer Elements
- C. Instant Search Box
- D. Browser Window and Scroll Bars
- E. Saving Web Pages

V. Accessing Information Resources

- A. Information Resources on the Web
- B. Search Engine Information Gathering and Storage
- C. Search Results
- D. Specialized Search Engines
- E. Subject Directories
- F. Evaluating and Using Internet Resources

VI. Downloading and Storing Information

- A. File Transfer Protocol (FTP)
- B. Command-Line FTP Client Program
- C. Web Browser FTP Use
- D. Dedicated FTP Client Programs
- E. Online Storage

VII. Experiencing Multimedia

- A. Browsers and Multimedia
- B. Images
- C. Audio
- D. Compressed Audio Formats
- E. Animated Content
- F. Windows Media Player

VIII. Using E-mail

- A. E-mail (Electronic Mail)
- B. Windows Mail
- C. E-mail Account

- D. Sending and Receiving E-mail
- E. Webmail

- IX. Asynchronous Communications
 - A. Electronic Mailing Lists
 - B. Newsgroups
 - C. Wikis

- X. Synchronous Communications
 - A. Internet Chat
 - B. Instant Messaging
 - C. Vista Remote Assistance
 - D. Voice over Internet Protocol (VoIP)

REQUIRED TEXTBOOK:

Baker, John Marshall and Alec Fehl. Internet Systems and Applications, Second Edition, Paradigm Publishing, 2001

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OST 148
MEDICAL CODING, BILLING AND INSURANCE

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces CPT and ICD coding as they apply to medical insurance and billing. Emphasis is on accuracy in coding, forms preparation, and posting. Upon completion, students should be able to describe the steps of the total billing cycle and explain the importance of accuracy. This course is a unique concentration requirement of the Medical Office Systems Technology concentration in the Office Systems Technology program. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

- a. Understand the basic concepts of medical insurance.
- b. Define common medical and diagnostic terms.
- c. Identify the background and importance of insurance claims completion, coding, and billing.
- d. Explain the purpose of coding professional services properly, using a procedure codebook.
- e. Distinguish between the major classes of health insurance contracts.
- f. Explain the basic steps in processing an insurance claim form.
- g. Prepare legally correct medical-legal forms.
- h. Describe the difference between CPT and ICD coding systems.
- i. Identify the differences between medical ethics and medical etiquette
- j. Use CPT and ICD coding accurately by using good proofreading skills.
- k. Determine the differences between medical ethics and medical etiquette.
- l. Describe various methods of payment by insurance companies and state and federal programs.
- m. Explain how insurance knowledge and medical knowledge can be kept current.
- n. Demonstrate a general knowledge of good computer skills.

OUTLINE OF INSTRUCTION:

- I. Health Insurance Specialist
 - A. Roles and Responsibilities
 - B. Health Insurance Overview
 - C. Basic Skill Requirement
 - D. Professional Credentials
- II. Introduction to Health Insurance
 - A. Definition of Health Insurance
 - B. Disability and Liability Insurance
 - C. Major Developments in Health Insurance
 - D. Health Insurance Coverage Statistics

- III. Managed Health Care
 - A. History of Managed Health Care
 - B. Managed Care Organizations
 - C. Managed Care Models
 - D. Accreditation of Managed Care Organizations
 - E. Effects of Managed Care on a Physician's Practice
- IV. Life Cycle of an Insurance Claim
 - A. Development of a Claim
 - B. Interview, Check-In Procedures, and Return Visits
 - 1. New Patient
 - 2. Established Patient
 - C. Postclinical Check-Out Procedures
 - D. Insurance Company Processing of a Claim
 - E. Maintaining Insurance Claim Files
 - F. Delinquent Claims
- V. Legal and Regulatory Considerations
 - A. Introduction to Legal and Regulatory Considerations
 - B. Confidentiality of Patient Information
 - C. Electronic Communication with Insurance Claims
 - 1. Telephone Inquiries
 - 2. Facsimile Transmission
 - 3. Confidentiality and the Internet
 - D. Retention of Patient Information and Health Insurance Records
 - E. Employee Retirement Income Security Act (*ERISA*)
 - F. Medical Necessity
 - G. Federal False Claims Act
 - H. Health Insurance Portability and Accountability Act of 1996
- VI. ICD-9-CM Coding
 - A. Introduction to ICD-9-CM
 - B. Outpatient Coding Guidelines
 - C. Primary and Principal Diagnoses
 - D. Principal versus Secondary Procedures
 - E. ICD-9-CM Coding System
 - 1. Index to Diseases
 - (a) Basic Steps for Using the Index to Diseases
 - 2. Tabular List of Diseases
 - 3. Index to procedures and Tabular List of Procedures
 - 4. Index to Diseases Tables
 - 5. Considerations to Ensure Accurate ICD-9-CM Coding
 - F. Supplementary Classifications
 - G. Coding Special Disorders
 - H. ICD-10-CM Diagnostic Coding for the Future
- VII. CPT Coding
 - A. CPT Coding System
 - B. CPT Categories, Subcategories, and Headings

- C. CPT Index
- D. CPT Modifiers
- E. Basic Steps for Coding Procedures and Services
- F. Sections of the CPT
 - 1. Surgery Section
 - (a) Special Surgery Cases
 - 2. Medicine Section
 - 3. Radiology Section
 - 4. Pathology/Laboratory Section
 - 5. Evaluation and Management Section
 - (a) Evaluation and Management Categories

VIII. HCPCS Coding System

- A. HCPCS Coding System
- B. HCPCS Level II Codes
- C. Determining Carrier Responsibility
- D. Assigning HCPCS Level II Codes

IX. CMS Reimbursement Issues

- A. Historical Perspective of CMS Reimbursement System
- B. CMS Payment Systems
 - 1. Ambulance Fee Schedule
 - 2. Ambulatory Surgical Centers (ASC)
 - 3. Clinical Lab Diagnostic Fee Schedule
 - 4. Durable Medical Equipment, Prosthetics/Orthotics and Supplies Fee Schedule
- C. Home Health Prospective Payment System
- D. Hospital Inpatient Prospective Payment System
- E. Inpatient Rehabilitation Facility Prospective Payment System
- F. Long-Term Care Hospitals Prospective Payment System
- G. Skilled Nursing Facility (SNF) Prospective Payment System
- H. Medicare Physician Fee Schedule
- I. Anesthesia, Pathology/Laboratory, and Radiology Services

X. Coding for Medical Necessity

- A. Applying Coding Guidelines
- B. CPT/HCPCS Billing Considerations
- C. Coding from Case Scenarios
- D. Coding from Clinic Notes and Diagnostic Test Results
- E. Coding Operative Reports

XI. Essential CMS-1500 Claim Instructions

- A. General Billing Guidelines
- B. Optical Scanning Guidelines
- C. Assignment of Benefits/Accept Assignment
- D. Reporting Diagnoses: ICD-9-CM Codes
- E. Reporting Procedures and Services: HCPCS
- F. National Standard Employer Identifier Number
- G. Reporting the Billing Entity
- H. Processing the Secondary Claims

- I. Common Errors that Delay Processing
- J. Final Steps in Processing Paper Claims
- K. Maintaining Insurance Claim Files for the Practice

- XII. Filing Commercial Claims
 - A. Commercial Claims
 - B. Claim Instructions
 - 1. Entering Patient and Policy Information
 - 2. Dates of Service and Diagnosis Codes
 - 3. Procedures, Services and Supplies
 - 4. Provider Information
 - C. Commercial Secondary Coverage
 - D. Modifications to Primary CMS-1500 Claims
 - E. Modifications to Secondary CMS-1500 Claims

- XIII. Blue Cross and Blue Shield Plans
 - A. History of Blue Cross and Blue Shield (*BCBS*)
 - B. Blue Cross Blue Shield Plans
 - C. Billing Information Summary
 - D. Step-by-Step Claim Instructions
 - E. BCBS Secondary Coverage

- XIV. Medicare
 - A. Eligibility
 - B. Enrollment
 - C. Medicare Part A Coverage
 - D. Medicare Part B Coverage
 - E. Providers
 - 1. Participating Providers
 - 2. Non-Participating Providers
 - 3. Private Contracting
 - F. Advance Beneficiary Notice
 - G. Medicare Plans
 - H. Medicare with Medigap Claims
 - I. Medicare-Medicaid Crossover Claims
 - J. Medicare Secondary Payer
 - K. Roster Billing for Mass Vaccination Programs

- XV. Medicaid
 - A. Federal Eligibility Requirements for Medicaid
 - B. Medicaid Covered Services
 - C. Medicare-Medicaid Relationship
 - D. Medicaid as a Secondary Payer
 - E. Participating Providers
 - F. Medicaid and Managed Care
 - G. Medicaid Eligibility Verification System (*MEVS*)
 - H. Medicaid Remittance Advice
 - I. Utilization Review
 - J. Fraud and Abuse

- K. Medical Necessity
- L. Billing Information Notes
- M. Step-by-Step Claim Instructions
- N. Medicaid as Secondary Claims
- O. Mother/Baby Claims
- XVI. Tricare
 - A. Tricare Background
 - B. Tricare Administration
 - C. CHAMPVA
 - D. Tricare Options
 - E. Tricare Programs and Demonstration Projects
 - F. Tricare Supplemental Plans
 - G. Tricare Billing Information
 - H. Tricare with a Supplemental Policy
 - I. Tricare as Secondary Payer
- XVII. Workers' Compensation
 - A. Federal Workers' Compensation Programs
 - B. State Workers' Compensation Program
 - C. Eligibility for Coverage
 - D. Classification of Workers' Compensation Cases
 - E. Special Handling of Workers' Compensation Cases
 - F. First Report of Injury
 - G. Progress Reports
 - H. Appeals and Adjudication
 - I. Fraud and Abuse
 - J. Billing Information Notes
 - K. Workers' Compensation Claim Instructions
 - 1. Patient and Policy Identification

REQUIRED TEXTBOOKS AND MATERIALS:

Rowell, JoAnn C. and Green, Michelle A. Understanding Health Insurance, A Guide to Professional Billing. 8th ed. Thomson-Delmar Learning, 2005.

Rowell, JoAnn C. and Green, Michelle A. Understanding Health Insurance, A Guide to Professional Billing Workbook. 8th ed. Thomson-Delmar Learning, 2005.

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OST 149
MEDICAL LEGAL ISSUES

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces the complex legal, moral, and ethical issues involved in providing health care services. Emphasis is on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior. This course is a unique concentration requirement of the Medical Office Systems Technology concentration in the Office Systems Technology program. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

- a. Adhere to procedures concerning company and patient confidentiality.
- b. Demonstrate knowledge of the legal aspects of a medical office.
- c. Apply ethics in a medical environment.
- d. Perform within organization structure.
- e. Demonstrate sound business code of ethics.
- f. Adhere to safety regulations and welfare.
- g. Interact with co-workers, management, doctors, and the public.
- h. Speak effectively.
- i. Listen effectively.
- j. Adhere to office policies and regulations.
- k. Demonstrate a working knowledge of the basics for laws.

OUTLINE OF INSTRUCTION:

- I. Introduction to Law and Ethics
 - A. Study of Law and Ethics
 - B. Aspects of Law and Ethics
 - C. Qualities of Successful Health Care Practitioners
- II. Working in a Health Care Profession
 - A. Licensure, Certifications, and Registration
 - B. Medical Practice Acts and Medical Boards
 - C. Health Care Professions
 - D. Physician's License and Responsibilities
 - E. Medical Practice Management Systems
 - F. Risk Management
 - G. Types of Managed Care

- III. Law and the Courts
 - A. The Basics for Laws
 - B. Sources of Law
 - C. Classifications of Law
 - D. Tort Liability
 - E. The Court System
- IV. Contracts
 - A. Basic Elements of Contract Law
 - B. Types of Contracts
 - C. The Physician-Patient Contract and Managed Care
 - D. The Physician's Rights and Responsibilities
 - E. The Patient's Rights and Responsibilities
 - F. Termination of Contracts
 - G. Law of Agency
- V. Professional Liability and Medical Malpractice
 - A. Liability
 - B. Standard of Care
 - C. Privacy, Confidentiality, and Privileged Communication
 - D. The Tort Negligence
 - E. Elements of a Lawsuit
 - F. Alternative Dispute Resolution
- VI. Defenses to Liability Suits
 - A. Preventing Liability Suits
 - B. Types of Defenses
 - C. Professional Liability Insurance
- VII. Medical Records and Informed Consent
 - A. Medical Records
 - B. Consent
 - C. Uniform Anatomical Gift Act
 - D. The National Transplant Act
- VIII. Physician's Public Duties and Responsibilities
 - A. Vital statistics
 - B. Public Health Statutes
- IX. Workplace Legalities
 - A. Law and the Affects in the Workplace
 - B. Labor and Employment Laws
 - C. Employee Safety and Welfare
 - D. Hiring and the New Employee

- X. Bioethics: Social Issues
 - A. Codes of Ethics
 - B. AMA Ethical Guidelines
 - C. Choices for Life or Death
 - D. HIV Testing
- XI. Interpersonal Relationships and Practice Matters
 - A. Ethics and the Business of Health Care
 - B. Interprofessional Relationships
 - C. Communications Issues
 - D. Fees and Charges
 - E. Medical Records
 - F. Practice Matters
 - G. Professional Rights and Responsibilities
- XII. Death and Dying
 - A. Attitudes Toward Death and Dying
 - B. Determination of Death
 - C. Caring for Dying Patients
 - D. Planning Ahead
 - E. Euthanasia and Physician-Assisted Suicide
 - F. The Grieving Process

REQUIRED TEXTBOOKS AND MATERIALS:

Judson, K. and Hicks, S. Law and Ethics for Medical Careers. 4th ed. Glencoe/McGraw Hill-A Division of the McGraw Hill Companies, 1999.

STATEMENT OF STUDENTS WITH DISABILITIES:

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OST 164 TEXT EDITING APPLICATIONS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

In successfully completing this course, students will:

- a. Produce written communications
 - 1) Record and relay necessary information promptly and accurately
 - 2) Apply the rules for capitalization, numbers, abbreviation, word division.
 - 3) Recognize and correctly apply the rules of grammar and usage.
 - 4) Use reference materials to compose and edit text
 - 5) Demonstrate good keyboarding skills
 - 6) Use word processing packages and electronic mail
- b. Prepare keyboarded copy
 - 1) Prepare system for use
 - 2) Determine appropriate format
 - 3) Use appropriate business language
 - 4) Determine appropriate letter style
 - 5) Keyboard business and personal letters
 - 6) Use proofreading symbols
 - 7) Proofread and edit copy of varying lengths, sources, and complexity
 - 8) Keyboard drafts from copy and handwritten material
 - 9) Edit business documents as is appropriate to the work setting
 - 10) Develop acceptable communication skills to produce clear, complete, accurate messages
 - 11) Use message strategies and formats appropriate for professional communication situations
 - 12) Think creatively when making communication decisions

OUTLINE OF INSTRUCTION:

- I. Proofreading Basic Short Documents
 - A. Proofreading Business Letters
 - 1) Proofreading for Format: Standard Letters
 - 2) Using Language Effectively: Spelling
 - 3) Principles and Practice: Spelling
 - 4) Performance Challenge: Proofreading Business Letters

- B. Proofreading Interoffice Memos
 - 1) Proofreading for Format
 - 2) Using Language Effectively: Plurals and Possessives
 - 3) Principles and Practice: Plurals
 - 4) Principles and Practice: Possessives
 - 5) Performance Challenge: Proofreading Memos
- C. Proofreading Agendas, Minutes and News Releases
 - 1) Proofreading for Format: Agendas, Minutes and News Releases
 - 2) Using language Effectively: Frequently Confused Words
 - 3) Performance Challenge: Proofreading Agendas

II. Proofreading Long Business Documents

- A. Proofreading Business Reports
 - 1) Proofreading for Format: Business Reports
 - 2) Using Language Effectively: Subject-Verb Agreement
 - 3) Principles and Practice: Subject-Verb Agreement
 - 4) Performance Challenge: Proofreading Business Reports
- B. Proofreading Front and End Matter of Business Reports
 - 1) Proofreading for Format: Table of Contents, Lists of Figures, and Work-Cited Pages
 - 2) Using Language Effectively: Pronouns and Parallelism
 - 3) Principles and Practice: Pronouns
 - 4) Principles and Practice: Parallelism
 - 5) Performance Challenge: Proofreading Front and End Matter of Business Reports
- C. Proofreading Multi-page Reports
 - 1) Proofreading for Format: Continuation Pages
 - 2) Using Language Effectively: Adjectives and Verbs
 - 3) Principles and Practice: Adjectives
 - 4) Principles and Practice: Verbs
 - 5) Performance Challenge: Proofreading Continuation Pages

III. Proofreading Labels and Graphics

- A. Proofreading Envelopes and Mailing Labels
 - 1) Proofreading for Format: Envelopes and Mailing Labels
 - 2) Using Language Effectively: Punctuation
 - 3) Principles and Practice: Punctuation
 - 4) Performance Challenge: Proofreading Envelopes and Mailing Labels
- B. Proofreading Tables
 - 1) Proofreading for Format: Tables
 - 2) Using Language Effectively: Capitalization
 - 3) Principles and Practice: Capitalization
 - 4) Performance Challenge: Proofreading Tables
- C. Proofreading Graphics
 - 1) Proofreading for Format: Graphics
 - 2) Using language Effectively: Numbers
 - 3) Principles and Practice: Numbers
 - 4) Performance Challenge: Proofreading Numbers and Graphics

IV. Editing Business Documents

A. Editing Newsletters

- 1) Editing for Format and Content: Newsletters
- 2) Using Language Effectively: Sentence Structure
- 3) Principles and Practice: Sentence Structure
- 4) Performance Challenge: Editing Newsletters

B. Editing Business Letters

- 1) Editing for Format and Content: Business Letters
- 2) Using Language Effectively: Concise Wording
- 3) Principles and Practice: Concise Wording
- 4) Performance Challenge: Editing Business Letters

C. Editing Interoffice Memos

- 1) Editing for Format and Content: memos
- 2) Using language Effectively: Details
- 3) Principles and Practice: Details
- 4) Performance Challenge: Editing Memos

V. Performance Mastery

REQUIRED TEXTBOOKS AND MATERIALS:

Camp, Sue C. Developing Proofreading and Editing Skills. 5th ed. New York: Glencoe McGraw-Hill, 2003.

SUGGESTED REFERENCES:

Sabin, William A. The Gregg Reference Manual. 9th ed. Glencoe McGraw-Hill Book Company, 2000.

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OST 184
RECORDS MANAGEMENT

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system. Course Hours Per Week: Class, Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will:

- a. Demonstrate initiative, dependability, and flexibility.
- b. Demonstrate proper use of facsimile machine, photocopier, microfiche reader and printer
- c. Demonstrate knowledge of proper written and oral communications.
- d. D. Interact with co-workers, management, and the public.
- e. Demonstrate knowledge of oral and listening skills.
- f. F. Demonstrate knowledge of giving and receiving instructions.
- g. Demonstrate knowledge of the various types of record storage such as:
- h. Color-coding
- i. Geographic filing
- j. Cross-referencing
- k. Indexing
- l. Describe how records are classified and used in an office.
- m. Identify possible careers in records management.
- n. Describe the management functions necessary to operate a records management system.
- o. Identify current computer application software used in alphabetic, subject, and numeric sorting and filing.
- p. Describe procedures for storing records by alphabetic, subject, and numeric methods.
- q. M. Describe procedures for the requisition, retrieval, charge-out, and follow-up of records.
- r. Explain the classifications of records and transfer procedures.
- s. Describe the records center and control procedures.
- t. Explain how records inventory, and a records retention schedule functions as tool in controlling a records system.
- u. Describe the phases of the records life cycle.
- v. Demonstrate knowledge of professional organization and literature.
- w. Explain the uses of computers database files.
- x. Identify and be familiar with records vocabulary and procedures in electronic and manual systems.
- y. Identify the terms and procedures used in database files
- z. Demonstrate knowledge of handling confidential material.

OUTLINE OF INSTRUCTION:

- I. The Field of Records Management
 - A. An Overview of Records Management
 - 1.) Classification and Use
 - 2.) Records Management History
 - 3.) Records Management Legislation
 - B. Records Management
 - 1) Organizational Function
 - 2) Careers in Record Management
- II. Alphabet Storage Retrieval
 - A. Rules in Alphabetic Filing
 - 1) Indexing Order of Units
 - 2) Minor Words and Symbols
 - 3) Punctuation and Possessives
 - 4) Single Letters and Abbreviations
 - 5) Titles and Suffixes
 - 6) Card Filing
 - 7) Cross-Referencing
 - 8) Current Trends
 - B. Alphabetic Indexing
 - 1) Articles and Particles
 - 2) Numbers in Business Names
 - 3) Organization and Institutions
 - 4) Identical Names
 - 5) Government Names
- III. Alphabetic Indexing Rules for computer Applications
 - A. Computers Sorting Data
 - 1) Alphabetic Indexing Rules for computer Applications
 - 2) Computer Application software
 - 3) Current Trends in Records Management
 - B. Alphabetic Records Storage
 - 1) Terminology of Correspondence Records Storage
 - 2) Paper Correspondence Storage Equipment and Supplies
 - 3) Correspondence Storage Procedure
 - C. Records Retention, Retrieval, and Transfer
 - 1) Records Retention
 - 2) Records Retrieval
 - 3) Record Transfer
 - 4) Records Center Control Procedures
 - 5) Current Trends in Records Management
- IV. Subject, Numeric, and Geographic Storage and Retrieval
 - A. Subject Records Storage
 - 1) Subject Records Storage Method
 - 2) Advantage and Disadvantages of Subject Records Storage
 - 3) Arrangements of Records Stored by Subject

- 4) Supplies for Subject Records Storage
 - 5) Indexes for the Subject Records Storage
 - 6) Storage and Retrieval Procedures
 - B. Numeric Records Storage
 - 1) Overview of Numeric Records Storage
 - 2) Consecutive and Nonconsecutive Numbering Method
 - 3) Numeric Coding System
 - 4) Current Trends in Records Management
 - C. Geographic Records Storage
 - 1) Need for Geographic Storage
 - 2) Advantages and Disadvantages of Geographic Records
 - 3) Record Storage Arrangement
 - 4) Records Storage Indexes
 - 5) Records Storage and Retrieval
 - 6) Current Trends in Geographic Records Management
- V. Records Management Technology
- A. Automated Records Systems
 - 1) Technology and Records Systems
 - 2) Computer Systems
 - 3) Office Automation and Records Systems
 - 4) Records Management and Automation
 - B. Image Records
 - 1) Image Record Usage
 - 2) Integrated Imaging Systems
 - 3) Hybrid Imaging Systems
 - 4) Imaging Procedures and Equipment
 - 5) Image System Evaluation
 - 6) Image System Evaluation and Applications
 - C. Controlling the Records Management Program
 - 1) The Essentials of Records Control
 - 2) Controlling Records Creation
 - 3) Current Trends In Record Management

REQUIRED TEXTBOOKS AND MATERIALS:

Kallus, Norman F., Smith, Judith Read, & Ginn, Mary Lea. *Records Management*. 9th Edition, Thomson Learning, 2007

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OST 223
ADMINISTRATIVE OFFICE TRANSCRIPTION I

COURSE DESCRIPTION:

Prerequisites: OST 164 and OST 136

Corequisites: None

This course covers the use of transcribing documents. Emphasis is on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe office documents. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Demonstrate the correct procedures for placing a recording in transcriber and for removing it.
- b. Manipulate the machine controls properly.
- c. Demonstrate ear-finger-foot coordination in transcribing material from the transcription equipment.
- d. Develop effective listening skills.
- e. Develop good record keeping skills
- f. Keep the word processor in constant motion while transcribing material from the transcription equipment.
- g. Transcribe a mailable copy on the first draft from the transcription equipment.
- h. Demonstrate knowledge of proofreaders' marks.
- i. Apply accurate English skills while transcribing.
- j. Become knowledgeable of various hardware and software features.

OUTLINE OF INSTRUCTION:

- I. Orientation to Machine Transcription
 - A. Goal setting
 - B. Machine transcription on the job
 - 1.) Recording the message
 - 2.) Voice-recognition software
 - 3.) Remote transcription
 - 4.) Software and hardware usage
 - 5.) Local Area Networks
 - 6.) Record keeping

- C. Transcribing Techniques
 - 1.) Introduction to transcribing and listening
 - 2.) Applying the rules
 - 3.) Proofreading skills
 - 4.) Producing mailable transcriptions
 - 5.) Time management
 - 6.) Building your reference library
- D. Effective Listening
 - 1.) Factors that influence listening
 - 2.) Ways to improve listening
 - 3.) Listening and transcribing

II. English skills

- A. Grammar
- B. Punctuation
- C. Spelling
- D. Word Usage
- E. Proofreading dictation
- F. Word division

III. Guidelines for Dictation

- A. Dictation equipment
- B. Organizational format
- C. Creation of documents
 - 1.) Letters
 - 2.) Memoranda
 - 3.) Reports and manuscripts
 - 4.) Outlines
- D. Text-editing on the computer
 - 1.) Insertions and deletions

IV. Professionalism and transcribing efficiency

- A. Transcriptionist's professional attitude
- B. Team responsibilities
- C. Proofreading skills
- D. Letter styles
- E. Letter placement
- F. Qualities of mailability

V. Securing Employment

- A. Selecting your sources for job openings
- B. Preparing your application package
- C. Preparing for the interview

- VI. Transcription of documents
 - A. The office setting
 - 1.) Job simulations

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook:

Mitchell, Carol A. Machine Transcription: A Comprehensive Approach for Today's Office Professional. 4th edition. The McGraw-Hill Companies, 2003.

Supplementary:

Silverthorn, J.E. and Perry, D.J. Word Division Manual. Cincinnati: South-Western*Thomson Learning.

Sabin, William. The Gregg Reference Manual. 8th edition. The McGraw Hill Companies.

Transcription Tapes

Dictionary

SUGGESTED REFERENCES, PERIODICALS AND VISUAL AIDS:

Ettinger, Blanche and Perfetto, Edda. Machine Transcription: Applied Language Skills. EMC Paradigm

Pasewark, William and Ballentine, Mitsy. Machine Transcription and Dictation. 4th edition. South-Western*Thomson Learning

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling (919) 536-7207, ext. 1413, or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OST 224
MACHINE TRANSCRIPTION II

COURSE DESCRIPTION:

Prerequisites: OST 223

Corequisites: None

This course provides advanced transcription skills. Emphasis is on specialized transcription features. Upon completion, students should be able to transcribe complex business documents into mailable copy with minimal assistance. Course Hours Per Week: Class, 1. Lab, 2. Semester Hours Credit, 2.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Prepare computer for use
- b. Use correct spelling, punctuation, grammar, and reference materials
- c. Use word processing packages
- d. Use proofreading symbols
- e. Determine appropriate format
- f. Demonstrate proper care of equipment, disks, and CDs
- g. Apply mailability standards to document production
- h. Transcribe memorandums, personal business letters, and letters in block style, modified-block style, and simplified style with attention lines, subject lines, company name and postscripts with efficiency
- i. Apply critical thinking
- j. Proofread and correct copy
- k. Keyboard drafts from copy and handwritten materials
- l. Demonstrate a professional attitude
- m. Learn to listen and to translate what is heard into correct written form
- n. Use new hardware and software features
- o. Maintain productivity standards

OUTLINE OF INSTRUCTION:

- I. Review Machine Transcription Skills
 - A. Skills of the transcription specialist
 - B. Various types of transcribing equipment
 - C. Evaluate methods used to originate documents
 - D. Types of internal and external documents as part of communication process.
- II. Style and Formatting Decisions
 - A. Choosing the correct supplies
 - B. Tables and graphs
 - C. Traditional and creative formatting
 - D. Final preparations for correspondence mailed or faxed

- III. Continued Improvement of English Skills
 - A. Punctuation Review
 - B. Capitalization, and number expression Review
 - C. Access a spell-checker and/or a grammar-checker
- IV. Transcription of Documents
 - A. Office environment
 - B. Office system and training manual
 - 1) Organizational charts
 - 2) Employee performance appraisal forms
 - 3) Job Completion
 - 4) Complete daily forms
 - 5) Line count procedures
 - 6) Time Management Schedule

REQUIRED TEXTBOOKS AND MATERIALS:

Mitchell, Carol A. Machine Transcription: A Comprehensive Approach for Today's Office Professional. Fourth Edition, 2003, The McGraw-Hill Companies.

Supplementary:

Silverthorn, J.E. and Perry, D.J. Word Division Manual. Cincinnati: Southwestern*Thompson Learning

Sabin, William. The Gregg Reference Manual. 8th. ed. The McGraw Hill Companies.

Transcription Tapes

Dictionary

SUGGESTED REFERENCES, PERIODICALS AND VISUAL AIDS:

Ettinger, Blanche and Perfetto, Edda. Machine Transcription and Dictation. 4th ed. South-Western*Thomson Learning

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OST 236
ADVANCED WORD/INFORMATION PROCESSING

COURSE DESCRIPTION:

Prerequisites: OST 134, 135 or OST 136

Corequisites: None

This course develops proficiency in the utilization of advanced word/information processing functions. Topics include tables, graphics, macros, sorting, document assembly, merging, and newspaper and brochure columns. Upon completion, students should be able to produce a variety of complex business documents. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Use correct spelling, punctuation, grammar, and reference materials
- b. Demonstrate good keyboarding skills
- c. Use word processing packages, electronic mail and graphics
- d. Prepare computer for use
- e. Demonstrate appropriate format
- f. Keyboard the following documents
 - 1.) outlines
 - 2.) drafts from copy or handwritten material
 - 3.) reports and manuscripts
 - 4.) memoranda
 - 5.) statistical data
 - 6.) charts and tables
 - 7.) business and personal letters
- g. Determine appropriate letter style
- h. Use proofreading symbols
- i. Proofread and correct copy
- j. Operate standard keyboards
- k. Gain access to systems
- l. Develop and implementing program sequences
- m. Use new hardware and software features
- n. Operate information processing equipment
- o. Use storage media
- p. Operate output device function controls
- q. Use printers

OUTLINE OF INSTRUCTION:

- I. Preparing and Enhancing Long Documents
 - A. Preparing Multiple Page Documents
 - 1.) Changing Margins
 - 2.) Inserting a Section Break

- 3.) Affecting Text Flow
 - 4.) Inserting Hard Page Breaks
 - 5.) Changing Paper Size
 - 6.) Centering Text on the Page
 - 7.) Previewing a Document
 - 8.) Changing the Document Zoom
 - B. Manipulating Text Within and Between Documents
 - 1.) Working with Blocks of Text
 - 2.) Working with Documents
 - 3.) Working with Windows
 - 4.) Cutting and Pasting Text Between Windows
 - C. Creating Headers and Footers in a Document
 - 1.) Working with Headers and Footers
 - 2.) Creating Different Headers/Footers in a Document
 - 3.) Inserting Page Numbering in a Document
 - D. Creating Footnotes and Endnotes
 - 1.) Creating Footnotes and Endnotes
 - 2.) Converting Footnotes and Endnotes
 - E. Completing a Find and Replace
 - 1.) Finding Text
 - 2.) Finding and Replacing Text
- II. Enhancing the Presentation of Text
- A. Creating and Formatting Tables
 - 1.) Creating a Table
 - 2.) Entering Text in Cells
 - 3.) Selecting Cells
 - 4.) Deleting a Table
 - 5.) Formatting a Table
 - 6.) Creating a Table Using the Tables and Borders Toolbar
 - 7.) Performing Calculations
 - 8.) Converting Text to/from a Table
 - B. Creating Charts in Word
 - 1.) Creating a Chart
 - 2.) Deleting a Chart
 - 3.) Moving and Sizing a Chart
 - 4.) Changing the Chart Type
 - 5.) Changing Data in Cells
 - 6.) Adding Chart Elements
 - 7.) Formatting a Chart and Chart Elements
 - C. Formatting Text into Columns
 - 1.) Creating Newspaper Columns
 - 2.) Editing Text in Columns
 - 3.) Removing Column Formatting
 - 4.) Changing Column Width and Spacing
 - 5.) Balancing Columns on a Page
 - 6.) Creating Side-by-Side Columns
 - D. Formatting with Styles
 - 1.) Formatting Text with Styles
 - 2.) Creating Styles
 - 3.) Applying a Style

- 4.) Assigning a Shortcut Key Combination to a Style
- 5.) Modifying a Style
- 6.) Removing a Style from Text
- 7.) Renaming a Style
- 8.) Deleting a Style

III. Organizing Text in Documents

- A. Sorting and Selecting
 - 1.) Sorting Text in Paragraphs
 - 2.) Sorting Text in Columns
 - 3.) Sorting Text in Tables
 - 4.) Sorting Records in a Data Source
 - 5.) Selecting Records
- B. Creating Outlines
 - 1.) Creating an Outline
 - 2.) Document Mapping
- C. Creating Fill-In Forms
 - 1.) Creating a Form
 - 2.) Filling In a Form Document
 - 3.) Printing a Form
 - 4.) Editing a Form Template
 - 5.) Customizing Form Field Options
 - 6.) Creating Tables in a Form Template
- D. Creating Tables and Indexes
 - 1.) Creating Tables of Contents
 - 2.) Creating an Index
 - 3.) Creating a Table of Figures
 - 4.) Creating a Table of Authorities

REQUIRED TEXTBOOKS AND MATERIALS:

Rutkosky, Nita and Rutkosky Roggenkamp, Adurey. Signature Microsoft Word. Windows XP 2007. EMC Paradigm Publishing Inc. 2008. (CD in textbook).

One USB flash drive or other storage media.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OST 241
MEDICAL OFFICE TRANSCRIPTION I

COURSE DESCRIPTION:

Prerequisites: MED 121

Corequisites: None

This course introduces machine transcription techniques as applied to medical documents. Emphasis is on accurate transcription, proofreading, and use of reference materials as well as vocabulary building. Upon completion, students should be able to prepare accurate and usable transcripts of voice recordings in the covered specialties. This course is a unique concentration requirement of the Medical Office Systems Technology concentration in the Office Systems Technology program. Course Hours Per Week: Class, 1. Lab, 2. Semester Hours Credit, 2.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. apply written communication skills, including punctuation, capitalization, grammar, sentence structure, letter formats, report formats, and so forth;
- b. use designated references;
- c. review and apply medical terminology;
- d. maintain a medical word list;
- e. follow dictation instructions;
- f. apply basic medical transcription guidelines;
- g. develop speed during medical transcription;
- h. develop accuracy during medical transcription;
- i. transcribe and create appropriate medical documents;
- j. proof and edit medical documents; and
- k. develop good listening skills.

OUTLINE OF INSTRUCTION:

- I. Introduction to the transcription process
 - A. Basic medical transcription guidelines
 - B. Professionalism
- II. Introduction to equipment and procedures
 - A. Transcription equipment
 - B. Word processing equipment

III. Case history studies

- A. Word building
- B. Memorandums
- C. Letters
- D. Patient's Medical Record Report
- E. ECG
- F. X-ray reports

REQUIRED TEXTBOOKS AND MATERIALS:

Becklin, Karonne J. Introduction to Medical Office Transcription. 2nd ed. Glencoe/McGraw-Hill, 2002.

Audio cassettes to accompany textbook.

SUGGESTED REFERENCES, PERIODICALS AND VISUAL AIDS:

Blake, Rachelle S., B.A., R.M.T. The Medical Transcriptionist's Handbook. 2nd ed. Delmar Publishers, 1993.

Medical dictionary

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OST 242
MEDICAL OFFICE TRANSCRIPTION II

COURSE DESCRIPTION:

Prerequisites: OST 241

Corequisites: None

This course continues building machine transcription techniques as applied to medical documents. Emphasis is on accurate transcription, proofreading, and use of reference materials as well as continued proofreading/editing skills and vocabulary building. Upon completion, students should be able to perform competently in preparing accurate and usable transcripts of voice recordings in the covered specialties. Course Hours Per Week: Class, 1. Lab, 2. Semester Hours Credit, 2.

COURSE OBJECTIVES:

Upon completion of this course, the student must be able to:

- a. Demonstrate proficiency in English grammar, punctuation, spelling, and standards of style.
- b. Demonstrate general knowledge of anatomy and physiology.
- c. Understand the confidentiality, ethical, and legal implications of the practice of medicine.
- d. Take medical dictation at the keyboard.
- e. Transcribe and be familiar with the diverse types of medical report such as:
 - 1.) Special Procedures Reports
 - 2.) Operative Reports
 - 3.) Discharge summaries, etc.
- f. Produce legible and accurate medical documents.
 - 1.) Increase speed and accuracy.
- g. Demonstrate a strong knowledge of medical terminology and abbreviations.
- h. Use and be familiar medical references and other resources.
- i. Demonstrate a general knowledge of transcribing equipment.
- j. Continue to demonstrate good listening skills.
- k. Continue to use word processing packages to:
 - 1.) operate storage media and functions controls; and
 - 2.) operate output device to produce hard copy
- l. Use proofreading symbols.

OUTLINE OF INSTRUCTION:

- I. Special Procedure Reports
 - A. The digestive system
 - B. The endocrine system
 - C. The urinary system

- D. The reproductive system and obstetrics
- E. The musculoskeletal system
- F. The nervous system
- G. Case studies

II. Operative Reports

- A. Large and small intestine
- B. Endocrine
- C. Nervous
- D. Obstetrics

III. Discharge Summary Reports

- A. Endocrine
- B. Female Reproductive
- C. Musculoskeletal
- D. Nervous

REQUIRED TEXTBOOKS AND MATERIALS:

Becklin, Karonne J., and Sunnarborg, Edith M. Introduction to Medical Office Transcription. 2nd ed. Glencoe/McGraw-Hill, 2002.

Audio cassettes to accompany textbook

SUGGESTED REFERENCES, PERIODICALS AND VISUAL AIDS:

Blake, Rachelle S., B.A., R.M.T. The Medical Transcriptionist's Handbook. 2nd ed. Delmar Publishers, 1993.

Medical dictionary

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OST 243 MEDICAL OFFICE SIMULATION

COURSE DESCRIPTION:

Prerequisites: OST 130 or OST 148

Corequisites: None

This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

1. Explain why the use of technology in healthcare is increasing.
2. Describe the functions of practice management programs.
3. Identify the core functions of electronic health record programs.
4. Discuss how the HIPAA Privacy Rule and Security Rule protect patient health information.
5. Explain how the Health Information Technology for Economic and Clinical Health (HITECH) Act and the Affordable Care Act (ACA) promote health information technology and explore new models of delivering health care.
6. Schedule appointments
7. Adhere to procedures concerning company and patient confidentiality
8. Prepare daily and monthly statements
9. Processing claims and collecting payments
10. Summarize the importance of prompt follow-up on insurance claims.
11. Summarize the importance of a financial policy in a medical office.
12. Identify the laws that regulate collections from patients

OUTLINE OF INSTRUCTION

- I. Computers in the Medical Office
 - A. The flow of information the medical office
 1. The task cycle
 - B. The role of computers in the medical office
 1. Introduction to medical office applications
 - C. The use of health information technology
 1. Electronic health records
 2. HIPAA, and the HITECH Act

- II. Medisoft for Windows Training
 - A. Introduction to Medisoft
 - B. Entering patient information
 - C. Working with cases
 - D. Entering charge transactions
 - E. Entering payments and adjustments
 - F. Scheduling
 - G. Using claim management
 - H. Printing reports
 - I. Using utilities
- III. Medisoft Simulation(s)
 - A. Handling patient records and transactions
 - B. Scheduling appointments
 - C. Print lists and reports
 - D. Reports and collections
 - E. Putting it all together

REQUIRED TEXTBOOK AND MATERIALS:

Sanderson, Susan M. *Computers in the Medical Office*. 8th Edition. McGraw-Hill/Higher Education, 2013.

Flash drive

ICD-10-CM codes based ICD-10- CM 2012

CPT codes based on CPT 2012

(Online use for the above ICD-10-CM and CPT codes).

Stedman's Medical Dictionary (Optional)

Taber's Cyclopedia Medical Dictionary, FA Davis (Optional)

STATEMENT FOR STUDENT WITH DISABILITIES:

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OST 286
PROFESSIONAL DEVELOPMENT

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

Upon completion of this course, the student will:

- a. Identify and demonstrate personal and professional characteristics associated with job success.
- b. Formulate personal, educational, and professional goals; and develop an action plan to meet those goals.
- c. Demonstrate the importance of projecting a professional image.
- d. Develop a personal code of business ethics.
- e. Demonstrate effective time and stress management techniques.
- f. Demonstrate effective human relations and communications skills.
- g. Demonstrate the ability to solve problems.
- h. Demonstrate dependability and flexibility.
- i. Demonstrate a commitment to enhance the profession.
- j. Investigate ways to find available jobs and demonstrate techniques for applying for a job.
- k. Know the principles of verbal and non-verbal communication.

OUTLINE OF INSTRUCTION:

- I. Develop your Success Identity
 - A. Self-esteem and Your Personality
 - 1) Theory of personality
 - 2) Know yourself
 - 3) Do not hide from reality
 - 4) Be sensitive to feedback
 - B. Self-Improvement
 - 1) The self-improvement process
 - 2) Visualize the best that you can be

- 3) Design your self-improvement program
- 4) Self-improvement strategies
- C. Developing Positive Attitudes
 - 1) Your attitudes reflect your image
 - 2) How attitudes develop
 - 3) Attitudes are visible
 - 4) Attitudes are catching
 - 5) Improving your attitudes
 - 6) Coping with other people's negative attitudes

II. Developing Your Interpersonal Relationships

- A. Fitting In and Getting Along
 - 1) Value-added qualities
 - 2) Nonvalue-added qualities
- B. Working With coworkers
 - 1) Keys to getting along with others
 - 2) Your position on the team
 - 3) Understand and use group psychology
- C. Getting to Know Your Supervisor
 - 1) Know your supervisor
 - 2) Supervisor's expectations
 - 3) Relating to your supervisor
- D. Relating to Clients and Customers
 - 1) Customer expectations
 - 2) Customer communication
 - 3) Is the customer always right

III. Developing Your Communications Skills

- A. Communication Channels
 - 1) Communication takes two
 - 2) Communication barriers
 - 3) Channel openers
 - 4) Communication styles
 - 5) Listening is part of communication
 - 6) Barriers to listening
 - 7) Good listening skills
 - 8) Separate facts from opinions
- B. Getting Your Message Across
 - 1) General rules for the sender of communication
 - 2) Conversational skills
 - 3) Speaking before groups
- C. Communicating to Resolve Conflict
 - 1) What is conflict?

- 2) Types of conflict
- 3) Stages of conflict
- 4) Handling conflict adjustments

IV. Developing Your Productivity

A. Motivation

- 1) Be self-motivated
- 2) Show Initiative
- 3) Go beyond what is expected

B. Work Habits

- 1) Responsibility
- 2) Self-management
- 3) Organization
- 4) Efficient resource management

C. Thinking Skills

- 1) Employers want people who can think
- 2) Thinking defined
- 3) Higher-order thinking strategies
- 4) Your thinking skills can be developed

D. Managing Stress

- 1) What is stress
- 2) Handling stress

V. Developing Your Social Conscience

A. Standards of Conduct

- 1) Integrity and ethics
- 2) Loyalty
- 3) Honesty
- 4) Avoid abusing fringe benefits and privileges
- 5) Avoid drug and alcohol abuse

B. Recognizing Discrimination

- 1) Prejudice and stereotyping
- 2) What the law provides
- 3) The rights of persons with disabilities
- 4) Sexual harassment
- 5) Subtle discrimination
- 6) Avoiding, resisting, or fighting discrimination

C. Diversity

- 1) Diversity in the workplace
- 2) Appreciating diversity
- 3) Avoiding cultural conflict

VI. Developing Your Career

- A. Getting the Job
 - 1) Job campaign
 - 2) Job resources
 - 3) Job search documents
 - 4) Job interview

- B. Keeping the Job
 - 1) First-day events
 - 2) Rules of the job
 - 3) Work environment
 - 4) Employment insurance
- C. Moving Ahead in your Career
 - 1) A vision for your future
 - 2) Visualize success in your career
 - 3) Energize yourself
 - 4) Performance appraisal
 - 5) Raises and promotions
 - 6) Changing jobs

REQUIRED TEXTBOOKS AND MATERIALS:

Wallace and Masters, Personal Development for Life and Work, 8th Edition, Cincinnati: South-Western Educational Publishing, 2001.

STATEMENT OF STUDENTS WITH DISABILITIES

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OST 289
OFFICE SYSTEMS MANAGEMENT

COURSE DESCRIPTION:

Prerequisites: OST 134, OST 136, and OST 164

Corequisites: None

This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

In successfully completing this course, students will:

- a. Demonstrate an understanding of the roles of support staff, supervisors, managers, and technology in achieving business goals.
- b. Demonstrate an awareness of management styles and their relationship to a diverse workforce.
- c. Demonstrate knowledge of the responsibilities and skills needed to supervise people and technology.
- d. Develop a plan of improving quality and productivity in the office.
- e. Establish teams to accomplish tasks using appropriate tools and resources.
- f. Demonstrate an understanding of human resource management issues and procedures related to supervision.
- g. Demonstrate problem-solving and critical-thinking skills.
- h. Demonstrate individual or group ability to plan, research, analyze, and prepare a written and oral presentation to provide solutions to current business issues and problems.
- i. Demonstrate the proper procedure for applying for a job and describe traits necessary for advancement on the job.

OUTLINE OF INSTRUCTION:

- I. Your Working Environment
 - A. Role of the Office Professional
 - 1) Job Titles
 - 2) The Virtual Office
 - 3) Office Support Functions
 - B. Organizational Structure
 - C. Classifications of Authority

- II. Communicating Effectively
 - A. Definition of Human Relations
 - B. Your Company and Its Place in Industry
 - C. Human Relations in the Workplace
 - D. International Human Relations
- III. Managing Your Work, Time, and Resources
 - A. Total Quality Management (TQM)
 - 1) Definition of TQM
 - 2) How does it work?
 - B. Effectiveness and Efficiency
 - C. Being the Boss of Your Own Time
 - 1) Learning the job
 - 2) Assigning Priorities
 - 3) Adopting a Flexible Plan
 - D. Office Organization
 - E. Learning to Cope with Stress
 - F. Ethics in the Office
 - G. Environmental Office
 - H. Understanding Time in Different Cultures
- IV. Using Technology and Understanding Professional's Role
 - A. Types of Computers
 - B. Basic Components of Computers
 - C. Operating Systems Software
 - D. Application Software
 - E. Computers in the Office
 - F. Security Issues
 - G. The Internet
 - H. Ergonomics
- V. Preparing Communications
 - A. Verbal Communication
 - B. Nonverbal Communication
 - C. Listening
 - D. Writing Effective Business Messages
 - E. Types of Written Communication
 - F. Preparing Documents for Distribution
 - G. Reprographics
 - H. Ethics in Writing
 - I. International Addresses
- VI. Processing Mail
 - A. Handling Mail
 - B. Handling Incoming Mail
 - C. Handling Outgoing Mail
 - D. International Mail
 - E. International Holidays

VII. Records Management

- A. Location and Classifications of File Systems
- B. Preparation for Visible Filing
- C. Techniques
- D. Supplies Online
- E. Storing information
- F. Records Retention and Transfer
- G. Alphabetic Filing Rules
- H. Future Records Management

VIII. Handling Financial Procedures

- A. Banking Procedures
- B. Accounting Procedures
- C. International Currency Exchange

IX. Providing Customer Service, Scheduling Appointments, and Receiving Visitors

- A. Providing Excellent Customer Service
- B. Making Appointments
- C. Receiving Visitors
- D. Handling Difficult Customers
- E. Hosting International Visitors

X. Making Travel Arrangements

- A. Planning the Trip
- B. Arranging the Travel
- C. Following Through
- D. International travel Tips
 - 1) Tips for Success

XI. Planning Meetings and Conferences

- A. Before the Meeting
- B. During the Meeting
- C. Meeting Follow-Up
- D. Team Meetings
- E. Virtual Meetings
- F. International Meetings

XII. Using Telecommunications in the Office

- A. Effective Use of the Telephone
- B. Telephone Equipment, Systems, and Services
- C. Voice Recognition
- D. The Internet

XIII. Working in a Medical Office

- A. Types of Medical Offices
 - 1) Medical Careers and Skills Needed
 - 2) Basic Clerical or Office Skills and Competencies
 - 3) Basic Clinical Competencies

B. Basic Medical Office Positions

XIV. Working in a Legal Office

- A. Introduction to the Legal Office
- B. Legal secretarial or assistant Careers
- C. Processed Documents
- D. Document Preparation

XV. Preparing for Your Job Search

- A. Locating Job Prospects
- B. Applying for Jobs
- C. Interviewing for Jobs
- D. Conducting an Electronic Job Search
- E. International Employment Opportunities

XVI. Preparing to Meet the Challenges

- A. Eliminating Stereotypes
- B. Prepare for Advancement
- C. Develop Professionally

REQUIRED TEXTBOOKS AND MATERIALS:

Fulton-Calkins. Procedures and Theory for Administrative Professionals, 6th Edition, Thompson/Southwestern,

SUGGESTED REFERENCE:

Sulton-Calkins, P., and Hanks, J. Procedures for the Office Professional Applications. South-Western Publishing, 2000.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OTA 110
FUNDAMENTALS OF OCCUPATIONAL THERAPY

COURSE DESCRIPTION:

Prerequisite: Enrollment in the Occupational Therapy Assistant program

Corequisite: BIO 168, ACA 122, and demonstration of computer competency.

This course introduces occupational therapy theory, practices, philosophies, and principles. Emphasis is on providing a basic understanding of the profession as well as beginning to develop interaction and observation skills. Upon completion, students should be able to demonstrate basic understanding of occupational therapy practice options, uniform terminology, activity analysis, principles, process, philosophies, and frames of reference. Course Hours Per Week: Class, 2; Lab, 3; Clinical, 0. Semester Hours Credit: 3.

LEARNING OUTCOMES:

Student will demonstrate basic skills in the following areas:

- A. Seek adequate information prior to acting
 - (1) Identify routine sources of information used in assessment & treatment
 - (2) Identify routine techniques for gathering information
 - (3) Use a variety of sources for information gathering
 - (4) Use a variety of techniques to gather information
- B. Use standard occupational therapy principles and terminology
 - (1) Identify standard principles used in OT practice
 - (2) Use current OT terminology in completing oral and written assignments
- C. Respect client's rights and values
 - (1) Demonstrate knowledge of rights of clients under the OT Code of Ethics
 - (2) Define terms: values, cultural diversity, cultural bias, values clarification
- D. Function within the legal and ethical scope of OT practice
 - (1) Demonstrate knowledge of the Occupational Therapy Code of Ethics
 - (2) Demonstrate knowledge of North Carolina laws governing practice
 - (3) Demonstrate knowledge of national regulations governing OTA practice
 - (4) Discuss the role delineation of OTs and OTAs
- E. Maintain professional appearance and attitude
 - (1) Discuss the value of 'non-judgmental caring' and empathy in treatment
 - (2) Recognize appropriate forms of dress & appearance during clinical activities
 - (3) Use tact and diplomacy in communications with peers and instructors
- F. Respect confidentiality of information
 - (1) Use correct techniques to ensure confidentiality in written format
 - (2) Use correct techniques to ensure confidentiality in oral formats
- G. Apply principles of occupational therapy theory and practice
 - (1) Identify theories used in OT practice
 - (2) Define the following terms: OT Practice Framework, OT process, OT outcomes, OT intervention approaches, areas of occupation, performance skills, client factors, activity demands, contexts, performance patterns
 - (3) Engage in discussion regarding the effect of theories and frames of reference on the practice of occupational therapy

- H. Demonstrate initiative in performing independent learning
 - (1) Conduct a library research activity on a subject of the learner's choice
 - (2) Select tasks to research in areas of occupation
 - (3) Select and present on some aspect of activity analysis of one occupation
- I. Identify barriers and facilitators of communication
 - (1) Recognize the role of non-verbal behaviors in communication
 - (2) Recognize the role of verbal behaviors in communication
- J. Practice establishing therapeutic relationship and rapport with others
 - (1) Conduct interviews with individuals to gain information on their history, interests and status
 - (2) Provide classmates with feedback on performance during presentations that is objective and helpful in improving skills
- K. Demonstrate effective communication skills in a teaching session with peers
 - (1) Teach a skill, using multiple methods to optimize presentation of information
 - (2) Help others learn skills to gain confidence
 - (3) Enable all learners to successfully complete a selected activity
- L. Recognize own strengths and weaknesses
 - (1) Participate in self-rating of teaching session
 - (2) Participate in self-evaluation of competencies

OUTLINE OF INSTRUCTION:

- I. Definition & Principles of Occupational Therapy
 - (A) Initial description
 - (B) Historical development of the definition
 - (C) Current definition
 - (D) Principles of OT practice
 - i Client-centered
 - ii Therapist/ therapeutic relationship driven
 - iii Activity-oriented
 - iv Setting or context of care dependent
 - (E) Occupational Therapy Process
 - i Evaluation process
 - ii Intervention process
 - iii Outcomes process
 - (F) Activity Analysis
 - (G) OT language – OT Practice Framework
 - i areas of occupation
 - ii performance skills
 - iii client factors
 - iv performance patterns
 - v contexts
 - vi activity demands
 - vii intervention strategies and types
 - viii types of outcomes

- II. History of Occupational Therapy Practice
 - (A) Therapy and medicine in the 18th & 19th centuries
 - (B) Development of OT in the US
 - (C) Current practices and settings
 - (D) Currently accepted common language – OT Practice Framework
- III. Introduction to the Occupational Therapy Community
 - (A) Organizations
 - (B) Purposes and functions of the organizations
 - (C) Membership benefits
 - (D) Fees/dues and responsibilities of membership
 - (E) Informal relationship building
 - (F) Mentorship
- IV. Introduction to Theories of Occupational Therapy Practice
 - (A) Theories that support OT practice
 - (B) Occupational science
 - (C) State of the art & science of OT
- V. Ethical and legal considerations in OT practice
 - (A) Ethical standards
 - (B) Legal considerations in OT practice
 - (C) Client's/Patient's rights
 - (D) OT scope of practice
- VI. History and development of the role of OTAs
 - (A) Rationale for the role
 - (B) History of the role
 - (C) Current roles and relationships with OTs
 - (D) Current roles in the OT process
- VII. Education/Training of OTs and OTAs
 - (A) Classroom education
 - (B) Psychomotor skill development
 - (C) Clinical training
 - (D) National certification/registration examination
 - (E) Continuing education
 - (F) Career mobility
- VIII. Identify and Explore Learning and Teaching Styles
 - (A) Identify various learning styles and techniques
 - (B) Identify various teaching techniques and strategies
 - (C) Discuss the inter-relationship of learning and teaching styles
- IX. Treatment in groups
 - (A) purposes of groups
 - (B) dynamics of groups
 - (C) leadership of groups

- X. Models of care
 - (A) medical
 - (B) educational
 - (C) social

- XI. Professionalism
 - (A) behavior
 - (B) language
 - (C) attitudes
 - (D) expertise

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OTA 120 OT MEDIA I

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Occupational Therapy Assistant program

Corequisites: OTA 110

This course provides training in recognizing the therapeutic value of and in using a wide variety of leisure, self care, and work activities. Topics include crafts, games, personal care and work activities as well as teaching and learning methods and styles. Upon completion, students should be able to design, select, and complete/perform leisure, self care, and work activities that would be therapeutic for designated client populations. Course Hours Per Week: Class, 1. Lab, 3. Semester Hours Credit, 2.

LEARNING OUTCOMES:

Student will demonstrate skills in the following areas:

- A. Read and use technical and instructional materials
 - 1) Use written and pictorial instructions to produce designated items meeting specified criteria
 - 2) Use knowledge from technical manuals to perform and teach selected tasks
- B. Demonstrate initiative in independent learning
 - 1) Engage effectively in unfamiliar tasks with limited instruction and guidance
 - 2) Select and complete a project using new or unfamiliar skills
 - 3) Teach the skills needed to complete a project to others
- C. Use therapeutic media techniques
 - 1) Demonstrate skills in multiple craft & leisure activities
 - 2) Demonstrate skills in selected self care activities
 - 3) Demonstrate skills in selected IADL activities
 - 4) Demonstrate basic skills in group participation and membership
- D. Perform activity analysis
 - 1) Use properties of the task to analyze the activity
 - 2) Use components of human skills to compare the person to the task
 - 3) Use properties of the environment to analyze the task
- E. Adapt treatment environment, tools, materials, and activities according to the needs of the individual and their socio-cultural context under the supervision of an OTR/L
 - 1) Determine ways in which the tasks and environments can be modified to meet personal needs and abilities
 - 2) Use problem-solving strategies to achieve person and activity match
 - 3) Choose and use culturally relevant activities for selected populations
- F. Complete activities in a timely manner
 - 1) Submit all assigned work on time
 - 2) Perform all competencies within the allotted times
- G. Demonstrate competence in assisting clients to move safely and effectively on:
 - 1) proper body mechanics
 - 2) bed mobility
 - 3) repositioning
 - 4) transfers & lifts

- H. Accept direction and supervision willingly
- I. Express ideas clearly in oral presentations
 - 1) Use verbal and non-verbal methods to optimize presentation of information
- J. Follow facility's policies and procedures
 - 1) Complete review of classroom procedures regarding: tool and equipment use
 - 2) Use correct safety procedures during activities
- K. Maintain treatment area, equipment, and supply inventory as required
- L. Identify and report emergencies
 - 1) Complete fire safety training
 - 2) Identify correct procedures for medical emergencies
 - 3) Complete cleaning requirements and paperwork as assigned
- M. Maintain infection control standards
 - 1) Use correct cleaning procedures in laboratory area
 - 2) Identify the relationship of infection control to tools, materials & activities

OUTLINE OF INSTRUCTION:

- I. Activity analysis
 - A. Task demands
 - B. Person assessment
 - C. Environmental assessment
- II. Developing therapeutic activities
 - A. Matching person to task re: abilities
 - B. Matching person to tasks re: interests
 - C. Matching person to task re: needs/goals
- III. Modifying tasks - problem-solving
 - A. Environmental changes
 - B. Material changes
 - C. Tool changes
 - D. Activity changes
- IV. Gaining mastery of new purposeful activities
 - A. Progress through the learning hierarchy in 3 domains
 - 1) Cognitive
 - 2) Psychomotor
 - 3) Affective
 - B. Gain proficiency & competence
 - C. Use intrinsic and extrinsic feedback to modify performance
 - D. Gain competence
- V. Identification and competence in leisure, work, self-care, and social interaction areas
 - A. Copper tooling
 - B. Knitting or crocheting
 - C. Macramé
 - D. Handsewing
 - E. Machine sewing
 - F. Woodworking

- G. Weaving
 - H. Claywork/Ceramics
 - I. Fabric painting and printing
 - J. Tilework
 - K. Scrapbooking
 - L. Computer games and activities
 - M. Table games
 - N. Skill games
 - O. Team games
- VI. Identification of home care skills
- A. Cooking and meal preparation
 - B. Sewing and clothing repair and modification
 - C. Basic home care skills
- VII. Safety issues with therapeutic activities
- A. Fire procedures
 - B. First aid procedures
 - C. Emergency procedures
 - D. Equipment maintenance and storage
 - E. Safety checks
 - F. Vision safety
 - G. Mobility assistance skills
 - H. Policy and procedure manual
 - I. Population-specific precautions
 - J. Infection control issues
- VIII. Adapting an activity to a specific client situation
- A. Client interests, needs and abilities
 - B. Therapeutic approach chosen
 - C. Environmental or Setting considerations - contexts
 - D. Social, cultural, spiritual, & personal

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by the instructor.

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OTA 130 ASSESSMENT SKILLS

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Occupational Therapy Assistant program, BIO 168, OTA 120, and OTA 140

Corequisites: OTA 110

This course provides training in appropriate and accurate assessment and intervention skills related to sensory, movement, perceptual/cognitive, affective systems, and ADL skills. Topics include kinesiology, body mechanics, sensory, ROM, MMT, cognitive/perceptual, psychosocial, self-care, and work-related assessments; treatment approaches; and basics of group structure and dynamics. Upon completion, students should be able to administer various assessment tools and appropriate treatment approaches regarding sensation, movement, perception/cognition, affect, self-care, and work-related skills. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

By the completion of the course, the student will be able to:

- A. Work effectively to complete specific assessment maneuvers under the close supervision of a supervisor
 - 1. use feedback and constructive criticism to modify and improve performance
 - 2. complete designated competencies successfully with supervisor guidance
- B. Seek adequate information prior to acting.
 - 1. regarding areas of occupation
 - 2. regarding performance skills
 - 3. regarding client factors
 - 4. regarding performance patterns
 - 5. regarding activity demands
 - 6. regarding contexts
 - 7. regarding outcomes
- C. Use standard OT principles during assessment activities (client-centered, activity-oriented, therapist-driven, and environmentally-sensitive and meaningful)
- D. Document accurately and legibly for all assessments
- E. Use accepted terminology and abbreviations.
 - 1. regarding areas of occupation

2. regarding performance skills
 3. regarding client factors
 4. regarding performance patterns
 5. regarding activity demands
 6. regarding contexts
 7. regarding outcomes
- F. Communicate with clients at their level.
1. assess communication abilities
 2. assess cognitive abilities
- G. Obtain and interpret vital sign information
- H. Prepare for clinical assignments.
1. Review and knowledge of tools
 2. Review and knowledge of norms and expected performances
 3. Awareness of safety concerns and use of appropriate precautions
- I. Maintain confidentiality of information.
- J. Screen and assess the need for occupational therapy intervention.
1. regarding areas of occupational performance
 2. regarding performance skills
 3. regarding client factors
 4. regarding activity demands
 5. regarding performance patterns
 6. regarding contextual issues
- K. Participate in developing a treatment plan.
1. addressing occupational concerns
 2. addressing performance skill issues
 3. addressing client factor issues
 4. addressing activity modification issues
 5. addressing habit pattern issues
- L. Re-assess the effectiveness of the intervention and recommend continued or changed treatment in simulated client situations.
- M. Assist in summarizing outcomes and recommendations to maximize treatment gains in simulated client situations.
- N. Assist with data collection and evaluation under the supervision of an OT/L.

- O. Demonstrate service competency to administer selected standardized tests under the supervision of an OT/L.
- P. Identify modifications of treatment approaches needed as client needs change, under the supervision of an OT/L.
- Q. Analyze activities, actions and occupations to promote client success
- R. Identify client and family learning needs with therapist guidance.
- S. Demonstrate initiative in independent learning by selecting and reporting on an assessment tool not presented in this course

OUTLINE OF INSTRUCTION:

- I. Screening procedures for areas of occupation, performance skills, client factors, performance patterns, activity demands, and contexts
 - A. Breadth of information
 - B. Seeking exceptions
 - C. Minimize false negatives and positives
 - D. Qualities of a screening tool
 - E. Results of screening guide next steps
- II. Assessment procedures & options for areas of occupation, performance skills, client factors, performance patterns, activity demands, and contexts
 - A. Rationale
 - B. Methods
 - C. Settings
 - D. Information gathered
 - E. Qualities of assessment tools
 - F. Types of assessments
- III. Screening tools and assessments in self care
- IV. Screening tools and assessments for other areas of occupation
- V. Screening tools and assessments for selected performance skills & client factors.
- VI. Kinesiology & its relationship to assessment in OT
- VII. Treatment planning activities for various deficits
 - A. Use of assessment data
 - B. Knowledge of client and sociocultural context

- C. Development of priority listing
- D. Goal setting and writing
- E. Operationalizing plan into a intervention program
- F. Roles of OTs and OTAs
- VIII. Types of intervention programs for desired client outcomes
 - A. Restorative programming
 - B. Compensatory or Adaptive programming
 - C. Prevention programming
 - D. Maintenance programming
 - E. Promotional programming

IX. Developing intervention programs for selected outcomes

- X. Discontinuation of treatment decisions
 - A. Reasons for discontinuation
 - B. System for discontinuing treatment
 - C. Plan to maximize and stabilize gains
 - D. Documentation of process
 - E. Responsibilities and roles of OTA, OT, and client

REQUIRED TEXT AND MATERIALS:

To be announced by the instructor.

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OTA 140
PROFESSIONAL SKILLS I

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Occupational Therapy Assistant program

Corequisites: OTA 110

This course introduces the roles and responsibilities of Certified Occupational Therapy Assistants and Occupational Therapists Registered in occupational therapy practice and facilitates development of observation, documentation, and therapeutic use of self skills. Topics include Code of Ethics, roles and responsibilities, credentialing and licensing, documentation, therapeutic use of self and professional identity/behavior, supervisory relationships, time management, and observation skills. Upon completion, students should be able to demonstrate ethical behavior; discriminate between role and responsibilities of Certified Occupational Therapy Assistants and Occupational Therapists Registered; and participate in acceptable supervision, documentation, and scheduling. Course Hours Per Week: Lab, 3. Semester Hours Credit, 1.

LEARNING OUTCOMES:

Student will demonstrate skills in the following areas:

- A. Gather and report information accurately and objectively
 - 1. Use therapeutic techniques in gathering information
 - 2. Use objective language to report results
 - 3. Use feedback from instructors to modify and improve the written report
- B. Use standard occupational therapy language in oral and written products
 - 1. Match terms used in OT Practice Framework in descriptions and definitions
 - 2. Use OT Practice Framework terminology in written and oral products
 - 3. Use correct medical terms to describe client conditions, symptoms, and procedures
- C. Demonstrate basic knowledge of normal structure and function of the human body for all key body systems
- D. Demonstrate basic knowledge of common conditions that affect the structure and function of the human body for all key body systems
- E. Respect other's rights and values
 - 1. Demonstrate non-judgmental attitude during interactions with peers
 - 2. Define terms: values, cultural diversity, cultural bias, values clarification
 - 3. Report on another culture using objective language non-verbal behaviors
- F. Demonstrate problem solving skills and strategies
 - 1. Apply clinical reasoning to scenarios
 - 2. Share information, opinions and thoughts effectively in a group of peers
 - 3. Demonstrate use of problem solving skills in a group project
- G. Use SOAP note format to document information
 - 1. Identify sections of the note and content appropriate for each section
 - 2. Use SOAP note format for at least two write-ups
 - 3. Use appropriate grammar, sentence structure, spelling, and format in written reports
- H. Use OT principles in a selected case situation
 - 1. Apply key OT principles to a case study scenario
 - 2. Use at least two frames of reference to develop a treatment plan for a selected case

- I. Use time management and study skill techniques in a case situation
 - 1. Apply scheduling techniques to a client situation
 - 2. Apply study skill techniques to a client situation
 - 3. Use OT principles and methods in the application of these techniques
- J. Demonstrate knowledge of skills needed to operate within the legal and ethical scope of OT practice
 - 1. Demonstrate knowledge of the Code of Ethical Behavior
 - 2. Demonstrate knowledge of North Carolina laws governing practice
 - 3. Demonstrate knowledge of national regulations governing OTA practice
 - 4. Discuss the role delineation of OTs and OTAs
- K. Maintain professional appearance and attitude
 - 1. Discuss the value and role of 'dress codes'
 - 2. Recognize and use appropriate forms of dress and appearance during clinical activities
- L. Respect confidentiality of information
 - 1. Use correct techniques to ensure confidentiality in written format
 - 2. Use correct techniques to ensure confidentiality in oral format
- M. Establish a therapeutic rapport with a simulated client using appropriate techniques
- N. Initiate independent learning
 - 1. Develop and implement a goal-oriented plan for self, based on feedback from instructors
 - 2. Develop and implement a time-management plan for self

OUTLINE OF INSTRUCTION:

- I. Introduce and Explore Learning and Teaching Styles
 - A. Identify various learning styles and techniques
 - B. Identify various teaching techniques and strategies
 - C. Discuss the relationship of learning and teaching matches and differences
 - D. Develop a individualized learning plan for each student
- II. Introduce Time Management Principles
 - A. Student - self based information
 - B. Simulated client information
 - C. Application of principles in clinical situations
- III. Introduce and Use Observation Skills
 - A. Observing and reporting verbal responses
 - B. Observing and reporting non-verbal behaviors
 - C. Discriminating between observation and interpretation
- IV. Introduce Documentation Principles and Formats
 - A. SOAP notes
 - B. Writing objectively
 - C. Selecting data to report
 - D. Using uniform terminology
- V. Review Interviewing Skills
 - A. Gaining information from an interview
 - B. Types of interviews
 - C. Interviewing across cultures, social groups, age groups, and genders
- VI. Use Problem Solving Strategies with a Structured Format
 - A. Introduce strategies
 - B. Practice sessions with strategies

- VII. Review of Human Systems
 - A. Review each system for structures, function, and common conditions
 - B. Discuss typical conditions addressed by OT for each system
- VIII. Simulate and Discuss Ethical Dilemmas in OT Practice
 - A. Code of Ethics
 - B. Patient's Bill of Rights
 - C. North Carolina's Practice Act
 - D. NBCOT
- IX. Plan and Participate in a Professional Activity
- X. Develop and Implement an Plan for Change for One's Self
 - A. Identify an area of desired change
 - B. Identify strengths and weaknesses
 - C. Establish a baseline measure
 - D. Write a goal
 - E. Plan an intervention
 - F. Implement the plan
 - G. Evaluate the plan and progress
 - H. Report outcome and set new goal
- XI. Participate in Individual Meetings with Instructor
 - A. Prepare for the meeting
 - B. Actively participate in the meeting
 - C. Use feedback from the instructor to modify plan for self

REQUIRED TEXTBOOK AND MATERIALS:

To be announced by the instructor.

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OTA 150 LIFE SPAN SKILLS I

Prerequisites: Enrollment in the Occupational Therapy Assistant program, BIO 169, and OTA 130

Corequisites: PSY 241, OTA 163, and OTA 170

This course is designed to use knowledge gained from PSY 241 as it applies to occupational therapy practice from birth to adolescence. Topics include review of normal growth and development, identification and discussion of common disabilities and delays, assessment, treatment planning, and intervention approaches used with these populations. Upon completion, students should be able to identify and use assessments, screenings, and interventions for infants through adolescents for selected disabilities and developmental delays in various settings. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the learner will be able to:

- A. Work effectively with the supervision of an OT/L.
 - 1. Observe an OT - OTA relationship in a pediatric practice.
 - 2. Successfully complete laboratory and clinical experience
 - 3. Interact effectively with at least one OT supervisor in a pediatric setting.
- B. Function as a member of a health care team.
 - 1. Demonstrate knowledge of OTA role in pediatric settings.
 - 2. Participate effectively in a multidisciplinary team activity regarding a pediatric client during a laboratory and clinical experience.
- C. Reconcile personal and professional goals with employer objectives and policies.
 - 1. Identify personal goals for laboratory and clinical experiences.
 - 2. Identify facility objectives and policies that are important in the laboratory and clinical experience.
 - 3. Determine relationships of these two entities and identify ways to positively incorporate them into an action plan.
- D. Maintain records consistent with Durham Tech requirements.
 - 1. Identify record requirements of fieldwork sites.
 - 2. Adhere to record keeping requirements during experiences.
 - 3. Turn in all assignments in a timely and efficient manner.
- E. Express ideas clearly in written reports.
 - 1. Complete pediatric case study.
 - 2. Complete screening activity write-up
 - 3. Complete pediatric skill development reports.
 - 4. Complete personal goals reports.

- F. Demonstrate a caring non-judgmental attitude.
 - 1. Interact effectively with pediatric clients regardless of race, sex, physical abilities or appearance, cognitive abilities, behavioral or environmental conditions.
 - 2. Interact effectively with all caregivers of pediatric clients.
- G. Communicate with pediatric clients on their level.
 - 1. Correctly interpret verbal and non-verbal behaviors of pediatric clients.
 - 2. Correctly interpret verbal and non-verbal behaviors of caregivers.
 - 3. Use appropriate verbal and non-verbal communication skills to share information with pediatric clients and caregivers.
 - 4. Modify and use assessment tools to determine effectiveness of communication skills with pediatric clients and their caregivers.
- H. Prepare for clinical assignments.
 - 1. Complete pre-clinical checklist prior to laboratory and clinical experiences.
 - 2. Successfully complete practice sessions prior to participation in laboratory and clinical activities.
- I. Participate in developing pediatric treatment plans during laboratory and clinical experiences in different settings
- J. Assist in implementing occupational therapy intervention.
- K. Assist with data collection and evaluation for pediatric clients, under the supervision of an OT/L.
 - 1. Assist with the assessment of pediatric clients during laboratory and clinical experiences.
 - 2. Collect and report objective data on pediatric clients.
- L. Educate others in the area of established service competency under the supervision of an OT/L.
 - 1. Demonstrate at least one service competency
 - 2. Effectively instruct fellow students in at least one service competency.
- M. Administer standardized tests with pediatric clients under the supervision of an OT/L.
 - 1. Demonstrate service competency for selected standardized tests.
 - 2. Administer standardized tests to pediatric clients during lab session.
 - 3. Provide report of the test results and the test administration process.
- N. Assist pediatric clients with self-care activities.
- O. Position and transport pediatric clients correctly and safely
- P. Apply knowledge of normal structure and function of the human body to pediatric clients.
- Q. Apply knowledge of normal human growth and development to pediatric clients.
 - 1. Identify typical development in areas of motoric, psychological, sensory, cognitive and social performance.
 - 2. Identify atypical development in the areas of motoric, psychological, cognitive and social performance.
- R. Apply knowledge of health and illness to the pediatric client.
 - 1. Complete report on a common diagnostic category in the pediatric population.
 - 2. Complete case study report on a pediatric client with a commonly encountered educational or medical diagnosis.
- S. Provide seating and positioning adaptation to facilitate functioning of pediatric clients during selected assessment and treatment activities.

- T. Use assistive technologies with pediatric clients.
 - 1. Develop at least one play-oriented activity using assistive technology for use with a pediatric client.
 - 2. Develop and use at least one educationally-oriented activity for use with a pediatric client.
- U. Use therapeutic media techniques with pediatric clients.
 - 1. Within selected intervention approaches, use at least two therapeutic media in developing and implementing a treatment program in a case study.
 - 2. Within a selected intervention approaches, use at least two therapeutic media with a pediatric client.
- V. Practice behavior optimization techniques with pediatric clients.
- W. Identify obstacles/barriers to effective learning for pediatric clients.
- X. Use contextual information to provide optimal assessment and treatment experiences for pediatric clients

OUTLINE OF INSTRUCTION:

- I. Establish baseline knowledge, skills, and attitudes related to pediatric population
- II. Review typical development:
 - A. By age groups
 - 1) Infants
 - 2) Toddlers
 - 3) Children
 - 4) Youths
 - 5) Adolescents
 - B. With respect to performance skills, client factors, and contextual considerations
 - 1) Sensory motor performance components
 - 2) Cognitive integrative and cognitive components
 - 3) Psychological skills and psychological components
 - 4) Environmental considerations
 - a. Family
 - b. Culture
 - c. Setting
 - d. Temporal structure
 - C. With respect to areas of occupation
 - 1) Self-care activities
 - 2) Educational activities
 - 3) Play activities
 - 4) Social participation

- III. Identify atypical development
 - A. With respect to performance skills, client factors, and contextual considerations
 - 1) Motor performance skills and associated client factors and body structures
 - 2) Processing performance skills and associated client factors and body structures
 - 3) Interactional performance skills and associated client factors and body structures
 - 4) Performance patterns
 - 5) Multiple component conditions
 - 6) Contexts issues:
 - a. Familial – personal
 - b. Cultural
 - c. Spiritual
 - d. Physical
 - e. Temporal
 - B. With respect to areas of occupation
 - 1) ADLs & IADLs
 - 2) Education
 - 3) Work
 - 4) Play
 - 5) Leisure
 - 6) Social Participation
 - C. In relationship to diagnoses (medical and educational categories)
- IV. Explore the role of family in working with the pediatric population
 - A. Family systems theory
 - B. Family life cycle
 - C. Family ecology
 - D. Dysfunctional families & environments
 - E. Disabled child in the family system
 - F. Laws and reimbursement system
- V. OT assessment & intervention
 - A. Approaches/frames of reference
 - 1) Developmental
 - 2) Perceptual Motor
 - 3) Biomechanical
 - 4) Human Occupation
 - 5) Neurodevelopmental
 - 6) Behavioral
 - 7) Sensory Integrative
 - B. OT assessment tools - OTA use
 - 1) Physical growth
 - 2) Reflex and motor development and function
 - 3) Cognitive and sensory development and function
 - 4) Affective and emotional development and function
 - 5) Self-care abilities and performance

- 6) Social or interaction/communication abilities
 - 7) Multidimensional development
 - C. OT treatment planning
 - 1) Using assessment data to build a plan
 - 2) Assisting the OT in plan development
 - 3) Helping to set priorities
 - 4) Identifying caregivers' roles and responsibilities
 - 5) Helping determine intervention strategies
 - 6) Assisting in development of IEPs and goal setting
 - D. OTA intervention considerations
 - 1) Principles
 - 2) Activities
 - 3) Settings
 - 4) Strategies
 - 5) Models
 - 6) OT relationships
- VI. Investigate a variety of pediatric programs
- A. Medical settings
 - B. Educational settings
 - C. Community settings
 - D. Home setting

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

**OTA 161
FIELDWORK I - PLACEMENT 1**

COURSE DESCRIPTION:

Prerequisites: OTA 120, and OTA 140

Corequisites: OTA 130, and OTA 170

This course provides introductory-level clinical training opportunities. Emphasis is on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance and direction of fieldwork supervisors. Course Hours Per Week: Clinical, 3. Semester Hours Credit, 1.

LEARNING OUTCOMES:

Student will demonstrate skills in the following areas:

- A. Gather and report information accurately and objectively
- B. Use standard occupational therapy language in oral and written products
- C. Respect other's rights and values
- D. Demonstrate problem solving skills and strategies
- E. Use appropriate documentation format for the facility
- F. Use OT principles in a selected case situation
- G. Demonstrate skills in operating within the legal and ethical scope of OT practice
- H. Maintain professional appearance and attitude
- I. Respect confidentiality of information
- J. Work effectively with the supervision of an OT/L.
- K. Function as a member of a health care team.
- L. Reconcile personal and professional goals with supervisor's objectives and policies.
- M. Demonstrate effective and timely workplace behaviors consistent with the role and responsibility of an OTA student.

OUTLINE OF INSTRUCTION:

This affiliation will involve supervision by an OT/L or a OTA/L

- I. Introduction and orientation to the facility, agency, or program
- II. Review of expectations and supervisor's plans for clinical experience
- III. Observation of clinical activities at the site(s)
- IV. Participation in selected clinical activities within the program, site, or facility

- V. Completion of selected documentation activities
- VI. Completion of selected interactional activities
- VII. Completion of other assignments as designated by the site(s), supervisor(s), and faculty
- VIII. Closure with client(s) and supervisor

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OTA 162
FIELDWORK I - PLACEMENT 2

COURSE DESCRIPTION:

Prerequisites: OTA 120, and OTA 140

Corequisites: OTA 130, and OTA 180

This course provides introductory-level clinical training opportunities. Emphasis is on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance and direction of fieldwork supervisors. Course Hours Per Week: Clinical, 1. Semester Hours Credit, 1.

LEARNING OUTCOMES:

Student will demonstrate skills in the following areas:

- A. Gather and report information accurately and objectively
- B. Use standard occupational therapy language in oral and written products
- C. Respect other's rights and values
- D. Demonstrate problem solving skills and strategies
- E. Use appropriate documentation format for the facility
- F. Use OT principles in a selected case situation
- G. Demonstrate skills in operating within the legal and ethical scope of OT practice
- H. Maintain professional appearance and attitude
- I. Respect confidentiality of information
- J. Work effectively with the supervision of an OT/L.
- K. Function as a member of a health care team.
- L. Reconcile personal and professional goals with supervisor's objectives and policies.
- M. Demonstrate effective and timely workplace behaviors consistent with the role and responsibility of an OTA student.

OUTLINE OF INSTRUCTION:

This affiliation will involve participation in a non-traditional clinical experience.

- I. Introduction and orientation to the facility, agency, or program
- II. Review of expectations and supervisor's plans for clinical experience
- III. Observation of clinical activities at the site(s)

- IV. Participation in selected clinical activities within the program, site, or facility
- V. Completion of selected documentation activities
- VI. Completion of selected interactional activities
- VII. Completion of other assignments as designated by the site(s), supervisor(s), and faculty
- VIII. Closure with client(s) and supervisor

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OTA 163
FIELDWORK I - PLACEMENT 3

COURSE DESCRIPTION:

Prerequisites: OTA 120 and OTA 140

Corequisites: OTA 130 and OTA 150

This course provides introductory-level clinical training opportunities. Emphasis is on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance and direction of fieldwork supervisors. Course Hours Per Week: Clinical, 3. Semester Hours Credit, 1.

LEARNING OUTCOMES:

Student will demonstrate skills in the following areas:

- A. Gather and report information accurately and objectively at pediatric settings
- B. Use standard occupational therapy language in oral and written products when working with pediatric clients and their caregivers
- C. Respect rights and values of pediatric clients, their caregivers, and programs
- D. Demonstrate problem solving skills and strategies related to pediatric situations and clients
- E. Use appropriate documentation format for the site/agency/program
- F. Use OT principles in selected pediatric case situations
- G. Demonstrate skills in operating within the legal and ethical scope of OT practice as an OTAS
- H. Maintain professional appearance and attitude appropriate for pediatric settings
- I. Respect confidentiality of information
- J. Provide for pediatric client safety in all interactions and activities.
- K. Work effectively with the supervision of an OT/L and program personnel
- L. Function as a member of a care giving team.
- M. Demonstrate initiative in independent learning during the clinical experience.
- N. Plan and complete screening and assessment activities and documentation completely and thoroughly as directed.
- O. Plan and complete intervention activities and documentation with pediatric clients as directed.
- P. Select and use appropriate OT intervention strategies for selected client situations and conditions.
- Q. Demonstrate effective and timely workplace behaviors consistent with the role and responsibility of an OTA student.

OUTLINE OF INSTRUCTION:

- I. Introduction and orientation to the pediatric facilities
- II. Review of expectations and facility supervisor's plans for clinical experience
- III. Observation of clinical activities at the sites
- IV. Completion of selected documentation activities
- V. Completion of selected interactional activities
- VI. Completion of other assignments as designated by the sites, supervisors, and faculty
- VII. Closure with facilities' clients and supervisors

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OTA 164
FIELDWORK I - PLACEMENT 4

COURSE DESCRIPTION:

Prerequisites: OTA 120, and OTA 140

Corequisites: OTA 130, and OTA 250

This course provides introductory-level clinical training opportunities. Emphasis is on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance and direction of fieldwork supervisors. Course Hours Per Week: Clinical, 3. Semester Hours Credit, 1.

LEARNING OUTCOMES:

Student will demonstrate skills in the following areas:

- A. Gather and report information accurately and objectively at geriatric settings
- B. Use standard occupational therapy language in oral and written products when working with geriatric clients and their caregivers
- C. Respect rights and values of geriatric clients, their caregivers, and programs
- D. Demonstrate problem solving skills and strategies related to geriatric situations and clients
- E. Use appropriate documentation format for the site/agency/program
- F. Use OT principles in selected geriatric case situations
- G. Demonstrate skills in operating within the legal and ethical scope of OT practice as an OTAS
- H. Maintain professional appearance and attitude appropriate for geriatric settings
- I. Respect confidentiality of information
- J. Provide for geriatric client safety in all interactions and activities.
- K. Work effectively with the supervision of an OT/L and program personnel
- L. Function as a member of a care giving team.
- M. Demonstrate initiative in independent learning during the clinical experience.
- N. Plan and complete screening and assessment activities and documentation completely and thoroughly as directed.
- O. Plan and complete intervention activities and documentation with geriatric clients as directed.
- P. Select and use appropriate OT intervention strategies for selected client situations and conditions.
- Q. Demonstrate effective and timely workplace behaviors consistent with the role and responsibility of an OTA student.

OUTLINE OF INSTRUCTION:

This affiliation will involve supervision by an OT/L or OTA/L.

- I. Introduction and orientation to the facility, agency, or program
- II. Review of expectations and facility supervisor's plans for clinical experience
- III. Observation of clinical activities at the site(s)
- IV. Participation in selected clinical activities within the program site, or facility.
- V. Completion of selected documentation activities
- VI. Completion of selected interactional activities
- VII. Completion of other assignments as designated by the site(s), supervisor(s), and faculty
- VIII. Closure with the client(s) and supervisors

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OTA 170 PHYSICAL DYSFUNCTION

COURSE DESCRIPTION:

Prerequisites: BIO 168, and BIO 169

Corequisites: OTA 130, and OTA 161

This course is designed to provide the knowledge and skills needed for working with individuals experiencing varied medical and physical conditions within their socioeconomic and cultural environments. Topics include medical terminology, common diagnoses, structures, and functions that change with disease processes, assessment and treatment priorities for specific problems and conditions, treatment planning, and intervention. Upon completion, students should be able to recognize common symptoms, prioritize problems, and provide for patient safety and infection control when planning and implementing and implementing treatment. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Student will demonstrate basic skills in the following areas:

- A. Apply knowledge of conditions involving physical illnesses and normal structure and function
 - 1) Identify common orthopedic, neurological, sensory system, systemic and congenital illnesses including: diagnoses, prognoses, precautions, signs and symptoms, pathologies, typical medical interventions and psychosocial implications.
 - 2) Relate occupational therapy assessments and interventions to commonly encountered physical illnesses and functional changes.
- B. Use accepted terminology and abbreviations
 - 1) Correctly identify abbreviations for diseases with use of appropriate resources
 - 2) Demonstrate appropriate use of medical and occupational therapy jargon
 - 3) Translate medical and occupational therapy jargon into client's terms for teaching and learning purposes.
- C. Maintain infection control standards
 - 1) Identify the components of universal precautions
 - 2) Use universal precautions in appropriate situations
 - 3) Identify common sources of infection and contamination in health care settings
 - 4) Identify common infectious organisms and routes of infection
 - 5) Apply principles of infection control in selected client situations
- D. Assist in data collection and evaluation under supervision of an OT/L
 - 1) Conduct chart review
- E. Express ideas clearly in oral presentations
 - 1) Complete two case presentations
 - 2) Complete class presentation on selected treatment approach & intervention

- F. Ask questions to gain appropriate information on narrative, scientific, pragmatic, and ethical issues related to a client situation
 - 1) Use supervising therapist's guidance to gather information for case reports.
 - 2) Use multiple sources of information prior to gather data then ask well-formulated questions to complete case presentations and class presentations.
- G. Express ideas clearly in written reports
 - 1) Complete two case presentations per established format and content instructions.
 - 2) Complete write-up on selected medical diagnoses per established format and content instructions.
- H. Screen and assess the need for occupational therapy intervention
 - 1) Identify client goals and needs that would be appropriately addressed in occupational therapy intervention in case studies.
 - 2) Identify the relationship among medical diagnoses, common signs and symptoms, prognoses and occupational therapy treatment approaches to determine the need for intervention.
- I. Provide for client safety
 - 1) Identify precautions for various client conditions & situations
 - 2) Modify selected self-care, productive, and avocational activities to accommodate physical deficits and enhance client safety
 - 3) Demonstrate environmental safety awareness during client treatment
- J. Apply knowledge of normal structure and function of the human body
 - 1) Use knowledge of muscle innervation, origin, insertion and action to determine common deficit areas for selected client populations and disabilities.
 - 2) Use knowledge of organ systems and normal functioning to determine the probable impact of selected disease processes on organ, system, body and life role functions.
- K. Seek adequate information prior to acting
 - 1) Use multiple sources of information to build a database upon which to operate.
 - 2) Use draft submission system to determine adequacy of information prior to completing latter portions of assignments.
- L. Apply principles of occupational therapy theory and practice to selected client populations.
- M. Use appropriate intervention strategies & techniques for various client conditions and situations, integrating knowledge of contexts, performance patterns, occupations, desired outcomes, and activity demands
- N. Interact with clients to determine their needs
 - 1) Participate in client interview during assessment and goal setting sessions under therapist guidance.
 - 2) Use student-formulated database to assist in predicting probable areas of need and interest for selected client populations.
 - 3) Use interactions with clients to determine accuracy of predicted areas of need and interest.
- O. Refer to medical and community resources for continuity of care
 - 1) Research and document resources for a selected client condition
 - 2) Describe supports typically needed for clients with selected conditions

OUTLINE OF INSTRUCTION:

- I. Framework for examining typical problems in physical performance of occupations
 - A. Diagnosis - etiology and pathology
 - B. Precautions
 - C. Common and typical medical treatments and procedures
 - D. Signs and symptoms
 - E. Prognosis
 - F. Psychological and social impact of the diagnosis
- II. Occupational Therapy approaches
 - A. Health promotional
 - B. Preventive
 - C. Restorative/rehabilitative
 - D. Compensatory - adaptive
 - E. Maintenance
- III. Occupational Therapy interventions
 - A. therapeutic use of self
 - B. therapeutic use of occupations or activities
 - C. consultative process
 - D. educational process
- IV. Social and cultural impacts on illness
 - A. Sick role
 - B. Causation beliefs
 - C. Separation of physical from psychological illness & intervention
 - D. Societal definitions
 - E. Cultural diversity in illness behavior, interpretation and treatment of disease processes
- V. Conditions that primarily affect motor skills or client factors associated with those motor skills
 - A. Common conditions and symptoms
 - B. Common treatment approaches & interventions
 - C. Common outcomes
 - D. Evidence of effectiveness for OT intervention
- VI. Conditions that primarily affect process skills or client factors associated with those process skills
 - A. Common conditions and symptoms
 - B. Common treatment approaches & interventions
 - C. Common outcomes
 - D. Evidence of effectiveness for OT intervention
- VII. Impact of process or motor conditions on interactional skills or client factors associated with those interactional skills

- VIII. Conditions that primarily affect performance habits
 - A. Common conditions and symptoms
 - B. Common treatment approaches & interventions
 - C. Common outcomes
 - D. Evidence of effectiveness for OT intervention
- IX. Conditions that have multiple areas of significant impact
 - A. Common conditions and symptoms
 - B. Common treatment approaches & interventions
 - C. Common outcomes
 - D. Evidence of effectiveness for OT intervention
- X. Case study presentations of clients
 - A. Chronic disease/disability
 - B. Traumatic illnesses/injury
 - C. Congenital illness/disability
- XI. Community resource identification
- XII. Comparison of client needs & interests to services availability
 - A. Matches
 - B. Gaps
 - C. Alternatives
 - D. Cultural/social considerations

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OTA 180 PSYCHOSOCIAL DYSFUNCTION

COURSE DESCRIPTION:

Prerequisites: PSY 281 and ENG 112

Corequisites: OTA 130 and OTA 162

This course uses theories and principles related to psychological/psychiatric health and illnesses as well as provides training in assessing and treating symptoms of dysfunction and therapeutic use of self and groups. Topics include psychiatric illnesses, symptoms of dysfunction, assessment and treatment of individuals, planning and facilitating therapeutic groups, client safety, and psychosocial aspects of practice. Upon completion, students should be able to plan effectively and conduct individual and group treatment for client conditions related to psychosocial dysfunction recognizing temporal, socioeconomic, and cultural contexts. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

At the completion of this course, the student will be able to:

- A. Seek adequate information prior to acting.
 - 1) Use chart and case review to gather pertinent information
 - 2) Identify common precautions and safety issues in mental health settings of care.
 - 3) Follow correct procedures prior to starting treatment with clients with cognitive impairment or psychosocial impairment.
- B. Use standard occupational therapy principles.
 - 1) Relate the occupational therapy principles to clients treated in psychosocial settings/practice areas.
 - 2) Identify the relationship of different theoretical approaches to occupational therapy principles and treatment in psychosocial practice settings.
- C. Grasp new ideas quickly
 - 1) Discuss practical implications of the use of different theoretical approaches when working with clients with interactional or cognitive/processing conditions.
 - 2) Identify the role of stress in all major interactional or cognitive/processing conditions.
- D. Use tact and diplomacy in mental health situations.
- E. Ask questions to gain appropriate information
 - 1) Appropriately use client interviewing skills.
 - 2) Use terminology and wording of questions to elicit needed information from clients with psychosocial or cognitive deficits.

- F. Use therapeutic communication techniques
 - 1) Use group interaction techniques to guide and direct group activities and process.
 - 2) Use therapeutic interaction skills in one to one treatment situations.
 - 3) Identify and remediate barriers to effective communication with clients with interactional or processing conditions.
 - 4) Identify and use facilitators to effective therapeutic communications.
- G. Demonstrate a caring non-judgmental attitude in all therapeutic interactions.
- H. Use accepted terminology and abbreviations for interactional or processing conditions and practice areas.
- I. Respect client's rights and values.
 - 1) Recognize cultural and religious diversity in assessing and treating clients with interactional or processing conditions.
 - 2) Demonstrate understanding of client's rights and individual values in developing and implementing treatment programs.
 - 3) Describe the basic tenets of a majority of world religions
 - 4) Describe various relationships an individual might have to a religious system or belief set – its impact on mental health and mental illness
 - 5) Define culture, cultural expectations, bias, norms, and isolation
 - 6) Describe the basic norms and expectations for cultures commonly found in this region
- J. Provide for client safety and privacy, with special emphasis on psychosocial settings and cognitive/ processing impairment considerations.
- K. Provide training in community living skills for clients with cognitive, psychological, social skills or affective conditions.
- L. Perform activity analysis.
 - 1) Analyze activities for processing components and considerations.
 - 2) Analyze activities for affective and emotional components and considerations.
 - 3) Analyze activities for social and interactive components and considerations.
 - 4) Analyze social and interactive activities for physical and psychomotor components and considerations.
- M. Practice therapeutic techniques to optimize client safety and social integration.
 - 1) Identify rationale for use of techniques.
 - 2) Identify appropriate situations for use of techniques.
 - 3) Demonstrate correct and appropriate use of techniques in simulated situations.
 - 4) Demonstrate correct use of documentation systems in programs.
- N. Employ group process skills for psychosocial, educational, or community practice settings.

- O. Identify barriers to effective learning for clients with cognitive, psychological, social skills or affective conditions.
- P. Use learning and teaching principles specific to clients with cognitive, psychological, social skills or affective conditions.
- Q. Use appropriate cognitive retraining techniques.
- R. Interact with clients to determine their needs specifically in the areas of cognitive, psychological, social skills or affective conditions.

OUTLINE OF INSTRUCTION:

- I. Review the language of psychiatry and mental illness
 - A. Use of jargon and abbreviations
 - B. Identify resources to assist with learning the language
 - C. Correct use of the language
 - D. Translating psychiatric language to common slang/language
 - E. Use of uniform terminology
- II. Establishing a framework to explore psychosocial deficits
 - A. Diagnosis
 - B. Etiology and Pathology
 - C. Signs and symptoms of dysfunction
 - D. Common procedures, tests and evaluations
 - E. Precautions and safety issues
 - F. Prognosis
 - G. Impact of dysfunction on occupational components and performance areas
- III. Common conditions treated by Occupational Therapy
 - A. Psychiatric diagnoses
 - B. Cognitive impairment
 - C. Multi-system complex medical conditions
 - D. Social deficits
 - E. Other conditions
- IV. Commonly used treatment approaches for psychiatric diagnoses
 - A. Individual psychotherapy
 - B. Group therapy
 - C. Drug therapy
 - D. ECT
 - E. Substance abuse treatment
 - F. Behavior modification therapy
 - G. Behavior management treatment

- H. Family therapy
 - I. Habilitation therapy
 - J. Religious treatment
 - K. Other culturally structured interventions
- V. Cultural identity – understanding other viewpoints and beliefs
- A. Review concepts of culture, cultural behaviors and expectations, and beliefs for cultures common to this region
- VI. Therapeutic use of self as a therapist
- A. Rapport and relationship building
 - B. Communication facilitator
 - C. Reflector - feedback provider
 - D. Reinforcer
 - E. Group leader & facilitator
 - F. Identify barriers and facilitators of communication
 - G. Non-verbal and verbal behaviors
- VII. Group process and behaviors
- A. Types of groups
 - B. Roles in groups
 - C. Group dynamics
 - D. Therapist's responsibilities
 - E. Group management
 - F. Team building
- VIII. Theoretical approaches for occupational therapy in mental health
- A. Behavioral & cognitive behavioral
 - B. Neuroscientific - cognitive disabilities & neurodevelopmental/ sensory integrative
 - C. Developmental – adaptive skills & role acquisition & social skills
 - D. Client-Centered Therapy - Model of Human Occupation
 - E. Psychiatric rehabilitation – psychoeducational model & Model of Human Occupation
- IX. Therapeutic techniques for optimizing client interactional behaviors
- A. Formal training options
 - B. Application of therapeutic use of self
 - C. Verbal and non-verbal behavior to foster control
 - D. Situational role play
- X. Cognitive/processing function and dysfunction
- A. Sensory processing
 - B. Perceptual processing
 - C. Basic cognitive skills
 - D. Executive function skills

- XI. Stress and response to stressors as a common thread in psychosocial deficits.
 - A. Biopsychosocial model
 - B. Adaptation theories
 - C. Homeostatic reserve
 - D. Autonomic responses
 - E. Chronic exposure
 - F. Stress management & reduction
 - G. Awareness and feedback
- XII. Emphasis on independent living with a variety of client populations
 - A. Move from residential programs to community programming
 - B. Move from traditional programming to non-traditional programming
 - C. Non-traditional populations
 - D. Non-traditional settings
- XIII. Trends in Occupational Therapy and mental health practice
 - A. Practice opportunities
 - B. Funding limitations
 - C. Roles & responsibilities

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OTA 220 OT MEDIA II

COURSE DESCRIPTION:

Prerequisites: OTA 120, OTA 130 and OTA 170

Corequisites: None

This course provides training in appropriate and accurate assessment and intervention skills related to orthotics, prosthetics, assistive devices, environmental controls, and Americans with Disabilities Act (ADA) issues. Topics include ergonomics and hand function, splint selection/fabrication, changes that improve access for persons with disabilities, use of modalities in treatment, and computers in occupational therapy intervention. Upon completion, students should be able to demonstrate proficiency in fabricating and monitoring orthotic devices, constructing and modifying assistive devices, using ADA guidelines, and using computers for therapeutic purposes. Course Hours Per Week: Class, 1. Lab, 6. Semester Hours Credit, 3.

LEARNING OUTCOMES:

At the completion of this course, the student will be able to:

- A. Seek adequate information prior to acting
 - 1. Prioritizing assessment, treatment, equipment, environmental modification, or orthotic with OT/L consultation.
 - 2. Differentiating between adequate and inadequate information in simulated situations
 - 3. Use selected assessment tools and maneuvers to gain sufficient information to develop recommendations
- B. Read and use technical and instructional manuals
 - 1. Demonstrate ability to use ADA information, ergonomic information, and building code and architectural information in making recommendations.
 - 2. Demonstrate ability to use splinting material information and patterns to make appropriate orthotic devices in simulated situations.
- C. Use problem solving and critical thinking skills in
 - 1. Orthotics fabrication
 - 2. Adaptive device construction
 - 3. Adapted clothing modification
 - 4. Environmental assessments
 - 5. Assessment and treatment session planning for simulated client situations
- D. Work under time pressure to complete thoroughly and efficiently
 - 1. Environmental assessment and documentation
 - 2. Assistive device construction and documentation

3. Assessment and treatment session with a simulated client situation
 4. All other course assignments and tests Orthotics fabrication and documentation
- E. Listen attentively and effectively to client communications regarding
1. interests, abilities, and needs
 2. concerns and progress
- F. Express ideas clearly in oral presentation regarding
1. Orthotic fabrication, application and evaluation of benefit.
 2. Adaptive equipment construction and use
 3. Results of environmental assessment under ADA guidelines
- G. Interact with and assess clients to determine their needs for orthotics, prosthetics, adaptive devices or environmental modifications.
- H. Express ideas clearly in written reports regarding:
1. The status of the individual prior to, during, and following the fabrication, application, and use of an orthotic device.
 2. An environmental assessment for modifications and adaptations based on a variety of information sources.
- I. Interact with sales representatives and manufacturers regarding the ordering, purchasing, installation, fitting and training for adaptive equipment, prosthetics, orthotics and environmental modifications.
- J. Demonstrate ability to use ADA and other regulations to advocate for universal design, integration of individuals with disabilities into public, work, educational, social settings.
1. Identify barriers and facilitators of integration of individuals with disabilities into public, work, and educational settings.
 2. Plan an intervention to overcome blocks in integration of individuals with disabilities into public, work, and educational settings using appropriate intervention strategies.
 3. Write effective business correspondence regarding the justification of environmental changes, installation of adaptive equipment or availability of special accommodations based on occupational therapy assessment and recommendations.
 4. Use tact and diplomacy to negotiate a change in the accessibility of a facility, area or business.
- K. Respect clients' rights and values in assessing and intervening with devices and environmental changes.
- L. Assist with data collection and evaluation under the supervision of an OTR/L in the areas of orthotics, prosthetics, adaptive equipment, and environmental modifications.
- M. Maintain treatment area, equipment and supply inventory as required during task performance.

- N. Apply principles of occupational therapy theory and practice in the areas of orthotics, prosthetics, adaptive equipment, and environmental modifications.
- O. Adapt treatment environment, tools, materials, and activities according to the needs of the individual and their social, personal, temporal, and cultural contexts under the supervision of an OTR/L.
- P. Provide for client safety and privacy during fabrication, fitting, application and monitoring activities.

OUTLINE OF INSTRUCTION:

- I. Review the process of translating assessment findings into interventions
- II. Review biomechanical principles
- III. Review applied kinesiology
- IV. Motor control theories
 - A. Review of theories
 - B. Treatment
- V. Functional mobility
 - A. review of functional mobility
 - B. transfers (car & toilet)
 - C. gait and locomotion
 - D. w/c propulsion
- VI. W/C seating and fitting
- VII. Orthotic Devices – assessment, construction, application, documentation
- VIII. Adaptive Equipment - assessment, construction, application, documentation
- IX. Ergonomics & Workplace Assessments
 - A. Definitions
 - B. Purposes
 - C. Principles
 - D. Interventions
 - E. Roles for COTAs and OTRS
- X. Assistive technology

XI. ADA Guidelines and interventions

XII. Review and application of assessment and intervention skills

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OTA 240
PROFESSIONAL SKILLS II

COURSE DESCRIPTION:

Prerequisites: OTA 140

Corequisites: None

This course builds upon and expands skills developed in OTA 140 with emphasis on documentation, supervisory relationships, involvement in the profession, and clinical management skills. Topics include clarification of roles and responsibilities, detailed examination of the supervisory process, professional participation in organizations, and the mechanics of assisting in clinic operations. Upon completion, students should be able to work effectively with a supervisor, plan and implement a professional activity, and perform routine clinic management tasks. Course Hours Per Week: Lab, 3. Semester Hours Credit, 1.

LEARNING OUTCOMES:

Upon successful completion, the student will be able to:

- A. Work effectively with close supervision of an OT/L.
 - 1) Demonstrate ability to accept close supervision
 - 2) Demonstrate appropriate professional work behaviors:
 - Punctuality/Dependability
 - Professional Appearance and Attitude
 - Initiative
 - Empathy
 - Effective communication during group-work with peers and the OT community
 - Organization
 - Time Management
- B. Communicate effectively in order to function as a member of the health care team
 - 1) Demonstrate ability to express self effectively in verbally, non-verbally and in written contexts
 - 2) Demonstrate ability to give and receive constructive feedback
 - 3) Evaluate effectiveness of own behavior. Identify when to change behavior and adjust behavior as needed.
 - 4) Demonstrate effective conflict resolution skills.
- C. Manage time effectively to function on the job
 - 1) Demonstrate ability to plan and organize assignments and activities
 - 2) Demonstrate ability to manage time to meet pre-scheduled deadlines
 - 3) Demonstrate ability to prioritize schedule to meet predetermined requirements
- D. Participate in professional and community activities
 - 1) Network with community and professional organizations during planning and participation in a professional activity
 - 2) Demonstrate effective written communication skills, effective telephone skills, and effective personal communication skills
 - 3) Use Public Relations to Promote OT
- E. Assist in the Clinic Management of Occupational Therapy
 - 1) Demonstrate ability to perform inventory and organization of equipment, supplies and professional files.

OUTLINE OF INSTRUCTION:

- I. Review of Professional Skills
 - A. Work Behaviors
 - 1) Punctuality/Dependability
 - 2) Professional Appearance and Attitude
 - 3) Initiative
 - 4) Supervisory Relationship
 - 5) Effective group work with peers and the OT community
 - B. Time Management
 - 1) Organization
 - 2) Scheduling
 - 3) Personal time management
 - 4) Daily prioritization
 - 5) Professional responsibilities
 - C. Communication Skills
 - 1) Personal and professional communication goal setting
 - 2) Documenting Outcomes (data collection for goal achievement and supervisory logs)
 - 3) Giving and receiving feedback
 - 4) Using feedback to change behavior
 - 5) Verbal/Non-Verbal Communication Skills
 - 6) Conflict Resolution Skills
 - 7) Assertive, Passive, Aggressive Communication styles
 - 8) Communicating in a group
 - D. Professional Development
 - 1) Networking with community and professional organizations
 - a. Effective written communication skills
 - b. Effective telephone communication skills
 - c. Effective personal communication skills
 - 2) Planning and participation in a professional activity
 - 3) Using Public Relations to Promote OT
 - E. Clinic Management
 - 1) Inventory and Organization
 - 2) Equipment and Supplies
 - 3) Scheduling

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OTA 240
PROFESSIONAL SKILLS II

COURSE DESCRIPTION:

Prerequisites: OTA 140

Corequisites: None

This course builds upon and expands skills developed in OTA 140 with emphasis on documentation, supervisory relationships, involvement in the profession, and clinical management skills. Topics include clarification of roles and responsibilities, detailed examination of the supervisory process, professional participation in organizations, and the mechanics of assisting in clinic operations. Upon completion, students should be able to work effectively with a supervisor, plan and implement a professional activity, and perform routine clinic management tasks. Course Hours Per Week: Lab, 3. Semester Hours Credit, 1.

COURSE OBJECTIVES:

Upon successful completion, the student will be able to:

- A. Work effectively with close supervision of an OT/L.
 - 1) Demonstrate ability to accept close supervision
 - 2) Demonstrate appropriate professional work behaviors:
 - Punctuality/Dependability
 - Professional Appearance and Attitude
 - Initiative
 - Empathy
 - Effective communication during group-work with peers and the OT community
 - Organization
 - Time Management
- B. Communicate effectively in order to function as a member of the health care team
 - 1) Demonstrate ability to express self effectively in verbally, non-verbally and in written contexts
 - 2) Demonstrate ability to give and receive constructive feedback
 - 3) Evaluate effectiveness of own behavior. Identify when to change behavior and adjust behavior as needed.
 - 4) Demonstrate effective conflict resolution skills.
- C. Manage time effectively to function on the job
 - 1) Demonstrate ability to plan and organize assignments and activities
 - 2) Demonstrate ability to manage time to meet pre-scheduled deadlines
 - 3) Demonstrate ability to prioritize schedule to meet predetermined requirements
- D. Participate in professional and community activities
 - 1) Network with community and professional organizations during planning and participation in a professional activity
 - 2) Demonstrate effective written communication skills, effective telephone skills, and effective personal communication skills
 - 3) Use Public Relations to Promote OT
- E. Assist in the Clinic Management of Occupational Therapy
 - 1) Demonstrate ability to perform inventory and organization of equipment, supplies and professional files.

OUTLINE OF INSTRUCTION:

- I. Review of Professional Skills
 - A. Work Behaviors
 - 1) Punctuality/Dependability
 - 2) Professional Appearance and Attitude
 - 3) Initiative
 - 4) Supervisory Relationship
 - 5) Effective group work with peers and the OT community
 - B. Time Management
 - 1) Organization
 - 2) Scheduling
 - 3) Personal time management
 - 4) Daily prioritization
 - 5) Professional responsibilities
 - C. Communication Skills
 - 1) Personal and professional communication goal setting
 - 2) Documenting Outcomes (data collection for goal achievement and supervisory logs)
 - 3) Giving and receiving feedback
 - 4) Using feedback to change behavior
 - 5) Verbal/Non-Verbal Communication Skills
 - 6) Conflict Resolution Skills
 - 7) Assertive, Passive, Aggressive Communication styles
 - 8) Communicating in a group
 - D. Professional Development
 - 1) Networking with community and professional organizations
 - a. Effective written communication skills
 - b. Effective telephone communication skills
 - c. Effective personal communication skills
 - 2) Planning and participation in a professional activity
 - 3) Using Public Relations to Promote OT
 - E. Clinic Management
 - 1) Inventory and Organization
 - 2) Equipment and Supplies
 - 3) Scheduling

REQUIRED TEXTBOOKS AND MATERIALS:

None required. Articles and resources are identified by the instructor and students during the course.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 686-3652 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.

OTA 245
PROFESSIONAL SKILLS III

COURSE DESCRIPTION:

Prerequisites: OTA 240

Corequisites: None

This course provides preparation for Fieldwork II experiences using skills and knowledge gained in OTA 140 and OTA 240 to promote integration into the professional community. Topics include interview skills, résumé production, conflict resolution, professional presentations, participation in research activities, and completion of all forms required for Fieldwork II. Upon completion, students should be able to complete independently employment-seeking activities and provide in-service training. Course Hours Per Week: Lab, 3. Semester Hours Credit, 1.

LEARNING OUTCOMES:

At the completion of this course the student will be able to:

A. Function effectively on the job

1. Manage time effectively
 - a) Participate in a job interview in a timely manner
 - b) Conduct an in-service in the time allotted
 - c) Complete activity related to research in specified time frame
2. Identify personal and professional goals
 - a) Select two employment options based on goals
 - b) Compare two employment options based on goals
 - c) Contribute to continuing education effort based on goals
 - d) Establish personal goals for in-service training
3. Complete work in a timely fashion
 - a) all assignments will completed in established time frames
 - b) all aspects of the job selection and interview will be completed within preset time limits
4. Accept direction and supervision willingly
 - a) work with instructor to plan and implement a poster session
 - b) integrate instructor feedback into in-service programming a constructive and positive manner
5. Maintain records consistent with requirements of ethical and legal research

B. Communicate effectively

1. Express ideas clearly in oral presentations
 - a) conduct an in-service training program
 - b) complete research presentation
 - c) participate in an employment interview

2. Ask questions to gain appropriate information
 - a) Participate effectively in a job interview
 - b) Formulate an appropriate research question based on research review and occupational therapy practice
3. Express ideas clearly in written reports
 - a) produce a resume
 - b) produce correspondence appropriate for the employment process
 - c) complete an advocacy project report
4. Use therapeutic communication techniques
 - a) during the interview process
 - b) during the in-service activity
 - c) during the process of policy and procedure discussion
5. Identify barriers and facilitators of communication and intervene to overcome blocks during the in-service activity
6. Evaluate the effectiveness of communication
 - a) evaluation of in-service and interview
 - b) comparison of self-evaluation with feedback
7. Communicate professionally with peers, supervisors, instructors, and other health care team members

C. Demonstrate professionalism

1. respect clients' rights and values during research activities
2. following established guidelines and policies for:
 - a) the continuing education activity
 - b) the in-service activity
 - c) the policy and procedure discussion
3. function within the ethical and legal scope of occupational therapy practice
 - a) while conducting research activities
 - b) while conducting in-service training
 - c) during the development of policies, procedures and group protocols
 - d) while engaged in employment interviews and activities
4. Offer assistance to colleagues during activities
5. Recognize own strengths and weaknesses
 - a) during presentations
 - b) during interactions
 - c) during group planning and implementation activities

6. Maintain confidentiality of information
 - a) during course activities
 - b) during employment activities and simulations
 7. Maintain a professional appearance and attitude
 - a) dress and properly prepare for employment activities
 - b) maintain a professional demeanor during the in-service training activity
 - c) conduct self professionally during negotiations for policy and procedure changes
 8. Participate in professional and community services in the planning and implementation of the continuing education activity
 9. Function according to the AOTA ethical code and standards of the profession during the course of all activities and inquiries
- D. Assist in the management of Occupational Therapy services
- a) Assist with data collection in the course of researching a topic for advocacy
 - b) Perform program evaluation and continuous quality assurance activities under the guidance of more experienced therapists and other professionals
 - c) Develop and conduct an in-service to meet identified needs
 - d) Collaborate to develop policies and procedures necessary to the proper conduct of occupational therapy services
 - e) Educate others in the area of established service competency under the supervision of an OT/L

OUTLINE OF INSTRUCTION:

- I. Employment Options
 - A. Identify options
 - B. Investigate options
 - C. Participate in interview
 - D. Determine employment option to be selected
 - E. Notification of potential employers
- II. Resume Production
 - A. Content
 - B. Appearance
 - C. Purpose
 - D. Cover letter
- III. Job Interviews
 - A. Initial contact
 - B. Setting up the interview
 - C. Appearance
 - D. Timeliness

- E. Preparation
 - F. Seeking information
 - G. Giving information
 - H. Concluding the interview
 - I. Follow up contact
 - J. Paperwork completion
- IV. Reading and Understanding Topic for Advocacy
- A. Sources of information
 - B. Value of research and advocacy in practice
 - C. Evaluating published research and information
 - D. Applying results and findings to the practice setting
- V. Developing Practice Oriented Research Questions
- VI. Understanding and Participating in the Research Process
- A. Review of the research process
 - B. Options for participation
 - C. Responsibilities
 - D. Rights
- VII. Participation in Organizations
- A. Types of organizations
 - B. Options for participation
 - C. Preparing and presenting an educational program
- VIII. Providing an In-service
- A. Determine topic
 - B. Negotiate for the in-service
 - C. Research topic
 - D. Determine critical information to present
 - E. Organize information
 - F. Identify experiential sharing
 - G. Develop pre-test
 - H. Offer in-service
 - I. Evaluate the presentation and reception of information
 - J. Conduct follow-up review of the results of the in-service
- IX. Developing Programs
- A. Identify group/program
 - B. Identify target audience
 - C. Set goals for group/program
 - D. Set up group/program format
 - E. Set up group/program process
 - F. Develop additional supportive procedures/policies as needed

- X. Developing Policies and Procedures
 - A. Identify policy or procedure needs
 - B. Consult with others on the issues
 - C. Arrange and conduct meetings of interested parties
 - D. Help formulate procedures
 - E. Test out possible options
 - F. Finalize procedures or policies
 - G. Review & revise policies and procedures on a regular basis
- XI. Program Evaluation (QA, QI, & TQI)
 - A. Researching an area
 - B. Using different programs
- XII. Professional Development
 - A. Internal
 - B. Local
 - C. Regional
 - D. National
 - E. Sources of funding
 - F. Developing supportive documentation

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.

OTA 250 LIFE SPAN SKILLS II

COURSE DESCRIPTION:

Prerequisites: OTA 130

Corequisites: PSY 241, OTA 164, OTA 170, and OTA 180

This course uses knowledge gained from PSY 241 as it applies to occupational therapy practice from young adulthood through old age. Emphasis is on identification and discussion of common disabilities and chronic diseases, assessments, planning and interventions used with these populations, and activity programming. Upon completion, students should be able to identify and use assessments, interventions, and activities for adults with selected disabilities and losses in various settings. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

At the completion of this course the student will be able to:

- A. Work effectively with the supervision of an OTR/L during coursework.
 - 1.) Observe an OT-OTA relationship in a geriatric setting
 - 2.) Successfully complete laboratory and clinical experiences
 - 3.) Interact effectively with at least one OT supervisor in a geriatric setting
- B. Demonstrate knowledge of COTA and activity coordinator role in geriatric settings.
- C. Express ideas clearly in written reports and follow criteria established for all assignments
- D. Demonstrate a caring non-judgmental attitude with all older adults and their caregivers during simulated and clinical activities.
- E. Participate in developing geriatric treatment plans for selected client conditions
- F. Use all possible therapeutic approaches in planning treatment for older clients, settings, and caregivers.
- G. Discuss and compare biological theories of aging
- H. Discuss and compare social and psychological theories of the aging process
- I. Describe federal, state, regional, private, and religious programs and resources, reimbursement and funding, and their impact on OT services for the elderly.
- J. Apply knowledge of Medicare and Medicaid guidelines and regulations to practice with older adults.
- K. Describe and discuss physiological and psychological changes that occur with advancing age in functional areas of sensory, motor, and cognition.
- L. Describe and discuss interactional changes that accompany aging.
- M. Describe and discuss common changes in areas of occupation changes that accompany aging.
- N. Describe and understand common conditions/diseases that occur in the older population.
- O. Discriminate between common aging changes in all performance skills, client factors, body structures and common medical or psychiatric conditions in the older population.

- P. Demonstrate skill in interacting therapeutically with clients experiencing significant sensory, processing or motor losses to optimize function, engagement, and benefit of treatment.
- Q. Participate in a team discussion of selected older simulated clients
- R. Compare and contrast the impact of social and cultural events and life experiences on cohorts of older adults
- S. Compare and contrast the impact of religion and spirituality as it relates to older adults.
- T. Discuss end of life issues and the role of OT in hospice and end-of-life care for older adults and their caregivers.
- U. Plan, conduct, and evaluate a teaching activity with older adults or their caregivers on a self-selected topic.

OUTLINE OF INSTRUCTION:

- I. Overview of gerontology/geriatrics
 - a.) Graying of America
 - b.) Normal aging processes vs. pathology
 - c.) Environmental, life-long habits, and genetic influences on aging
 - d.) Theories of aging
 - e.) Social and cultural biases on aging
- II. Review typical & atypical age-related development & changes:
 - a.) Physical & physiological changes
 - b.) Sensory changes and compensations
 - c.) Cognitive changes
 - d.) Social changes
 - e.) Nutritional needs & changes
 - f.) Chronic diseases
 - g.) Psychosocial changes
 - h.) End of life
- III. Common deficits in areas of occupation for the older adult
- IV. Review of world religions, spirituality, and belief systems as they relate to older adults
- V. Occupational Therapy intervention with geriatric populations
 - A. Roles for OTAs and OTs in geriatric treatment settings
 - B. Settings of care
 - C. Assessments & protocols
 - D. Treatment planning & goal selection
 - E. Continuity of care
 - F. Focus of interventions
 - 1.) treating the individual
 - 2.) treating in groups
 - 3.) facility programming
 - 4.) environmental adaptations

- VI. Documentation
- VII. Roles and responsibilities of activity coordinators
 - A. History of the profession
 - B. Philosophies of activity programs
 - C. Professional standards
 - D. Role of activities in residents rights issues
 - E. Guidelines for activity coordination
 - F. Settings for activity programs
 - G. Populations involved in activity programs
- VIII. Developing programs in geriatric settings
 - A. Needs assessment of the facility
 - B. Client/resident assessments
 - C. Interpreting OBRA regulations
 - D. Communicating effectively with residents of various levels
 - E. Developing working relationships with other disciplines
 - F. Developing specific programs and groups
 - G. Modalities
 - H. Residents councils
 - I. Safety issues

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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OTA 260
FIELDWORK II - Placement 1

COURSE DESCRIPTION:

Prerequisites: Successful completion of all required OTA curriculum courses except OTA 261 and OTA 280

Corequisites: This course must be completed within 18 months of the completion of all other OTA course work

This course provides clinical experience under the direct supervision of experienced and licensed Occupational Therapist Registered or Certified Occupational Therapy Assistant personnel working in various practice settings. Emphasis is on final clinical preparation for entry-level practice in the profession. Upon completion, students should be able to meet all critical competencies established by the curriculum and the American Occupational Therapy Association guidelines for entry-level practice. Course Hours Per Week: Clinical, 18. Semester Hours Credit, 6.

LEARNING OUTCOMES:

At the completion of this course the student will be able to:

- A. Practice functioning effectively on the job
 - 1. Work effectively under the supervision of an OT/L
 - 2. Function as a member of a team
 - 3. Manage time effectively
 - 4. Use standard occupational therapy principles
 - 5. Accept direction and supervision willingly
 - 6. Maintain records consistent with agency requirements
- B. Practice effective communication skills
 - 1. Listen attentively
 - 2. Express ideas clearly in oral presentations
 - 3. Appropriately ask questions to gain necessary information
 - 4. Interact with clients to determine their needs
 - 5. Express ideas clearly in written reports
 - 6. Demonstrate professional telephone skills
 - 7. Use tact and diplomacy
 - 8. Write legibly
 - 9. Use therapeutic communication techniques
 - 10. Demonstrate a caring and non-judgmental attitude
 - 11. Intervene to overcome barriers to communication
 - 12. Coordinate care with other health team members
 - 13. Communicate professionally with peers, physicians, instructors and other team members
 - 14. Use accepted terminology and abbreviations
 - 15. Report errors, omissions, and changes in client status immediately to the appropriate person
 - 16. Document occupational therapy activities and assess client goal achievement
 - 17. Document according to agency policy
 - 18. Communicate with clients at their level
 - 19. Establish effective and appropriate support network in the clinical setting

- C. Demonstrate professionalism in clinical setting
 - 1. Respect clients' rights and values
 - 2. Follow agency's policies and procedures
 - 3. Assume appropriate responsibility for client care
 - 4. Offer assistance to staff and colleagues
 - 5. Prepare for clinical assignments
 - 6. Recognize own strengths and weaknesses
 - 7. Maintain confidentiality of information
 - 8. Maintain a professional appearance and attitude
 - 9. Function according to the AOTA ethical code and standards of the profession
 - 10. Demonstrate initiative in independent learning
- D. Use the occupational therapy process in the clinical setting
 - 1. Screen and assess the need for intervention
 - 2. Participate in developing treatment plans
 - 3. Implement intervention
 - 4. Reassess the effectiveness of intervention and recommend continued or changed treatment
 - 5. Assist in summarizing outcomes and recommendations to maximize treatment gains
- E. Assist in the Management of Occupational Therapy Services during affiliation
 - 1. Assist with data collection and assessment under the supervision of a therapy practitioner
 - 2. Participate in quality assurance or program evaluation activities
 - 3. Maintain treatment area, equipment, and supply inventory as required by the agency
 - 4. Schedule and prioritize workload with supervisor's assistance
 - 5. Participate in organizational activities and committees
 - 6. Educate others in the area of an established service competency under the supervisor's guidance
 - 7. Contribute to program planning and development in collaboration with the supervisor
- F. Provide Occupational Therapy services under OT/L supervision
 - 1. Apply principles of occupational therapy theory and practice
 - 2. Provide direct service that follows a documented routine and accepted procedure under the supervisor's direction
 - 3. Adapt treatment environment, tools, materials and activities according to the needs of the individual and their sociocultural context
 - 4. Administer standardized tests under the supervision of the therapist after service competence has been established
 - 5. Modify treatment approaches to reflect changing needs with supervision
 - 6. Assist in the formulation of discontinuation plans
 - 7. Explain rationale for procedures, treatment and occupational therapy measures
 - 8. Provide for client safety and privacy
 - 9. Practice proper body mechanics
 - 10. Assist client with activities of daily living
 - 11. Identify and report emergencies
 - 12. Position and transport clients
 - 13. Maintain infection control standards
- G. Use Special Occupational Therapy procedures in clinical setting
 - 1. Fabricate, apply and monitor orthotic devices
 - 2. Recommend appropriate adaptive devices
 - 3. Provide seating and positioning adaptations
 - 4. Use compensatory and restorative self-care techniques

5. Use assistive technologies
 6. Use appropriate cognitive retraining techniques
 7. Provide training in community training techniques
 8. Use therapeutic media techniques
 9. Perform activity analysis
 10. Employ group process skills
 11. Practice appropriate behavior management techniques
- H. Perform Client and Family Teaching Under Supervisor's Guidance
1. Assess learning needs
 2. Prioritize teaching with therapist assistance
 3. Teach appropriate information
 4. Incorporate discharge teaching into treatment program
 5. Incorporate family's developmental level in the plan
 6. Evaluate the effectiveness of teaching
 7. Assist with referrals to community resources
- I. Demonstrate skills necessary to function as an entry level OTA in this setting under the guidance and direction of a supervisor

OUTLINE OF INSTRUCTION:

- I. Orientation to the agency and department
 - A. Introduction to personnel and organizational structure
 - B. Review of policies and procedures for members of the department
 - C. Review of objectives and grading criteria for the affiliation
 - D. Tour of agency and department
 - E. Allocation of student space and resources
 - F. Explanation of expectations of appearance, attitude and behavior
 - G. Review of expectation regarding documentation
 - H. Other orientation activities
- II. Observe supervisor and therapist activities
 - A. Identify treatment approaches and principles used
 - B. Identify assessment findings and treatment plans
 - C. Discuss observations appropriately with therapist/supervisor
 - D. Discuss therapist expectations regarding student performance
 - E. Review all written documentation of the treatment process
 - F. Discuss plan for integration of the student into the treatment and documentation process
- III. Participate in clinical activities
 - A. Assist with assessment and screening
 - B. Assist with treatment planning
 - C. Assist with treatment sessions and intervention
 - D. Assist with reassessment
 - E. Assist with continuation or modification of treatment programming
 - F. Assist with summarizing outcomes and making recommendations for maximizing treatment outcomes
 - G. Assist with all aspects of documentation
 - H. Discuss plan to integrate the student into leadership responsibilities for treatment and progress reports

- IV. Take primary responsibilities for selected treatment programs under the supervision of a therapist or OT/L
 - A. Conduct selected assessments
 - B. Report results in accepted fashion
 - C. Participate in treatment planning activities for selected clients
 - D. Conduct treatment sessions
 - E. Continue or modify treatment sessions
 - F. Document results of treatment in acceptable manner
 - G. Reassess clients and report findings to therapist
 - H. Make appropriate recommendations for client care
 - I. Discontinue treatment in an appropriate and timely manner
 - J. Complete all assigned responsibilities in a timely and efficient manner

- V. Conclude the affiliation
 - A. Complete all written work
 - B. Complete all clinical work
 - C. Terminate with clients
 - D. Terminate with the agency
 - E. Complete all other assigned responsibilities

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined by the instructor

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OTA 261
FIELDWORK II – Placement 2

COURSE DESCRIPTION:

Prerequisites: Successful completion of all required OTA curriculum courses except OTA 260 and OTA 280

Corequisites: This course must be completed within 18 months of the completion of all other OTA course work

This course provides clinical experience under the direct supervision of experienced and licensed Occupational Therapist Registered or Certified Occupational Therapy Assistant personnel working in various practice settings. Emphasis is on final clinical preparation for entry-level practice in the profession. Upon completion, students should be able to meet all critical competencies established by the curriculum and the American Occupational Therapy Association guidelines for entry-level practice. Course Hours Per Week: Clinical, 18. Semester Hours Credit, 6.

LEARNING OUTCOMES:

At the completion of this course the student will be able to:

A. Practice functioning effectively on the job

1. Work effectively under the supervision of an OT/L
2. Function as a member of a team
3. Manage time effectively
4. Use standard occupational therapy principles
5. Accept direction and supervision willingly
6. Maintain records consistent with agency requirements

B. Practice effective communication skills

1. Listen attentively
2. Express ideas clearly in oral presentations
3. Appropriately ask questions to gain necessary information
4. Interact with clients to determine their needs
5. Express ideas clearly in written reports
6. Demonstrate professional telephone skills
7. Use tact and diplomacy
8. Write legibly
9. Use therapeutic communication techniques
10. Demonstrate a caring and non-judgmental attitude
11. Intervene to overcome barriers to communication
12. Coordinate care with other health team members
13. Communicate professionally with peers, physicians, instructors and other team members
14. Use accepted terminology and abbreviations
15. Report errors, omissions, and changes in client status immediately to the appropriate person
16. Document occupational therapy activities and assess client goal achievement
17. Document according to agency policy
18. Communicate with clients at their level
19. Establish effective and appropriate support network in the clinical setting

- C. Demonstrate professionalism in clinical setting
 - 1. Respect clients' rights and values
 - 2. Follow agency's policies and procedures
 - 3. Assume appropriate responsibility for client care
 - 4. Offer assistance to staff and colleagues
 - 5. Prepare for clinical assignments
 - 6. Recognize own strengths and weaknesses
 - 7. Maintain confidentiality of information
 - 8. Maintain a professional appearance and attitude
 - 9. Function according to the AOTA ethical code and standards of the profession
 - 10. Demonstrate initiative in independent learning
- D. Use the occupational therapy process in the clinical setting
 - 1. Screen and assess the need for intervention
 - 2. Participate in developing treatment plans
 - 3. Implement intervention
 - 4. Reassess the effectiveness of intervention and recommend continued or changed treatment
 - 5. Assist in summarizing outcomes and recommendations to maximize treatment gains
- E. Assist in the Management of Occupational Therapy Services during affiliation
 - 1. Assist with data collection and assessment under the supervision of a therapy practitioner
 - 2. Participate in quality assurance or program evaluation activities
 - 3. Maintain treatment area, equipment, and supply inventory as required by the agency
 - 4. Schedule and prioritize workload with supervisor's assistance
 - 5. Participate in organizational activities and committees
 - 6. Educate others in the area of an established service competency under the supervisor's guidance
 - 7. Contribute to program planning and development in collaboration with the supervisor
- F. Provide Occupational Therapy services under OT/L supervision
 - 1. Apply principles of occupational therapy theory and practice
 - 2. Provide direct service that follows a documented routine and accepted procedure under the supervisor's direction
 - 3. Adapt treatment environment, tools, materials and activities according to the needs of the individual and their sociocultural context
 - 4. Administer standardized tests under the supervision of the therapist after service competence has been established
 - 5. Modify treatment approaches to reflect changing needs with supervision
 - 6. Assist in the formulation of discontinuation plans
 - 7. Explain rationale for procedures, treatment and occupational therapy measures
 - 8. Provide for client safety and privacy
 - 9. Practice proper body mechanics
 - 10. Assist client with activities of daily living
 - 11. Identify and report emergencies
 - 12. Position and transport clients
 - 13. Maintain infection control standards
- G. Use Special Occupational Therapy procedures in clinical setting
 - 1. Fabricate, apply and monitor orthotic devices
 - 2. Recommend appropriate adaptive devices
 - 3. Provide seating and positioning adaptations
 - 4. Use compensatory and restorative self-care techniques

5. Use assistive technologies
 6. Use appropriate cognitive retraining techniques
 7. Provide training in community training techniques
 8. Use therapeutic media techniques
 9. Perform activity analysis
 10. Employ group process skills
 11. Practice appropriate behavior management techniques
- H. Perform Client and Family Teaching Under Supervisor's Guidance
1. Assess learning needs
 2. Prioritize teaching with therapist assistance
 3. Teach appropriate information
 4. Incorporate discharge teaching into treatment program
 5. Incorporate family's developmental level in the plan
 6. Evaluate the effectiveness of teaching
 7. Assist with referrals to community resources
- I. Demonstrate skills necessary to function as an entry level OTA in this setting under the guidance and direction of a supervisor

OUTLINE OF INSTRUCTION:

- I. Orientation to the agency and department
 - A. Introduction to personnel and organizational structure
 - B. Review of policies and procedures for members of the department
 - C. Review of objectives and grading criteria for the affiliation
 - D. Tour of agency and department
 - E. Allocation of student space and resources
 - F. Explanation of expectations of appearance, attitude and behavior
 - G. Review of expectation regarding documentation
 - H. Other orientation activities
- II. Observe supervisor and therapist activities
 - A. Identify treatment approaches and principles used
 - B. Identify assessment findings and treatment plans
 - C. Discuss observations appropriately with therapist/supervisor
 - D. Discuss therapist expectations regarding student performance
 - E. Review all written documentation of the treatment process
 - F. Discuss plan for integration of the student into the treatment and documentation process
- III. Participate in clinical activities
 - A. Assist with assessment and screening
 - B. Assist with treatment planning
 - C. Assist with treatment sessions and intervention
 - D. Assist with reassessment
 - E. Assist with continuation or modification of treatment programming
 - F. Assist with summarizing outcomes and making recommendations for maximizing treatment outcomes
 - G. Assist with all aspects of documentation
 - H. Discuss plan to integrate the student into leadership responsibilities for treatment and progress reports

- IV. Take primary responsibilities for selected treatment programs under the supervision of a therapist or OTA/L
 - A. Conduct selected assessments
 - B. Report results in accepted fashion
 - C. Participate in treatment planning activities for selected clients
 - D. Conduct treatment sessions
 - E. Continue or modify treatment sessions
 - F. Document results of treatment in acceptable manner
 - G. Reassess clients and report findings to therapist
 - H. Make appropriate recommendations for client care
 - I. Discontinue treatment in an appropriate and timely manner
 - J. Complete all assigned responsibilities in a timely and efficient manner

- V. Conclude the affiliation
 - A. Complete all written work
 - B. Complete all clinical work
 - C. Terminate with clients
 - D. Terminate with the agency
 - E. Complete all other assigned responsibilities

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

OTA 280

PROFESSIONAL TRANSITION

COURSE DESCRIPTION:

Prerequisites: OTA 260 or OTA 261

Corequisites: Enrollment in either OTA 260 or OTA 261

This course provides closure to the educational program following Fieldwork II placements. Emphasis is on portfolio development and presentation, program evaluation, Fieldwork II experience analysis and synthesis, and final preparation for the certification examination. Upon completion, students should be able to enter the occupational therapy work force with supportive documentation demonstrating progress toward meeting critical competencies set forth by the curriculum. Course Hours Per Week: Lab, 2. Semester Hours Credit, 1.

LEARNING OUTCOMES:

At the completion of this course, the student will be able to:

- A. Function effectively on the job
 - 1. Recognize impact of affiliation experiences on educational experience
 - 2. Identify the degree to which the affiliation experiences assisted in the achievement of personal goals and objectives
 - 3. Discuss the relationship of facility objectives and policies with student objectives and goals
 - 4. Assume leadership for one discussion topic and provide necessary organizational structure for the team to complete the task assignments within the established framework
- B. Communicate effectively
 - 1. Obtain information from classmates regarding their experiences to develop a team report on affiliation experiences
 - 2. Express ideas clearly and concisely in group discussions
 - 3. Provide clear and thorough written documentation of results of group discussion
 - 4. Demonstrate use of therapeutic communication techniques during discussion sessions with team members
 - 5. Identify barriers and facilitators of communication at three points during the team discussions
 - 6. Modify the team/group process to overcome identified problems in effective communication among all members
 - 7. Evaluate the effectiveness of communication and leadership skills through the use of self, peer, and instructor feedback
- C. Demonstrate professionalism
 - 1. Complete all paperwork necessary for licensure requirements
 - 2. Complete resume, cover letter and response letter for employment seeking activities
 - 3. Discuss topics and issues with a professional demeanor using feedback to modify behavior and improve the functioning of the team
 - 4. Identify methods and plans to address deficit areas in learning by individual students

- D. Use the Occupational Therapy process
 - 1. Clinical experience discussion
 - 2. Curriculum discussion
 - 3. Practice issues discussion
- E. Assist in the development of the Occupational Therapy Assistant curriculum
 - 1. Provide personal feedback to the curriculum regarding the effectiveness of academic preparation in the clinical experience
 - 2. Participate as a team leader and a team member in discussion groups
 - 3. Collaborate with team members to provide feedback and a proposal for intervention to address potential changes in the curriculum

OUTLINE OF INSTRUCTION:

- I. Review and Discussion of Clinical Experiences
 - A. Individual reports
 - B. Group discussion on selected topics
 - C. Listing of positive and negative experiences
 - D. Discussion of experiences using the OT process as a framework
 - 1.) sensorimotor learning
 - 2.) cognitive learning
 - 3.) affective learning
 - 4.) ability to communicate effectively with supervisors
 - 5.) application of therapeutic approaches in practice
 - E. Discussion of potential changes
 - 1.) what to change
 - 2.) how to change
 - 3.) rationale for change
 - 4.) value of existing situation
 - 5.) recommendations
 - 6.) methods to evaluate proposed changes
- II. Identify practice issues encountered in clinical rotations
 - A. Setting specific concerns
 - B. Population specific concerns
 - C. Practice area specific concerns
 - D. OT - OTA relationship issues
 - E. Supervisor - student issues
 - F. Motor skill issues
 - G. Processing skill issues
 - H. Interactional issues
 - I. Other issues
- III. Discussion of practice issues that were raised during affiliations using the OT process as a framework
 - A. Considerations for addressing practice issues
 - B. Researching selected issues in teams
 - C. Developing plans and ideas to resolve issues

- D. Sharing of findings between teams
- IV. Perception of adequacy of academic preparation for clinical rotations
 - A. Match of preparation to expectations of clinical supervisors
 - B. General overview of the curriculum
 - C. Specific course review
 - D. Identification of strengths and weaknesses in the curriculum
 - E. Identification of alternatives to improve skills in selected areas
 - 1.) continuing educational opportunities
 - 2.) self-teaching
 - 3.) work with a mentor
 - 4.) work with peers
 - 5.) formal classroom experiences
 - 6.) other alternatives
- V. Recommendations for continuation or changes in the curriculum
 - A. content
 - B. order
 - C. emphasis
 - D. other considerations
- VI. Complete and present the results of portfolio development
- VI. Concluding the program
 - A. Readiness for graduation
 - B. Completing all requirements
 - C. Providing opportunities for continued involvement in the curriculum
 - D. Other topics of student concern

REQUIRED TEXTBOOKS AND MATERIALS:

None required

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PBT 100
PHLEBOTOMY TECHNOLOGY

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Phlebotomy Technology program

Corequisites: PBT 101 and PSY 118

This course provides instruction in the skills needed for the proper collection of blood and other specimens used for diagnostic testing. Emphasis is on ethics, legalities, medical terminology, safety and universal precautions, health care delivery systems, patient relations, anatomy and physiology, and specimen collection. Upon completion, students should be able to demonstrate competence in the theoretical comprehension of phlebotomy techniques. *This is a certificate-level course.* Course Hours Per Week: Class, 5. Lab, 2. Semester Hours Credit, 6.

COURSE OBJECTIVES:

Upon completion of this course, the student will demonstrate basic cognitive and practical knowledge in each of the following:

- a. Health care settings.
- b. Anatomy and physiology of the body systems.
- c. Collection equipment additives, precautions, and interfering substances.
- d. Collection procedures and physiologic complications.
- e. Special collection procedures.
- f. Infection control and equipment safety.
- g. Specimen requisitions, transportation, and reporting.
- h. Professionalism and liability.
- i. Quality assurance and safety.
- j. Laboratory exercises.

OUTLINE OF INSTRUCTION:

- I. Health care setting
 - A. Hospital departments
 - B. Clinical laboratory personnel
 - C. Clinical laboratory sections
 - D. Medical specialties
- II. Anatomy and physiology of the body systems
 - A. Body system - functions and components
 - B. Laboratory tests assessing body systems

PBT 100

- C. Hemostasis and coagulation
- III. Collection supplies, equipment, and specimen handling
 - A. Needle handling
 - B. Specimen labeling
 - C. Evacuated tube types and additives
 - D. Supplies for venipuncture and capillary puncture
 - E. Special specimen handling requirements
- IV. Collection procedures and physiologic complications
 - A. Patient identification
 - B. Performing the phlebotomy
 - C. Complications and special considerations
 - D. Specimen rejection
- V. Special collection procedures
 - A. Arterial blood gases
 - B. Bleeding times
 - C. Blood cultures
 - D. Glucose testing
 - E. Vascular access devices
 - F. Neonatal screening
 - G. Order of draw
 - H. Urine collection
 - I. Test priorities
- VI. Infection control and safety
 - A. Modes of transmission
 - B. Isolation procedures
 - C. Universal precautions
 - D. Safety in procedures
- VII. Hospital documentation, specimen transportation and processing, quality assurance, and bedside testing
 - A. Documents and procedure manuals
 - B. Specimen transportation and processing
 - C. Quality issues
 - D. Bedside testing
- VIII. Communication, professional ethics, and legal issues
 - A. Communication and interaction with patients and staff
 - B. Patient's bill of rights
 - C. Professional ethics
 - D. Legal issues

PBT 100

- IX. Laboratory exercises
 - A. Hospital and laboratory department tours
 - B. Safety and isolation procedures
 - C. Venipuncture practice on artificial arm
 - D. Venipuncture on student partner X 4
 - E. Microcollection of student partner X 4
 - F. Hematocrits & ABO/Rh typing by microcollection technique
 - G. General supplies and equipment for collection
 - H. Specimen labeling and patient identification
 - I. Lab requisition slips and tests

REQUIRED TEXTBOOKS AND MATERIALS:

Garza, D. and K. Becan-McBride, Phlebotomy Handbook, Appleton & Lange, 6th edition, 2002.
Lab coat and name tag.

EVALUATION:

Unit tests	60%
Lab practicals	20%
Final exam	20%

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability should request assistance from the Disability Services Coordinator within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to the Disability Services Coordinator within the first two weeks of class. The Coordinator can be contacted by calling 686-3652, (V/TT), or by visiting the Student Services Office, Room 23, of the White Building.

PBT 101 PHLEBOTOMY PRACTICUM

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Phlebotomy Technology program

Corequisites: PBT 100 and PSY 118

This course provides supervised experience in the performance of venipuncture and microcollection techniques in a clinical facility. Emphasis is on patient interaction and application of universal precautions, proper collection techniques, special procedures, specimen handling, and data management. Upon completion, students should be able to perform safely the procedures necessary for specimen collections on patients in various health care settings. *This is a certificate-level course.*

Course Hours Per Week: Clinical, 9. Semester Hours: Credit, 3.

COURSE GOALS:

1. To assist the student to attain the skills, confidence, knowledge and attributes necessary for successful practice in the clinical setting of the following:
 - 1.1 specimen collection by venipuncture and capillary puncture
 - 1.2 patient identification
 - 1.3 using computer information systems related to phlebotomy
2. To nurture an attitude of professionalism.
3. To assist the student to communicate effectively with patients and peers in the clinical setting.

COURSE OBJECTIVES:

The student will:

- be professionally dressed at all times in the clinical area.
- be punctual and dependable during the clinical rotation.
- perform assigned tasks carefully and accurately.
- be able to use theory to solve problems and make appropriate judgments.
- exhibit professional behavior and appropriate demeanor in the clinical area.
- perform venipuncture according to techniques covered in Unit IV of PBT 100.
- perform microcollection according to techniques covered in Unit IV of PBT 100.
- enter and retrieve data from the computer system utilized by the clinical affiliate.
- observe arterial punctures and the processing of arterial samples.
- perform or observe specimen processing.
- perform or observe special collection procedures such as blood cultures and glucose tolerance tests.

OUTLINE OF INSTRUCTION:

- I. Orientation
 - A. Patient identification system
 - B. Requisitions
 - C. Computerized requisition and data retrieval
- II. Specimen processing and observation
- III. Safety and isolation guidelines
- IV. Venipuncture techniques
 - A. Order of draw

- B. Vacutainer procedure
 - C. Syringe procedure
 - D. Butterfly procedure
- V. Microcollection techniques
 - A. Fingerstick procedures
 - B. Heel stick procedures
- VI. Special procedures
 - A. Alcohols
 - B. Glucose tolerance test
 - C. Drug levels
 - D. Blood culture
 - E. Other timed specimens
 - F. PKU
 - G. Arterial puncture (observation only)
- VII. Difficult draws
- VIII. Professionalism and interpersonal relations
 - A. Professional appearance and decorum
 - B. Patient communications
 - C. Peer and laboratory personnel interactions

REQUIRED TEXTBOOKS AND MATERIALS:

Phlebotomy Essentials, Ruth McCall, Cathee Tankersley, Third edition, 2003
 For dress code, see Phlebotomy Student Policies.

EVALUATION:

Two Skin Puncture Checklists	20%
Three Venipuncture Checklists	30%
Professional Performance Evaluation	40%
Homework Assignments	10%

Students must perform 100 successful venipunctures and 25 successful skin punctures in order to complete this course.

Students are required to take the final comprehensive exam prior to graduation; however, it will not affect the student's final grade.

GRADING:

Scale:	93 - 100	A
	85 - 92	B
	77 - 84	C
	70 - 76	D
	0 - 69	F

A student must have a letter grade of "C" or better in PBT 100, PSY 118 and PBT 101 in order to receive a certificate of graduation

STATEMENT OF STUDENTS WITH DISABILITIES

Students who require academic accommodations due to any physical, psychological, or learning disability should request assistance from the Disability Services Coordinator within the first two

weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to the Disability Services Coordinator within the first two weeks of class. The Coordinator can be contacted by calling 686-3652, (V/TT), or by visiting the Student Services Office, Room 23, of the White Building.



PED 110 FIT AND WELL FOR LIFE

COURSE DESCRIPTION:

Prerequisites: None

Corerequisites: None

This course is designed to investigate and apply basic concepts and principles of lifetime physical fitness and other health related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.* Course Hours Per Week: Class 1. Lab, 2. Semester Hours Credit, 2.

LEARNING OUTCOMES:

Upon completion of this course the student will be able to:

- A. Demonstrate an understanding of the basic concepts and principles of lifetime fitness and wellness.
- B. Demonstrate an understanding of the elements of good nutrition.
- C. Demonstrate an understanding of how weight control and stress management contribute to lifetime wellness and fitness.
- D. Demonstrate an understanding of how to plan and implement a lifetime fitness and wellness program.

OUTLINE OF INSTRUCTION:

- I. Introduction lesson outline
 - a) Course objectives
 - b) Class participation
 - c) Methods of evaluation
 - d) Fitness evaluation

II. Fundamentals and instruction

- a) Fitness as an Important Dimension of Health
- b) Developing a Personal Fitness Program
- c) Cardiovascular Fitness Training
- d) Muscle Strength and Endurance
- e) Flexibility
- f) Exercise Related Injuries and Prevention
- g) Elements of Good Nutrition

III. Testing and evaluation

- a) Fitness evaluation to establish current fitness level
- b) Fitness evaluation to determine fitness improvement
- c) Written test

REQUIRED TEXTBOOK AND MATERIALS:

To be determined by Instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PED 120
WALKING FOR FITNESS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces fitness through walking. Emphasis is on stretching, conditioning exercises, proper clothing, fluid needs, and injury prevention. Upon completion, students should be able to participate in a recreational walking program. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.* Course Hours Per Week: Lab, 3. Semester Hours Credit, 1.

LEARNING OUTCOMES:

Upon completion of the course, the student will be able to:

- a. Develop awareness on how to plan and implement an effective walking program;
- b. Increase cardiopulmonary endurance and flexibility through safe and effective walking and exercises;
- c. Learn about injury prevention, proper clothing, stretching, conditioning exercises, and fluid needs;
- d. Learn how the quality of life can be improved through participation in physical activities.

OUTLINE OF INSTRUCTION:

- I. Introductory lesson outline
 - A. Course objectives
 - B. Class procedures
 - C. Method of evaluation
- II. Fundamentals and instruction
 - A. Health benefits of a walking program
 - B. Designing a walking program
 - C. Proper walking and exercise techniques
 - 1) Stretching and flexibility
 - 2) Cardiorespiratory endurance
 - a. Proper walking pace
 - b. Conditioning exercises

- c. Safety and injury prevention
 - 1) Proper clothing and footwear
 - 2) Types of walking injuries and prevention
 - 3) Weather related precautions
 - 4) Fluid needs

III. Testing and evaluation

- A. Fitness evaluation
- B. Written evaluation

REQUIRED TEXTBOOKS AND MATERIALS:

None

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PED 121
Walk, Jog, Run

COURSE DESCRIPTION

Prerequisites: None

Corequisites: None

This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is on walking, jogging, or running as a means of achieving fitness. Upon completion, students should be able to understand and appreciate the benefits derived from these activities. *This course is approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*
Course Hours Per Week: Lab, 3. Semester Hours Credit, 1.

LEARNING OUTCOMES:

The student will be able to:

Learn about proper fitness planning.

Develop research techniques focusing on current topics relate to personal health.

Broaden exercise options.

Experience various training techniques.

Develop an awareness of importance of a consistent exercise program.

OUTLINE OF INSTRUCTION:

- I. Introduction to jogging
 - A. Running style and clothes
 - B. How to train
 - C. Stretching

- II. Fundamentals
 - A. Injury prevention
 - B. Nutrition
 - C. Strength training
 - D. Dealing with temperature

- III. Different track – workouts, timed and untimed

REQUIRED TEXTBOOKS AND MATERIALS:

None

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHI 215
PHILOSOPHICAL ISSUES

COURSE DESCRIPTION:

Prerequisites: ENG 111

Corequisites: None

This course introduces fundamental issues in philosophy by looking at classical and contemporary philosophers. Emphasis is on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue; understand and discuss some of the major philosophical issues in epistemology, metaphysics, ethics, political philosophy, and aesthetics; grasp the impact of international cultural influences on current philosophical thinking and assess some of the philosophical problems in modern culture. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in humanities/fine arts.*
Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

- a. Discuss the major branches of philosophy and the art of philosophical thinking.
- b. Expand her or his perspectives on life and engage in discussions about philosophical ideas in epistemology, metaphysics, ethics, political philosophy and aesthetics.
- c. Understand the importance of tolerating and respecting diverse perspectives on life by looking at philosophical ideas from around the world.
- d. Develop skills in critical thinking, reading and writing by reading and critiquing original writings in philosophy.

OUTLINE OF INSTRUCTION:

- I. Introduction
 - A. What is philosophy?
 - B. Basic concepts of logic
- II. Philosophical Inquiry
 - A. Plato's Apology
 - B. Multicultural perspectives on philosophy
 - C. Theistic arguments
 1. Ontological argument
 2. Cosmological argument
 3. Teleological argument
 - D. Problem of evil

III. Epistemology-the structure of knowledge

- A. Existentialism
- B. Pragmatism
- C. Rationalism
- D. Vision Seeking
- E. Satori

IV. Metaphysics

- A. Free will and determinism
- B. Idealism
- C. Empiricism
- D. Materialism

V. Ethics

- A. Relativism and Universalism
- B. Buddhist ethics
- C. Feminist ethics
- D. Moral Doctrines

VI. Political philosophy

- A. Liberalism
- B. Civil Rights
- C. Non-violent resistance
- D. Democracy

VII. Aesthetics

- A. Art and culture
- B. Nature and experience
- C. Multicultural perspectives on aesthetics

REQUIRED TEXTBOOK AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHI 240
INTRODUCTION TO ETHICS

COURSE DESCRIPTION:

Prerequisites: ENG 111

Corequisites: None

This course introduces theories about the nature and foundations of moral judgments as well as applications to contemporary moral issues. Emphasis is on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in humanities/fine arts.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

- a. Understand the importance of respecting diverse perspective on complex and controversial moral issues.
- b. Rationally discuss ethical controversies and disputes.
- c. Articulate the connection between ethical theory and ethical practice.
- d. Identify the philosophical bases for ethical decisions.
- e. Prioritize or qualify conflicting ethical principles involved in the resolution of a given moral dilemma.

OUTLINE OF INSTRUCTION:

- I. Introduction
 - A. Forms of argument
 - B. Ethical interests
- II. Moral doctrines
 - A. Aristotle's Theory of the Means
 - B. Utilitarianism
 - C. Kant's Categorical Imperative
 - D. Humanitarianism
 - E. Social Contract Theory
 - F. Existentialism
 - G. Relativism versus Universalism

III. Punishment and culpability

- A. Capital punishment
- B. Free will and moral responsibility

IV. The just society

- A. Abortion
- B. Euthanasia
- C. Sex and marriage
- D. Pornography, hate speech and censorship
- E. Drug control and addiction
- F. Social and economic justice
- G. Feminism

REQUIRED TEXTBOOK:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHM 110 INTRODUCTION TO PHARMACY

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Pharmacy Technology program or permission of the program director

Corequisites: PHM 111 and PHM 115

This course introduces pharmacy practice and the technician's role in a variety of pharmacy settings. Topics include medical terminology and abbreviations, drug delivery systems, law and ethics, prescription and medication orders, and the health care system. Upon completion, students should be able to explain the role of pharmacy technicians, read and interpret drug orders, describe quality assurance, and utilize pharmacy references. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, the student will be able to:

- A. Reference course outline and learning outcomes
- B. Provide an overview of pharmacy practice and the health care system
- C. Explain key pharmaceutical care concepts
- D. Describe the institutional and ambulatory pharmacy settings and their functions
- E. Name key pharmacy organizations
- F. Define purpose of important pharmacy laws and professional ethics
- G. Delineate the roles and duties of pharmacy technicians and pharmacists
- H. Name and describe use of pharmacy information sources
- I. Define medication dosage forms, routes of administration and drug delivery systems
- J. Describe introductory quality assurance concepts
- K. Explain meaning of terminology and abbreviations in prescription and medication orders
- L. Process and interpret prescription and medication orders
- M. Describe financial aspects of health care
- N. Explain impact and phases of drug development
- O. Identify characteristics of professionalism and effective communication skills
- P. Explain the significance of ASHP (American Society of Health-System Pharmacists) accreditation of pharmacy technician training programs
- Q. Identify sources for continuing education opportunities
- R. Describe job positions and descriptions
- S. Explain the purpose of performance evaluation

OUTLINE OF INSTRUCTION:

- I. Familiarize self with course outline and learning outcomes
- II. Provide an overview of pharmacy practice and the health care system
- III. Explain key pharmaceutical care concepts

IV. Describe pharmacy settings and functions

- A. Organization of institutional pharmacies
- B. Organization of outpatient pharmacies
- C. Organization of home health care facilities
- D. Organization of long-term care facilities

V. Name key pharmacy organizations

- A. American Pharmacists Association (APhA)
- B. American Society of Health-System Pharmacists (ASHP)
- C. North Carolina Association of Pharmacists (NCAP)
- D. American Association of Pharmacy Technicians (AAPT)
- E. North Carolina Association of Pharmacy Technicians (NCAPT)
- F. National Pharmacy Technician Association (NPTA)
- G. Pharmacy Technician Educators Council (PTEC)
- H. National Association of Boards of Pharmacy (NABP)

VI. Define pharmacy laws, regulations, standards of practice and professional ethics

- A. Laws and regulations governing pharmacy practice
- B. Joint Commission on the Accreditation of Healthcare Organizations
- C. North Carolina Board of Pharmacy
- D. Practice standards in pharmacy
- E. Patient confidentiality
- F. Work ethics guidelines

VII. Delineate the roles and duties of pharmacy technicians and pharmacists

- A. Pharmacy technician duties/responsibilities
- B. Pharmacy technician skills profile
- C. Pharmacy technician critical competencies
- D. Restrictions on pharmacy technician duties/responsibilities
- E. Pharmacist duties/responsibilities
- F. Educational requirements for pharmacist's licensure
- G. Educational background for pharmacy technicians
- H. Voluntary certification of pharmacy technicians
- I. Continuing education
- J. Professionalism and communication
- K. Expanded roles for certified pharmacy technicians

VIII. Name and describe use of pharmacy information sources

- A. Primary, secondary and tertiary references
- B. Use of electronic resources for medical information
- C. Utilization of textbooks, compendia, drug information handbooks, journals and newsletters
- D. Written assignments related to reference utilization
- E. Reading assignments from current pharmacy journals

IX. Define medication dosage forms, routes of administration and drug delivery systems

- A. Medication dosage form classifications
- B. Routes of drug administration
- C. Currently used drug delivery systems

PHM 110

- X. Describe introductory concepts of quality assurance principles
 - A. Goal of quality assurance programs
 - B. Benefits of quality assurance programs
 - C. Continuous Quality Improvement/Total Quality Management
 - D. Drug Quality Reporting System (DQRS)
 - E. Current Good Manufacturing Practices
- XI. Explain meaning of terms/abbreviations/symbols in prescriber medication orders
 - A. Medical terms and abbreviations
 - B. Dispensing abbreviations and symbols
 - C. Chemical symbols and nomenclature
 - D. **“Do Not Use”** abbreviations
- XII. Process and interpret prescription and medication orders
 - A. Prioritizing and verifying the prescription/medication order
 - B. Establishing the patient profile record
 - C. Interpreting the physicians' orders
 - D. Written assignments on prescription and medical order interpretation
- XIII. Describe financial aspects of health care
 - A. Growth of hospital expenditures
 - B. Managed health care
 - C. Cost controls
- XIV. Explain impact and phases of drug development
 - A. Cost of research and development
 - B. Phases of clinical trials
- XV. Identify characteristics of professionalism and effective communication skills
 - A. Professional decorum with patients/customers
 - B. Interdepartmental work coordination
 - C. Following directions
 - D. Initiative and adaptability
 - E. Professional oral/written communications
 - F. Etiquette
 - G. Conflict resolution
 - H. Teamwork
- XVI. Explain the significance of "ASHP Accreditation Standard for Pharmacy Technician Training Programs"
 - A. Program accreditation
 - B. Outcome competency review
- XVII. Analyze current job positions and descriptions
 - A. Review of a typical entry-level pharmacy technician's job description
 - B. Review of various specialized job descriptions

PHM 110

- XVIII. Explain the purpose and use of performance evaluations
- A. Quality and quantity of work
 - B. Professional behavior and attitude
 - C. Work organization
 - D. Adaptability, dependability and flexibility
 - E. Effective communications
- XIX. Identify sources of and requirements for continuing education
- A. Sources of continuing education
 - B. Requirements for renewal of certification
 - C. Written summary of assigned reading
 - D. Oral summary of assigned continuing education article

REQUIRED TEXTBOOKS:

Manual for Pharmacy Technicians, American Society of Health-System Pharmacists. 4th ed. 2010.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHM 111 PHARMACY PRACTICE I

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Pharmacy Technology program

Corequisites: PHM 110 and PHM 115

This course provides instruction in the technical procedures for preparing and dispensing drugs in the hospital and retail settings under supervision of a registered pharmacist. Topics include drug packaging and labeling, outpatient dispensing, hospital dispensing procedures, controlled substance procedures, inventory control, and non-sterile compounding. Upon completion, students should be able to perform basic supervised dispensing techniques in a variety of pharmacy settings. Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit, 4.

LEARNING OUTCOMES:

Upon successful completion of the course, the student will be able to:

- a. Explain and demonstrate technical procedures for preparing and dispensing drugs in an institutional setting under the supervision of a registered pharmacist
- b. Explain and demonstrate technical procedures for preparing and dispensing drugs in an ambulatory care setting under the supervision of a registered pharmacist
- c. Specify and perform drug packaging, labeling, and appropriate recordkeeping exercises associated with various pharmacy practice settings
- d. Specify and perform controlled substance dispensing and documentation in an out-patient setting
- e. Specify and perform controlled substance issuing and documentation in an institutional setting
- f. Generalize introductory purchasing and inventory control concepts
- g. Describe and demonstrate non-sterile compounding techniques and documentation used in assigned laboratory preparations
- h. Commit to memory the top 200 prescriptions dispensed in the United States
- i. Research and orally communicate assigned categories of commonly sold over-the-counter products
- j. Review and interpret examples of prescriptions and medication orders
- k. Perform computer applications utilizing the Pharmacy Technology program's institutional and ambulatory software

OUTLINE OF INSTRUCTION:

- I. Review and understand the course description and learning outcomes
- II. Explain and demonstrate technical procedures for preparing and dispensing drugs in an institutional setting under the supervision of a registered pharmacist as listed below:
 - A. Organization and functions of centralized and decentralized pharmacies
 - B. Pharmacist supervision of technician's work
 - C. Establishing patient profile records
 - D. Interpretation and processing of medication orders

- E. Computer applications
 - F. Unit-dose procedures
 - G. Individual patient supply procedures
 - H. Issuing of floor stock
 - I. Automated dispensing systems introduced during hospital pharmacy tours
- III. Explain and demonstrate technical procedures for preparing and dispensing drugs in an ambulatory care setting under the supervision of a registered pharmacist as listed below:
- A. Organization and functions of retail pharmacies
 - B. Pharmacist supervision of technician's work
 - C. Establishing patient profile records
 - D. Interpretation and processing of prescriptions
 - E. Computer applications
 - F. Pharmacist's role in patient counseling
 - G. Drug selection and preparation
 - H. Packaging and labeling guidelines in outpatient settings
 - I. Documentation of initial prescription processing and refills
 - J. Automated dispensing systems introduced during outpatient clinic tour
- IV. Specify and perform drug packaging and labeling principles, procedures and appropriate recordkeeping exercises associated with various pharmacy practice settings as listed below:
- A. Batch repackaging and labeling unit-dose medications
 - B. Extemporaneous repackaging and labeling
 - C. Documentation in repackaging exercises
 - D. Current Good Manufacturing Practices
 - E. Use of bar-coding in product identification
 - F. Computer applications
- V. Describe and demonstrate non-sterile compounding techniques and documentation forms as listed below:
- A. Examples of non-sterile compounds
 - B. Examples of non-sterile compounding ingredients
 - C. Supplies and equipment used in non-sterile compounding procedures
 - D. Packaging, labeling, and recordkeeping guidelines
 - E. Preparation of assigned products
 - F. Computer applications
- VI. Commit to memory the top 200 prescriptions dispensed in the United States
- VII. Research and orally communicate assigned categories of commonly sold over-the-counter products listed below:
- A. Diabetic products
 - B. External and internal analgesics
 - C. Antacids, emetics, and antiemetics
 - D. Laxatives and antidiarrheals
 - E. Cold and allergy products

- F. Otic, ophthalmic, nasal, rectal, and vaginal products
- G. Vitamins and minerals
- H. Weight control products
- I. Contraceptives
- J. Seasonal products

VIII. Generalize introductory purchasing and inventory control concepts listed below:

- A. Manufacturer's expiration dates
- B. Computer applications
- C. Stock rotation
- D. Drug storage conditions

IX. Specify and perform controlled substance dispensing and recordkeeping in out-patient settings as listed below:

- A. Schedules of controlled substances
- B. Examples of drugs in each schedule
- C. Refill restrictions on different schedules of controlled substances
- D. Security of controlled substances
- E. Recordkeeping required with dispensing controlled substances

X. Specify and perform controlled substance issuing and documentation in institutional settings as listed below:

- A. Storage and security of controlled substances in various areas of the hospital
- B. Issuing controlled substances to various areas of the hospital
- C. Recordkeeping required with issuing and administration of controlled substances
- D. Documentation of wasted controlled substances
- E. Utilization of record-of-use sheets
- F. Control and distribution with automated dispensing cabinets

REQUIRED TEXTBOOKS:

Manual for Pharmacy Technicians, American Society of Health-System Pharmacists. 4th ed. 2010.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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PHM 115
PHARMACEUTICAL CALCULATIONS

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Pharmacy Technology program

Corequisites: None

This course provides an introduction to the metric, avoirdupois, and apothecary systems of measurement and the calculations used in pharmacy practice. Topics include ratio and proportion, dosage determinations, percentage preparations, reducing and enlarging formulas, dilution and concentration, aliquots, specific gravity and density, and flow rates. Upon completion, students should be able to perform correctly the calculations required to prepare a medication order properly. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will demonstrate practical application of each of the following:

- a. Review of number systems, decimals and fractions.
- b. Units of measure used in pharmacy practice.
- c. Conversions of the metric, apothecary, avoirdupois, and household systems of measure.
- d. Convert Celsius and Fahrenheit temperatures.
- e. Enlarging and reducing formulas.
- f. Concentration, dilution and ratio strength calculations.
- g. Parenteral and admixture calculations.
- h. Chemotherapy calculations.
- i. Density and specific gravity.
- j. Pharmacy business math.
- k. Prescription and medication order interpretation.
- l. Manufacturers' label understanding.

OUTLINE OF INSTRUCTION:

- I. Review of number systems, decimals and fractions
 - a. Numbers and numerals
 - b. decimals
 - c. fractions
- II. Units of measure used in pharmacy practice
 - a. Metric system
 - b. Apothecary system
 - c. Avoirdupois system
 - d. Household system

PHM 115

- III. Unit conversion
 - a. Metric equivalents
 - b. Metric-apothecary conversion
 - c. Metric-avoirdupois conversion
 - d. Apothecary-avoirdupois conversion
- IV. Compounding formulas
 - a. Interpretation of compounding formulas
 - b. Formula calculations and adjustments
- V. Interpret prescriptions and medication orders
 - a. Abbreviations and format
 - b. Dosage calculations
 - i. Number of doses
 - ii. Total amount of drug
 - iii. Dose size
- VI. Pharmacy business math
 - a. Terminology
 - b. Standard business calculations
 - c. Standard outpatient price calculations
- VII. Parenteral medications, intravenous calculations, and total parenteral nutrition (TPN) therapy
 - a. Parenteral medication calculations
 - b. IV flow rates
 - c. IV time calculations
 - d. Alligation method in TPN preparation
 - e. Milliequivalent calculations
- VIII. Medication label information
 - a. Generic drug names
 - b. Drug strength
 - c. Dosage forms
- IX. Concentration, dilution and ratio strength calculations
 - a. Percentage concentration calculations
 - b. Ratios and solution strength
 - c. Dilute solutions
 - d. Mass balance equation
- X. Intravenous Chemotherapy Calculations
 - a. Body Surface Area
 - b. Body Weight

PHM 115

- XI. Miscellaneous
 - a. Temperature conversion
 - b. Density and specific gravity

REQUIRED TEXTBOOKS AND MATERIALS:

APhA's Complete Math Review for Pharmacy Technicians, 3rd ed. 2010.

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PHM 118 STERILE PRODUCTS

COURSE DESCRIPTION:

Prerequisites: PHM 110, PHM 111, and PHM 115

Corequisites: None

This course provides an introduction to intravenous admixture preparation and other sterile products, including total parenteral nutrition and chemotherapy. Topics include aseptic techniques; facilities, equipment, and supplies utilized in admixture preparation; incompatibility and stability; laminar flow hoods; immunizations and irrigation solutions; and quality assurance. Upon completion, students should be able to describe and demonstrate the steps involved in preparing intermittent and continuous infusions, total parenteral nutrition, and chemotherapy. Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit, 4.

LEARNING OUTCOMES:

Upon completion of this course, the student will demonstrate basic cognitive and practical knowledge and skills in each of the following:

- a. Aseptic technique
- b. Facilities, equipment, and supplies utilized in admixture preparation
- c. Incompatibility and stability
- d. Laminar flow hoods
- e. Immunizations and irrigating solutions
- f. Quality assurance
- g. Intermittent and continuous infusions
- h. Total parenteral nutrition admixtures
- i. Chemotherapy preparations and proper disposal of waste materials

OUTLINE OF INSTRUCTION:

- I. Course introduction and objectives
- II. Aseptic technique concepts and practices
 - A. Principles of United States Pharmacopeia Chapter <797>
 - B. Hand washing procedures
 - C. Appropriate dress attire in the compounding area
 - D. Aseptic manipulations with sterile compounding supplies
 - E. Proper cleaning of horizontal and vertical laminar clean benches
 - F. Proper disposal of used compounding supplies and admixture wastes

PHM 118

- III. Facilities, equipment, and supplies used in admixture preparations
 - A. Overall organization of the sterile compounding area
 - B. Use of horizontal and vertical laminar flow hoods, biological safety cabinets, automated pumps and compounding equipment
 - C. Use of syringes, needles, vials, ampules, double needles, and filters
 - D. Flexible plastic bags and bottles
- IV. Laminar flow hoods
 - A. Theory of laminar air flow
 - B. Positioning of supplies in horizontal flow hood
 - C. Positioning of supplies in vertical flow hood
 - D. Use of biological cabinet
 - E. Practice aseptic compounding in the horizontal and vertical flow hoods and biological safety cabinets
- V. Immunizations and irrigating solutions
 - A. Storage of biological products
 - B. Commonly used irrigating solutions
 - C. Compounding irrigating admixtures
- VI. Intermittent and continuous infusions
 - A. Intravenous administration of IV fluids
 - B. Types of available IV fluids used in intermittent and continuous infusions
 - C. Types of medications given by IV infusion
 - D. Appropriate labeling and recordkeeping
 - E. Admixture calculations
 - F. Flow rate calculations
 - G. Quality assurance documentation
 - H. Medication order interpretation and Ascend-IP computer entry of orders
 - I. IV administration sets
 - J. Assembly of Add-Vantage systems
- VII. Stability and incompatibility issues related to admixtures
 - A. Assigning expiration dates to admixtures
 - B. Products requiring protection from light
 - C. Types of admixture incompatibilities
 - D. Reference sources on compatibility and incompatibility information
 - E. Visual inspection of admixtures
- VIII. Total parenteral nutrition admixtures
 - A. Order interpretation and Ascend-IP computer entry of medication order
 - B. Review of TPN calculations
 - C. Typical solutions and additives used in TPN compounding
 - D. Aseptic techniques used in TPN compounding

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- E. Gravity method vs. automated compounding equipment
 - F. Labeling and recordkeeping
 - G. Quality assurance documentation
 - H. Indications of use for TPN therapy
 - I. Indications of use for PPN (partial/peripheral parenteral nutrition)
 - J. Adverse reactions associated with TPN/PPN therapies
 - K. Electrolyte incompatibility concerns
- IX. Chemotherapy preparations
- A. Aseptic manipulations within biological safety cabinets
 - B. Safe handling and disposal of cytotoxic drugs
 - C. Use of hydrophobic filter needle units
 - D. Order interpretation and Ascend-IP computer entry of medication orders
 - E. Product labeling and recordkeeping
 - F. Quality assurance documentation
 - G. Importance of product and personnel protection
 - H. Commonly prescribed chemotherapeutic agents

REQUIRED TEXTBOOKS AND MATERIALS:

Manual for Pharmacy Technicians. American Society of Health-System Pharmacists. 4th ed. 2010.

Baxter's Blue Book-Training Manual for Intravenous Admixture Personnel. 6th edition 2009; enrolled students will have online access to text.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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PHM 120
PHARMACOLOGY I

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include nutritional products, blood modifiers, hormones, diuretics, cardiovascular agents, respiratory drugs, and gastrointestinal agents. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will demonstrate knowledge of each of the following:

- a. Basic pharmacology, including drug nomenclature, dosage forms, administration routes, drug actions, and body responses.
- b. Basic pharmacology of the gastrointestinal agents.
- c. Basic pharmacology of the respiratory agents.
- d. Basic pharmacology of the cardiac and vascular agents.
- e. Pharmacology of diuretics.
- f. Basic endocrinology and hormone therapy.

OUTLINE OF INSTRUCTION:

- I. Introduction to drug usage
 - A. Drug nomenclature
 - B. Indications and contraindications
 - C. Drug-associated problems of administration
- II. Drug dosage forms
- III. Determining factors of dosages
 - A. Age, body weight, and body surface area
 - B. Pregnancy
 - C. Time and routes of administration
 - D. Excretion rates
 - E. Possible toxic reactions
 - F. Concomitant disease processes
 - G. Drug interactions
- IV. Routes of drug administration
 - A. Oral
 - B. Topical
 - C. Parenteral

V. Drug actions and body responses

- A. Where and how drugs act - normal response
- B. Cellular response
- C. Abnormal response

VI. Gastrointestinal drugs

- A. Gastric antacids
- B. Digestants
- C. Gastric stimulants
- D. Emetics
- E. Antiemetics
- F. Agents to treat PUD
- G. Laxatives and cathartics
- H. Antidiarrheals

VII. Respiratory agents

- A. Antitussives
- B. Bronchodilators
- C. Decongestants

VIII. Cardiovascular agents

- A. Cardiac preparations
- B. Renal system and renal preparations - diuretics
- C. Antihypertensives and vasodilators
- D. Shock and hypotension agents
- E. Vascular agents
- F. Anticoagulants and coagulants

IX. Endocrine agents

- A. Hormonal agents and preparations
- B. Anticonceptive agents
- C. Diabetic and insulin preparations

X. Genitourinary drugs

- A. Anti-infectives
- B. Spasmolytics
- C. Analgesics

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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PHM 125
PHARMACOLOGY II

COURSE DESCRIPTION:

Prerequisites: PHM 120

Corequisites: None

This course provides a continuation of the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include autonomic and central nervous system agents, anti-inflammatory agents, and anti-infective drugs. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, the student will be able to:

- a. Apply knowledge of basic pharmacology of central nervous system (CNS) drugs to explain clinical uses and adverse effects of these agents for treatment of common disease states.
- b. Apply knowledge of basic pharmacology of autonomic nervous system (ANS) agents to explain clinical uses and adverse effects of drugs for treatment of common disease states.
- c. Apply knowledge of basic pharmacology of vitamins, minerals, and nutritive agents to explain clinical uses and adverse effects of drugs for treatment of common disease states.
- d. Apply knowledge of basic pharmacology of antimicrobial agents to explain clinical uses and adverse effects of drugs for treatment of common disease states.
- e. Apply knowledge of basic pharmacology of antineoplastic agents to explain clinical uses and adverse effects for treatment of common disease states.

OUTLINE OF INSTRUCTION:

- I. Apply knowledge of basic pharmacology of CNS drugs to explain clinical uses and adverse effects of these agents for treatment of common disease states.
 - A. Opioid analgesics
 - B. Opioid antagonists
 - C. Non-narcotic analgesics
 - D. Analgesic-antipyretics
 - E. Sedative-hypnotics
 - F. Anesthetic agents
 - G. Skeletal muscle relaxants
 - H. Anticonvulsants
 - I. Anti-Parkinson drugs
 - J. Antidepressants
 - K. Antipsychotics
 - L. CNS stimulants
- II. Apply knowledge of basic pharmacology of the ANS agents to explain clinical uses and adverse effects of drugs for treatment of common disease states.
 - A. Review of ANS function
 - B. Adrenergic agents

- C. Adrenolytic agents
 - D. Cholinergic agents
 - E. Anticholinergic agents
 - F. Ganglionic and neuromuscular blocking agents
- III. Apply knowledge of basic pharmacology of vitamins, minerals, and nutritive agents to explain clinical uses and adverse effects of drugs for treatment of common disease states.
- A. Vitamins
 - B. Minerals
 - C. Herbal and nutritional supplements
 - D. Trace elements
- IV. Apply knowledge of basic pharmacology of antimicrobial agents to explain clinical uses and adverse effects of drugs for treatment of common disease states.
- A. Introduction and definitions
 - B. Antibiotics and antibacterial agents
 - C. Antifungal agents
 - D. Antiviral/antiretroviral agents
 - E. Antiprotozoal agents
 - F. Antimycobacterial agents
 - G. Antimalarial drugs
 - H. Antiseptics and disinfectants
- V. Apply knowledge of basic pharmacology of antineoplastic agents to explain clinical uses and adverse effects for treatment of common disease states.
- A. Alkylating agents
 - B. Antimetabolites
 - C. Hormonal agents
 - D. Radioactive isotopes
 - E. Antibiotics
 - F. Natural products
 - G. Targeted agents
 - H. Adjuncts to anticancer chemotherapy

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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PHM 138 PHARMACY CLINICAL

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Pharmacy Technology program, ENG 111, PHM 118, PHM 120, and PHM 165

Corequisites: PHM 125, PHM 140, and COM 120

This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is on communicating effectively with personnel, developing proper employee attitude, and dispensing medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and operate computers efficiently. Course Hours Per Week: Clinical, 24. Semester Hours Credit: 8.

LEARNING OUTCOMES:

Upon completion of this course, the student will demonstrate basic cognitive and psychomotor competencies in each of the following pharmacy areas:

- a. Hospital and pharmacy organization
- b. Outpatient dispensing
- c. Inpatient dispensing
- d. Unit-dose systems
- e. Purchasing and inventory control
- f. Controlled drug systems
- g. Aseptic technique and laminar flow hood usage
- h. Intravenous admixture systems
- i. Compounding and sterile production
- j. Chemotherapy systems and dispensing
- k. Special preparation equipment
- l. Non-sterile compounding
- m. Automated dispensing systems

OUTLINE OF INSTRUCTION:

- I. Clinical orientation
 - A. Rotations
 - B. Policies
 - C. Evaluation

PHM 138

- II. Hospital pharmacy organizations
 - A. Centralized pharmacy organizations
 - B. Satellite systems
 - C. Management and levels of supervision
- III. Outpatient dispensing
 - A. Receipt and computer entry of prescription
 - B. Filling of prescription
 - C. Filling controlled drug prescriptions
 - D. Filling third-party prescriptions and record keeping
 - E. Pricing and filing prescriptions
 - F. Maintaining patient or family medications record systems
 - G. Automated dispensing systems
- IV. Inpatient dispensing
 - A. Ward stock
 - B. Cart exchange
 - C. Pick-up and delivery
 - D. Individual prescription system
 - E. Controlled drugs
 - F. Stock locations
 - G. Labeling
 - H. Automated dispensing systems
- V. Unit-dose systems
 - A. Patient admitting
 - B. Medication orders and dispensing records
 - C. Medication carts
 - D. Filling records
 - E. Automatic stop orders
 - F. Controlled drugs
 - G. Automated dispensing systems
 - H. Patient discharges and transfers
 - I. Technician versus pharmacist responsibilities
- VI. Purchasing and inventory control
 - A. Procedures and records
 - B. Storage and stock rotation
 - C. Receiving
 - D. Purchasing and ordering
- VII. Basic techniques
 - A. Aseptic technique
 - B. Use and maintenance of laminar flow hoods
 - C. Sterilization/disinfection

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- VIII. Intravenous and admixture systems
 - A. Compliance with USP 797
 - B. Flow of order and computer entry
 - C. Labeling
 - D. IV admixture stocks and solutions
 - E. Preparation of small volume parenterals
 - F. Preparation of large volume parenterals
 - G. Preparation of total parenteral nutrition solutions
 - H. Delivery and storage of completed admixtures
 - I. Use of automated compounding equipment
 - J. Infusion control devices
 - K. Quality assurance
- IX. Other sterile production and compounding
 - A. Record keeping and procedures
 - B. Equipment maintenance and operation
 - C. Preparation of prefilled syringes
 - D. Preparation of dialysis and/or irrigation solutions
 - E. Specialty products
 - F. Use of special preparation equipment
 - G. Quality assurance
- X. Chemotherapy systems
 - A. Order flow and entry
 - B. Labeling and record keeping
 - C. Vertical flow hood and aseptic technique
 - D. Hazardous chemical safety and procedures
 - E. Disposal of cytotoxic agents
- XI. Non-sterile compounding
 - A. Equipment
 - B. Preparation of products
 - C. Packaging, labeling, and record keeping
 - D. Product stability

REQUIRED TEXTBOOKS AND MATERIALS:

Textbooks: None

Materials: Pharmacy Technology Student Policy Manual. Professional jacket and ID badge as designated by the program director are required.

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SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

None.

Refer to Standard Operating Procedures or Policy Procedure Manuals for the various affiliating pharmacies.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHM 140
TRENDS IN PHARMACY

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Pharmacy Technology program

Corequisites: None

This course covers the major issues, trends, and concepts in contemporary pharmacy practice. Topics include professional ethics, continuing education, job placement, and the latest developments in pharmacy technician practice. Upon completion, students should be able to demonstrate a basic knowledge of the topics discussed. Course Hours Per Week: Class, 2. Semester Hours Credit, 2.

LEARNING OUTCOMES:

Upon completion of this course, the student will demonstrate basic cognitive and practical knowledge and skills in each of the following:

- a. Professional ethics
- b. Professional communication skills
- c. Continuing education
- d. Interviewing skills
- e. Completing job applications
- f. Preparing resumes
- g. Job placement opportunities
- h. Current utilization of pharmacy technicians in contemporary pharmacy practice
- i. Related facility tours in the service area
- j. Review for voluntary certification exam
- k. Reading assignments in professional literature

OUTLINE OF INSTRUCTION:

- I. Course outline and objectives
- II. Professional ethical situations
- III. Professional communication skills
 - A. Written communications
 - B. Verbal communications
 - C. Telephone etiquette
 - D. Resolution of conflicts

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- E. Individual student presentations
- IV. Continuing education opportunities
 - A. Correspondence possibilities
 - B. In-service programs
 - C. AAPT-sponsored sessions
 - D. Reading assignments in professional literature
- V. Utilization of pharmacy technicians in contemporary pharmacy practice
- VI. “ASHP Accreditation Standard for Pharmacy Technician Training Programs”
- VII. Preparation for job placement
 - A. Job interviewing skills
 - B. Completing job applications
 - C. Preparing resumes
 - D. Mock interviews and guest speakers
- VIII. Group tours and guest speakers
- IX. Review for national voluntary PTCB (Pharmacy Technician Certification Board) certification exam

REQUIRED TEXTBOOKS AND MATERIALS:

To be announced by the instructor.

SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

These are available in the Educational Resources Center Library and the Pharmacy Laboratory.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHS 121
APPLIED PHYSICAL SCIENCE I

COURSE DESCRIPTION:

Prerequisites: MAT 060 or DMA 010, 020, 030, and RED 080 or DRE 097 or satisfactory score on placement test

Corequisites: None

This course introduces the general principles of physics and chemistry. Topics include measurement, motion, Newton's laws of motion, momentum, energy, work, power, heat, thermodynamics, waves, sound, light, electricity, magnetism, and chemical principles. Upon completion, students should be able to demonstrate an understanding of the physical environment and be able to apply the scientific principles to observations experienced. This course includes concepts of chemistry and physics that apply to dental materials; laboratory work reinforces the principles discussed in lecture. *This course has been approved to satisfy the Comprehensive Articulation for transferability as a pre-major and/or elective course requirement.* Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

LEARNING OUTCOMES:

Upon completion of this course, the student will demonstrate basic knowledge in the following:

- a. Fundamental concepts in inorganic chemistry.
- b. Fundamental concepts in organic chemistry.
- c. Fundamental principles of Newtonian Physics applying to forces, stresses and strain in materials.
- d. Fundamental concepts of the Kinetic Theory dealing with molecular motion and energy.
- e. Fundamental concepts of static and dynamic electrical charges and their characteristic behavior.
- f. Fundamental concepts of the theories of light and color.

OUTLINE OF INSTRUCTION:

- I. Measurements in chemistry
 - A. Metric system
 - B. Density and specific gravity
 - C. Temperature scales
- II. Properties of matter
 - A. States of matter
 - B. Physical and chemical changes
 - C. Physical and chemical properties
 - D. Mixtures

- E. Elements
 - F. Compounds
- III. Structure of matter
 - A. Atomic structure
 - B. Periodic table
- IV. Chemical bonding
 - A. Types of chemical bonds
 - B. Writing formulas for compounds
 - C. Naming compounds
 - D. Mole
- V. Chemical equations
 - A. Types of equations
 - B. Balancing equations
- VI. Water
 - A. Chemical properties
 - B. Physical properties
 - C. Hydrates
- VII. Solutions
 - A. Properties of true solutions
 - B. Properties of colloidal solutions
 - C. Properties of suspensions
- VIII. Acids and bases
 - A. Properties of Arrhenius acids and bases
 - B. Properties of Bronstead-Lowery acids and bases
 - C. pH
- IX. Organic chemistry
 - A. Hydrocarbons
 - B. Alcohols
 - C. Esters
 - D. Ethers
 - E. Organic acids
 - F. Cyclic organic compounds
- X. Polymers
 - A. Addition polymers
 - B. Condensation polymers
- XI. Newtonian physics
 - A. Mechanics

- B. Newton's laws
- C. Stress and strain
- XII. Kinetic theory
 - A. Basic principles
 - B. Absolute zero
 - C. Energy and types of molecular motion
 - D. Heat and temperature
 - E. Surface energy
- XIII. Electricity, magnetism and light
 - A. Historical developments
 - B. Static electricity
 - C. DC/AC circuit characteristics
 - D. Light

REQUIRED TEXTBOOKS AND MATERIALS:

Chemical Education Resources. Laboratory Packet (lab modules). Thomson Custom Publishing, 2005.

Periodic chart.

SUGGESTED REFERENCES, PERIODICALS AND VISUAL AIDS:

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHY 110 CONCEPTUAL PHYSICS

COURSE DESCRIPTION:

Prerequisites: MAT 060 aor DMA 010, 020, 030 or satisfactory score on placement test

Corequisite: PHY 110A (Conceptual Physics Lab)

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. Laboratory experiments and computer-based exercises enhance and consolidate the understanding of basic physical principles and applications. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.* Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Demonstrate knowledge of physical principles.
- b. Describe examples of and applications of physical principles.
- c. Demonstrate use of physical principles through lab experiments.

OUTLINE OF INSTRUCTION:

- I. Measurement
 - A. Scientific measurements.
 - B. The scientific method and physical world.
 - C. Techniques of measurement
 - D. Significant digits, accuracy and precision
- II. Mechanics
 - A. Newton's first law of motion – Inertia
 - B. Linear motion
 - C. Velocity
 - D. Acceleration
 - E. Newton's second law of motion – Acceleration
 - F. Newton's third law of motion – action and reaction
 - G. Friction
 - H. Momentum and rotational motion
 - I. Gravity and weight
 - J. Projectile motion and orbits
- III. Properties of matter

- A. Atomic structure
 - B. Molecules
 - C. States of matter
 - D. Properties of gases, liquids and solids
 - E. Archimede's principle
 - F. Surface tension
 - G. Pressure
 - H. Gas laws
 - I. Density and specific gravity
- IV. Heat
- A. Temperature
 - B. Heat
 - C. Thermal expansion
 - D. Conduction
 - E. Radiation
 - F. Thermodynamics
 - G. First and second laws of thermodynamics
 - H. Entropy
 - I. Heat engines
- V. Sound
- A. Vibrations and waves
 - B. Nature of sound
 - C. Properties of sound waves
- VI. Electricity and magnetism
- A. Static electricity
 - B. Electric fields
 - C. Electric current
 - D. Magnetism
 - E. Magnetic poles and fields.
 - F. Electromagnetic induction
 - G. Generators and motors
 - H. Alternating-current electricity
 - I. Transformer and power transmission
- VII. Light
- A. Properties of electromagnetic waves
 - B. Colors of the visible spectrum
 - C. Reflection
 - D. Refraction
 - E. Diffraction
 - F. Interference
 - G. Emission of light (incandescence, fluorescence and phosphorescence)

H. Quanta of light: concept of light's duality.

VIII. Atomic and Nuclear Physics

- A. Models of the atom
- B. Quantum mechanics
- C. X-rays and radioactivity
- D. Isotopes
- E. Nuclear fission and fusion
- F. Special Theory of relativity
- G. Gravitation and relativity
- H. Cosmology and Physics: types of universes.

REQUIRED TEXTBOOK:

Hewitt, P. G. Conceptual Physics Fundamentals. San Francisco: Pearson Education, Inc., publishing as Addison Wesley, 2008.

SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHY 121 APPLIED PHYSICS I

COURSE DESCRIPTION:

Prerequisites: MAT 060 and RED 090 or satisfactory score on placement test

Corequisites: None

This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Topics include systems of units, problem-solving methods, graphical analyses, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields. Laboratory experiments and computer-based exercises enhance and consolidate the basic principles of physics as used in the industrial and service fields. Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

COURSE OBJECTIVES:

Upon completion of this course, the student will be able to:

- a. Demonstrate knowledge of physical principles as they apply to industry.
- b. Demonstrate use of physical principles through lab experiments.

OUTLINE OF INSTRUCTION:

- I. Measurement
 - A. British and metric systems
 - B. Techniques of measurement
 - C. Significant digits, accuracy and precision
- II. Motion
 - A. Displacement
 - B. Vectors and scalars
 - C. Velocity
 - D. Acceleration
- III. Laws of motion
 - A. Inertia - mass
 - B. Acceleration
 - C. Action and reaction
 - D. Friction
 - E. Gravity and weight
- IV. Concurrent forces

- A. Forces in one dimension
- B. Equilibrium
- C. Resultant and equilibrant forces
- D. Graphical solutions for vectors

- V. Work and energy
 - A. Definition of work
 - B. Power
 - C. Kinetic energy
 - D. Potential energy
 - E. Conservation of energy

- VI. Simple machines
 - A. Purpose of machines
 - B. Law of simple machines
 - C. Applications

- VII. Rotational motion
 - A. Torques
 - B. Centripetal force
 - C. Power in rotary systems
 - D. Gears and pulleys

- VIII. Noncurrent forces
 - A. Conditions for equilibrium
 - B. Center of gravity
 - C. Applications

- IX. Matter
 - A. Molecules
 - B. States of matter
 - C. Properties of gases, liquids and solids
 - D. Pressure
 - E. Gas laws
 - F. Density and specific gravity

- X. Heat
 - A. Temperature
 - B. Specific heat
 - C. Heat transfer
 - D. Thermal expansion
 - E. Work and internal energy
 - F. Heat engines

- XI. Electricity
 - A. Static electricity

- B. Direct-current electricity
- C. Magnetism
- D. Generators and motors
- E. Alternating-current electricity
- F. Transformer and power transmission

REQUIRED TEXTBOOK:

Ewen, D., Schurter, N., and P. E. Gundersen. Applied Physics. 8th ed. Upper Saddle River: Pearson Prentice Hall, 2005.

SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability should request assistance from the Disability Services Coordinator within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to the Disability Services Coordinator within the first two weeks of class. The Coordinator can be contacted by calling 686-3652, (V/TT), or by visiting the Student Services Office, Room 23, of the White Building.

PHY 125
HEALTH SCIENCES PHYSICS

COURSE DESCRIPTION:

Prerequisites: MAT 070 and RED 090 or satisfactory score on placement test

Corequisites: None

This course introduces fundamental physical principles as they apply to health technologies. Topics include motion, force, work, power, simple machines, and other topics as required by students' area of study. Upon completion, students should be able to demonstrate an understanding of the fundamental principles covered as they relate to practical applications in the health sciences. Laboratory experiments and computer-based tutorials consolidate the basic principles of physics as applied to health-related sciences. Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

COURSE OBJECTIVES:

Upon completion of this course, the student will demonstrate basic knowledge in the following:

- a. Motion and laws of motion.
- b. Concurrent forces.
- c. Work and energy.
- d. Simple machines.
- e. Rotational motion.
- f. Noncurrent forces.

OUTLINE OF INSTRUCTION:

- I. Measurement
 - A. British and metric systems
 - B. Techniques of measurement
 - C. Significant digits, accuracy and precision
- II. Motion
 - A. Displacement
 - B. Vectors and scalars
 - C. Velocity
 - D. Acceleration
- III. Laws of motion
 - A. Inertia - mass
 - B. Acceleration

- C. Action and reaction
- D. Friction
- E. Gravity and weight
- IV. Concurrent forces
 - A. Forces in one dimension
 - B. Equilibrium
 - C. Resultant and equilibrant forces
 - D. Graphical solutions for vectors
- V. Work and energy
 - A. Definition of work
 - B. Power
 - C. Kinetic energy
 - D. Potential energy
 - E. Conservation of energy
- VI. Simple machines
 - A. Purpose of machines
 - B. Law of simple machines
 - C. Applications
- VII. Rotational motion
 - A. Torques
 - B. Centripetal force
 - C. Power in rotary systems
 - D. Gears and pulleys
- VIII. Noncurrent forces
 - A. Conditions for equilibrium
 - B. Center of gravity
 - C. Applications

REQUIRED TEXTBOOKS AND MATERIALS:

Ewen. et al., Physics for Career Education, 7th edition Prentice Hall.
Laboratory modules.

SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

STATEMENT OF STUDENTS WITH DISABILITIES

Students who require academic accommodations due to any physical, psychological, or learning disability should request assistance from the Disability Services Coordinator within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to the Disability Services Coordinator within the first two weeks of class. The Coordinator can be contacted by calling 686-3652, (V/TT), or by visiting the Student Services Office, Room 23, of the White Building.

PHY 131
PHYSICS-MECHANICS

COURSE DESCRIPTION:

Prerequisites: RED 090 or DRE 098, or satisfactory score on placement test and MAT 121

Corequisites: None

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields. Laboratory experiments and computer-based tutorials consolidate the basic principles of physics that are used in the engineering field. Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

COURSE OBJECTIVES:

Upon completion of this course, the student will be able to:

- a. Define the mechanical and fluid quantities of force, work, rate, momentum, resistance, energy and power.
- b. Apply these concepts to robotics and optical fiber systems.

OUTLINE OF INSTRUCTION:

- I. Systems of units
 - A. Metric and British systems
 - B. Techniques of measurements
 - C. Significant digits, accuracy and precision
- II. Motion
 - A. Displacement
 - B. Vectors and scalars
 - C. Graphical analysis of vectors
 - D. Velocity and acceleration
 - E. Equations of motion
- III. Laws of motion
 - A. Force
 - B. Newton's laws of motion
 - C. Action and reaction
 - D. Friction
 - E. Gravity and weight
- IV. Work and energy

PHY 131

- A. Definition of work
- B. Power
- C. Potential and kinetic energy
- D. Conservation of energy
- V. Momentum
 - A. Definition of momentum
 - B. Elastic and inelastic collisions
 - C. Conservation of momentum
- VI. Nonconcurrent forces
 - A. Parallel forces
 - B. Center of gravity
- VII. Rotational motion
 - A. Torque
 - B. Centripetal force
 - C. Power in rotary systems
- VIII. Properties of matter
 - A. Elasticity and Hooke's law
 - B. Density
 - C. Specific gravity
 - D. Archimedes' principle
- IX. Fluids
 - A. Pressure
 - B. Hydraulic principle
 - C. Air pressure
 - D. Buoyancy
 - E. Fluid flow
- X. Reflection
 - A. Reflection at plane surface
 - B. Concave mirrors
 - C. Convex mirrors
 - D. Ray diagrams for mirrors
 - E. The mirror formula
- XI. Refraction
 - A. Refraction at plane surfaces
 - B. Snell's Law
 - C. Critical angle and total internal reflection
 - D. Convex lenses
 - E. Concave lenses
 - F. Ray diagrams for lenses

G. The lens equation

REQUIRED TEXTBOOKS:

Ewen, D., Schurter, N., and P. E. Gundersen. Applied Physics. 8th ed. Upper Saddle River: Pearson Prentice Hall, 2005.

PHY 131 Laboratory modules. Durham Technical Community College, 2005.

SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

STATEMENT OF STUDENTS WITH DISABILITIES:

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PHY 151
COLLEGE PHYSICS I

COURSE DESCRIPTION:

Prerequisites: RED 090 or DRE 098, or satisfactory score on placement test and MAT 172 or MAT 175
Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. Laboratory experiments, along with some computer-based labs and tutorials, consolidate the basic principles discussed in lectures. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in natural sciences/mathematics.* Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

COURSE OBJECTIVES:

Upon completion of this course, the student will demonstrate basic knowledge in the following:

- a. Basic international units of physics.
- b. Kinematics.
- c. Dynamics.
- d. Statics.
- e. Momentum.
- f. Energy.
- g. Rotation.
- h. Gravity.
- i. Elasticity and vibration.
- j. Wave motion.
- k. Fluids.
- l. Temperature and heat.
- m. Thermal behavior of gases.
- n. Heat applications.

OUTLINE OF INSTRUCTION:

- I. Nature of physics
 - A. Measurements in physics
 - B. Structure of matter
 - C. Density and specific gravity

II. Kinematics

- A. Types of motion
- B. Velocity
- C. Acceleration
- D. Vectors
- E. Projectiles

III. Dynamics

- A. Force
- B. Newton's laws of motion
- C. Weight and mass
- D. Application of Newton's second law of motion

IV. Statics

- A. Equilibrium
- B. Center of gravity
- C. Concurrent force problems
- D. Friction
- E. Torque
- F. Non-concurrent force problems

V. Momentum

- A. Definition of linear momentum
- B. Newton's second law-impulse
- C. Conservation of linear momentum
- D. Collisions
- E. Weightlessness and artificial gravity
- F. Inertial forces

VI. Energy

- A. Work
- B. Mechanical energy
- C. Conservation of energy
- D. Power, efficiency
- E. Energy changes in collisions

VII. Rotation

- A. Angular quantities
- B. Centripetal and centrifugal force
- C. Rotational inertia
- D. Conservation of angular momentum

- VIII. Gravity
 - A. Newton's law of gravitation
 - B. Gravitational field
 - C. Dynamics of planetary motions
- IX. Elasticity and vibration
 - A. Hooke's law
 - B. Simple harmonic motion
 - C. Pendulums
 - D. Non-simple harmonic motion
- X. Wave motion
 - A. Types of wave motion
 - B. Graphical representation
 - C. Periodic waves
 - D. Superposition principle
 - E. The Doppler effect
 - F. Interference
 - G. Resonance
 - H. Musical sounds and instruments
- XI. Fluids
 - A. Pressure and its measurement
 - B. Pascal's principle
 - C. Archimedes' principle
 - D. Surface tension
 - E. Bernoulli's equation
- XII. Temperature and heat
 - A. Definition of temperature
 - B. Thermal expansion
 - C. Internal energy
 - D. Specific heat
 - E. Phase change
 - F. Heat transfer
- XIII. Thermal behavior of gases
 - A. Ideal gases
 - B. The universal gas law
 - C. Avogadro's number
 - D. Vapor pressure and relative humidity
 - E. Molecular pressure
 - F. Specific heat of gases
 - G. Adiabatic gas law

- XIV. Heat applications
- A. The second law of thermodynamics
 - B. Heat engines
 - C. Available heat and heat pollution
 - D. Heat pump and refrigerator

REQUIRED TEXTBOOK AND MATERIALS:

Giambattista, A., Richardson, B. M., & Richardson, R. C., Physics. 2nd ed. Boston, McGraw Hill Higher Education, 2010.

Programmable scientific calculator.

SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

STATEMENT OF STUDENTS WITH DISABILITIES:

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PHY 152
COLLEGE PHYSICS II

COURSE DESCRIPTION:

Prerequisites: PHY 151

Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. Laboratory experiments, along with some computer-based labs and tutorials, consolidate the basic principles discussed in lectures. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in natural sciences/mathematics.* Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

LEARNING OUTCOMES:

Upon completion of this course, the student will demonstrate basic knowledge in the following:

- a. Electromagnetic waves.
- b. Geometrical optics.
- c. Wave optics.
- d. Applied optics.
- e. Electric charge.
- f. Electric field.
- g. Electric energy.
- h. Electric circuits.
- i. Electromagnetism.
- j. Applied electricity.
- k. Relativity.
- l. Electrons and photons.

OUTLINE OF INSTRUCTION:

- I. Electromagnetic waves
 - A. Electric oscillations and resonance
 - B. Radiation
 - C. Description and production of em waves
 - D. Sources of waves
- II. Geometrical optics
 - A. Huygen's principle
 - B. Reflection
 - C. Refraction
 - D. Thin lenses
 - E. Ray tracing

- F. Objects and images
- G. Mirrors
- III. Wave optics
 - A. Theories of light
 - B. Interference
 - C. The grating
 - D. Single-slit diffraction
 - E. Michelson interferometer
 - F. Polarization of light
- IV. Applied optics
 - A. The camera
 - B. The human eye
 - C. The magnifier
 - D. The microscope
 - E. Resolving power
 - F. The telescope
 - G. The spectroscope
- V. Electric charge
 - A. Electric and magnetic forces
 - B. Conductors and insulators
 - C. Coulomb's law
 - D. Electrolysis
- VI. Electric field
 - A. Concept of electric field
 - B. Lines of force
 - C. Potential difference
 - D. Equipotential surfaces
 - E. Capacitance
- VII. Electric energy
 - A. Electromotive force
 - B. Resistors and Ohm's law
 - C. Conventional current
 - D. Electric power
- VIII. Electric circuits
 - A. Kirchhoff's laws
 - B. Terminal voltage of a cell
 - C. Parallel and series resistance
 - D. Parallel and series EMF's
 - E. Ammeters and voltmeter
 - F. Capacitors in circuits
- IX. Electromagnetism
 - A. Magnetic field
 - B. Force on charge and current segment

- C. Current loops
- D. Ampere's law
- E. Magnets and poles
- F. Induced EMF and magnetic flux
- X. Applied electricity
 - A. Motors and generators
 - B. Transformers
 - C. Inductive and capacitive impedance
 - D. Thermoelectricity
 - E. Solid-state devices
- XI. Relativity
 - A. Galilean relativity
 - B. Einsteinian relativity
 - C. Space and time dilation
 - D. Mass increase
 - E. Mass and energy
- XII. Electrons and photons
 - A. The charge and mass of an electron
 - B. The photoelectric effect
 - C. The dual nature of light and matter
 - D. The uncertainty principle

REQUIRED TEXTBOOK AND MATERIALS:

Giambattista, A., Richardson, B. M., & Richardson, R. C., Physics. 2nd ed. Boston, McGraw Hill Higher Education, 2010.

Programmable scientific calculator

SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHY 251 GENERAL PHYSICS I

COURSE DESCRIPTION:

Prerequisites: RED 090 or DRE 098, or satisfactory score on placement test and MAT 271

Corequisites: MAT 272

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. Laboratory experiments, some of which are computer-based, and computer-based tutorials enhance and consolidate the basic principles discussed in the theoretical section of the course. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in natural sciences-mathematics.* Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit, 4.

LEARNING OUTCOMES:

Upon completion of this course, the student will demonstrate basic knowledge in the following:

- a. Basic international units of physics.
- b. Vectors.
- c. Motion.
- d. Laws of motion.
- e. Circular motion.
- f. Work and energy.
- g. Linear momentum.
- h. Rotation of rigid bodies.
- i. Angular momentum.
- j. Static equilibrium
- k. Oscillatory motion
- l. Universal gravitation.
- m. Mechanics of solids and fluids.
- n. Wave motion.
- o. Sound waves.
- p. Superposition and standing waves.
- q. Temperature, thermal expansion, and ideal gases.
- r. Heat and the first law of thermodynamics.
- s. Kinetic theory of gases.
- t. Heat engines and entropy.

OUTLINE OF INSTRUCTION:

- I. Measurement
 - A. Standards of length, mass and time
 - B. Dimensional analysis
 - C. Calculations and significant figures
- II. Vectors
 - A. Coordinate systems
 - B. Vectors and scalars
 - C. Properties of vectors
 - D. Vector components
- III. Motion
 - A. Velocity
 - B. Acceleration
 - C. Freely falling bodies
 - D. Motion in two-dimensions
 - E. Projectile motion
 - F. Uniform circular motion
 - G. Relative velocity and acceleration
- IV. Laws of motion
 - A. Force
 - B. Newton's first law - inertia
 - C. Mass
 - D. Newton's second law - weight
 - E. Newton's third law - action-reaction
 - F. Applications of Newton's laws
 - G. Friction
- V. Circular motion
 - A. Fundamental forces
 - B. Newton's second law and uniform circular motion
 - C. Nonuniform circular motion
- VI. Work and energy
 - A. Work
 - B. Kinetic energy
 - C. Power
 - D. Potential energy
 - E. Conservation of mechanical energy
 - F. Gravitational potential energy
 - G. The work-energy theorem
 - H. Spring potential energy
- VII. Linear momentum

- A. Linear momentum and impulse
 - B. Conservation of linear momentum
 - C. Collisions in one and two dimensions
 - D. Center of mass
 - E. Motion of a system of particles
- VIII. Rotation of a rigid body
- A. Angular velocity and acceleration
 - B. Rotational kinematics
 - C. Relationships between angular and linear quantities
 - D. Rotational kinetic energy
 - E. Moments of inertia
 - F. Torque
 - G. Work and energy in rotational motion
- IX. Angular momentum
- A. Vector product and torque
 - B. Angular momentum of a particle
 - C. Conservation of angular momentum
- X. Static equilibrium
- A. Conditions of equilibrium
 - B. Center of gravity
 - C. Rigid bodies in equilibrium
- XI. Oscillatory motion
- A. Simple harmonic motion
 - B. Mass on a spring
 - C. Energy of the simple harmonic oscillator
 - D. The pendulum
- XII. Universal gravitation
- A. Newton's law of gravity
 - B. Measurement of the gravitational constant
 - C. Weight and the gravitational force
 - D. Kepler's laws
 - E. Gravitation and planetary motion
 - F. Gravitational potential energy
 - G. Energy in planetary motions
- XIII. Mechanics of solids and fluids
- A. Elastic properties
 - B. States of matter
 - C. Density and pressure
 - D. Pressure measurements
 - E. Buoyant force and Archimede's principle

- F. Laminar and turbulent flow
- G. Bernoulli's equation
- XIV. Wave motion
 - A. Types of waves
 - B. Traveling waves
 - C. Superposition and interference of waves
 - D. Velocity of waves on strings
 - E. Reflection and transmission of waves
 - F. Energy transmitted by harmonic waves
- XV. Sound waves
 - A. Velocity of sound waves
 - B. Harmonic sound waves
 - C. Energy and intensity of harmonic sound waves
 - D. Spherical and plane waves
 - E. The Doppler effect
- XVI. Superposition and standing waves
 - A. Superposition and interference of harmonic waves
 - B. Standing waves
 - C. Resonance
 - D. Standing waves in air columns
- XVII. Temperature, thermal expansion and ideal gases
 - A. Temperature and its measurement
 - B. Thermal expansion of liquids and solids
 - C. Macroscopic description of an ideal gas
- XVIII. Heat and the first law of thermodynamics
 - A. Heat and thermal energy
 - B. Heat capacity and specific heat
 - C. Latent heat
 - D. Heat transfer
 - E. The mechanical equivalent of heat
 - F. Work and heat in thermodynamic processes
 - G. The first law of thermodynamics
- XIX. Kinetic theory of gases
 - A. Molecular model for pressure of an ideal gas
 - B. Molecular interpretation of temperature
 - C. Heat capacity for an ideal gas
 - D. Adiabatic process for an ideal gas
 - E. Sound waves in a gas
 - F. The equipartition of energy

- XX. Heat engines and entropy
- A. Heat engines and the second law of thermodynamics
 - B. Reversible and irreversible processes
 - C. The Carnot engine
 - D. The gasoline engine
 - E. Heat pumps and refrigerators
 - F. Degradation of energy and entropy
 - G. Entropy changes in irreversible processes

REQUIRED TEXTBOOK AND MATERIALS:

Knight, R. D. Physics for Scientists and Engineers, with Modern Physics. 2nd ed. San Francisco, Addison Wesley, 2004.

Knight, R. D., Student Workbook with Modern Physics. 2nd ed. San Francisco, Addison Wesley, 2004.

Programmable scientific calculator.

SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PHY 252
GENERAL PHYSICS II

COURSE DESCRIPTION:

Prerequisites: MAT 272 and PHY 251

Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. Laboratory experiments, some of which are computer-based, and computer-based tutorials enhance and consolidate the basic principles discussed in the theoretical section of the course. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in natural sciences-mathematics.* Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit, 4.

LEARNING OUTCOMES:

Upon completion of this course, the student will demonstrate basic knowledge in the following:

- a. Electric fields.
- b. Gauss' law.
- c. Electric potential.
- d. Capacitance and dielectrics.
- e. Current and resistance.
- f. Direct current circuits.
- g. Magnetic fields.
- h. Magnetic field sources.
- i. Faraday's law.
- j. Inductance.
- k. Alternating current circuits.
- l. Electromagnetic waves.
- m. The nature of light and geometric optics.
- n. Interference of light waves.
- o. Diffraction and polarization.

OUTLINE OF INSTRUCTION:

- I. Electric fields
 - A. Properties of electric charges
 - B. Insulators and conductors
 - C. Coulomb's law
 - D. The electric field
 - E. Motion of charged particles in a uniform electric field

PHY 252

- II. Gauss' law
 - A. Electric flux
 - B. Gauss' law
 - C. Application of Gauss' law to charged insulators
 - D. Conductors in electrostatic equilibrium

- III. Electric potential
 - A. Potential difference and electric potential
 - B. Potential differences in a uniform electric field
 - C. Electric potential and potential energy due to point charges
 - D. Electric potential due to continuous charge distributions
 - E. Potential of a charged conductor

- IV. Capacitance and dielectrics
 - A. Definition of capacitance
 - B. Calculation of capacitance
 - C. Combinations of capacitors
 - D. Energy stored in a charged capacitor
 - E. Capacitors with dielectrics

- V. Current and resistance
 - A. Batteries
 - B. Electric current
 - C. Resistance and Ohm's law
 - D. Resistivity
 - E. Electrical energy and power

- VI. Direct current circuits
 - A. Electromotive force
 - B. Series and parallel resistors
 - C. Kirchhoff's rules
 - D. RC circuits

- VII. Magnetic Fields
 - A. Properties of the magnetic field
 - B. Magnetic force on a current carrying conductor
 - C. The galvanometer
 - D. Motion of a charged particle in a magnetic field

- VIII. Magnetic field sources
 - A. The Biot-Savart law
 - B. The magnetic force between two parallel conductors
 - C. Ampere's law
 - D. The magnetic field of a solenoid
 - E. Magnetic flux
 - F. Gauss' law of magnetism
 - G. Magnetism in matter

PHY 252

- IX. Faraday's law
 - A. Faraday's law of induction
 - B. Motional EMF
 - C. Lenz' law
 - D. Induced EMF's

- X. Inductance
 - A. Self-inductance
 - B. RL circuits
 - C. Energy in a magnetic field
 - D. Oscillations on an LC circuit

- XI. Alternating-Current circuits
 - A. Resistors, inductors and capacitors in an AC circuit
 - B. The RLC series circuit
 - C. Power in an AC circuit
 - D. Resonance in a series RLC circuit

- XII. Electromagnetic waves
 - A. Maxwell's equations and Hertz's laws
 - B. Plane electromagnetic waves
 - C. Energy and momentum of electromagnetic waves
 - D. The electromagnetic spectrum

- XIII. Light and Geometric Optics
 - A. The nature of light
 - B. Measurements of the speed of light
 - C. Huygens's principle
 - D. Ray approximations
 - E. Reflections and refraction
 - F. Images formed by mirrors and refraction
 - G. Thin lenses
 - H. Optical devices

- XIV. Interference of light waves
 - A. Conditions for interference
 - B. Young's double-slit experiment
 - C. Phasor addition of waves
 - D. Phase change due to reflection
 - E. Interference in thin films

- XV. Diffraction and polarization
 - A. Introduction to diffraction
 - B. Single-slit diffraction
 - C. Resolution
 - D. The diffraction grating
 - E. Polarization

REQUIRED TEXTBOOK AND MATERIALS:

PHY 252

Knight, R. D. Physics for Scientists and Engineers, with Modern Physics. 2nd ed. San Francisco, Addison Wesley, 2004.

Knight, R. D., Student Workbook with Modern Physics. 2nd ed. San Francisco, Addison Wesley, 2004.

Programmable scientific calculator.

SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

POL 120
AMERICAN GOVERNMENT

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement tests

Corequisites: None

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework; federalism; the three branches of government, including the bureaucracy; civil rights and liberties; political participation and behavior; and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. Basic concepts of state and local government and their relationships with the federal government are also examined. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in social/behavioral sciences.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Demonstrate in writing a basic knowledge of the functions of American government.
- b. Discuss in writing the constitution, federalism, civil liberties, and foreign policy in American government from development to the present.
- c. Recall elements of the constitution, civil liberties, federalism, the functions of the three branches of government, and the expansion of the role of government in American life.

OUTLINE OF INSTRUCTION:

- I. Introduction
 - A. The vocabulary of American government and political process
 - B. The historical context of the constitution and the articles of confederation
- II. The Constitution
 - A. The three branches of government
 - 1.) The judicial branch
 - 2.) The legislative branch
 - (a.) House of representatives
 - (b.) Senate
 - 3.) The executive branch

B. The bill of rights

III. Federalism vs. anti-federalism

A. Hamilton vs. Burr

B. The origin of political parties

IV. The role of the individual in the American political process

A. Voting rights and restrictions

B. Civil liberties

C. National defense

D. Foreign policy

V. The expansion of the federal government in the twentieth century

A. The executive branch

B. The legislative branch

C. The judicial branch

VI. Developments since World War II

A. Civil liberties and the civil rights movement

B. Foreign policy and the Vietnam War

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by the Instructor/Discipline Chair.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

POL 220
INTERNATIONAL RELATIONS

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement tests

Corequisites: None

This course is a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and United Nations. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Demonstrate orally and in writing a basic knowledge of the theories and practices of international relations.
- b. Discuss orally and in writing the history and development of nation-states, the balance of power, anarchy and sovereignty.
- c. Discuss orally and in writing the patterns of conflict and cooperation among nation-states, the concept of war, foreign relations among nation-states, first world nations vs. third world countries, the cold war and post-cold war eras, the function of international law, the impact of international governmental and non-governmental organizations.
- d. Discuss orally and in writing international economic relations, the problems of the global environment, the pressures of population and migration and the impact of the World Wide Web on international relations.
- e. Recall the elements of nation-states, territory, power, sovereignty, conflicts, cooperation, foreign policy, first world and third world countries, war, cold war and post-cold war eras, international law, intergovernmental and non-intergovernmental organizations.
- f. Recall the elements of international economic relations, dependency, global environmental problems, population and migration and the World Wide Web as it relates to the roles of leading world actors and nation-states in the spectrum of international relations.

OUTLINE OF INSTRUCTION:

- I. Introduction
 - A. History and development of nation-states
 - B. The theories and practices of politics at the international level
- II. The principal world actors and their relations in global politics
 - A. Foreign policy decisions
 - B. Cold war and post-cold war eras

- C. First world countries vs. third world countries
- D. Intergovernmental and non-governmental organizations
 - 1.) NATO
 - 2.) UN
 - 3.) PLO
 - 4.) OPEC
 - 5.) Multinational corporations
 - 6.) Terrorist groups
 - 7.) Religious movements

III. Politics of a global economy

- A. Trade and monetary issues
- B. Global ecology concerns

IV. Global conflict and cooperation

- A. Peace among nation-states
- B. Security among nation-states
- C. Armed conflicts within nation-states
- D. National defense among nation-states
- E. Diplomacy among nations-states
- F. War among nation-states

V. Future trends in world politics

- A. Technology growth
- B. Proliferation of information
- C. Impact of the World Wide Web

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by the Instructor/Discipline Chair.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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POR 111
ELEMENTARY PORTUGUESE I

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement tests

Corequisites: POR 181

This course introduces the fundamental elements of the Portuguese language within a cultural context. Emphasis is on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Portuguese and demonstrate cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

- I. Students will be able to interact on a basic level and write simple paragraphs using grammatically correct sentences in the present tense. Students will display proficiency by demonstrating the following competencies:
 - a. Introduce themselves
 - b. Greet each other.
 - c. Describe themselves and other people.
 - d. Ask and answer simple questions (i.e. age, nationality, tel # etc.).
 - e. Describe using correct adjectives and adjective agreements.
 - f. Express likes and dislikes.
 - g. Express possession.
 - h. Express obligation.
 - i. Express destination.
 - j. Describe their daily routines.
- II. Students will be able to interact on a basic level and write simple paragraphs using grammatically correct sentences in the future tense. Students will display proficiency by demonstrating the following competencies:
 - a. Talk about future plans (using the *ir + a + infinitive* construction).
 - b. Talk about intent.
- III. Students will be able to interact on a basic level and write simple paragraphs using grammatically correct sentences in the preterit tense. Students will display proficiency by demonstrating the following competency:
 - a. Describe past events and happenings using the preterit of regular verbs.

- IV. Students will demonstrate cultural sensitivity and awareness. Students will display proficiency by demonstrating the following competencies:
- a. Discuss the culture and history of Portugal
 - b. Discuss the culture of Portugal and related cultures.
 - c. Understand and explain similarities and differences between the Portuguese culture and the English-speaking one.

OUTLINE OF INSTRUCTION:

- I. Brief introduction to the study of foreign language
 - A. A. Linguistic structure and relationship of language and culture
 - B. B. The Portuguese alphabet and basic pronunciation of Brazilian Portuguese
 - C. C. Introductory vocabulary of greetings, common cognates and numbers
- II. Formation of sentences in the present tense
 - A. The verb “ser”
 - B. Uses of the preposition “de”
 - C. Nouns and Adjectives: Number and gender, agreement
 - D. Useful expressions for the classroom and daily life
- III. Introduction to the full conjugation of the verb “ter” and “-ar” verbs in the present tense
 - A. Uses of the verb “ter”
 - B. Subject pronouns
 - C. Formation of questions
 - D. Negation
 - E. Some idiomatic expressions
 - F. Introduction to reading
- IV. Present tense of “-er” and “-ir” verbs
 - A. Important verbs: “ir,” “vir,” “fazer,” “ver”
 - B. Future formation with “ir” and “vir”
 - C. Possessive adjectives
 - D. The verb “estar” for temporary conditions
 - E. Verbs “ser,” “estar” and “ficar” with prepositions
- V. More on the present tense
 - A. Verbs “saber” and “conhecer”
 - B. Irregular verbs
 - C. Verb phrases
 - D. Adverbs
 - E. Numbers
 - F. Telling age
 - G. Further reading and introduction to writing

VI. Cultural component

- A. Cultural readings, dialogs, and situations (e.g.: daily shopping, weights and measures, aspects of Brazilian society, the Brazilian family)

REQUIRED TEXTBOOK:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

POR 112
ELEMENTARY PORTUGUESE II

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement tests, POR 111

Corequisites: POR 182,

This course introduces the fundamental elements of the Portuguese language within a cultural context. Emphasis is on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Portuguese as well as demonstrate cultural awareness. This course must be taken with the accompanying lab. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in humanities/fine arts.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

- I. Students will be able to interact more proficiently and write more complex paragraphs using the present tense. Students will display proficiency by demonstrating the following competencies:
 - a. Properly use affirmative and negative statements.
 - b. Avoid redundancy with indirect and direct object pronouns.
 - c. Enact a telephone conversation.
 - d. Describe how an action is done with adverbs.
 - e. Express the duration of an action in the past or one continuing to the present.
 - f. Give passive instructions.
 - g. Use prepositions with increased accuracy.
 - h. Express likes, dislikes and opinions with increased proficiency.
 - i. Make comparisons among two or more things.
 - j. Give directions using commands.
- II. Students will be able to interact on a basic level and write paragraphs using grammatically correct sentences in the past tenses. Students will display proficiency by demonstrating the following competencies:
 - a. Discuss past actions using the preterit tense of regular, irregular and stem-changing verbs.
 - b. Describe past occurrences using the imperfect tense of regular and irregular verbs.
 - c. Narrate in the past, appropriately using both the preterit and imperfect tenses.
 - d. Discuss what they and others have done in the past using the present perfect tense.

- III. Students will be able to interact on a basic level and write paragraphs using grammatically correct sentences in the present tense of the subjunctive mood. Students will display proficiency by demonstrating the following competencies:
- Discuss the unknown.
 - Give advice and state desires.
 - Express doubt.
 - Express emotions.
- IV. Students will demonstrate increased cultural sensitivity and awareness. Students will display proficiency by demonstrating the following competencies:
- Discuss the culture and history of Portugal.
 - Discuss the culture of Portugal and related cultures.
 - Understand and explain similarities and differences between the Portuguese culture and the English-speaking one.

OUTLINE OF INSTRUCTION:

- I. Talking about *what happened*
1. Preterite of regular –ar, –er, and –ir verbs
 2. Preterite of irregular verbs
 3. Adverbs of time
- II. Talking about the past--Imperfect
1. Imperfect of regular –ar, –er, and –ir verbs
 2. Imperfect of irregular verbs
- III. Representing actions that haven't happened yet
1. Conjugation of the future subjunctive
 2. Uses of the future subjunctive
- IV. Describing (Useful words and expressions)
1. Por vs. Para
 2. Telling time and the date
 3. Demonstrative pronouns
 4. Comparatives
 5. Superlatives
 6. Comparisons of equality
 7. Positive and negative words
- V. The Imperative Mood
1. Forming commands with regular –ar, –er, and –ir verbs
 2. Forming commands with irregular verbs

VI. Pronouns

- A. 1. Indirect object pronouns
- B. 2. Direct object pronouns
- C. 3. Verbs that use indirect object pronouns
- D. 4. Combination of direct and indirect object pronouns

VII. Using the Present Participle

- A. 1. The Present Progressive
- B. 2. Using the Present Participle by itself

VIII. Cultural Component

- A. Cultural readings, dialogs, and situations (for example, Brazilian singers, Brazilian transportation, vacationing in Brazil)

REQUIRED TEXTBOOKS:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

POR 181
PORTUGUESE LAB I

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: POR 111

This course provides an opportunity to enhance acquisition of the fundamental elements of the Portuguese language. Emphasis is on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Portuguese and demonstrate cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.* Course Hours Per Week: Lab, 2. Semester Hours Credit, 1.

LEARNING OUTCOMES:

- I. Students will use lab time to practice oral interaction on a basic level and writing simple paragraphs using grammatically correct sentences in the present tense. Students will display proficiency by demonstrating the following competencies:
 - a. Introduce themselves
 - b. Greet each other.
 - c. Describe themselves and other people.
 - d. Ask and answer simple questions (i.e. age, nationality, telephone # etc.).
 - e. Describe using correct adjectives and adjective agreements.
 - f. Express likes and dislikes.
 - g. Express possession.
 - h. Express obligation.
 - i. Express destination.
 - j. Describe their daily routines.
- II. Students will use lab time to practice oral interaction on a basic level and writing simple paragraphs using grammatically correct sentences in the future tense. Students will display proficiency by demonstrating the following competencies:
 - a. Talk about future plans (using the *ir + a + infinitive* construction).
 - b. Talk about intent.

III. Students will use lab time to practice oral interaction on a basic level and writing simple paragraphs using grammatically correct sentences in the preterit tense. Students will display proficiency by demonstrating the following competency:

- a. Describe past events and happenings using the preterit of regular verbs.

IV. Lab time will be used to discuss the Portuguese culture and history. Students will display proficiency by demonstrating the following competencies:

- a. Discuss the culture and history of Portugal.
- b. Discuss the culture of Portugal and related cultures.
- c. Understand and explain similarities and differences between the Portuguese culture and the English-speaking one.

OUTLINE OF INSTRUCTION:

I. Brief introduction to the study of foreign language

- A. Reinforce pronunciation of the Portuguese alphabet
- B. Practice listening skills of basic pronunciation of Brazilian Portuguese
- C. Introduce written exercises in connection with sounds of the alphabet and greetings, common cognates and introductions

II. Practice the formation of sentences in the present tense

- A. Reinforce the uses of the verb “ser”
- B. Apply uses of the preposition “de”
- C. Recognize and use nouns and adjectives and the changes that occur in number and gender agreement
- D. Use in written exercises changes suffered by nouns and adjectives and notice the change orally
- E. Use expressions for the classroom and daily life in meaningful exercises

III. Strengthening the understanding of the verb “ter” and of “-ar” verbs in the present tense

- A. Practice the uses of the verb “ter”
- B. Practice the formation of questions using interrogative pronouns
- C. Negation in an oral and written context
- D. Use some idiomatic expressions in written and oral communication
- E. Read silently and out loud for pronunciation and comprehension

IV. Using the present tense of “-er” and “-ir” verbs in listening and writing exercises

- A. Reinforce the use of verbs “ir,” “vir,” “fazer,” “ver” in complete sentences
- B. Practice the formation of the future with “ir” and “vir”
- C. Oral and written practice of possessive adjectives
- D. Listening and writing exercises using the verbs “ser,” “estar” and “ficar” with prepositions and “estar” for temporary conditions

V. Expansion of the present tense

- A. Reinforce the application of verbs “saber” and “conhecer”
- B. Practice irregular verbs and verb phrases in complete sentences
- C. Use adverbs and numbers in meaningful sentences and situations
- D. Practice telling age
- E. Continue the practice of reading out loud for pronunciation
- F. Practice writing

VI. Expansion of cultural awareness

- A. Using videos and web sites expand on customs and traditions
- B. Introduce students to music and the arts through presentations
- C. Integrate cultural readings, dialogs, and situations (e.g.: daily shopping, weights and measures, aspects of Brazilian society, the Brazilian family)

REQUIRED TEXTBOOK:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

POR 182
PORTUGUESE LAB II

COURSE DESCRIPTION:

Prerequisites: ENG 080 and RED 080 or satisfactory score on placement test

Corequisites: POR 182, ENG 090, or satisfactory score on placement test

This course introduces the fundamental elements of the Portuguese language within a cultural context. Emphasis is on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Portuguese as well as demonstrate cultural awareness. This course must be taken with the accompanying lab. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in humanities/fine arts.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

- I. Students will be able to interact more proficiently and write more complex paragraphs using the present tense. Students will display proficiency by demonstrating the following competencies:
 - a. Properly use affirmative and negative statements.
 - b. Avoid redundancy with indirect and direct object pronouns.
 - c. Enact a telephone conversation.
 - d. Describe how an action is done with adverbs.
 - e. Express the duration of an action in the past or one continuing to the present.
 - f. Give passive instructions.
 - g. Use prepositions with increased accuracy.
 - h. Express likes, dislikes and opinions with increased proficiency.
 - i. Make comparisons among two or more things.
 - j. Give directions using commands.
- II. Students will be able to interact on a basic level and write paragraphs using grammatically correct sentences in the past tenses. Students will display proficiency by demonstrating the following competencies:
 - a. Discuss past actions using the preterit tense of regular, irregular and stem-changing verbs.
 - b. Describe past occurrences using the imperfect tense of regular and irregular verbs.
 - c. Narrate in the past, appropriately using both the preterit and imperfect tenses.
 - d. Discuss what they and others have done in the past using the present perfect tense.

- III. Students will be able to interact on a basic level and write paragraphs using grammatically correct sentences in the present tense of the subjunctive mood. Students will display proficiency by demonstrating the following competencies:
- a. Discuss the unknown.
 - b. Give advice and state desires.
 - c. Express doubt.
 - d. Express emotions.
- IV. Lab time will be used to discuss the Portuguese culture and history. Students will display proficiency by demonstrating the following competencies:
- a. Discuss the culture and history of Portugal.
 - b. Discuss the culture of Portugal and related cultures.
 - c. Understand and explain similarities and differences between the Portuguese culture and the English-speaking one.

OUTLINE OF INSTRUCTION:

- I. Talking about *what happened*
- a. Reinforcement of the preterite of regular –ar, -er, and –ir verbs
 - b. Reinforcement of the preterite of irregular verbs
 - c. Practice of the use of adverbs of time
- II. Practice talking about the past--Imperfect
- a. 1. Reinforcement of the imperfect of regular –ar, -er, and –ir verbs
 - b. 2. Reinforcement of the imperfect of irregular verbs
- III. Talking about actions that haven't happened yet
- a. Practice of the conjugation of the future subjunctive
 - b. Reinforcement of the uses of the future subjunctive
- IV. Describing (Useful words and expressions)
- a. Reinforcing the uses of Por vs. Para
 - b. Practice telling time and date
 - c. Using demonstrative pronouns
 - d. Practice of comparatives
 - e. Practice of superlatives
 - f. Practice of comparisons of equality
 - g. Using positive and negative words
- V. The Imperative Mood
- a. Reinforcement of commands with regular –ar, -er, and –ir verbs
 - b. Reinforcement of commands with irregular verbs

VI. Pronouns

- a. Practice of the use of indirect object pronouns
- b. Practice of the use of direct object pronouns
- c. Practice of verbs that use indirect object pronouns
- d. Combining direct and indirect object pronouns

VII. Using the Present Participle

- a. Practice of the present progressive
- b. Reinforcement of the use of the present participle by itself

VIII. Cultural Component

- a. Talking about cultural readings, dialogs, and situations (for example, Brazilian singers, Brazilian transportation, vacationing in Brazil)

REQUIRED TEXTBOOK:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

POR 211
INTERMEDIATE PORTUGUESE I

COURSE DESCRIPTION:

Prerequisites: POR 112, ENG 080 and RED 080, or satisfactory score on placement test

Corequisites: ENG 090 and RED 090

This course provides a review and expansion of the essential skills of the Portuguese language. Emphasis is on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Understand standard oral communication in present, past and future tenses including the subjunctive mood.
- b. Respond with reasonable proficiency to increasingly complex statements and questions in present, past and future tense, including the subjunctive.
- c. Compose compositions in Portuguese that incorporate new grammar structures and vocabulary.
- d. Read longer and more complex passages that contain new grammatical structures.
- e. Comprehend and use additional words and idioms.
- f. Discuss basic components of the Portuguese culture.

NOTE: This course will be taught entirely in Portuguese.

OUTLINE OF INSTRUCTION:

- I. Subjunctive
 - A. Indirect commands
 - B. Subjunctive of doubt or probability
 - C. Subjunctive of emotion
 - D. Verbs of communication
- II. Describing (useful words, structures, and expressions)
 - A. Ordinal numbers
 - B. More expressions with *ter* or *estar com*
 - C. The passive voice

- D. Diminutive and augmentative suffixes
- E. Indirect discourse

III. Reflexive verbs and pronouns

- A. Reflexive pronouns and common reflexive verbs
- B. Reflexive pronouns in relation to infinitives
- C. Reflexive pronouns in relation to the
- D. Present participle
- E. Reflexive verbs and the use of some prepositions
- F. Reflexive verbs and the concept of “to become”
- G. Reflexive pronouns and reciprocal actions

IV. The past subjunctive

- A. The past subjunctive of regular verbs
- B. The past subjunctive of some irregular verbs
- C. Uses of the past subjunctive

V. Talking about the future

- A. The future tense and its uses
- B. Irregular verbs in the future tense
- C. The future perfect

VI. Expressing contrary-to-fact situations

- A. The conditional
- B. Se used with the conditional and past subjunctive

VII. Cultural Component

- A. Assortment of cultural and literary readings, dialogs, and situations

REQUIRED TEXTBOOKS:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT OF STUDENTS WITH DISABILITIES

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PSY 110
LIFE-SPAN DEVELOPMENT

COURSE DESCRIPTION:

Prerequisites: ENG 080 and RED 080, or DRE 097, or satisfactory score on placement tests

Corequisites: None

This course provides an introduction to the study of human growth and development. Emphasis is on the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span and apply this knowledge to their specific field of study. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Identify the historical overview of life span developmental.
- b. Define and explain research methods used in life span development.
- c. Define and explain major theories of human development.
- d. Discuss and recognize the physical, cognitive, and socioemotional changes in development throughout the lifespan.

CORE CONCEPTS EXAMINED:

- A. Determinants of development
- B. Nature vs. nurture
- C. Research methodologies
- D. Psychodynamic theory
- E. Social learning theory
- F. Cognitive theory
- G. Biological theory and genetics
- H. Prenatal development and birth
- I. Physical development across the lifespan
- J. Cognitive and language development across the lifespan
- K. Psychosocial development across the lifespan
- L. Death and bereavement
- M. Perspectives on death
- N. Children's reaction to death and dying

REQUIRED TEXTBOOK AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PSY 118
INTERPERSONAL PSYCHOLOGY

COURSE DESCRIPTION:

Prerequisites: ENG 080 and RED 080, or satisfactory score on placement test

Corequisites: None

This course introduces the principles of psychology as they relate to personal and professional development. Emphasis is on personality traits, communication and leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Explore the nature of human relations.
- b. Recognize and evaluate self-motivation.
- c. Understand the guidelines for goal setting.
- d. Understand the principles of group problem solving.
- e. Discuss the impact of anxiety and stress on health.
- f. Identify the steps in the communication process.
- g. Recognize and develop strategies to resolve conflict.
- h. Discuss cross-cultural communication barriers and how to improve cross-cultural relations.
- i. Awareness of diversity issues in the workplace.
- j. Apply the principles of psychology to build a career.
- k. Understand and develop appropriate job search tools and techniques.
- l. Recognize appropriate workplace habits.
- m. Describe an effective leader.
- n. Understand the role of psychology in marriage and family life.

OUTLINE OF INSTRUCTION:

- I. Understanding and Managing Yourself
 - A. Self-understanding and the interrelationship of career and personal success
 - B. Self-Motivation and Goal Setting
 - C. Problem Solving and Creativity
 - D. Achieving Wellness and Managing Stress
 - E. Dealing with Personal Problems

- II. Dealing Effectively With People
 - A. Communicating with People
 - B. Handling Conflict and Being Assertive
 - C. Getting Along with Your Manager, Coworkers, and Customers
 - D. Developing Cross-Cultural Competency
- III. Developing a Career Thrust
 - A. Choosing a Career and Developing a Portfolio Career
 - B. Conducting a Job Search
 - C. Developing Good Work Habits
 - D. Getting Ahead in Your Career
 - E. Developing Self-Confidence and Becoming a Leader
- IV. Managing Your Personal Life
 - A. Managing Your Personal Finances
 - B. Finding Happiness and Enhancing Your Personal Life

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PSY 150
GENERAL PSYCHOLOGY

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090, or DRE 098; or satisfactory score on placement test

Corequisites: None

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social behavioral science.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to:

- a. Relate a basic understanding of the history of psychology, and its growth as a science.
- b. Demonstrate an understanding of the scientific method, and the various research methodologies used in psychology.
- c. Relate an understanding of psychology through its major approaches including: biological, behavioral, psychodynamic, humanistic, cognitive, evolutionary, and sociocultural; and a consideration for cultural diversity and how it applies in everyday life.
- d. Demonstrate an awareness of health and wellness connections, psychological disorders and the various therapies available to affect our lives.

CORE CONCEPTS EXAMINED:

- A. History of psychology
- B. Goals of psychology
- C. Critical thinking in science
- D. Methods of data collection
- E. Interpretation of correlation
- F. Elements of Experimentation
- G. Critical thinking in science
- H. Biological influences on behavior and mental processes
- I. States of consciousness
- J. Elements of learning and motivation, and the relationship of learning to motivation
- K. Cognitive processing
- L. Emotional states and stress

- M. Human development
- N. Theories and measurement of Personality
- O. Diagnosis, explanation and treatment of mental disorders
- P. Theories and processes in social psychology

REQUIRED TEXTBOOK AND MATERIAL:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PSY 237
SOCIAL PSYCHOLOGY

COURSE DESCRIPTION:

Prerequisites: PSY 150 or SOC 210

Corequisites: None

This course introduces the study of individual behavior within social contexts. Topics include affiliation, attitude formation and change, conformity, altruism, aggression, attribution, interpersonal attraction, and group behavior. Upon completion, students should be able to demonstrate an understanding of the basic principles of social influences on behavior. Emphasis is on the application of principles as they relate to contemporary social issues. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in social/behavioral sciences.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of the course, the student will be able to:

- a. Explain research methods used in social psychology.
- b. Define and discuss the concept of social cognition.
- c. Discuss the concepts of cognitive heuristics and schema as they apply to social psychology.
- d. Explain attribution theory and use it as a means of analysis of human behavior.
- e. Define the concepts of person perception and impression formation and discuss the relationship between the two.
- f. Discuss the concept of self as it is used in social psychology.
- g. Define attitude; discuss how attitudes are formed and explain how and why attitudes change.
- h. Define and discuss prejudice, its origins, its relationship to stereotype and methods to reduce it.
- i. Define and explain group behavior phenomenon, including conformity, obedience, and compliance.
- j. Explain the factors that influence interpersonal attraction and the development of personal relationships.
- k. Define and discuss the concepts of altruism, prosocial behaviors, aggression and violence.
- l. Discuss social psychology as it relates to broad societal concerns.

OUTLINE OF INSTRUCTION:

- I. Social Psychology as a science
 - A. Historical background
 - B. Theories of social psychology
 - C. Goals of research
 - D. Research methods

- II. Social cognition
 - A. Schemas and schematic processing
 - B. Cognitive heuristics
- III. Attribution
 - A. The origins of attribution
 - B. Attributions about others
 - C. Attributions about self
 - D. Attributional bias
- IV. Person perception
 - A. Impression formation
 - B. Accuracy of judgments
- V. The self
 - A. Definition of self
 - B. Creation of self
 - C. Social comparison theory
 - D. Cultural influences on self
- VI. Attitudes
 - A. Theories of attitudes

Definition of attitudes

Attitudes and behavior

 - B. Attitude change
 - C. Persuasion and attitude change
- VII. Prejudice
 - A. Origins of prejudice
 - B. Prejudice and stereotypes
 - C. Reduction of prejudice
- VIII. Social influence
 - A. Conformity and compliance
 - B. Obedience to authority
 - C. Group behavior
 - D. Helping behavior
 - 1) altruism and prosocial behavior
 - 2) the helper and the one in need
- IX. Aggression
 - A. Origins of aggression and aggressive behavior
 - B. Reduction of aggression
 - C. Media influences on violence

- X. Social psychology and society
 - A. Stress and illness
 - B. Environmental stress
 - C. Political behavior

REQUIRED TEXTBOOK AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PSY 241
DEVELOPMENTAL PSYCHOLOGY

COURSE DESCRIPTION:

Prerequisites: PSY 150

Corequisites: None

This course is a study of human growth and development. Emphasis is on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. Course work includes projects which emphasize research. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in social/behavioral sciences.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, student will be able to:

- a. Construct and interpret a historical overview of developmental psychology.
- b. Objectively interpret evidence interpreted through typical research methods used to understand human development.
- c. Explain, evaluate, and debate the major psychological theories as they apply for human development.
- d. Investigate, apply, and analyze the formulation of change that occurs through physical, cognitive and socioemotional factors as people evolve from conception to death.

OUTLINE OF INSTRUCTION:

- I. Development
 - A. Definition of development
 - B. Quantitative vs. qualitative development
 - C. Continuous vs. discrete development
- II. History of developmental psychology
 - A. Definition of childhood
 - B. Stages of life
 - C. Definition of lifespan
- III. Theoretical and research perspective
 - A. Research methods
 - 1) Longitudinal design
 - 2) Cross-sectional design
 - 3) Sequential design

- B. Freud's psychoanalytic perspective
- C. Neo-Freudian perspectives
 - 1) Erikson
 - 2) Adler
- D. Piagetian perspective
- E. Behavioral perspective
 - 1) Learning theory
 - 2) Social learning theory
- IV. Conception and prenatal development
 - A. Principles of genetic transmission
 - B. Genetic abnormalities
 - C. Abnormalities of prenatal development
- V. The newborn infant
 - A. Sensations and perceptions
 - B. Physical skills
 - C. Early cognitive skills
- VI. Development through the first year
 - A. Principles of physical development
 - B. Physical milestones
 - C. The development of imitation
 - 1) Imitation and cognition
 - 2) Imitation and social development
 - D. Attachment and separation
- VII. Development in the toddler
 - A. Physical changes
 - B. The development of language
 - 1) Cognitive development
 - 2) Social development
 - C. The importance of family and peers
- VIII. Development in the preschool child
 - A. Cognitive development
 - B. Social development
- IX. Development in the school age child
 - A. Cognitive development
 - B. Social development
- X. Development in the adolescent
 - A. Cognitive development
 - 1) Egocentric thought
 - 2) Personal mythologies
 - B. Social development
 - 1) Family influences
 - 2) Peer influences
 - 3) Dating

- C. Identity development
- D. Physical development
- XI. Development in the young adult
 - A. The choice of a career
 - B. Establishing an intimate relationship
 - 1) The choice of a mate
 - 2) Marriage and divorce
 - C. Early life evaluations
- XII. Development in middle adulthood
 - A. Mid-life evaluations
 - 1) Career evaluations
 - 2) Relationship evaluations
 - B. Changes in family structure
 - C. Ideas about death
- XIII. Late adulthood
 - A. Sensory changes
 - B. Intellectual changes
 - C. Retirement
 - D. Death and dying
 - E. Contemporary issues related to aging

REQUIRED TEXTBOOK AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

PSY 281 ABNORMAL PSYCHOLOGY

COURSE DESCRIPTION

Prerequisites: PSY 150

Corequisites: None

This course provides an examination of the various psychological disorders as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. Course work includes projects. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in social/behavioral sciences.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Discuss and interpret a definition for abnormal behavior.
- b. Provide a historical overview of abnormal psychology.
- c. Interpret and explain research methodologies used for describing and explaining abnormal psychology.
- d. Define and discuss classification, diagnosis, and assessment.
- e. Identify and discuss assessment techniques.

OUTLINE OF INSTRUCTION:

- I. Abnormal behavior
 - A. Definition of abnormality
 - B. Epidemiology of abnormality
 - 1) Incidence
 - 2) Prevalence
- II. Historical perspective
 - A. The Ancient Greeks
 - B. The Middle Ages
 - C. The Reform Movement
- III. Theoretical and research perspectives
 - A. Research methods
 - B. Biological perspective
 - C. Psychoanalytic perspective

- D. Behavioral perspective
- E. Cognitive perspective
- F. Humanistic/existential perspective
- IV. Identification and classification of abnormal behavior
 - A. Assessment
 - B. Diagnosis
- V. Stress
 - A. Vulnerability to stress
 - B. Coping methods
 - C. Prevention and treatment of stress-related disorders
- VI. Psychology of health and disease
 - A. Psychophysiological disorders
 - B. Somatoform disorders
 - C. Treatment alternatives
- VII. Anxiety based disorders
 - A. Panic disorder
 - B. Generalized anxiety disorder
 - C. Phobia
 - D. Obsessive-compulsive disorder
 - E. Post-trauma stress disorder
 - F. Etiology
 - G. Treatment
- VIII. Dissociative disorders
 - A. Dissociative fugue
 - B. Dissociative identity disorder
 - C. Depersonalization disorder
 - D. Etiologies
 - E. Treatment
- IX. Mood disorders
 - A. Depression and depressive disorder
 - B. Bipolar disorder
 - C. Etiologies
 - D. Treatment
- X. Personality disorders
 - A. Classification of disorders
 - B. Behavioral manifestations
 - 1) Eccentric behaviors
 - 2) Erratic/dramatic behaviors
 - 3) Anxious behaviors
 - C. Etiologies
 - D. Treatment

- XI. Sexual disorders
 - A. Variations
 - B. Dysfunctions
 - C. Etiologies
 - D. Treatment
- XII. Schizophrenia
 - A. Symptoms
 - B. Types
 - C. Etiologies
 - D. Treatment
- XIII. Substance related disorders
 - A. Alcoholism
 - B. Other drugs
 - C. Etiologies
 - D. Treatment
- XIV. Disorders of childhood and adolescence
 - A. Autism
 - B. Mental retardation
 - C. Learning disabilities
 - D. Disruptive disorders
 - E. Emotional disorders
 - F. Eating disorders
 - G. Etiologies
 - H. Treatment
- XV. Organic disorders
 - A. Delirium
 - B. Dementia's
 - C. Etiologies
 - D. Treatment

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by instructor.

STATEMENT OF STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

RCP 110
INTRODUCTION TO RESPIRATORY CARE

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Respiratory Therapy program

Corequisites: RCP 113, RCP 114, RCP 132

This course introduces the respiratory care profession. Topics include the role of the respiratory care practitioner, medical gas administration, basic patient assessment, infection control, and medical terminology. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit: 4.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should understand:

- I. Fundamentals of Respiratory Care
- II. Assessment of Respiratory disorders
- III. Basic therapeutics
- IV. Infection control
- V. Medical terminology
- VI. Gas exchange and transport

OUTLINE OF INSTRUCTION:

- I. Fundamental of Respiratory Care
 - a. History of Respiratory Care
 - b. Role of the Respiratory Therapist
 - c. Quality and Evidence-based Respiratory Care
 - d. Patient safety, communication, and record keeping
 - e. Principle of infection control
 - f. Ethical and legal implications
 - g. Physical principles of Respiratory Care
- II. Assessment of Respiratory disorders
 - a. Bedside interview techniques
 - b. Medical history
 - c. Physical examination
 - d. Elements of a physician's order
 - e. Use an ABG in patient assessment
 - f. Restrictive versus obstructive lung disease
 - g. Respiratory care plan
- III. Basic therapeutics
 - a. Humidity and bland aerosol therapy
 - i. Indications for humidity therapy
 - ii. Hazards of humidity therapy
 - iii. Theory of deposition of aerosol particles
 - iv. Techniques to mobilize secretions
 - v. Calculation of humidity deficits

- vi. Evaluation of aerosol effectiveness
- vii. Use of humidity and aerosol devices and equipment
- b. Aerosol drug therapy devices and Metered Dose Inhalers
- c. Storage and delivery of medical gases
 - i. Use of cylinders
 - ii. Use of regulators/flowmeters
 - iii. Use of oxygen delivery devices
- d. Medical gas therapy
 - i. Objectives of oxygen therapy
 - ii. Assessment of oxygen need and response
 - iii. Application of high flow and low flow devices
 - iv. Dangers of oxygen administration
 - v. Proper bed positioning
- e. Helium/oxygen therapy
- f. Pulse oximetry
- g. Obtain an ABG

IV. Infection control

- a. Overview of pathogens
- b. Nosocomial infections
- c. Methods of obtaining sterility
- d. Proper hand washing techniques
- e. Universal precautions and the rationale for isolation techniques

V. Medical terminology

VI. Gas exchange and transport

- a. Physiologic math conversion and Algebra manipulation
- b. Physiologic calculations
- c. Use of physiologic graphs and nomograms
- d. Oxygen transport

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

RCP 111 THERAPEUTICS AND DIAGNOSTICS

COURSE DESCRIPTION:

Prerequisites: RCP 110, RCP 113, RCP 114

Corequisites: RCP123, RCP 145

This course is a continuation of RCP 110. Emphasis is on entry-level therapeutic and diagnostic procedures used in respiratory care. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. Course Hours Per Week: Class, 4. Lab, 3. Semester Hours Credit: 5.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should understand:

- I. Assessment of Respiratory disorders
- II. Basic therapeutics
- III. Patient education
- IV. Long-term care

OUTLINE OF INSTRUCTION:

- I. Assessment of Respiratory disorders
 - a. Interpretation of clinical laboratory data
 - i. CBC
 - ii. Electrolytes
 - iii. Sputum
 - iv. Gram staining
 - b. Performing and interpreting electrocardiograms
 - i. Set up leads for a 12 lead ECG
 - ii. Recognize pertinent ECG patterns
 - iii. Discuss PQRST Complex and heart physiology
 - c. Pulmonary function testing
 - i. Restrictive versus obstructive patterns
 - d. Thoracic imaging
 - i. Chest radiograph
 - ii. Ultrasonography
 - iii. Computed tomography
 - iv. Magnetic resonance imaging
 - e. Interpret and use an ABG in patient assessment
 - i. Analysis and monitoring of gas exchange
 - f. Non-invasive monitoring
 - i. Pulse oximetry
 - ii. End-tidal CO₂
 - g. Point-of-care testing

- II. Basic therapeutics
 - a. Airway management
 - i. Airway suctioning
 - ii. Obtaining a sputum sample for analysis
 - iii. Objectives and hazards of suctioning
 - iv. Usage and care of all artificial airways
 - v. Bronchoscopy
 - b. Lung expansion therapy
 - i. Concepts of hyperinflation
 - ii. Choosing the right modality
 - iii. Hazards and objectives of various modalities
 - c. Bronchial hygiene therapy
 - i. Choosing the right modality
 - ii. Hazards and objectives of various modalities
- III. Patient education
 - a. Health promotion
- IV. Long-term care
 - a. Concepts of cardiopulmonary rehabilitation
 - b. Home care
 - i. Oxygen administration
 - ii. Activities of daily living
 - iii. Equipment care
 - iv. Medicare requirements

REQUIRED TEXTBOOKS AND MATERIALS:

Textbooks to be selected by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 112 PATIENT MANAGEMENT

COURSE DESCRIPTION:

Prerequisites: RCP 111, RCP 115

Corequisites: RCP 153, RCP 222

This course provides entry-level skills in adult and pediatric mechanical ventilation as well as respiratory care procedures in traditional and alternative settings. Emphasis is on therapeutic modalities and physiological effects of cardiopulmonary rehabilitation, home care, mechanical ventilation, and monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit: 4.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should understand:

- I. Positive and negative pressure ventilation
- II. Noninvasive positive pressure ventilation
- III. Bedside pulmonary physiologic calculations
- IV. Weaning and extubating a patient from pressure ventilation

OUTLINE OF INSTRUCTION:

- I. Positive and negative pressure ventilation
 - a. Indications for mechanical ventilation
 - b. The 'ideal' mechanical ventilator
 - c. Mechanical ventilator classification
 - d. Elements and controls of mechanical ventilators
 - e. Set-up of circuits and their maintenance
 - f. Ventilator patient
 - g. Trouble-shooting mechanical ventilators
- II. Noninvasive positive pressure ventilation (NPPV)
 - a. Indications for NPPV
 - b. Elements and controls of NPPV
 - c. Set-up and maintenance
 - d. Trouble-shooting NPPV
 - e. Selection of appropriate interface devices
- III. Bedside pulmonary physiologic calculations
 - a. Deadspace
 - b. Shunt

- c. Cardiac output
 - d. Corrected tidal volume
 - e. Resistance
 - f. Dynamic and static compliance
 - g. New rate
 - h. New oxygen percentage
 - i. Bedside pulmonary function maneuvers
 - i. VC
 - ii. FEF
 - iii. Vt
 - iv. Minute ventilation
 - v. MVV
 - vi. MIP
 - vii. Peak flowrates
- IV. Weaning and extubating a patient from pressure ventilation
- a. Function assessment of the patient's organ systems
 - b. Spontaneous function assessment of the ventilatory system
 - c. Implementation of weaning parameters appropriately

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

RCP 113 RCP PHARMACOLOGY

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Respiratory Care program

Corequisites: RCP 110, RCP 114, and RCP 132

This course covers the drugs used in the treatment of cardiopulmonary diseases. Emphasis is placed on the uses, actions, indications, administration, and hazards of pharmacological agents. Upon completion, students should be able to demonstrate competence through written evaluations. Course Hours Per Week: Class, 2. Lab, 0. Semester Hours Credit: 2.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should understand:

- I. Basic concepts and principles in pharmacology
- II. Drugs used to treat the respiratory system
- III. Critical care and cardiovascular drug classes

OUTLINE OF INSTRUCTION:

- I. Basic concepts and principles in pharmacology
 - a. Introduction to respiratory care pharmacology
 - b. Principles of drug action
 - c. Administration of aerosolized agents
 - d. Calculating drug doses
 - e. Central and peripheral nervous systems
- II. Drugs used to treat the respiratory system
 - a. Adrenergic (sympathomimetic) bronchodilators
 - b. Anticholinergic (parasympatholytic) bronchodilators
 - c. Xanthines
 - d. Mucus-controlling drug therapy
 - e. Corticosteroids in respiratory care
 - f. Nonsteroidal antiasthma agents
 - g. Aerosolized antiinfective agents
 - h. Antimicrobial agents
 - i. Cold and cough agents
 - j. Selected agents of pulmonary value

- III. Critical care and cardiovascular drug classes
 - a. Skeletal muscle relaxants (neuromuscular blocking agents)
 - b. Vasopressors, inotropes and antiarrhythmic agents
 - c. Drugs affecting circulation
 - i. Antihypertensive
 - ii. Antianginals
 - iii. Antithrombotics
 - d. Diuretic agents
 - e. Drugs affecting the central nervous system

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 114
C-P ANATOMY & PHYSIOLOGY

COURSE DESCRIPTION:

Prerequisites: Enrollment in Respiratory Therapy Program

Corequisites: RCP 110, RCP 113, RCP 132

This course provides a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of respiratory care. Emphasis is placed on cardiovascular and pulmonary physiology, acid/base balance, and blood gas interpretation. Upon completion, students should be able to demonstrate competence in these concepts through written evaluations. Course Hours Per Week: Class, 3. Lab, 0. Semester Hours Credit: 3.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should understand:

- I. The respiratory system
- II. The cardiovascular system
- III. Ventilation
- IV. Gas exchange and transport
- V. Solutions, body fluids, and electrolytes
- VI. Acid-base balance
- VII. The regulations of breathing

OUTLINE OF INSTRUCTION:

- I. The respiratory system
 - a. Anatomy of the respiratory tract
 - b. Pulmonary vascular, lymphatic, and nervous systems
- II. The cardiovascular system
 - a. Functional anatomy
 - b. Control of the cardiovascular system
 - c. Events of the cardiac cycle

III. Ventilation

- a. Mechanics of ventilation
- b. Mechanics of exhalation
- c. Work of breathing
- d. Distribution of ventilation
- e. Efficiency and effectiveness of ventilation

IV. Gas exchange and transport

- a. Diffusion
- b. Normal variations from ideal gas exchange
- c. Oxygen transport
- d. Carbon dioxide transport
- e. Abnormalities of gas exchange and transport

V. Solutions, body fluids, and electrolytes

- a. Solutions
- b. Electrolytic activity and acid-base balance
- c. Body fluids and electrolytes

VI. Acid-base balance

- a. Hydrogen ion regulation in body fluids
- b. Acid excretion
- c. Acid-base disturbances
- d. Clinical acid-base states

VII. The regulations of breathing

- a. Medullary respiratory center
- b. Pontine respiratory center
- c. Reflex control of breathing
- d. Chemical control of breathing
- e. Ventilatory response to exercise
- f. Abnormal breathing patterns
- g. Carbon dioxide and cerebral blood flow

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 115

C-P PATHOPHYSIOLOGY

COURSE DESCRIPTION:

Prerequisites: RCP 110, RCP 113, RCP 114, and BIO 168

Corequisites: RCP 111, RCP 123, RCP 145, and BIO 169

This course introduces the etiology, pathogenesis, and physiology of cardiopulmonary diseases and disorders. Emphasis is on clinical signs and symptoms along with diagnoses, complications, prognoses, and management. Upon completion, students should be able to demonstrate competence in these concepts through written evaluations. Course Hours Per Week: Class, 2. Semester Hours Credit: 2.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should understand:

- I. Significance of a physical assessment procedure
- II. Chest radiograph
- III. How to record patient data and develop a patient treatment plan
- IV. Cardiopulmonary manifestations of obstructive airway disease
- V. Cardiopulmonary manifestations of infectious pulmonary diseases
- VI. Cardiopulmonary manifestations of pulmonary vascular diseases
- VII. Cardiopulmonary manifestations of pleural diseases and trauma
- VIII. Cardiopulmonary manifestations of environmental lung disease
- IX. Cardiopulmonary manifestations of neurologic disorders
- X. Cardiopulmonary manifestations of neoplastic disease
- XI. Cardiopulmonary manifestations of smoke inhalation, near drowning, atelectasis, and sleep apnea

OUTLINE OF INSTRUCTION:

- I. Significance of a physical assessment procedure
 - a. Non-invasive assessment techniques
 - b. Invasive assessment techniques
 - c. Commonly seen lab test
- II. Chest radiograph
 - a. Concepts of x-ray density
 - b. PA and AP films
 - c. Special techniques in the x-ray lab
- III. How to record patient data and develop a patient treatment plan
 - a. Patient interview
 - b. Obtaining subjective data
 - c. Obtaining objective data
 - d. SOAP development and follow-up
- IV. Cardiopulmonary manifestations of obstructive airway disease
 - a. Review of pertinent anatomy
 - b. Asthma
 - c. Bronchitis
 - d. Emphysema

- e. Other obstructive diseases
- V. Cardiopulmonary manifestations of infectious pulmonary diseases
 - a. Pneumonias
 - b. Tuberculosis
 - c. Other infectious pulmonary diseases
- VI. Cardiopulmonary manifestations of pulmonary vascular diseases
 - a. Pulmonary edema
 - b. Pulmonary embolism and infarction
- VII. Cardiopulmonary manifestations of pleural diseases and trauma
 - a. Flail chest
 - b. Pneumothorax
 - c. Pleural diseases
 - d. Kyphoscoliosis
 - e. Blunt chest trauma
- VIII. Cardiopulmonary manifestations of environmental lung disease
 - a. Pneumoconiosis
 - b. Organic lung irritants
- IX. Cardiopulmonary manifestations of neurologic disorders
 - a. Guillain Barre
 - b. Myasthenia gravis
 - c. Sleep apnea
- X. Cardiopulmonary manifestations of neoplastic disease
 - a. Anatomic alterations in the lung
 - b. General management of cancer
- XI. Cardiopulmonary manifestations of smoke inhalation, near drowning, and atelectasis
 - a. Smoke inhalation
 - b. Near drowning
 - c. Atelectasis

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 123
SPECIAL PRACTICE LAB

COURSE DESCRIPTION:

Prerequisites: Restricted to students in Respiratory Therapy program

Corequisites: RCP 111, RCP 115, RCP 145

This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations. Course Hours Per Week: Class, 0. Lab, 3. Semester Hours Credit: 1.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should be able to:

- I. Obtain patient information
- II. Obtain vital signs
- III. Perform a physical examination
- IV. Infection control
- V. Perform oxygen administration
- VI. Use of gas cylinders
- VII. Apply gas metering devices
- VIII. Obtain an ABG
- IX. Monitor pulse oximetry
- X. Accurate charting / documentation

OUTLINE OF INSTRUCTION:

- I. Obtain patient information
 - a. Interview techniques
 - b. Obtain a patient's history
- II. Obtain vital signs
 - a. Heart rate
 - b. Blood pressure
 - c. Respiratory rate
- III. Perform a physical examination
 - a. Inspection
 - b. Palpation
 - c. Percussion
 - d. Auscultation

- IV. Infection control
 - a. Proper hand washing
 - b. Universal precautions
 - c. Applying personal protective devices
 - d. Equipment care
- V. Perform oxygen administration
 - a. Low-flow devices
 - b. High-flow devices
 - c. Bland aerosol devices
- VI. Use of gas cylinders
 - a. E cylinder
 - b. H cylinder
- VII. Apply gas metering devices
 - a. Regulators
 - b. Flow-meters
- VIII. Obtain an ABG
- IX. Monitor pulse oximetry
- X. Accurate charting / documentation

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

RCP 132 CLINICAL PRACTICE I

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Respiratory Therapy program

Corequisites: RCP 110

This course provides entry-level clinical experience. Emphasis is on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations. Topics include basic Cardiac Life Support, Universal Precautions, patient assessment techniques, oxygen, humidity, and aerosol delivery devices. Course Hours Per Week: Clinical 6. Semester Hours Credit, 2.

LEARNING OUTCOMES:

At the completion of the course requirements, the student will be able to:

- a. Understand and be able to use basic medical terminology in professional communications.
- b. Become certified in basic cardiac life support.
- c. Assess vital signs and perform basic nursing techniques.
- d. Perform a physical exam of the chest.
- e. Understand the components of, and be able to read a patient's medical chart.
- f. Be able to utilize universal and special precautions in the hospital setting.
- g. Be able to identify, assemble, and apply various devices for the delivery humidity, aerosol, and oxygen therapy to appropriate patients in the hospital setting.

OUTLINE OF INSTRUCTION:

- I. Basic medical terminology
 - A. Define the medical terms used in BCLS.
 - B. Recognize and define the medical terms used in the physical assessment of the patient with cardiac and/or pulmonary disease.
 - C. Recognize and define the medical terms and abbreviations commonly used in the hospitalized patient's medical record.
- II. Basic cardiac life support
 - A. Be able to perform one man and two man adult CPR.
 - B. Be able to perform infant and child CPR.
 - C. Be able to perform the techniques necessary to clear the obstructed airway of the conscious and unconscious adult, child, and infant.
- III. Vital signs and basic nursing techniques
 - A. Identify abnormal and normal values for respiratory rate, blood pressure, pulse, and temperature.
 - B. Measure and record respiratory rate, blood pressure, pulse, and temperature.
 - C. Body mechanics and techniques to assist patient positioning in bed and for ambulation.

- IV. Chest physical exam
 - A. Identify the physical landmarks of the chest.
 - B. Be able to use and properly position the stethoscope for a chest exam.
 - C. Identify the presence and significance of normal, abnormal, and adventitious breath sounds.
 - D. Describe the techniques for inspection, palpation, and percussion of the chest.
 - E. Describe the symptoms of cardiopulmonary disease.
- V. Components of and utilization of the patient's medical record
 - A. Identify the segments of the chart.
 - B. Identify the standard components of an admission note in the hospitalized patient's chart.
 - C. Use a computer patient database.
- VI. Basic aseptic techniques and precautions in the hospital setting
 - A. Identify and note the location of special precaution signs in affiliated hospitals.
 - B. Identify the components of and be able to utilize universal precautions.
 - C. Identify and be able to utilize special precautions such as respiratory and protective isolations.
 - D. Utilize appropriate hand washing techniques in the hospital setting.
 - E. Identify appropriate techniques for equipment sterilization.
- VII. Various humidity, aerosol, and oxygen delivery devices
 - A. Humidity devices.
 - B. Aerosol devices.
 - C. Small and large volume nebulizers.
 - D. Oxygen delivery devices.

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 145 CLINICAL PRACTICE II

COURSE DESCRIPTION:

Prerequisites: RCP 110, RCP 132

Corequisites: RCP 111, RCP 115, and RCP 123

This course provides entry-level clinical experience. Emphasis is on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations. Medicated aerosol administration, pulmonary clearance mechanisms, and artificial airway maintenance are emphasized. Course Hours Per Week: Clinical, 15. Semester Hours Credit: 5.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should be able to:

- I. Perform chest physical therapy and postural drainage
- II. Perform incentive spirometry
- III. Administer drug aerosol therapy
- IV. Administer metered dose inhalers
- V. Perform intermittent positive pressure breathing
- VI. Perform suctioning techniques
- VII. Insert various artificial airways
- VIII. Obtain an arterial blood gas
- IX. Apply respiratory equipment required in alternative settings
- X. Obtain an electrocardiogram
- XI. Describe basic pulmonary function testing
- XII. Accurate charting / documentation

OUTLINE OF INSTRUCTION:

- I. Perform chest physical therapy and postural drainage
 - a. Indications and hazards
 - b. Techniques and positioning
 - c. Special breathing exercises
- II. Perform incentive spirometry
 - a. Indications and hazards
 - b. Equipment
 - c. Techniques

- III. Administer drug aerosol therapy
 - a. Indications for use
 - b. Techniques for administration
 - c. Equipment
 - d. Pharmacology
- IV. Administer metered dose inhalers
 - a. Indications for use
 - b. Techniques for administration
 - c. Equipment used including spacing and holding devices
- V. Perform intermittent positive pressure breathing
 - a. Indications and hazards
 - b. Equipment: function of each of the controls
 - c. Technique for administration
- VI. Perform suctioning techniques
 - a. Nasotracheal suctioning
 - b. Endotracheal suctioning
 - c. Indications and hazards
 - d. Equipment: sizing and use of suction catheters
 - e. Technique of NTS and ETS
- VII. Insert various artificial airways
 - a. Oral and nasal airways – identify, indications, applications
 - b. Endotracheal tubes and tracheostomy tubes
 - i. Identify common types, standard markings, and components
 - ii. Indications and hazards
 - iii. Insertion: appropriate position and cuff pressures
- VIII. Obtain an arterial blood gas
 - a. Interpretation
 - b. Technique for drawing
- IX. Apply respiratory equipment required in alternative settings
 - a. Duties of the RCP in the home care and rehabilitation settings
 - b. Equipment used in respiratory home care
 - c. Patient education
- X. Obtain an electrocardiogram
 - a. Equipment used
 - b. Proper electrode placement
 - c. Interpreting results
- XI. Describe basic pulmonary function testing
 - a. Duties of the RCP in the pulmonary function laboratory
 - b. Techniques for administration
 - c. Assessment of basic test results

XII. Accurate charting / documentation

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 153 CLINICAL PRACTICE III

COURSE DESCRIPTION:

Prerequisites: RCP 111, RCP 145

Corequisites: RCP 112, RCP 222

This course provides entry-level clinical experience. Emphasis is on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations. Equipment and techniques for intermittent, non-invasive and invasive mechanical ventilation are introduced. Course Hours Per Week: Clinical, 9. Semester Hours Credit: 3.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should be able to:

- I. Understand basic positive pressure ventilation
- II. Apply mechanical ventilation
- III. Understand non-invasive mechanical ventilators
- IV. Accurate charting/documentation

OUTLINE OF INSTRUCTION:

- I. Understand basic positive pressure ventilation
 - a. Indications and hazards
 - b. Classification of mechanical ventilators
 - c. Breath types and modes on mechanical ventilators
 - d. Function of controls found on most mechanical ventilators
- II. Apply mechanical ventilation
 - a. Adjustment of controls based on patient's ABG's and clinical appearance
 - b. Special features and controls of selected mechanical ventilators
 - c. Ventilator monitoring and management
 - d. Perform bedside pulmonary function tests on mechanically ventilated patients
- III. Understand non-invasive mechanical ventilators
 - a. CPAP devices
 - b. BIPAP devices

IV. Accurate charting / documentation

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 210 CRITICAL CARE CONCEPTS

COURSE DESCRIPTION:

Prerequisites: RCP 112

Corequisites: RCP 214, RCP 223, RCP 235

This course provides further refinement of acute patient care and underlying pathophysiology. Topics include a continuation in the study of mechanical ventilation, underlying pathophysiology, and introduction of critical care monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit: 4.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should understand:

- I. Monitoring and management of the patient in the intensive care unit
- II. Discontinuing ventilatory support
- III. Advanced airway care
- IV. Thoracentesis, chest tubes, and pleural drainage systems
- V. Sleep disorders
- VI. ACLS protocols

OUTLINE OF INSTRUCTION:

- I. Monitoring and management of the patient in the intensive care unit
 - a. Principles of monitoring
 - b. Pathophysiology and monitoring
 - c. Respiratory monitoring
 - d. Cardiac and cardiovascular monitoring
 - e. Neurologic monitoring
 - f. Monitoring renal function
 - g. Nutritional monitoring
 - h. Troubleshooting
- II. Discontinuing ventilatory support
 - a. Reasons for ventilator dependence
 - b. Patient evaluation
 - c. Preparing the patient
 - d. Methods
 - e. Newer techniques for facilitation ventilator discontinuance
 - f. Selecting an approach
 - g. Monitoring during weaning

- h. Extubation
 - i. Failure
 - j. Chronically ventilator-dependent patients
 - k. Terminal weaning
- III. Advanced airway care
- a. Replacement of ET tubes with tracheostomy tube
 - b. Tracheostomy care
 - c. Changing a tracheostomy tube
- IV. Thoracentesis, chest tubes, and pleural drainage systems
- a. Indications and procedure
 - b. Theory and function of drainage systems
 - i. One, two, and three bottle set-up
 - ii. Commercial devices
- V. Sleep disorders
- a. Definitions
 - b. Pathophysiology
 - c. Clinical features
 - d. Laboratory testing
 - e. Treatment
 - f. Role of the respiratory therapist in disorders of sleep
- VI. ACLS protocols
- a. 2010 American Heart Association guidelines

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 211
ADVANCED MONITORING/PROCEDURES

COURSE DESCRIPTION:

Prerequisites: RCP 210, RCP 214 and RCP 235

Corequisites: RCP 215, RCP 245

This course includes advanced information gathering and decision making for the respiratory care professional. Topics include advanced cardiac monitoring and special procedures. Upon completion, students should be able to evaluate, design and recommend appropriate care plans through written and laboratory evaluations. This course also covers supervision and management skills. Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit: 4.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should be able to:

- I. Monitor a patient's cardiovascular status
- II. Perform bedside pulmonary measurements
- III. Research current literature on respiratory care
- IV. Monitor, assess, and interpret exercise test data
- V. Make a work schedule for a department
- VI. Function in the role of a charge therapist to divide workloads accordingly
- VII. Devise a work evaluation sheet that fairly measures worker productivity
- VIII. Construct and present a power-point oral presentation
- IX. Successfully complete self-assessment clinical simulation exams

OUTLINE OF INSTRUCTION:

- I. Monitor a patient's cardiovascular status
 - a. Arterial pressure line
 - b. Central venous pressure line
 - c. Pulmonary artery pressure line
 - d. Blood draw from a PAC
- II. Perform bedside pulmonary measurements
 - a. Bedside PFT
 - b. Bedside ventilator graphics / waveforms
 - c. New monitoring devices
- III. Research current literature on respiratory care
 - a. Use of computerized research tools
 - b. Development of an in-service presentation
 - c. Case studies and case management
 - d. Health promotion
 - e. Geriatrics

- IV. Monitor, assess, and interpret exercise test data
 - a. Stress testing
 - b. Timed walk test
 - c. General procedures and setup
 - d. Hazards and complications
 - e. Equipment
 - f. Specialty gases
- V. Make a work schedule for a department
 - a. Review manpower needs
 - b. Different types of scheduling possibilities
- VI. Function in the role of a charge therapist to divide workloads accordingly
 - a. Duties of charge therapist
 - b. Matching staff to departmental needs
- VII. Devise a work evaluation sheet that fairly measures worker productivity
 - a. Role of the supervisor in evaluation
 - b. Forms of evaluation and their usage
 - c. Group role playing
- VIII. Construct and present a power-point oral presentation
 - a. Power-point skills
 - b. Oral presentations pointers
 - c. Present oral presentation
- IX. Successfully complete self-assessment clinical simulation exams
 - a. Review of test matrix
 - b. Review test materials and computerized simulations
 - c. Practice timed tests

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 214
NEONATAL / PEDIATRIC RESPIRATORY CARE

COURSE DESCRIPTION:

Prerequisites: RCP 112

Corequisites: RCP 210, RCP 223, and RCP 235

This course provides in-depth coverage of the concepts of neonatal and pediatric respiratory care. Emphasis is placed on neonatal and pediatric pathophysiology and on the special therapeutic needs of neonates and children. Upon completion, students should be able to demonstrate competence in these concepts through written and laboratory evaluations. Students will also develop their critical thinking skills by working through clinical case studies. Course Hours Per Week: Class, 1. Lab, 3. Semester Hours Credit: 2.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should be able to:

- I. Assess fetal growth and development
- II. Examine and evaluate labor, delivery, and physiological changes after birth
- III. Employ techniques of neonatal resuscitation and stabilization
- IV. Assess the neonatal and pediatric patient
- V. Discuss pharmacology used in neonatal and pediatric respiratory therapy
- VI. Identify neonatal and pediatric diseases and other problems of prematurity
- VII. Apply theories and concepts of neonatal and pediatric ventilatory support
- VIII. Operate and manage commonly used neonatal and pediatric ventilators
- IX. Understand special procedures and non-conventional ventilator techniques
- X. Model supportive care of the family

OUTLINE OF INSTRUCTION:

- I. Assess fetal growth and development
 - a. Modalities to assess fetal status
 - b. Estimating the delivery date
 - c. Biophysical tests of fetal well-being
- II. Examine and evaluate labor, delivery, and physiological changes after birth
 - a. Normal and abnormal stages of labor and delivery
 - b. Adaptation to extrauterine life
 - i. The first breath
 - ii. The change from fetal to adult circulation

- III. Employ techniques of neonatal resuscitation and stabilization
 - a. Overview of Neonatal Resuscitation Program
 - i. When to resuscitate
 - ii. Steps in a resuscitation
 - b. Stabilization and management of patient during and after resuscitation
- IV. Assess the neonatal and pediatric patient
 - a. Physical assessment of the neonatal and pediatric patient
 - b. Anatomic and physiologic considerations
- V. Discuss pharmacology used in neonatal and pediatric respiratory therapy
 - a. Indications, contraindications, hazards, and use
 - i. Antibiotics
 - ii. Cardiovascular medications
 - iii. Diuretics
 - iv. Respiratory drugs
 - v. Anticonvulsants
 - vi. Sedation and control of ventilation
 - b. Effects of maternal drug abuse on the fetus
- VI. Identify neonatal and pediatric diseases and other problems of prematurity
 - a. Consequences of premature birth
 - b. Processes of intrauterine origin
 - c. Interpretation of chest x-rays
 - d. Commonly encountered neonatal and pediatric diseases
 - i. Congenital
 - ii. Infections
 - iii. Iatrogenic
 - iv. Idiopathic
- VII. Apply theories and concepts of neonatal and pediatric ventilatory support
 - a. Goals and indications of ventilation and oxygenation
 - b. Clinical applications of mechanical ventilation and oxygenation
- VIII. Operate and manage commonly used neonatal and pediatric ventilators
 - a. Review ventilators used by UNC, Duke, WakeMed, and Rex
 - b. Modes of ventilation and clinical applications
- IX. Understand special procedures and non-conventional ventilator techniques
 - a. Surfactant
 - b. High-frequency ventilation
 - c. Specialty medical gases
 - d. Extracorporeal life support
 - e. Negative pressure ventilation

- X. Model supportive care of the family
 - a. Bonding
 - b. Causes of parental stress
 - c. Understanding stages of grief

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 215
CAREER PREPARATION – ADVANCED LEVEL

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Respiratory Care Program and, RCP 210, RCP 214, RCP 235

Corequisites: RCP 211, RCP 245

This course provides preparation for employment and the advanced-level practitioner credentialing exam. Emphasis is placed on review of the NBRC Advanced-Level Practitioner Exam as well as supervision and management. Upon completion, students should be able to complete successfully the appropriate self-assessment examinations and meet the requirements for employment. Course Hours Per Week: Lab, 3. Semester Hours Credit: 1.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should be able to:

- I. Successfully complete self-assessment registry exams
- II. Successfully complete self-assessment clinical simulation exams
- III. Meet requirements for employment

OUTLINE OF INSTRUCTION:

- I. Successfully complete self-assessment registry exams
 - a. Review of test matrix
 - b. Review test materials
 - c. Practice timed tests
- II. Successfully complete self-assessment clinical simulation exams
 - a. Review of test matrix
 - b. Review test materials and computerized simulations
 - c. Practice timed tests
- III. Meet requirements for employment

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 223
SPECIAL PRACTICE LAB

COURSE DESCRIPTION:

Prerequisites: RCP 153, and RCP 222

Corequisites: RCP 210, RCP 214 and RCP 235

This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations. Course Hours Per Week: Class, 0. Lab, 3. Semester Hours Credit: 1.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should be able to:

- I. Perform entry-level therapeutic procedures
- II. Perform advanced airway care
- III. Manage mechanical ventilators

OUTLINE OF INSTRUCTION:

- I. Perform entry-level therapeutic procedures
 - a. Oxygen administration
 - b. Bronchodilator therapy
 - c. Lung expansion therapy
 - d. Bronchial hygiene therapy
 - e. Obtain an ABG
 - f. Nasal tracheal suctioning
- II. Perform advanced airway care
 - a. Intubation
 - b. Endotracheal suctioning
 - c. Endotracheal tube care
 - d. Extubation
 - e. Tracheostomy care
- III. Manage mechanical ventilators
 - a. Set-up
 - b. Systems check
 - c. Initiation
 - d. Monitoring

- e. Changing parameters
- f. Circuit change
- g. Troubleshooting
- h. Weaning
- i. Discontinuation
- j. Documentation

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 235
CLINICAL PRACTICE IV

COURSE DESCRIPTION:

Prerequisites: RCP 112, RCP 153 and RCP 222

Corequisites: RCP 210, RCP 214, and RCP 223

This course provides advanced practitioner clinical experience. Emphasis is on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations. Advanced concepts in adult mechanical ventilation as well as equipment and techniques for pediatric and neonatal mechanical ventilation are introduced. Course Hours Per Week: Clinical, 15. Semester Hours Credit: 5.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should be able to:

- I. Monitor and manage an adult patient on mechanical ventilation
- II. Monitor and manage a pediatric and neonatal patient on mechanical ventilation
- III. Monitor the cardiac status through the use of bedside monitoring of ECG
- IV. Monitor the cardiac and pulmonary status through the use of bedside monitoring of hemodynamics

OUTLINE OF INSTRUCTION:

- I. Monitor and manage an adult patient on mechanical ventilation
 - a. Ventilator graphics
 - i. Recognition
 - ii. Interpretation
 - iii. Application
- II. Monitor and manage a pediatric and neonatal patient on mechanical ventilation
 - a. Introduction to selected pediatric mechanical ventilators
 - b. Modes of ventilation used for the pediatric and neonatal patient including NCPAP
 - c. Management and monitoring of the mechanically ventilated pediatric and neonatal patient at the clinical site
- III. Monitor the cardiac status through the use of bedside monitoring of ECG
 - a. Physiologic basis of the ECG
 - b. Origin and interpretation of common dysrhythmias

- IV. Monitor the cardiac and pulmonary status through the use of bedside monitoring of hemodynamics
- a. Physiologic basis of hemodynamic values
 - b. The Pulmonary Artery catheter
 - c. Interpretation of values derived from the pulmonary artery catheter

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RCP 245 CLINICAL PRACTICE V

COURSE DESCRIPTION:

Prerequisites: RCP 210, RCP 214 and RCP 235

Corequisites: RCP 211 and RCP 215

This course provides advanced practitioner clinical experience. Emphasis is on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations. Adult, pediatric, and neonatal critical care experiences are continued; and invasive and noninvasive monitoring devices are discussed. Course Hours Per Week: Clinical, 15. Semester Hours Credit: 5.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should be able to:

- I. Apply advanced concepts in monitoring and management of a mechanically ventilated adult patient
- II. Apply and refine monitoring and management skills of mechanically ventilated pediatric and neonatal patients
- III. Observe new modalities of adult and pediatric mechanical and extracorporeal ventilation
- IV. Apply algorithms in advanced cardiac life support

OUTLINE OF INSTRUCTION:

- I. Apply advanced concepts in monitoring and management of a mechanically ventilated adult patient
 - a. Completion of adult ICU competencies
- II. Apply and refine monitoring and management skills of mechanically ventilated pediatric and neonatal patients
 - a. Continued experiences in pediatric and neonatal ICU
- III. Observe new modalities of adult and pediatric mechanical and extracorporeal ventilation
 - a. High frequency ventilation/oscillation
 - b. ECMO
 - c. Nitric oxide therapy
 - d. New and combined ventilator modes

- IV. IV. Apply algorithms in advanced cardiac life support
 - a. Recognition of lethal and non-lethal dysrhythmias
 - b. Application of ACLS algorithms to selected dysrhythmias

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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RED 070
ESSENTIAL READING SKILLS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course is designed to strengthen reading skills. Emphasis is on basic word attack skills, vocabulary, transitional words, paragraph organization, basic comprehension skills, and learning strategies. Upon completion, students should be able to demonstrate competence in the skills required for RED 080. Emphasis is also on demonstrating successful academic skills and using current materials such as a newspaper. This course does not satisfy the developmental reading prerequisite for ENG 111. Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

LEARNING OUTCOMES:

At the completion of this course, the student should be able to:

- a. Demonstrate strategies for understanding nonfiction materials.
- b. Demonstrate strategies for understanding fiction materials.
- c. Communicate an analysis of texts in both written and oral form.
- d. Demonstrate knowledge of study skills and library research skills.

OUTLINE OF INSTRUCTION:

- I. Vocabulary
 - A. Create meaning for unknown words by deconstructing them according to affixes.
 - B. Create meaning for unknown words through use of context clues.
 - C. Locate unknown words in dictionaries and connect their meanings to text.
 - D. Understand words based on denotation versus connotation.
- II. Text Organization
 - A. Identify the stated and implied main ideas of paragraphs.
 - B. Identify the details of paragraphs within texts
 - C. Explain the purpose for use of visual aids within written texts.
 - D. Interpret visual aids that are used in texts.
 - E. Identify patterns as used in texts
 - F. Identify clue words that signal patterns as used in texts.
 - G. Construct a summary of texts.

III. Textual Analysis

- A. Distinguish between fact and opinion as used in texts.
- B. Describe interpretations of texts based on fact and opinion.
- C. Identify and interpret elements of the text.

IV. Study Skills

- A. Create and utilize graphic organizers.
- B. Identify key points of texts through annotations.
- C. Locate and utilize library resources.

REQUIRED TEXTBOOK:

Textbooks to be determined by department and/or instructor

STATEMENT FOR STUDENTS WITH DISABILITIES:

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REL 110 WORLD RELIGIONS

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098, or satisfactory score on placement test

Corequisites: None

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. Major topics include the role of women in the various religions, the relationship between religion and science, and the involvement of religion in world peace and in preservation of the environment. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in humanities/fine arts.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

The student will be able to:

- a. Demonstrate in writing basic understanding of world's major religions, to include origins, development, principal concepts, and key terms and figures.
- b. Define characteristic features of early religious traditions and their influence on modern religions.
- c. Identify geographic/ethnic distributions of major religions.
- d. Discuss position of major religions in contemporary societies and the ramifications of religions as political forces.

OUTLINE OF INSTRUCTION:

- I. What is religion?
 - A. Development of a definition
 - B. Brief history of the study of religion
- II. Some "primitive" and ancient religions
 - A. Religion in prehistoric and contemporary "primitive" cultures
 - B. Religions of ancient Mesopotamia, Greece, and Rome
- III. Religions of India
 - A. Early Hinduism
 - B. Jainism
 - C. Early and later Buddhism

- D. Later Hinduism
- E. Sikhism

IV. Eastern Asian religions

- A. Native Chinese religion
- B. Taoism
- C. Confucianism
- D. Shinto
- E. Buddhism in Eastern Asia

V. Religions of the Near East

- A. Zoroastrianism
- B. Judaism
- C. Christianity
- D. Islam

VI. Contemporary religious movements.

REQUIRED TEXTBOOK AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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REL 211
INTRODUCTION TO OLD TESTAMENT

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098, or satisfactory score on placement test

Corequisites: None

This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

The student will be able to:

- a. Recognize and identify the various types of Old Testament literature.
- b. Discuss major archaeological discoveries relative to the Old Testament.
- c. Demonstrate in writing an understanding of basic historical, geographical, and cultural information concerning the Israelite people.
- d. Prepare a formal research paper using standard tools of literary research and correct documentation of source materials.

OUTLINE OF INSTRUCTION:

- I. Introduction: The Old Testament from a 20th Century perspective
 - A. Role of the Old Testament in society
 - B. Looking back: new approaches
- II. The Pentateuch
 - A. Its setting in the Ancient Near East
 - B. Problems of literary analysis: One author, or four?
 - C. The story: Abraham to Moses
- III. The "Conquest"
 - A. Conflicting theories: literary and archaeological perspectives
 - B. Tribal patterns of social and political structure

- IV. Rise of a Monarchy
 - A. Looking back and looking forward: Deuteronomy
 - B. External imperialism and military threat
 - C. Shift to monarchy: Three Kings
 - D. Internal dissention and division
- V. Rise of Prophecy
 - A. Early prophets: Amos and Hosea
 - B. Major prophets: Isaiah and Jeremiah
- VI. Exile in Babylon
 - A. Ezekiel and Second Isaiah: Prophets of hope
 - B. Persian deliverance and a return to Judah
- VII. Other Sacred Writings
 - A. Hebrew poetry: the Psalms
 - B. Israelite "Wisdom" literature
 - C. Apocalyptic vision: Daniel
 - D. Close of the Hebrew Canon

REQUIRED TEXTBOOK AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SEC 110 SECURITY CONCEPTS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy. Hours Per Week: Class, 3. Lab, 0. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Identify basic security concepts, including terminology and models
- b. Identify elements of cryptography, including encryption and hashing algorithms
- c. Compare symmetric and asymmetric encryption
- d. Describe and manage the basics of Public Key Infrastructure and certificates
- e. Describe access control models and implementations
- f. Identify authentication types and their appropriate use
- g. Identify categories and examples of network and computer attacks and malware
- h. Harden systems to increase security
- i. Identify vulnerabilities and increase security of wireless networks
- j. Identify network security devices
- k. Identify access control and account management security measures
- l. Perform basic vulnerability assessment to identify and manage risk and threats
- m. Describe and develop business continuity and disaster recovery plans
- n. Identify components of a sound security policy
- o. Participate in developing and implementing security procedures and guidelines

OUTLINE OF INSTRUCTION:

- I. Introduction to Computer Security
 - a. Historical review of the security problem
 - b. Types and avenues of attack
 - c. Types of defenses
- II. Systems Threats and Risks
 - a. Software attacks
 - b. Hardware attacks

- III. Protecting Systems
 - a. Hardening the operating system
 - b. Hardening the web browser
 - c. Hardening web and network services
 - d. Controlling network access
- IV. Network Vulnerabilities and Attacks
 - a. Media and network device vulnerabilities
 - b. Categories of attack
 - c. Methods of attack
- V. Network defenses
 - a. Secure network design
 - b. Secure network technologies
 - c. Network security devices
 - d. Intrusion detection and prevention
 - e. Protocol analyzers
- VI. Wireless Network Security
 - a. Weaknesses and hardening of wireless networks
 - b. Wireless encryption systems
- VII. Access Control
 - a. Logical versus physical
 - b. Mandatory, discretionary, and role-based access control
- VIII. Authentication, Authorization, and Accounting
 - a. Authentication and access control terminology
 - b. Credentials and identity
 - c. Privilege management
- IX. Vulnerability Assessments
 - a. Threat and risk assessment
 - b. Risk management models and tools
 - c. Identifying vulnerabilities
- X. Security Audits
 - a. Privilege auditing, management, and assignment
 - b. Usage auditing
 - c. Auditing tools
- XI. Cryptography
 - a. Encryption algorithms
 - b. Hashing algorithms
 - c. Symmetric encryption
 - d. Asymmetric encryption

- e. Network, drive, and file encryption
- f. Public Key Infrastructure basics and digital certificates
- g. Certificate and registration authorities

XII. Disaster Recovery and Business Continuity

- a. Disaster Recovery planning and execution
- b. Disaster recovery policies and procedures

XIII. Security Policies and User Training

- a. Organizational security policies
- b. Types of Security policies
- c. User education
- d. Social engineering

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SEC 150

SECURE COMMUNICATIONS

COURSE DESCRIPTION:

Prerequisites: SEC 110 and NET 110 or NET 125

Corequisites: None

This course provides an overview of current technologies used to provide secure transport of information across networks. Topics include data integrity through encryption, Virtual Private Networks, SSL, SSH, and IPsec. Upon completion, students should be able to implement secure data transmission technologies. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Discuss basic security concepts, including terminology and models
- b. Describe elements of cryptography, including encryption and hashing algorithms
- c. Apply symmetric and asymmetric encryption to appropriate activity
- d. Implement management of Public Key Infrastructure and certificates
- e. Identify and implement access control models
- f. Identify and use multiple authentication types
- g. Classify examples of network and computer attacks and malware
- h. Harden systems to increase security
- i. Implement security on wireless networks
- j. Identify network security devices
- k. Implement access control and account management security measures
- l. Assess vulnerability to identify and manage risk and threats
- m. Develop a business continuity and disaster recovery plan
- n. Implement secure communication pathways

OUTLINE OF INSTRUCTION:

- I. Introduction to Computer Security
 - a. Historical review of the security problem
 - b. Types and avenues of attack
 - c. Types of defenses
- II. Systems Threats and Risks
 - a. Software attacks
 - b. Hardware attacks

- III. Protecting Systems
 - a. Hardening the operating system
 - b. Hardening the web browser
 - c. Hardening web and network services
 - d. Controlling network access
- IV. Network Vulnerabilities and Attacks
 - a. Media and network device vulnerabilities
 - b. Categories of attack
 - c. Methods of attack
- V. Network defenses
 - a. Secure network design
 - b. Secure network technologies
 - c. Network security devices
 - d. Intrusion detection and prevention
 - e. Protocol analyzers
- VI. Wireless Network Security
 - a. Weaknesses and hardening of wireless networks
 - b. Wireless encryption systems
- VII. Access Control
 - a. Logical versus physical
 - b. Mandatory, discretionary, and role-based access control
- VIII. Authentication, Authorization, and Accounting
 - a. Authentication and access control terminology
 - b. Credentials and identity
 - c. Privilege management
- IX. Vulnerability Assessments
 - a. Threat and risk assessment
 - b. Risk management models and tools
 - c. Identifying vulnerabilities
- X. Security Audits
 - a. Privilege auditing, management, and assignment
 - b. Usage auditing
 - c. Auditing tools
- XI. Cryptography
 - a. Encryption algorithms
 - b. Hashing algorithms
 - c. Symmetric encryption
 - d. Asymmetric encryption

- e. Network, drive, and file encryption
- f. Public Key Infrastructure basics and digital certificates
- g. Certificate and registration authorities

XII. Disaster Recovery and Business Continuity

- a. Disaster Recovery planning and execution
- b. Disaster recovery policies and procedures

XIII. Security Policies and User Training

- a. Organizational security policies
- b. Types of Security policies
- c. User education
- d. Social engineering

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SEC 160

SECURITY ADMINISTRATION I

COURSE DESCRIPTION:

Prerequisites: SEC 110 and NET 110 or NET 125

Corequisites: None

This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses. Course material will focus on securing Operating Systems. Course material will focus on securing Operating Systems. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

1. Participate effectively in class. This objective ensures that a student gets as much as possible from the class. Independent work, Group assignments, active question and answer participation, and performing assigned reading are all part of this objective.
2. Demonstrate methods for keeping networks and their computers secure. This objective is central to showing understanding of the facilities for securing networks, including protection against viruses, worms, malware, and OS and application exploits. Network topology, host- and network-based firewalls, patches, authentication and encryption, and policy enforcement are all methods that can be used to demonstrate comprehension. Benefits of virtual machines will also be integrated.
3. Implement secure access through authentication and encryption. This objective shows special interest in remote access to resources, and the difference between public network and private ones. Cryptographic protocols will be discussed, as well as PKI certificate usage, password / token policy enforcement, VPN and VLANs, and IPsec.
4. Implement security policies. Policies will have been developed in a previous course, but they can sometimes be theoretical. This objective is designed with a focus on implementation – what policies can be enforced with respect to access methods, available resources, time and date restrictions, data management, and data classification or level of access.
5. Provide common application security. Specific issues with common applications (especially network-based applications) are dealt with in this objective. DNS, SMTP, HTTP, Instant Messaging, and other user- and system-accessible protocols with their implementation or protocol design weaknesses will be addressed and evaluated.
6. Ensure continuing security. This objective makes the assumption that any created network system, even if well designed, can never be assumed to be secure. Detection of active attacks through network traffic analysis, system and application log monitoring, and

auditing procedures are the approaches used for this objective. Also implied in this objective is that waiting for something to break is a bad idea – tracking the warning signs of a problem or attack is just as important.

7. Ensure continuity. Disaster planning and recovery issues will be dealt with via this objective. Redundancy (for systems and data), fault tolerance, power and environmental conditioning, backups, recovery strategies, and clustering will be available options for demonstrating facility with this topic.
8. Troubleshoot security vulnerabilities. This objective is a comprehensive look at synthesizing information and methods from the entire course. Specifically, this course lays the groundwork for penetration testing, by having students look for and identify weaknesses in configurations for operating systems, applications, firewalls, network devices, policies, and procedures in a given environment.

OUTLINE OF INSTRUCTION:

- I. Securing Network and Computers
 - a. Types of attacks – malware, DoS, spoofing, OS and application exploits
 - b. Securing the network
 - c. Securing the operating system
- II. Authentication and Encryption
 - a. Encryption methods
 - b. Authentication methods
 - c. VLANs and VPNs
 - d. Certificates and PKI
- III. Implementing Security Policies – implementation in Windows and Linux
 - a. User and group account access policies
 - b. Creating and naming user, group, and computer accounts
 - c. Strong and effective password policies and templates
- IV. Shared Resource Security – implementation in Windows and Linux
 - a. File system rights
 - b. Resource sharing
 - c. Group security management
 - d. Network Access Control
- V. Firewall and Border Security – implementation in Windows and Linux
 - a. TCP/IP protocols
 - b. Packet filtering and firewalls
 - c. NAT configuration
- VI. Physical Network security
 - a. Securing workstations and servers
 - b. Securing media and topologies
 - c. Structured design and VLANs

- VII. Wireless Security
 - a. Attacks on wireless physical and datalink layers
 - b. Wireless security measures
 - c. Configuration of wireless interfaces
- VIII. Network application security
 - a. SSL – Email, Web
 - b. Authenticated connections for file transfer
 - c. DNS, DHCP
 - d. Remote access and VPN
- IX. Email Security
 - a. Email basics
 - b. Message encryption with PGP/GPG and S/MIME
- X. Monitoring, Auditing, and Network Analysis
 - a. Intrusion Detection
 - b. Audit Trails and Log Files
 - c. Network Traffic Capture and Analysis
- XI. Disaster Planning and Recovery
 - a. UPS and AC – power and environmental conditioning
 - b. RAID
 - c. Hardware redundancy and clusters
 - d. Data availability and backup
- XII. Monitoring and Auditing
 - a. Intrusion detection – active, passive, host, and network
 - b. Creating audit trails and logging
 - c. Monitoring active users
 - d. Network monitoring and scanning

REQUIRED TEXTBOOKS AND MATERIALS:

Assigned by Instructor

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SEC 210 INTRUSION DETECTION

COURSE DESCRIPTION:

Prerequisites: SEC 160

Corequisites: None

This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products, traffic analysis, and planning and placement of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host-based systems.

Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

- a. Explain network traffic fundamentals
- b. Define components and types of intrusion detection
- c. Compare intrusion detection vs. intrusion prevention systems (IDS & IPS)
- d. Explain and implement network and host intrusion detection systems
- e. Design and apply network traffic signatures
- f. Define and discuss effective of honeypots and honeynets
- g. Integrate IDS/IPS devices into network and firewall design
- h. Analyze logging data to locate intrusion patterns
- i. Classify and respond to network intrusion incidents
- j. Develop and document appropriate response to intrusion

OUTLINE OF INSTRUCTION:

- I. Networking review
 - a. TCP/IP fundamentals
 - b. Transport layer protocols and ports
 - c. Segmentation and reassembly
 - d. IP and ICMP
 - e. Network exploits and targets
 - f. Traffic capture and analysis
 - g. Port scanning
- II. Intrusion Detection Concepts
 - a. Components of IDS
 - b. Steps of implementation and monitoring
 - c. Host- and network-based IDS
 - d. Implementing and evaluating IDS
 - e. Intrusion detection versus intrusion prevention

III. Network Traffic Signatures

- a. Signature analysis
- b. Detecting traffic signatures
- c. Identifying suspicious events
- d. Creating custom traffic signatures
- e. Common Vulnerability and Exposures (CVE) standards

IV. Snort Implementation

- a. Architecture overview
- b. Windows capturing and filtering
- c. Linux capturing and filtering
- d. Rules format and creation
- e. Log analysis and correlation

V. Incident Response to Intrusion

- a. Policy creation and implementation
- b. Developing and modifying filter rules
- c. Security Incident Response Team (SIRT)
- d. Six step response to incidents
- e. False positive, false negative, true negative, true positive
- f. Handling legitimate security alerts

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SEC 220 DEFENSE-IN-DEPTH

COURSE DESCRIPTION:

Prerequisites: SEC 160

Corequisites: None

This course introduces students to the concepts of defense-in-depth, a security industry best practice. Topics include firewalls, backup systems, redundant systems, disaster recovery, and incident handling. Upon completion, students should be able to plan effective information security defenses, backup systems, and disaster recovery procedures. *This course is restricted to the Information Systems Security, the Information Systems Security/Operating Systems, and the Information Systems Security/Security Hardware curriculums.* Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Explain and implement network defense fundamentals
- b. Design security policies with inclusion of risk analysis
- c. Implement security policies on Windows platform
- d. Design, apply, and search network traffic signatures
- e. Design and create virtual private networks (VPN)
- f. Explain and implement intrusion detection systems
- g. Outline and plan security incident response
- h. Choose, design, and implement firewalls using appropriate topology
- i. Strengthen and manage firewalls

OUTLINE OF INSTRUCTION:

- I. Network Defense Fundamentals
 - a. TCP/IP networking review
 - b. Network security threats overview
 - c. Goals of network security
 - d. Using defense technologies in layers
- II. Risk Analysis
 - a. Fundamental concepts of risk analysis
 - b. Approaches and process of risk analysis
 - c. Deciding how to minimize risk

III. Security Policy Implementation

- a. Security policy best practices
- b. Seven steps for a security policy and their components
- c. Ongoing risk analysis

IV. Network Traffic Signatures

- a. Signature analysis
- b. Detecting traffic signatures
- c. Identifying suspicious events
- d. Common Vulnerability and Exposures (CVE) standards

V. Virtual Private Network Concepts and Implementation

- a. VPN concepts and purpose
- b. Encapsulation protocols
- c. Encryption protocols
- d. Authentication protocols
- e. Advantages / disadvantages
- f. Design a VPN
- g. Configure a VPN
- h. Firewall configuration for VPN traffic
- i. Auditing VPN and firewall rules

VI. Intrusion Detection Concepts

- a. Components of IDS
- b. Seven steps of implementation and monitoring
- c. Host- and network-based IDS
- d. Implementing and evaluating IDS

VII. Incident Response to Intrusion

- a. Developing and modifying filter rules
- b. Security Incident Response Team (SIRT)
- c. Six step response to incidents
- d. False positive, false negative, true negative, true positive
- e. Handling legitimate security alerts

VIII. Choosing and Designing Firewalls and Topologies

- a. Overview of packet filtering firewalls
- b. Stateful versus stateless firewalls
- c. Software versus hardware firewalls
- d. Creating rule bases that implement policies
- e. Appropriate firewall configurations
- f. Network perimeter security
- g. Bastion hosts, proxy servers
- h. Network Address Translation (NAT)
- i. User authentication

IX. Strengthen and Manage Firewalls

- a. Editing rule bases
- b. Managing logs
- c. Improving performance
- d. Implementation of multiple firewalls

X. Ongoing Defense

- a. Security event management
- b. Security auditing
- c. Managing an IDS
- d. Adding security layers
- e. Keeping pace with network growth
- f. Maintain your knowledge base

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SEC 289
SECURITY CAPSTONE PROJECT

COURSE DESCRIPTION:

Prerequisites: SEC 220

Corequisites: None

This course provides the student the opportunity to put into practice all the skills learned to this point. Emphasis is placed on security policy, process planning, procedure definition, business continuity, and systems security architecture. Upon completion, students should be able to design and implement comprehensive information security architecture from the planning and design phase through implementation. *This course is restricted to the Information Systems Security, the Information Systems Security/Security Hardware curriculums.* Course Hours Per Week: Class, 1. Lab, 4. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Design, develop, implement, test and document an IT project
- b. Use best practices of systems development and project management
- c. Participate and contribute as a member of an IT project team
- d. Apply learning outcomes of previous security courses to an IT project

OUTLINE OF INSTRUCTION:

- I. Six Phases of Project Management
 - a. Project Initiation
 - b. Project Definition
 - c. Project Design
 - d. Project Implementation
 - e. Project Test
 - f. Project Documentation
- II. Project Management Components
 - a. Team
 - b. Goal
 - c. Limited Resources
 - d. Uncertainty (risk)
 - e. Control Factors
 - i. Time
 - ii. Money

- iii. Quality
- iv. Organization
- v. Information

III. Work Products of Project Management

- a. Defining team roles
- b. Project Charter
- c. Project Plan
- d. Budget and Financial Statement
- e. Action-and-Decision Lists
- f. Issue Logs
- g. Risk Logs
- h. Meeting Reports

IV. Communication and Collaboration Tools

- a. Email
- b. Discussion Board
- c. Instant Messaging, Chat
- d. Audio- and web- conferences
- e. Shared Calendars
- f. Websites
- g. Shared file storage

V. Working in Teams

- a. Creating effective work groups (keys, obstacles, functions)
- b. Elements, issues and diseases work groups face
- c. What to observe in a group
- d. Influence Tactics used in groups
- e. Running effective meetings
- f. Techniques in group decision making
- g. Phases of group development

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

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SGD 111 INTRODUCTION TO SGD

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course provides students with an introduction to simulation and game development. Topics include setting, storytelling, narrative, character design, interface design, game play, internal economy, core mechanics, game genres, AI, the psychology of game design and professionalism. Upon completion, students should be able to demonstrate knowledge of the major aspects of simulation and game design and development.

Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of this course, the student will be able to:

- a. Explain the history of the game industry.
- b. Describe player elements and game elements.
- c. Describe the relationship between characters, gameplay and story.
- d. Describe level design and game interface.
- e. Design and create animations and simple games using Alice.

OUTLINE OF INSTRUCTION:

- I. Historical Elements
 - A. Describe significant milestones in the history of electronic game development.
 - B. Identify pioneers in game development and how they contributed to the industry.
 - C. Describe how the game industry evolved (arcade, mainframe, PC, online, mobile).
 - D. Describe the factors contributing to the video game slump of the early 1980s.
 - E. Explain why certain game companies and game titles succeeded and some failed.
- II. Player Elements
 - A. Explain what motivates people to play games and how it affects the types of games that are developed.
 - B. Differentiate among geographics, demographics, and psychographics.
 - C. Describe how the player market has changed over time.
 - D. Differentiate between the United States and South Korean markets.
 - E. Identify the different generations of players in the United States.

- III. Game Elements
 - A. Identify non-entertainment applications associated with game development.
 - B. Distinguish game platforms and elements associated with each platform.
 - C. Describe the characteristics of popular game genres.
 - D. Explain how modes based on number of players affect the way games are created.
 - E. Identify time interval options, and explain how they change the way a game is played.
- IV. Storytelling
 - A. Describe how stories in games differ from those in films and other entertainment media.
 - B. Identify some traditional story structures and how do they relate to plot.
 - C. Define interactivity, and describe how it can be applied to storytelling.
 - D. Describe some dramatic storytelling devices used in games.
 - E. Explain how story affects immersion in a game.
- V. Characters
 - A. Explain how game characters differ from characters in other media.
 - B. Define avatars and explain how they relate to player identity.
 - C. Explain how visual character development differs from other forms of character development in games.
 - D. Describe some character types and archetypes, and explain how they relate to story structure.
 - E. Identify several purposes of dialogue in games.
- VI. Gameplay
 - A. Explain how a game's challenges and strategies are associated with gameplay.
 - B. Define interactivity modes, and explain how they relate to gameplay.
 - C. Describe the relationship between gameplay and story.
 - D. Distinguish between static and dynamic balance.
 - E. Explain how the Prisoner's Dilemma and the tragedy of the commons can be applied to cooperative gameplay.
- VII. Levels
 - A. Describe level design and how it is related to gameplay.
 - B. Discuss the importance of the structural features of game worlds—such as duration, availability, relationship, and progression.
 - C. Discuss the importance of the temporal features of game worlds—such as authentic, variable, player-adjusted, and altered.
 - D. Explain the importance of the spatial features of game worlds—such as perspective, scale, and boundaries.
 - E. Explain how reality and style are achieved in a game environment.
- VIII. Interface
 - A. Explain how game interfaces relate to player-centered design.
 - B. Describe the components of game interfaces.
 - C. Distinguish between a manual and a visual interface.
 - D. Distinguish between a passive and an active interface.

- E. Explain why usability is important in game interface design.
- IX. Programming
- A. Create 3D animations and interactive games using the Alice development environment and gallery of 3D objects.
 - B. Apply object-oriented, event-driven programming techniques in program design.
 - C. Use cameras, lights, sound, textures, collision detection, and chase/avoidance in a program.
 - D. Demonstrate movement in 3D space using pitch, roll and yaw, distance, and time.

REQUIRED TEXTBOOKS AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT OF STUDENTS WITH DISABILITIES:

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SGD 113 SGD PROGRAMMING

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces the fundamentals of programming languages and tools employed in simulation and game development. Emphasis is placed on the programming concepts used to create simulations and games. Upon completion, students should be able to program simple games and/or simulations. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of this course, the student will be able to:

1. Create 2D games and simulations using java and the Greenfoot API and Integrated Development Environment (IDE).
2. Apply object-oriented, event-driven programming techniques in program design.
3. Create 2D games using Visual C# and the XNA framework.

OUTLINE OF INSTRUCTION:

- A. Demonstrate use of Greenfoot interface
- B. Create and interact with objects
- C. Invoke methods
- D. Run scenarios
- E. Understand objects, classes, method calls, parameters, and return values
- F. Write code to move and turn objects, and enable objects to react to screen edges
- G. Understand source code, method call, parameters, sequence, and if-statements
- H. Implement random behavior using random number functions
- I. Control keyboard input
- J. Play sounds
- K. Understand dot notations
- L. Define methods
- M. Create comments
- N. Understand World Initialization
- O. Set and animate images in the game
- P. Understand constructors, state, instance variables, and assignment
- Q. Create objects programmatically using the new keyword
- R. Understand abstraction. **OO** structure, and object interaction
- S. Implement code loops using *for* and *for-each* loops

- T. Use arrays, collections/lists
- U. Standard class library
- V. Collision Detection
- W. Casting
- X. Simulations, Emergent behavior and Experimentation
- Y. Demonstrate use of Visual C# and XNA framework

REQUIRED TEXTBOOKS AND MATERIALS:

Text to be assigned by the instructor each semester.

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SGD 114 3D MODELING

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces the tools required to create three dimensional (3D) models. Emphasis is placed on exploring tools used to create 3D models. Upon completion, students should be able to create and animate 3D models using 3D modeling tools. Course Hours Per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course the student will be able to:

- a. Build, create and model characters, rooms and other objects using Blender.
- b. Light, and surface objects using Blender.
- c. Render, build and animate characters and scenes using Blender.

OUTLINE OF INSTRUCTION:

- I. Introduction to 3D
- II. Understanding Blender's Interface
- III. Object and Animation Basics
- IV. Modeling
- V. Lighting
- VI. Character Creation
- VII. Surfacing
- VIII. Sculpting
- IX. Rigging
- X. Shapes and Morphing
- XI. Character Animation
- XII. Rendering
- XIII. Environmental Animation
- XIV. Video Compilation

REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SOC 210
INTRODUCTION TO SOCIOLOGY

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098, or satisfactory score on placement test

Corequisites: None

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in social/behavioral sciences.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Evaluate society and culture using sociological theories.
- b. Demonstrate an understanding of sociological research methods.
- c. Explain processes of socialization.
- d. Understand the ways in which social institutions are interdependent.
- e. Organize the components of social structure.

OUTLINE OF INSTRUCTION:

- I. Introduction
 - A. What is sociology?
 - B. Methods of sociological research
- II. Culture, society, and socialization
 - A. Society and social structure
 - B. Socialization
- III. Social interaction
 - A. Social groups
 - B. Deviance and control
- IV. Social inequality
 - A. Social stratification
 - B. Race and ethnicity
 - C. Gender and age

- V. Social institutions
 - A. Marriage and the family
 - B. Education
 - C. Religion
 - D. Political order
 - E. Economic order
- VI. Social change
 - A. Nature of social change
 - B. Collective behavior and social movements
 - C. Population and urbanization
 - D. Impact of technology on the environment
 - E. Consequences of social change

REQUIRED TEXTBOOK AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SOC 213
SOCIOLOGY OF THE FAMILY

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098, or satisfactory score on placement test

Corequisites: None

This course covers the institution of the family and other intimate relationships. Emphasis is on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in social/behavioral sciences.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

The student will be able to:

- a. Discuss functions of the family.
- b. Explain the theoretical frameworks for studying families.
- c. Trace the historical development of the family from colonial to “modern” times.
- d. Discuss factors in mate selection.
- e. Compare and contrast racial-ethnic families.
- f. Discuss theories of family violence.
- g. Discuss factors of separation and divorce.
- h. Evaluate life of the elderly.

OUTLINE OF INSTRUCTION:

- I. Marriages and the family in perspective
 - A. The changing family
 - B. Studying marriage and the family
 - C. The family in historical perspective
- II. The individual and the developing relationship
 - A. Gender roles: more choices, more constraints
 - B. Love is a many-splendored thing-or is it?
 - C. Understanding human sexuality
 - D. Sexual expression throughout the life course

III. Individual and marital commitments

- A. Becoming a couple: dating, rating, and mating
- B. To marry or tarry? Singlehood and other options
- C. Marriage and marital communication

IV. Parents and children

- A. To be or not to be a parent: more choices, more constraints
- B. Raising children: contemporary prospects and pitfalls
- C. Racial-ethnic families: strengths, stresses, and stereotypes

V. Conflicts and crises

- A. Families and work: facing the economic squeeze
- B. Family violence and other crisis-related issues
- C. Separation and divorce

VI. Changes and transitions

- A. Remarriage and stepfamilies: life after divorce
- B. Aging and family life: grandparents, the widowed, and caregivers
- C. The family in the twenty-first century

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SOC 220
SOCIAL PROBLEMS

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098, or satisfactory score on placement test

Corequisites: None

This course provides an in-depth study of current social problems. Emphasis is on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in social/behavioral sciences.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the students will be able to:

- a. Understand social problems.
- b. Evaluate social problems using sociological theories
- c. Demonstrate an understanding of the relationship between social problems and social institutions.
- d. Explain how certain social problems and culture are related.
- e. Organize the components of social problems situated in social structure.

OUTLINE OF INSTRUCTION:

- I. Introduction and foundations
 - A. Understanding social problems
 - B. Methods of sociological research
- II. Problems of social institutions
 - A. The world of work
 - B. Education
 - C. Marriage and the family
- III. Problems of inequality
 - A. Social stratification and social mobility
 - B. Life course and ageism
 - C. Men, women, and sexism
 - D. Ethnicity and racism
- IV. Problems of crime and social deviance
 - A. What is social deviance?
 - B. Sexual variance
 - C. Substance abuse
 - D. Physical and mental illness
 - E. Crime and delinquency
 - F. Violence in society

- V. Global social problems
 - A. War and terrorism
 - B. Urbanism, environment, and population growth
 - C. Technology and social changes

REQUIRED TEXTBOOK AND MATERIALS:

To be selected by instructor

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SOC 225 SOCIAL DIVERSITY

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098, or satisfactory score on placement test
Corequisites: None

This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in social/behavioral sciences.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Analyze identity using sociological explanations.
- b. Understand inequalities and stratification using sociological theories.
- c. Explain the relationship between social institutions and agents of society.
- d. Demonstrate ability to evaluate social and cultural diversity.
- e. Organize sociological explanations of social and cultural diversity.

OUTLINE OF INSTRUCTION:

- I. Race and ethnicity
 - A. The meaning of race and ethnicity
 - B. Theories of racial and ethnic inequality
 - C. Race and ethnic relations in the United States
 - D. Multiethnicity
- II. Sex and gender
 - A. The meaning of sex and gender
 - B. Gender stereotypes and roles
 - C. Sexism
 - D. Gender stereotyping in the English language
- III. Social class
 - A. The meaning of social class
 - B. Determinants of social class
 - C. Consequences of social class: rewards and opportunities

- IV. Sexual orientation
 - A. The meaning of sexual orientation
 - B. Development of homosexual identities
 - C. Homophobia
 - D. Development of bisexual identities
- V. Religion
 - A. Defining religion
 - B. Varieties of religious beliefs
 - C. Religious pluralism
 - D. Religious tolerance
- VI. Law and politics
 - A. Court cases: race, sexual orientation, sexual harassment
 - B. Affirmative action

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 111 ELEMENTARY SPANISH I

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test

Corequisites: SPA 181

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish as well as demonstrate cultural awareness. This course must be taken with the accompanying lab. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in humanities/fine arts.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, successful students will be able to do the following with sufficient accuracy to be understood by a native speaker who is accustomed to working with language learners:

1. Use the language to engage in interpersonal communication on well-practiced, familiar topics using limited, formulaic language. Often rely on repetition and extralinguistic clues (e.g., gestures and tone of voice) to negotiate meaning.
 - a. Exchange greetings and introductions using formal and informal expressions
 - b. Ask and answer simple questions
 - c. Discuss everyday life and daily routines, using simple sentences and familiar vocabulary
 - d. Discuss likes and dislikes
2. Understand words and concepts presented in the language in texts which use well-practiced, familiar topics and grammar structures. Often rely on repetition, one's own background knowledge and extralinguistic cues (e.g., visuals or gestures) to interpret meaning.
 - a. Understand simple conversations about familiar topics (e.g., greetings, weather and daily activities,) with repetition when needed
 - b. Identify key details in a short, highly-contextualized audio text dealing with a familiar topic, relying on repetition and extralinguistic support when needed.
 - c. Identify key details of highly predictable written texts
 - d. Extract basic information about familiar cultural topics from written or audio texts
 - e. Navigate a website in Spanish on a basic level

3. Use the language to present information to an audience through written and spoken forms on well-practiced, familiar topics.
 - a. Offer basic descriptions of self, other people, familiar places and objects in short discourse using simple sentences and basic vocabulary
 - b. Provide basic information about familiar situations and topics of interest
 - c. Express or/and justify opinions using equivalents of the verb *to like*
4. Demonstrate an awareness of the relationship between the products, practices and perspectives of the cultures in the Spanish-speaking world.
 - a. Identify and describe distinguishing features of countries and regions of the Spanish-speaking world
 - b. Give examples of the cultural and linguistic diversity of the Spanish-speaking world
 - c. Compare and contrast patterns of behavior in the cultures of the Spanish-speaking world and the student's native culture

OUTLINE OF INSTRUCTION:

- I. Introduction to the study of foreign language and culture
 - A. Language learning strategies
 - B. The alphabet and linguistic sounds
 - C. Hispanic countries and capitals
 - D. Professions that benefit from foreign language study
- II. Greeting others and describing yourself, others and your surroundings
 - A. Introductions and greetings
 - B. Classroom vocabulary
 - C. Numbers 0 to 100
 - D. Descriptive adjectives and agreement
 - E. Gender and number of nouns
 - F. Definite and indefinite articles
 - G. Use of *hay*
 - H. Subject pronouns and the verb *ser*
 - I. Diversity of the Hispanic world
- III. Discussing your daily life at school and at home
 - A. Academic subjects
 - B. Family vocabulary
 - C. The verb *tener*
 - D. Possessive adjectives and adjective placement
 - E. Regular -ar verbs
 - F. Comparisons of the role of family and education
- IV. Communicating time, weather, and personal preferences
 - A. Telling time
 - B. Clothing and colors vocabulary

- C. Describing the weather
 - D. Use of *gustar*
 - E. Regular –er and –ir verbs
 - F. Interrogatives and question formation
 - G. Stem changing verbs in present tense
 - H. Comparison of celebrations
 - I. Diversity of climate and clothing
- V. Discussing housing and cost of living
- A. Vocabulary for places in a city
 - B. House vocabulary
 - C. The verb *estar*
 - D. Prepositions of location
 - E. The verb *ir* and *ir* + a + infinitive
 - F. Stem changing verbs continued
 - G. Comparison of housing styles
- VI. Describing emotional and physical states and discussing professions
- A. Adjectives of emotions and physical state
 - B. Professions vocabulary
 - C. *Estar* with adjectives
 - D. Present progressive tense
 - E. Use of *ser* versus *estar*
 - F. Verbs with changes in the first person
 - G. *Saber* and *conocer*
 - H. Discussion of emotions and well-being
 - I. Discussion of professions and the economy

REQUIRED TEXTBOOKS:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling (919) 536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 112 ELEMENTARY SPANISH II

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test and SPA 111

Corequisites: SPA 182

This course is a continuation of SPA 111 and focuses on the fundamental elements of the Spanish language within a cultural context. Emphasis is on the progressive development of listening, speaking, reading and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and should be able to demonstrate further cultural awareness. *This course must be taken with the accompanying lab. This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in humanities/fine arts.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

NOTE: This course is taught almost entirely in Spanish.

LEARNING OUTCOMES:

Upon completion of this course, successful students will be able to do the following with sufficient accuracy to be understood by a native speaker who is accustomed to working with language learners:

1. Use the language to engage in interpersonal communication on well-practiced, familiar topics using limited language. May rely on repetition and extralinguistic clues (e.g., gestures and tone of voice) to negotiate meaning.
 - a. Ask and answer questions about a variety of familiar situations and topics of interest
 - b. Discuss everyday life and daily routines in the present and past, using simple sentences and familiar vocabulary
 - c. Discuss likes and dislikes and justify opinions
 - d. Interact with others in unrehearsed situations (e.g., role-play and spontaneous conversation)
2. Understand words and concepts presented in the language in texts which use familiar topics and grammar structures. May rely on repetition, one's own background knowledge and extralinguistic cues (e.g., visuals or gestures) to interpret meaning.
 - a. Understand simple conversations about a variety of familiar topics, with repetition when needed
 - b. Identify main ideas and key details in a short audio text dealing with a familiar topic, relying on repetition and extralinguistic support when needed
 - c. Identify main ideas and key details of written texts on a variety of familiar topics
 - d. Extract basic information from texts on unfamiliar topics
 - e. Navigate a website in Spanish

3. Use the language to present information to an audience through written and spoken forms on well-practiced, familiar topics.
 - a. Offer descriptions of self, other people, familiar places and objects in short discourse using series of connected sentences and a variety of vocabulary
 - b. Provide basic information about familiar situations and topics of interest with many details
 - c. Provide simple factual presentations in written and spoken form
 - d. Express or/and justify opinions using equivalents of the verb *to like*
4. Demonstrate an awareness of the relationship between the products, practices and perspectives of the cultures in the Spanish-speaking world.
 - a. Identify and describe distinguishing features of countries and regions of the Spanish-speaking world
 - b. Give examples of the cultural and linguistic diversity of the Spanish-speaking world
 - c. Compare and contrast patterns of behavior in the cultures of the Spanish-speaking world and the student's native culture

OUTLINE OF INSTRUCTION:

- I. Introduction to the study of foreign language and culture
 - A. Language learning strategies
 - B. The alphabet and linguistic sounds
 - C. Hispanic countries and capitals
 - D. Professions that benefit from foreign language study
- II. Discussing daily routine and physical activity in the present and in the past
 - A. Reflexive verbs and personal hygiene
 - B. Indefinite and negative words
 - C. Preterite tense
 - D. Stem-changing verbs in the preterite
 - E. Comparison of daily routines
 - F. Role of sports in culture
- III. Communicating travel needs and plans
 - A. Hotel vocabulary
 - B. Numbers above 100
 - C. Irregular verbs in the preterite
 - D. Use of prepositions *por* and *para*
 - E. Food vocabulary
 - F. Direct object pronouns
 - G. Variety of lodging in the Hispanic world
 - H. Comparison of foods and dining experiences
- IV. Discussing daily life and activities in the present and in the past
 - A. Food and cooking vocabulary
 - B. Indirect object pronouns

- C. Constructions with *se*
 - D. Vocabulary for hobbies
 - E. Imperfect tense
 - F. Use direct and indirect object pronouns together
 - G. Comparison of shopping experiences
 - H. Discussion of the role of food in culture
 - I. Comparison of pastimes of the past and present
 - J. Diversity of music in the Hispanic world
- V. Describing events in the past
- A. Vocabulary related to celebrations
 - B. Use of preterit and imperfect tenses
 - C. Vocabulary related to traffic and accidents
 - D. Comparison of celebrations in the Hispanic world
 - E. Discussion of transportation and emergency services
- VI. Giving and receiving directions for travel and at home
- A. Vocabulary related to air and train travel
 - B. Relative pronouns
 - C. Formal commands
 - D. Nosotros commands
 - E. Vocabulary for household chores
 - F. Informal commands
 - G. Use pronouns with commands
 - H. Discussion of tourism
 - I. Comparison of family life and responsibilities in the Hispanic world

REQUIRED TEXTBOOKS:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling (919) 536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 120
SPANISH FOR THE WORKPLACE

COURSE DESCRIPTION:

Prerequisites: ENG 080 and RED 080, or DRE-097 or satisfactory score on placement test

Corequisites: ENG 090 or satisfactory score on placement test

This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity. Strong emphasis will be placed on the knowledge and understanding of the Hispanic culture. *This course is approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*
Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Understand elementary level of spoken Spanish.
- b. Respond proficiently to simple statements and questions.
- c. Construct grammatically correct sentences.
- d. Understand and use basic vocabulary relevant to the particular workplace.
- e. Write short descriptive composition with minimum of errors.
- f. Read and understand reports and/or simple texts.
- g. Demonstrate general knowledge of Spanish-speaking countries.
- h. Increase his/her awareness of the cultural aspects, current trends, and/or problems that Hispanics in their countries and in the United States face.

OUTLINE OF INSTRUCTION:

- I. Brief introduction to study of foreign language
 - A. Linguistic structure and relationship of language to culture
 - B. Introduction to the parts of speech
 - C. Introductory vocabulary of greetings and common cognates
 - D. Pronunciation of vowels, consonants, and diphthongs
- II. With a thematic focus on different workplace situations, the following vocabulary will be introduced and reinforced:
 - A. Numbers (ordinal, Roman, cardinal, etc.)
 - B. Locations (rooms in a hospital, school, police station, fire station, etc.)
 - C. Peoples (employees, clients, their relationship, etc.)

III. With stress on authenticity of setting and language, the following concepts/skills will be introduced and developed:

- A. Distinction between formal and informal relationships among Hispanics
- B. Useful phrases pertinent to the nature of the student's work
- C. Conversation exercises and simulations

IV. Cultural component

- A. Identification of Spanish-speaking countries/capitals
- B. Sample of customs of daily life
- C. Inter cultural relationships

REQUIRED TEXTBOOK AND MATERIALS:

To be selected by the Instructor/Discipline Chair.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 161 CULTURAL IMMERSION

COURSE DESCRIPTION:

Prerequisites: SPA 111

Corequisites: None

This course explores Hispanic culture through intensive study taking place on campus and during a field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, the student will be able to:

- a. Understand oral communication;
- b. Respond with reasonable proficiency to increasingly complex statements and questions;
- c. Comprehend and use additional words and idioms;
- d. Have an understanding of the historical, geographical, sociopolitical, economic and artistic concerns of the areas visited;
- e. Exhibit first-hand knowledge of issues pertinent to the host areas;
- f. Demonstrate understanding of cultural differences.

OUTLINE OF INSTRUCTION:

- I. With thematic focus in the geographical area the student will study or participate in:
 - A. Geographical regions
 - B. Topography
 - C. Climate
 - D. Natural resources
 - E. Field excursions to different regions
- II. With thematic focus in the history of the host areas the student will study or visit:
 - A. Indigenous culture and civilization
 - B. National period, the nineteenth century
 - C. National period, the 20th century
 - D. Recent history
 - E. Markets and fairs
 - F. Haciendas, plantations, farms

III. With thematic emphasis in Politics and Society of the host areas the student will study and/or visit:

- A. Social classes and groups
- B. Political parties
- C. Indigenous organizations
- D. Current political issues
- E. Social and political alliances and coalitions
- F. Indian communities
- G. Government buildings

IV. With thematic emphasis in cultures of the host areas the student will study, participate or attend:

- A. Defining culture
- B. Popular culture
- C. Religion and religious traditions. Syncretism
- D. Food and local customs. Eating out
- E. Tours and field excursions
- F. Folkloric ballet and dance groups presentations

V. With thematic emphasis in architecture and historical sites of the host area the student will study, visit and/or participate in:

- A. City tours
- B. Prehispanic archeological sites tours
- C. Colonial architecture tours
- D. Modern architecture and urbanization
- E. Fairs and farmer's markets, field excursions
- F. Industrial areas tours

REQUIRED TEXTBOOKS AND MATERIALS:

Handouts, articles, maps, and websites providing information pertaining the host areas.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 181 SPANISH LAB I

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test

Corequisites: SPA 111

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.* Course Hours per Week: Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, successful students will be able to do the following with sufficient accuracy to be understood by a native speaker who is accustomed to working with language learners:

1. Use the language to engage in interpersonal communication on well-practiced, familiar topics using limited, formulaic language. Often rely on repetition and extralinguistic clues (e.g., gestures and tone of voice) to negotiate meaning.
 - a. Exchange greetings and introductions using formal and informal expressions
 - b. Ask and answer simple questions
 - c. Discuss everyday life and daily routines, using simple sentences and familiar vocabulary
 - d. Discuss likes and dislikes
2. Understand words and concepts presented in the language in texts which use well-practiced, familiar topics and grammar structures. Often rely on repetition, one's own background knowledge and extralinguistic cues (e.g., visuals or gestures) to interpret meaning.
 - a. Understand simple conversations about familiar topics (e.g., greetings, weather and daily activities,) with repetition when needed
 - b. Identify key details in a short, highly-contextualized audio text dealing with a familiar topic, relying on repetition and extralinguistic support when needed.
 - c. Identify key details of highly predictable written texts Extract basic information about familiar cultural topics from written or audio texts
 - d. Navigate a website in Spanish on a basic level

3. Use the language to present information to an audience through written and spoken forms on well-practiced, familiar topics.
 - a. Offer basic descriptions of self, other people, familiar places and objects in short discourse using simple sentences and basic vocabulary
 - b. Provide basic information about familiar situations and topics of interest
 - c. Express or/and justify opinions using equivalents of the verb *to like*
4. Demonstrate an awareness of the relationship between the products, practices and perspectives of the cultures in the Spanish-speaking world.
 - a. Identify and describe distinguishing features of countries and regions of the Spanish-speaking world
 - b. Give examples of the cultural and linguistic diversity of the Spanish-speaking world
 - c. Compare and contrast patterns of behavior in the cultures of the Spanish-speaking world and the student's native culture

OUTLINE OF INSTRUCTION:

- I. Introduction to the study of foreign language and culture
 - A. Language learning strategies
 - B. The alphabet and linguistic sounds
 - C. Hispanic countries and capitals
 - D. Professions that benefit from foreign language study
- II. Greeting others and describing yourself, others and your surroundings
 - A. Introductions and greetings
 - B. Classroom vocabulary
 - C. Numbers 0 to 100
 - D. Descriptive adjectives and agreement
 - E. Gender and number of nouns
 - F. Definite and indefinite articles
 - G. Use of *hay*
 - H. Subject pronouns and the verb *ser*
 - I. Diversity of the Hispanic world
- III. Discussing your daily life at school and at home
 - A. Academic subjects
 - B. Family vocabulary
 - C. The verb *tener*
 - D. Possessive adjectives and adjective placement
 - E. Regular –ar verbs
 - F. Comparison of the role of family and education
- IV. Communicating time, weather, and personal preferences
 - A. Telling time
 - B. Clothing and colors vocabulary

- C. Describing the weather
 - D. Use of *gustar*
 - E. Regular –er and –ir verbs
 - F. Interrogatives and question formation
 - G. Stem changing verbs in present tense
 - H. Comparison of celebrations
 - I. Diversity of climate and clothing
- V. Discussing housing and cost of living
- A. Vocabulary for places in a city
 - B. House vocabulary
 - C. The verb *estar*
 - D. Prepositions of location
 - E. The verb *ir* and *ir* + a + infinitive
 - F. Stem changing verbs continued
 - G. Comparison of housing styles
- VI. Describing emotional and physical states and discussing professions
- A. Adjectives of emotions and physical state
 - B. Professions vocabulary
 - C. *Estar* with adjectives
 - D. Present progressive tense
 - E. Use of *ser* versus *estar*
 - F. Verbs with changes in the first person
 - G. *Saber* and *conocer*
 - H. Discussion of emotions and well-being
 - I. Discussion of professions and the economy

REQUIRED TEXTBOOKS:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling (919) 536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 182
SPANISH LAB II

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test,

SPA 111

Corequisites: SPA 112

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is on the progressive development of basic listening, speaking, reading, and writing skills through use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish as well as demonstrate cultural awareness. *This course is approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.* Course Hours Per Week: Lab, 2. Semester Hours Credit, 1.

LEARNING OUTCOMES:

Upon completion of this course, successful students will be able to do the following with sufficient accuracy to be understood by a native speaker who is accustomed to working with language learners:

1. Use the language to engage in interpersonal communication on well-practiced, familiar topics using limited language. May rely on repetition and extralinguistic clues (e.g., gestures and tone of voice) to negotiate meaning.
 - a. Ask and answer questions about a variety of familiar situations and topics of interest
 - b. Discuss everyday life and daily routines in the present and past, using simple sentences and familiar vocabulary
 - c. Discuss likes and dislikes and justify opinions
 - d. Interact with others in unrehearsed situations (e.g., role-play and spontaneous conversation)
2. Understand words and concepts presented in the language in texts which use familiar topics and grammar structures. May rely on repetition, one's own background knowledge and extralinguistic cues (e.g., visuals or gestures) to interpret meaning.
 - a. Understand simple conversations about a variety of familiar topics, with repetition when needed
 - b. Identify main ideas and key details in a short audio text dealing with a familiar topic, relying on repetition and extralinguistic support when needed
 - c. Identify main ideas and key details of written texts on a variety of familiar topics
 - d. Extract basic information from texts on unfamiliar topics
 - e. Navigate a website in Spanish

3. Use the language to present information to an audience through written and spoken forms on well-practiced, familiar topics.
 - a. Offer descriptions of self, other people, familiar places and objects in short discourse using series of connected sentences and a variety of vocabulary
 - b. Provide basic information about familiar situations and topics of interest with many details
 - c. Provide simple factual presentations in written and spoken form
 - d. Express or/and justify opinions using equivalents of the verb *to like*
4. Demonstrate an awareness of the relationship between the products, practices and perspectives of the cultures in the Spanish-speaking world.
 - a. Identify and describe distinguishing features of countries and regions of the Spanish-speaking world
 - b. Give examples of the cultural and linguistic diversity of the Spanish-speaking world
 - c. Compare and contrast patterns of behavior in the cultures of the Spanish-speaking world and the student's native culture

OUTLINE OF INSTRUCTION:

- I. Introduction to the study of foreign language and culture
 - A. Language learning strategies
 - B. The alphabet and linguistic sounds
 - C. Hispanic countries and capitals
 - D. Professions that benefit from foreign language study
- II. Discussing daily routine and physical activity in the present and in the past
 - A. Reflexive verbs and personal hygiene
 - B. Indefinite and negative words
 - C. Preterite tense
 - D. Stem-changing verbs in the preterite
 - E. Comparison of daily routines
 - F. Role of sports in culture
- III. Communicating travel needs and plans
 - A. Hotel vocabulary
 - B. Numbers above 100
 - C. Irregular verbs in the preterite
 - D. Use of prepositions *por* and *para*
 - E. Food vocabulary
 - F. Direct object pronouns
 - G. Variety of lodging in the Hispanic world
 - H. Comparison of foods and dining experiences
- IV. Discussing daily life and activities in the present and in the past
 - A. Food and cooking vocabulary
 - B. Indirect object pronouns

- C. Constructions with *se*
 - D. Vocabulary for hobbies
 - E. Imperfect tense
 - F. Use direct and indirect object pronouns together
 - G. Comparison of shopping experiences
 - H. Discussion of the role of food in culture
 - I. Comparison of pastimes of the past and present
 - J. Diversity of music in the Hispanic world
- V. Describing events in the past
- A. Vocabulary related to celebrations
 - B. Use of preterit and imperfect tenses
 - C. Vocabulary related to traffic and accidents
 - D. Comparison of celebrations in the Hispanic world
 - E. Discussion of transportation and emergency services
- VI. Giving and receiving directions for travel and at home
- A. Vocabulary related to air and train travel
 - B. Relative pronouns
 - C. Formal commands
 - D. Nosotros commands
 - E. Vocabulary for household chores
 - F. Informal commands
 - G. Use pronouns with commands
 - H. Discussion of tourism
 - I. Comparison of family life and responsibilities in the Hispanic world

REQUIRED TEXTBOOKS:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 211
INTERMEDIATE SPANISH I

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test and SPA 112

Corequisites: None

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in humanities/fine arts. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, successful students should be able to do the following with sufficient accuracy to be understood by a native speaker who is accustomed to working with language learners:

1. Use the language to engage in interpersonal communication on a variety of familiar and some unfamiliar topics. May rely on repetition and extralinguistic clues (e.g., gestures and tone of voice) to negotiate meaning in unfamiliar situations.
 - a. Ask and answer questions about a variety of situations and topics of interest
 - b. Discuss daily life and routines and topics of interest in the present and past with many details
 - c. Express and justify personal opinions
 - d. Interact with others in unrehearsed situations (e.g., role-play and spontaneous conversation) and in more extended dialogue
2. Understand words and concepts presented in the language in texts which use a variety of topics and grammar structures. May rely on repetition, one's own background knowledge and extralinguistic cues (e.g., visuals or gestures) to interpret meaning in more complex texts.
 - a. Identify main ideas and many details in an audio text dealing with a familiar topic, relying on repetition and extralinguistic support when needed
 - b. Identify main ideas and many details of written texts on a variety of familiar topics
 - c. Identify main ideas and some details from texts on unfamiliar topics
 - d. Practice analyzing subtleties of texts on familiar topics

3. Use the language to present information to an audience through written and spoken forms on a variety of familiar topics and topics of interest.
 - a. Present detailed descriptions and narratives related to familiar situations and topics of interest in oral and written forms, using connected paragraphs and a variety of vocabulary and tenses
 - b. Compose a persuasive argument on a familiar topic
 - c. Practice modifying presentation styles according to audience
4. Demonstrate an awareness of the relationship between the products, practices and perspectives of the cultures in the Spanish-speaking world.
 - a. Identify and describe distinguishing features of countries and regions of the Spanish-speaking world
 - b. Give examples of the cultural and linguistic diversity of the Spanish-speaking world
 - c. Distinguish cultural perspectives from the Spanish-speaking world
 - d. Compare and contrast patterns of behavior in the cultures of the Spanish-speaking world and the student's native culture

OUTLINE OF INSTRUCTION:

- I. Introduction to the study of foreign language and culture
 - A. Language learning strategies
 - B. The alphabet and linguistic sounds
 - C. Hispanic countries and capitals
 - D. Professions that benefit from foreign language study
- II. Discussing fashion, art and shopping
 - A. Shopping vocabulary
 - B. Demonstrative adjectives and pronouns
 - C. Comparisons of equality, inequality and superlatives
 - D. Art vocabulary
 - E. Description using the past participle
 - F. Use of *se* for accidental occurrences
 - G. Comparison of clothing traditions
 - H. Role of fashion and art in culture
- III. Discussing geography, the environment and the natural world
 - A. Geographical vocabulary
 - B. Future tense
 - C. Present perfect tense
 - D. Animal vocabulary
 - E. Present subjunctive
 - F. Subjunctive with impersonal expressions
 - G. Subjunctive with expressions of doubt
 - H. Comparison of natural diversity in the Hispanic world

IV. Discussing personal relationships and the media

- A. Relationship vocabulary
- B. Reciprocal verbs
- C. Subjunctive with expressions of desire
- D. Media vocabulary
- E. Subjunctive with expressions of emotion
- F. Subjunctive with adjective clauses
- G. Comparison of personal relationships
- H. Comparison of media (movies, television, literature, etc)

V. Discussing health and immigration

- A. Health vocabulary
- B. Conditional tense
- C. Imperfect subjunctive
- D. Nationality and immigration vocabulary
- E. Comparison of diets and health
- F. Discussion of economics and globalization

REQUIRED TEXTBOOKS:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling (919) 536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 212 INTERMEDIATE SPANISH II

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test and SPA 211

Corequisites: None

This course provides a continuation of SPA 211. Emphasis is on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in humanities/fine arts.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course, successful students will be able to do the following with sufficient accuracy to be understood by a native speaker who is accustomed to working with language learners:

1. Use the language to engage in interpersonal communication on a variety of familiar and unfamiliar topics. May rely on repetition and extralinguistic clues (e.g., gestures and tone of voice) to negotiate meaning in unfamiliar, complicated situations.
 - a. Ask and answer questions about a variety of situations and topics of interest
 - b. Discuss personal, academic and professional topics of interest with many details, using a variety of vocabulary and verb tenses
 - c. Express multiple viewpoints and justify personal opinions
 - d. Interact with others in unrehearsed situations (e.g., role-play and spontaneous conversation) and in extended dialogue
2. Understand words and concepts presented in the language in texts which use a variety of topics and grammar structures. May rely on repetition, one's own background knowledge and extralinguistic cues (e.g., visuals or gestures) to interpret meaning in more complex texts.
 - a. Identify main ideas and many details in audio texts dealing with familiar topic and unfamiliar topics, relying on repetition and extralinguistic support when needed
 - b. Identify main ideas and many details of written texts on a variety of familiar and unfamiliar topics
 - c. Analyze subtleties of texts, such as tone, language use and author's perspective

3. Use the language to present information to an audience through written and spoken forms on a variety of familiar topics and topics of interest.
 - a. Present detailed descriptions and narratives related to personal, academic and professional topics in oral and written forms, using well-organized paragraphs and a variety of vocabulary and tenses
 - b. Compose a persuasive argument on a familiar topic
 - c. Modify presentation styles according to intended audience
4. Demonstrate an awareness of the relationship between the products, practices and perspectives of the cultures in the Spanish-speaking world.
 - a. Examine distinguishing features of countries and regions of the Spanish-speaking world
 - b. Analyze the cultural and linguistic diversity of the Spanish-speaking world
 - c. Distinguish cultural perspectives from the Spanish-speaking world
 - d. Compare and contrast patterns of behavior in the cultures of the Spanish-speaking world and the student's native culture

OUTLINE OF INSTRUCTION:

1. Discussing the role of technology in our daily lives
 - a. Technology vocabulary
 - b. Readings related to technology and the digital age
 - c. Review of *ser* and *estar*
 - d. Uses of *por* and *para*
 - e. Review of verbs like *gustar*
 - f. Compare the role of technology in areas of the Hispanic world and the U.S.
2. Discussing ancestry, immigration and global citizenship
 - a. Vocabulary related to family, ancestry and immigration
 - b. Readings related to family, culture and ethnicity, and immigration
 - c. Review of preterit and imperfect tenses
 - d. Present and past perfect tenses
 - e. Other uses of *haber* and past participle
 - f. Past progressive tense and uses of the present participle
 - g. Debate globalization as it affects people and cultures
3. Discussing the environment and sustainability
 - a. Vocabulary related to nature, environmental issues and sustainability
 - b. Readings related to the environment and sustainability
 - c. Review of indicative and subjunctive moods
 - d. Review of commands
 - e. Use of relative pronouns
 - f. Debate the role of society in dealing with environmental issues
 - g. Compare environmental issues in the Hispanic world and the U.S.

4. Discussing social issues, the role of government and civic responsibility
 - a. Vocabulary related to government, politics, social issues and civic responsibility
 - b. Readings related to politics, volunteerism, and social issues
 - c. Uses of *se*
 - d. Past perfect subjunctive tense
 - e. Review of subjunctive tenses
 - f. Compare and contrast the role of government and politics in the Hispanic world and in the U.S.
5. Discussing global perspectives and international living
 - a. Vocabulary related to global perspectives, travel and living abroad, and describing others
 - b. Readings related to travel and life in the Hispanic world
 - c. Future perfect tense
 - d. Conditional perfect tense
 - e. Overview of *si* clauses
 - f. Sequence of tenses in the subjunctive
 - g. Compare and contrast aspects of life in various Hispanic countries
 - h. Analyze differences in perspective evident in cultural practices
6. Short films ¿*Conoces el BOOK?* and *Ana y Manuel*

REQUIRED TEXTBOOK AND MATERIALS:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling (919) 536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 221
SPANISH CONVERSATION I

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test, SPA 212

Corequisites: None

This course provides an opportunity for intensive communication in spoken Spanish. Emphasis is on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

- I. Students will be able to interact orally, in Spanish, on a variety of topics covered in class. Students will display proficiency by demonstrating the following competencies:
 - a. Relate information about themselves and others
 - b. Use a variety of phrasing and speaking strategies (e.g. circumlocution, simplification) to express ideas
 - c. Dialogue in ways appropriate to setting and audience
 - d. Debate social and political issues as covered in the course
- II. Students will be able to comprehend audio and video texts in Spanish which use a variety of native accents, related to topics covered in class. Students will display proficiency by demonstrating the following competencies:
 - a. Discuss information presented in audio texts such as textbook exercises, newscasts, podcasts, etc
 - b. Interpret short films by contemporary Hispanic filmmakers
 - c. Distinguish accents from different Spanish-speaking areas
- III. Students will be able to understand authentic written texts in a variety of formats from Hispanic authors. Students will display proficiency by demonstrating the following competencies:
 - a. Read brief articles, essays, short stories, and theatrical works by Hispanic authors
 - b. Interpret themes from written texts, orally and in writing
- IV. Students will be able to communicate with increased grammatical accuracy. Students will display proficiency by demonstrating the following competencies:
 - a. Accurately use the verbs *ser* and *estar*
 - b. Choose between preterit and imperfect verb tenses to discuss the past
 - c. Use prepositions appropriately

- d. Distinguish between uses of the subjunctive and indicative moods
 - e. Construct conditional clauses appropriately
 - f. Use structures previously studied, including indicative verb tenses, imperative mood, gender and number agreement, and pronouns
- V. Students will be able to demonstrate an expanded vocabulary. Students will display proficiency by demonstrating the following competencies:
 - a. Apply new vocabulary terms to oral and written discourse
- VI. Students will be able to demonstrate increased cultural awareness. Students will display awareness by demonstrating the following competencies:
 - a. Debate political and social issues related to the Spanish-speaking areas and themes studied
 - b. Compare and contrast ways of life in Hispanic and non-Hispanic cultures

OUTLINE OF INSTRUCTION:

- I. Discussion of the imagination and the role of science fiction and fantasy
 - a. Short film *Viaje a Marte*
 - b. Readings related to fantasy, science fiction and reality
 - c. Review of the verbs *ser* and *estar*
 - d. Debate positive and negative consequences of scientific advances
- II. Discussion of personality and human relations
 - a. Short film *Diez minutos*
 - b. Readings related to personality, personal happiness and relationships
 - c. Review of the preterit and imperfect verbs tenses
 - d. Debate the effects of nature versus nurture in determining personality
- III. Discussion of pop culture and the power of media and communication
 - a. Short film *Nada que perder*
 - b. Readings related to cinema, the influence of mass media and the effect on individual thought
 - c. Review of the prepositions *por* and *para*
 - d. Debate the concept of “telebasura” (“trash TV”)
- IV. Discussion of political power and civic responsibility
 - a. Short film *El ojo en la nuca*
 - b. Readings related to political and social unrest and forms of power
 - c. Review of the use of the subjunctive mood and tenses
 - d. Debate the concept of globalization

- V. Discussion of the arts and their connection to daily life
 - a. Short film *Dime lo que sientes*
 - b. Readings related to the arts and love
 - c. Continued review of the subjunctive mood and tenses
 - d. Debate views on love

- VI. Discussion of ways of life
 - a. Short film *My Backyard Was a Mountain*
 - b. Readings related to ways of life, its effects on the environment and immigration
 - c. Review of conditional phrases and if clauses
 - d. Debate effects of immigration

REQUIRED TEXTBOOK AND MATERIALS:

Textbooks will be chosen by instructor and listed on the syllabus. Textbook titles will be available in the college's bookstore.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling (919) 536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPA 231 READING AND COMPOSITION

COURSE DESCRIPTION:

Prerequisite: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test, SPA 212, or permission of the program director

Corequisite: None

This course provides an opportunity for intensive reading and composition in Spanish. Emphasis is on the use of literary and cultural materials to enhance and expand reading and writing skills. Upon completion, students should be able to demonstrate in writing an in-depth understanding of assigned readings. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.* Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of the course, the students will be able to:

- a. Enhance their reading skills by reading, analyzing, and performing activities centered on authentic passages.
- b. Improve their speaking skills by using more sophisticated Spanish grammar and lexicon.
- c. Refine skills in order to communicate effectively in writing. Students will first read authentic passages, interpret and discuss the passages in class, and use those as references for their own writings.
- d. Learn to present and back arguments.
- e. Communicate their thoughts clearly, both orally and in writing.

OUTLINE OF INSTRUCTION:

- I. Descriptive Texts
 - A. Definition of the basic elements of a composition.
 - B. Identification of descriptive elements in assigned (authentic) reading passages.
 - C. Description of people, places, and situations.
 - D. Discussion of the vantage point in each reading.
 - E. Writing of a well-structured composition that will include the basic elements of a composition.
- II. Narrative Texts
 - A. Definition of the basic elements of a narrative text.
 - B. Identification of the basic elements of a narrative text.
 - C. Identification of the elements used to organize a narrative text

- D. Interpretation of the vantage point of an assigned reading, followed by a discussion of how effectively this point of view is conveyed.
- E. Use of verb moods in narrative texts.

III. Informative texts

- A. Recognition and appreciation of objectivity in news reporting.
- B. Identification and application of various principles in news reporting.
- C. Writing of a news report containing the various elements of a report.
- D. Recognition and use of different pronouns and their functions.
- E. Use of complex subordinate clauses.
- F. Use of direct and indirect discourse.

IV. Argumentative Texts

- A. Expression of a point of view based on values and logic.
- B. Recognition of basic elements of a convincing argumentative text.
- C. Writing of a composition including basic elements of an argumentative text.
- D. Writing of a formal letter.
- E. Recognition and use of the subjunctive.

V. Expository Texts

- A. Recognition of the essential elements of an expository essay.
- B. Analysis of an essay according to its generic characteristics.
- C. Writing of an expository essay that will show the techniques used to express the “main idea” or thesis.
- D. Recognition and use of the subjunctive.
- E. Identification of cohesive elements within a text: different types of pronouns, and conjunctive expressions.
- F. Identification of idioms and various useful expressions.

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by the Instructor/Discipline Chair.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPI 111
CULTURAL AND ETHICAL ISSUES IN MEDICAL INTERPRETATION

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course provides cultural sensitivity instruction, as well as in-depth focus on professional ethics for the interpreter. Emphasis is placed on researching the fundamentals of professional ethics, creating ethical guidelines for interpreters and learning about Hispanic cultural issues. Upon completion, students should be able to apply professional ethics and an understanding of the Hispanic culture in the interpreting field. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completion of this course the students will be able to:

1. Understand various cultures and the relationship between language, culture and power.
2. Improve cultural self-awareness and understanding of their own culture in the global context.
3. Apply the Code of Ethics for Interpreters in Healthcare, complying with the standards of the profession in diverse environments with a variety of people.

OUTLINE OF INSTRUCTION:

I. Ethics

- a. Introduction
- b. Ethics, Judgments, Principles and Values
- c. Basic ethical principles

II. Code of Ethics for Interpreters in Healthcare

- a. Codes of Ethics and Professionalism
- b. Codes of Ethics for Interpreters in Healthcare
- c. American Sign Language (ASL)
IMIA
- d. The National Council on Interpreting in Health Care

III. Legal Framework for Language access in Healthcare

- a. The Legal Framework for Language access in Healthcare Settings
- b. Title VI of the 1964 Civil Rights
- c. Executive Order 13166
- d. The OCR (Office of the Civil Rights) Policy Guidance
- e. Reimbursement for language Services for Medicaid

IV. The Role of the Medical Interpreter

- a. Choosing a role

- b. Definitions of: conduit, clarifier, cultural broker, advocate, ad-hoc interpreter, volunteer, trained, certified interpreter.
- c. Certification of Healthcare Interpreters

V. Culture

- a. Culture- concept
- b. Origin and history of the term “Latino”
- c. Complexity of identity in the Hispanic population
- d. Demographics within the United States
- e. Historical Perspectives
- f. Positive Cultural Contributions of Hispanic or Latino (a)s in the United States
- g. Cultural considerations (family, gender roles, general cultural characteristics, foods, music, dance, Hispanic/Latino holidays and traditional events, on verbal communication)
- h. Contemporary Issues affecting the Hispanic/Latino community in the United States
(**bilingualism and the English-only debate, education, health care**)

VI. Hispanic/ Latino Health Belief System

- a. Health and Illness in the Hispanic Population
- b. Hispanic Latino Health Belief System
- c. General Folk Beliefs
- d. Traditional Religious Practice and Medical Views
- e. Research Project
- f. Case studies
- g. An Interview with Elena Avila R.N.,MSN, Curandera

VII. Multicultural Interpreter

- a. Multicultural Interpreter
- b. Multicultural Interpreting assignment
- c. Multicultural Interpreter Issues from the Multicultural Interpreters perspective

REQUIRED TEXTBOOKS AND MATERIALS:

Material will be provided by the instructor

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPI 113
INTRODUCTION TO SPANISH INTERPRETING

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test, SPI 214, or permission of program director

Corequisites: None

This course introduces the field of interpreting, interpretation models, and cognitive processes associated with interpreting, professional ethical standards, employment opportunities, and working conditions. Topics include specialized jargon, code of ethics, interpreter assessments/qualifications, and protocol associated with various settings. Upon completion, students should be able to explain the rationale for placement of interpreters and apply ethical standards to a variety of working situations. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Students will display proficiency by demonstrating the following competencies

- a. describe the role of the interpreter (health care, mental and legal settings)
- b. apply basic interpreting skills in conversations
- c. discuss cultural sensitivity issues in the field of Community Interpreting
- d. render short speeches/dialogues into and out of his/her native(a) and non native (b) languages

OUTLINE OF INSTRUCTION:

- I. The Role of the Interpreter:
 1. Definition of the term “interpreting.”
 2. Types of Interpreters.
 3. Modes of Interpretation.
 4. The role of the Community Interpreter.
 5. Interpreter Ethics
- II. Basic Interpreting Skills:
 1. Key to Effective Interpreting
 2. Listening Techniques
 3. Memory Development
 4. Techniques and Consecutive Interpretation
 5. Taking Notes during Consecutive Interpretation

- III. The Interpreter in the Health Care Setting:
 - 1. Health Care Scenarios
 - 2. Sample Health Care Forms
- IV. The Interpreter in the Mental Health Setting:
 - 1. Overview of Mental Health Services in North Carolina
 - 2. Mental Health Scenarios
 - 3. Common Mental Health Forms
- V. Cultural Sensitivity
 - 1. General Information on the Hispanic/Latino Community
 - 2. Cultural Communication Differences
 - 3. Non-verbal Communication
- VI. Rendition of Short Speeches into and out of his native and non-native Languages.

REQUIRED TEXTBOOKS AND MATERIALS:

Textbooks to be chosen by instructor and listed on the syllabus.

The Oxford Spanish Dictionary/ Spanish-English, English-Spanish. Oxford, New York, Madrid: Oxford University Press, Third Edition, 2003 (or more recent version, including PDA version)

Good English Dictionary

Good Spanish Dictionary

USB FLASH DRIVE

USB HEADSET MICROPHONE

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SPI 114
ANALYTICAL SKILLS IN SPANISH INTERPRETING

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test, SPI 113, or permission of program director

Corequisites: None

This course is designed to improve cognitive processes associated with interpreting, listening, short-term memory, semantic equivalence, visual/auditory processing, thought organization, and logic. Emphasis is on developing skills necessary to generate equivalent messages between Spanish and English. Upon completion, students should be able to consecutively interpret non-technical, interactive messages between Spanish and English. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Students will display proficiency by demonstrating the following competencies:

- a. apply the basic principles of note taking techniques
- b. apply consecutive and sight translation techniques to a variety of community settings
- c. demonstrate public speaking and presentation skills in his/her native and non-native languages
- d. complete volunteer/service learning assignments (at least 10 hrs) at a local agency/agencies as part of graduation requirements.

OUTLINE OF INSTRUCTION:

I. Note-taking Techniques:

- a. Drawings
- b. Symbols
- c. Diagonalization
- d. The Golden Rule (i.e. stop writing when you don't understand).

II. Component Skills in Consecutive Interpreting:

- a. Accuracy: in order to interpret accurately, the Interpreter has to be aware of subtleties in word choice, ambiguity, register, and paralinguistic elements.
- b. Memory
- c. Note-taking
- d. Situational control
- e. Good public speaking skills
- f. Knowledge of Code of Ethics
- g. Good judgment on the part of the Interpreter

III. Loftus Model:

- a. *Visual* memory versus *auditory* memory
- b. Processing of *concrete* information versus *abstract* information
- c. *Language dominance* as another aspect that affects the Interpreter's ability to retain information
- d. Retention of meaningful information

IV. Basic Principles of Note-taking Techniques:

- a. Note-taking as a visual process
- b. A-lingual notes: oriented to concepts rather than words.
- c. Notes as an "aid" to your memory
- d. "Vertical" notes (concepts written up and down, one idea per line).
- e. Identification of different thoughts contained in the message.
- f. Use of symbols and math signs in note-taking
- g. Use of abbreviations in note-taking

V. Public Speaking Skills and Presentation:

- a. Looking professional
- b. Convincing the audience
- c. Maintaining attention

VI. Learn How to Interpret in Community Settings:

- a. Sight translation of a myriad of medical texts, ranging from Patient Information Forms to Accident Reports
- b. Consecutive Interpretation Situations in Community Settings

REQUIRED TEXTBOOKS AND MATERIALS:

Training Manual for Community Interpreters LEVEL I – Marianela Mañana

The Oxford Spanish Dictionary/ Spanish-English, English-Spanish. Oxford, New York, Madrid: Oxford University Press, Third Edition, 2003 (or more recent version, including PDA version)

Good English Dictionary

Good Spanish Dictionary

USB FLASH DRIVE

USB COMPUTER HEADSET WITH MICROPHONE

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SPI 213 REVIEW OF GRAMMAR

COURSE DESCRIPTION:

Prerequisites: SPA 212, or permission of the program director

Corequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test

This course is designed to review the common elements of Spanish grammar in oral and written form. Emphasis is on the fundamental grammatical concepts of the Spanish language. Upon completion, students should be able to demonstrate comprehension and correct usage of specified grammatical concepts in both oral and written form.

LEARNING OUTCOMES:

At the completion of this course, the student should be able to:

- a. Build proficiency in the Spanish language through a strong understanding of Spanish grammar
- b. Describe structural grammatical differences in Spanish and English
- c. Understand complex and subtle translation distinctions between English and Spanish;
- d. Acquire the necessary familiarity with the grammatical differences and similarities between English and Spanish for further instruction in translating.

OUTLINE OF INSTRUCTION:

- *Verb-Subject Agreement*
- *Accents*
- *Nouns and Their Equivalents , Nouns Determiners , Adjectives*
- *Personal Pronouns, Subject Pronouns, Direct Object Pronouns, Indirect Object Pronouns, Required Repetitive Object Pronouns, Order of Object Pronouns when combined, position of object pronouns, and prepositional object pronouns*
- *Pronombre "SE", reflexive pronouns, SE ME construction: Accidental or irresponsible SE, impersonal SE .*
- *Demonstrative and possessive pronouns, interrogatives, exclamatives, indefinites and negatives*
- *Relative pronouns*
- *Prepositions*
- *Adverb.*
- *Modo indicativo*
- *Condicional*

- *Subjuntivo*
- *Imperativo*
- *Infinitivo*
- *Participio*
- *Presente del indicativo, pretérito vs imperfecto y pluscuamperfecto.*
- *Compound tenses, ways of expressing the future, conditional and probability*
- *Subjunctive: Introduction, nominal clauses.*
- *Subjunctive: Adjectival clauses, adverbial clauses, sequence of tenses, aspect relativity*
- *If (si) clauses, ojalá and expressions of leave-taking*
- *Reflexive verbs and indirect discourse*
- *Overview, ser vs estar, estar vs haber*
- *Expressions with estar and tener, time expressions*
- *False cognates and other lexical differences*

REQUIRED TEXTBOOKS AND MATERIALS:

Vogt, Eric. The Spanish Subjunctive Up Close. McGraw-Hill Professional Publishing: New York 2008. ISBN 9780071492256

Whitley, Stanley. Gramática para la composición. 2nd ed. Georgetown University Press: Washington 2007. ISBN 9781589011717.

OPTIONAL REFERENCE MATERIALS:

Good Spanish Dictionary

Good English Dictionary

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SPI 214 INTRODUCTION TO TRANSLATION

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test, SPI 213
Corequisites: None

This course is designed to improve the quality of Spanish to English and English to Spanish translation. Emphasis is on the practice of translating English to Spanish in a variety of prose styles. Upon completion, students should be able to demonstrate usage and understanding of the processes involved in translating. Additionally, students will be introduced to sight translation, the oral interpretation of a written text from one language to another. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

At the completion of this course, the student should be able to:

- a. Demonstrate the processes and competencies in translating documents usually from English to Spanish
- b. Outline the professional and ethical standards required for professional translators
- c. Demonstrate proficiency in the use and application of different translation tools used in the field (such as dictionaries, software, internet search among others)

OUTLINE OF INSTRUCTION:

1. Introduction of the concept of translation:

- A. Definitions of translation
- B. What is expected of a good translator: understanding concepts in the original document; good command of the source and target language; good writing skills; have a “sixth” sense; be an “ideal reader” (know how to read between the lines); know where to find good reference material; ask questions; know his limitations.
- C. Steps prior to the actual translation process: reading of original text; detection of potential problems in the text to be translated; search of a parallel text in the target language; compilation of glossary before translating; identification of acronyms, numbers, measurements, metaphors, etc., to be translated; register to be used in the translation.

2. Translation procedures and techniques:

- A. **Oblique** translation procedures: transposition, modulation, equivalence, adaptation, amplification, explication, omission, and compensation;
- B. **Direct** translation procedures: calque, borrowing, and literal translation.

3. Typology of Texts:

- A. Legal and administrative documents
- B. Scientific documents
- C. Technical
- D. Literary
- E. General

4. Translation of proverbs and idioms

5. Sight translation

REQUIRED TEXTBOOKS AND MATERIALS:

The Oxford Spanish Dictionary/ Spanish-English, English-Spanish. Oxford, New York, Madrid: Oxford University Press, Third Edition, 2003 (or more recent version, including PDA version)
Good English Dictionary
Good Spanish Dictionary

RECOMENDED REFERENCE MATERIALS:

Aragó, Manuel Rafael. *Diccionario de dudas y problemas del idioma español*, Buenos Aires: Editorial El Ateneo, 1ª. ed. 1995, 438 Págs.

Collins Cobuild English Dictionary. London: HarperCollins Publishers Ltd., 1995.

Corripio, Fernando. *Diccionario de ideas afines*, Barcelona: Empresa Editorial Herder, S.A., 6ª. ed., 1997, 912 Págs.

El País. *Libro de estilo El País*, Ediciones El País, S.A., 12ª edición, 1996, 661 págs.

López Guix, Juan G. y Wilkinson, Jacqueline Minett. *Manual de traducción/ Inglés- Castellano*, Barcelona: Ed. Gedisa, 1997, 365 págs.

Merriam Webster's Dictionary of Synonyms. Massachusetts: Merriam-Webster, Incorporated, 1984.

Moya, Virgilio. *La traducción de los nombres propios*, Madrid: Ediciones Cátedra, 2000, 223 págs.

Newmark, Peter. *Manual de Traducción*, Madrid: Ediciones Cátedra, 1999, trad. por Virgilio Moya, 364 págs.

Orellana, Marina. *Glosario internacional para el traductor*, Chile: Editorial Universitaria, 3ª. ed. revis. y aum. 1996, 645 págs.

Seco, Manuel. *Diccionario de dudas y dificultades de la lengua española, The Chicago Manual of Style.* Chicago: The University of Chicago Press, 14th edition, 1993.

Torrents del Prats, Alfonso. *Diccionario de dificultades del inglés*, Barcelona: Editorial Juventud, 2da. ed. corr. y aum. 1989, 670 págs.

Zaro, J.J. y Truman, M. *Manual de traducción / A Manual of Translation*, Madrid: SGEL, 1^a. Ed., 1999, 287 págs.

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SPI 221 CONSECUTIVE INTERPRETING I

COURSE DESCRIPTION:

Prerequisites: ENG 090 and RED 090 or DRE 098; or satisfactory score on placement test, SPI 111, or permission of the program director.

Corequisites: None

This course is an introduction to the skills, ethics and protocols of interpretation used by professional consecutive interpreters. The course will focus on interpretation topics and techniques for medical settings. Topics include ethics, roles of the interpreter, bilingual medical vocabulary, memory development, note taking, sight translation and non-verbal communication. Upon completion, students should be able to have an understanding of the techniques of consecutive interpreting, and to apply them in a variety of situations and settings.

LEARNING OUTCOMES:

The student will be able to:

- a. Achieve proficiency in consecutive interpreting the healthcare field.
- b. Learn when and how to assume the different roles of the interpreter
- c. Acquire through practice the knowledge to resolve the different professional situations that interpreters face in the medical field.
- d. Manage a wide range of medical terminology.

OUTLINE OF INSTRUCTION:

- A. Medical terminology
- B. Ethic of the interpreter
- C. Interpreter as a conduit
- D. Other roles of the interpreter
- E. Management of interpreting sessions
- F. Consecutive interpreting
- G. Sight translation, simultaneous translation and summarization
- H. Practice

REQUIRED TEXTBOOKS AND MATERIALS:

The interpreter's Rx, Holly Michelson, ACEBO, 1994.

Spanish-English/English-Spanish medical dictionary, Onyria H. McElroy and Lola L. Grabb, Stedman's, 2005.

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OPTIONAL REFERENCE MATERIALS:

A complete English –Spanish dictionary such as *The Oxford Spanish Dictionary/Spanish-English, English-Spanish*.

Dictionary Mosby Ingles-Español/Español-Inglés de Ciencias de la Salud (Spanish Edition), Mosby

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SPI 222
CONSECUTIVE INTERPRETING II

COURSE DESCRIPTION:

Prerequisites: SPI 221

Corequisites: None

This course provides students with additional opportunities to enhance skills of consecutive interpreting through practice in increasingly complex situations. The emphasis of the course is on practical simulations of a variety of settings. The course will also focus on the professional outcomes of medical interpreters and the evolution of the national and state certification processes. Upon completion, students should be able to demonstrate the ability to manage and interpret different situations as a professional consecutive interpreter. Course Hours Per Week: Class, 3. Semester Hours Credit: 3.

LEARNING OUTCOMES:

The student will be able to:

- a. Demonstrate proficiency in consecutive interpreting through practice.
- b. Develop through training the confidence and skills necessary to resolve the different professional situations that interpreters face in the medical field.
- c. Familiarize with the profession through voluntary practice field work.
- d. Engage in research of the profession, on the certification process, on the employment possibilities
- e. Complete a shadowing program (at least ten hours) at a local hospital or medical center as part of graduation requirements.

OUTLINE OF INSTRUCTION:

- A. Practice
- B. Certification Process
- C. Practice
- D. Healthcare system
- E. Practice
- F. Medical terminology - Specialties
- G. Practice
- H. Interpreter self employment
- I. Practice
- J. In house interpreter
- K. Practice
- L. Shadowing forum
- M. Practice

REQUIRED TEXTBOOKS AND MATERIALS:

The interpreter's Rx, Holly Michelson, ACEBO, 1994.

Spanish-English/English-Spanish medical dictionary, Onyria H. McElroy and Lola L. Grabb, Stedman's, 2005.

USB FLASH DRIVE

USB COMPUTER HEADSET WITH MICROPHONE

OPTIONAL REFERENCE MATERIALS:

A complete English –Spanish dictionary as *The Oxford Spanish Dictionary/Spanish-English, English-Spanish*

Dictionary Mosby Ingles-Espanol/Espanol-Ingles de Ciencias de la Salud (Spanish Edition), Mosby

(Both available at the Durham Tech library)

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SUR 110

INTRODUCTION TO SURGICAL TECHNOLOGY

COURSE DESCRIPTION:

Prerequisites: Acceptance in the Surgical Technology Program, BIO 092, CHM 094 or CHM 130 and 130A, MAT 070 and ENG 090.

Corequisites: SUR 111

This course provides a comprehensive study of the operative environment, professional roles, moral/legal/ethical responsibilities, and medical communications used in surgical technology. Topics include: professional behaviors, medical terminology, interdepartmental/peer/relationships, operating room environment/safety, pharmacology, anesthesia, incision sites, physiology of wound healing, and biomedical sciences. Upon completion, students should be able to apply theoretical knowledge of the course topics to the operative environment. Course Hours Per Week: Class, 3. Lab: 0, Clinical: 0, Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of this course the student should be able to:

- a. Identify the role of the surgical technologist and possible career paths.
- b. Identify members of the surgical team and their roles.
- c. Identify and differentiate different types of health care facilities.
- d. Understand how interdepartmental relationships can impact on the OR as one of many hospital departments and the importance of good interdepartmental communication.
- e. Identify the physical aspect of the operating room suite and the operating room.
- f. Define and interpret the ethical, moral, and legal responsibilities of the surgical technologist.
- g. Trace the historical development of surgery to include the use of surgical technologists.
- h. Understand the standards of practice of the Association of Surgical Technologists.
- i. Recognize their professional obligations to patients regarding the patient's rights as a consumer as defined in "A Patient's Bill of Rights."
- j. Realize that each patient is an individual and may respond differently to illness and hospitalization.
- k. Assess the physical, spiritual and psychological needs of the patient along with the patient's possible responses to illness and hospitalization.
- l. Recognize their responsibility in keeping the environment safe for the patient and the caregiver.
- m. Describe the role of the surgical technologist in medication administration.
- n. Discuss basic types of medications used in surgery and understand how these medications should be received onto and labeled on the sterile field.
- o. Understand the types of anesthesia used in surgery (general, local, and regional) and the surgical technologist and circulator's responsibilities regarding different anesthesia techniques.
- p. Discuss the role of the surgical technologist during anesthesia complications.
- q. Demonstrate knowledge of sites and applications of most frequently used incisions.
- r. Understand the basic mechanisms and factors affecting wound healing.
- s. Understand basic principles of electricity and their application in the operating room.
- t. Identify the different types of electrical equipment and their power sources in the operating room.
- u. Determine safety concerns related to electrical equipment and vaporized tissue plume.
- v. Learn electrical safety precautions.
- w. Define terms related to physics.

- x. Apply principles of physics to safe patient care practices in the operating room.
- y. Discuss basic concepts related to robotics.
- z. Describe concepts of geometry that are used in the design of surgical robots.
- aa. Identify basic components and mechanisms of the robotic system.
- bb. List the clinical applications of robotics in the operating room.
- cc. Apply the principles of robotics to the safe patient care practices in the operating room.
- dd. Apply computer knowledge to safe patient care.
- ee. Identify basic components of a computer system.
- ff. Perform basic word processing functions.
- gg. Import graphics.
- hh. Perform print/save functions.

OUTLINE OF INSTRUCTION:

- I. Modern surgery
 - A. Historical perspectives and where we are now
 - B. The surgical technologist-past, present, and future
 - C. Roles and competencies of the surgical technologist
 - D. Surgical technologist job descriptions
- II. The perioperative team
 - A. The surgeon
 - B. The anesthesiologist
 - C. The circulator
 - D. The scrub
 - E. The patient
- III. Health care facilities and management
 - A. Organization
 - B. Reimbursement
 - C. Facilities for surgical procedures
 - D. Hospital management
 - E. Surgical services management
- IV. Needs of the surgical patient
 - A. Physical
 - B. Psychological
 - C. Social
 - D. Spiritual
- V. Ethical/moral/legal/professional behaviors
 - A. AORN standards
 - B. AST standards
 - C. A Patient's Bill of Rights
 - D. Consents
- VI. Communication Skills
 - A. In the OR
 - B. With OR administration
 - C. With related departments

- VII. Basic medical/surgical terms
 - A. Examination
 - B. Diagnosis
 - C. Treatment
- VIII. Physical environment and safety standards
 - A. Traffic Patterns/physical design
 - B. Safety considerations
 - C. Universal Precautions
 - D. Personal protective equipment
 - E. Biological and chemical hazards
- IX. General/Regional/Local anesthesia in the OR
 - A. Definitions
 - B. Choices
 - C. Care of anesthetized patient
 - D. Complications
- X. Surgical pharmacology
 - A. Common medicines used intraoperatively
 - B. Accepting medications onto a sterile field
 - C. Labeling medications on a sterile field
 - D. Weights and measures
 - E. Drug administration
- XI. Common medications
 - A. Antibiotics
 - B. Diagnostic agents
 - C. Drugs that affect coagulation
 - D. Blood and fluid replacement
- XII. Incisions and hemostasis
 - A. Types of wounds
 - B. Incision site considerations
 - C. Hemostatic agents
- XIII. Wound healing
 - A. Physiology of wound healing
 - B. Factors affecting wound healing
 - C. Wound classifications
 - D. Stapling devices
- XIV. Electricity
 - A. Electrical terminology
 - B. Principle of electrical flow
 - C. Types of current
 - D. Electrical receptacles

- XV. Physics
 - A. Mechanics
 - B. Properties of matter
 - C. Heat
 - D. Sound, vibrations, and waves
 - E. Electricity and magnetism
 - F. Light
 - G. Modern physics
- XVI. Robotics
 - A. Basic concepts
 - B. Clinical applications
- XVII. Electricity
 - A. Electrical terminology
 - B. Principle of electrical flow
 - C. Types of current
 - D. Electrical receptacles

REQUIRED TEXTBOOKS:

To be selected by the instructor.

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SUR 111

PERIOPERATIVE PATIENT CARE

COURSE DESCRIPTION:

Prerequisites: Acceptance in the Surgical Technology Program, BIO 092, CHM 094 or CHM 130 and 130A, MAT 070 and ENG 090

Corequisites: SUR 110

This course provides theoretical knowledge for the application of essential operative skills during the perioperative phase. Topics include surgical asepsis, sterilization and disinfection, and perioperative patient care. Upon completion, students should be able to demonstrate the principles and practices of aseptic technique, sterile attire, basic care preparation, and other relevant skills. Course Hours Per Week: Class, 5. Lab, 6. Semester Hours Credit, 7.

LEARNING OUTCOMES:

Upon completion of this course the student should be able to:

- a. Understand the principles and fundamentals of aseptic technique and adhere to these principles in gowning and gloving themselves and others.
- b. Define “surgical conscience” and its relation to the surgical technologist’s responsibility in perioperative patient care.
- c. Use aseptic technique to prepare a sterile back table set-up, mayo tray and the arrangement of supplies for a basic laparotomy procedure.
- d. To understand and apply the principles of sterilization, disinfection, and aseptic and sterile technique in the preparation and use of supplies and equipment in the OR environment.
- e. List different methods of sterilization and when they are used. Discuss advantages and disadvantages of differing methods of sterilization.
- f. To provide for patient and staff safety by understanding the use and proper functioning of OR equipment to include electro-surgical equipment, OR tables, endoscopy equipment and lasers.
- g. To understand the perioperative routines and the importance of these routines in receiving, identifying, chart reviewing, and assessing of the patient.
- h. Understand and demonstrate the principles used in positioning patients and the use of positional aids. Identify dangers of improper positioning.
- i. Demonstrate proper body mechanics when moving or transporting patient or equipment in the OR environment.
- j. Understand the principles of skin preparation and the proper methods and types of solutions used for surgical skin preps.
- k. Understand and adhere to proper draping principles in preparing for a surgical procedure.
- l. Use base knowledge and surgeon preference cards to have needed supplies ready for a basic surgical procedure. For this course exploratory laparotomy, exploratory laparoscopy, and tracheotomy are the required procedures.
- m. Understand the importance of correct handling and labeling of surgical specimens and to use the proper container depending on the specimen.

- n. Demonstrate manual dexterity and the ability to correctly use and pass instruments and supplies.
- o. Identify basic instrumentation by name, classification, and common usage. Check instruments for proper functioning and cleanliness. Separate instrument according to use, care and delicacy.
- p. Demonstrate proper procedure when doing a sponge, needle, and instrument count and understand the legal implications involved.
- q. Demonstrate safe procedures when handling drugs, solutions, syringes, and needles.
- r. Identify and safely handle various types of suture and needles used in surgery. Be able to demonstrate and describe what types of suture material and needles to be used, and the rationale for this usage.
- s. Have a basic understanding of stapling devices used in general surgery.
- t. Understand use and care of endoscopic surgical supplies to include sterile laparoscopic instruments and unsterile video accessories such as monitors, cameras, insufflators, and printing equipment.
- u. Demonstrate proper use of medical terminology in all forms of communication.
- v. Identify and use the roots and suffixes pertaining to diagnosis and surgery.

OUTLINE OF INSTRUCTION:

- I. Surgical asepsis
 - A. Historical perspectives
 - B. Basic terminology
 - C. Rules of aseptic technique
 - D. Universal precautions
 - E. Sterile conscience
- II. Cleaning, disinfection, sterilization
 - A. Sterilization vs. disinfection
 - B. Standards and practices
 - C. Types and methods of sterilization
 - D. Advantages and disadvantages of sterilizing methods
- III. Instrument preparation and wrapping
 - A. Sterilization
 - B. Instrument sets
 - C. Packaging
- IV. Attire, surgical scrub, gowning and gloving
 - A. Operating room attire
 - B. Surgical scrub
 - C. Gowning and gloving self/open and closed
 - D. Gowning and gloving others
 - E. Standards of practice
- V. Positioning the patient
 - A. Anatomic and physiologic considerations
 - B. Surgical positions
 - C. Positioning aides

- D. OR table use
- VI. Basic room preparation
 - A. Anesthesia supplies/suction equipment
 - B. Electrosurgical supplies
 - C. Positioning supplies
 - D. OR Furniture
 - E. Dr. preference card
 - F. Endo/video equipment
- VII. Surgical instruments
 - A. Types of instruments
 - B. Uses of instruments
 - C. Parts of instruments
 - D. Care of instruments
- VIII. Specialty equipment
 - A. Accessory equipment
 - B. Supplies
- IX. Skin preparation and draping
 - A. Physical preparation of patient
 - B. Skin preparation
 - C. Surgical skin prep
 - D. Urinary catheterization
- X. Draping the patient
 - A. Principles of draping
 - B. Draping materials
 - C. Application of drapes
- XI. Establishing the sterile field
 - A. Maintaining sterile field
 - B. Follow routines
 - C. Avoid double handling
 - D. Arrange drapes in order of use
 - E. Prepare suture supplies
 - F. Be prepared to count
 - G. Know case chronology
- XII. Five phases of surgery
 - A. Preparation sequence
 - B. Pre-incision sequence
 - C. Operative sequence
 - D. Closing sequence
 - E. Postoperative sequence
- XIII. Operative sequence
 - A. Incision
 - B. Hemostasis

- C. Dissecting and exposure
 - D. Exploration and isolation
 - E. Surgical repair: excision or revision
 - F. Hemostasis and irrigation
 - G. Collection and verification of specimen
- XIV. Intraoperative activities of the surgical technologist in scrub role
- A. Use preference card as guide
 - B. Anticipate instrument usage
 - C. Know hand signals
 - D. Selection of instrument lengths
 - E. Specimen care
 - F. Completion of final counts
- XV. Postoperative routines
- A. Confine and contain
 - B. Clean up
 - C. Institutional policies
- XVI. Common OR emergencies
- A. Massive hemorrhage
 - B. Malignant hyperthermia
 - C. Emergency tracheotomy/cricothyroidotomy
 - D. CPR
 - E. Power failures
 - F. Fires
 - G. Major disaster-triage
- XVII. Diagnostic procedures
- XVIII. The surgical vocabulary
- A. Root words
 - B. Prefixes
 - C. Suffixes
 - D. Surgical procedures

REQUIRED TEXTBOOKS:

To be determined by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SUR 122

SURGICAL PROCEDURES 1

COURSE DESCRIPTION:

Prerequisites: SUR 110 and SUR 111

Corequisites: SUR 123

This course provides an introduction to selected basic and intermediate surgical specialties that students are exposed to the first clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, the student should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment. Course Hours Per Week: Class, 5. Lab, 3. Semester Hours Credit, 6.

LEARNING OUTCOMES:

Upon successful completion of this course the student will be able to:

- a. Identify the types of surgical procedures performed by general/gastrointestinal surgeons and the anatomic structures involved.
- b. Understand the basic pathology relating to the need for general/gastrointestinal surgical intervention. The student will be able to identify and describe the type of instruments, equipment, sutures, and supplies that are considered the armamentarium of the general/gastrointestinal surgeon.
- c. Identify the types of surgical procedures performed by obstetrical/gynecological surgeons and the anatomic structures involved.
- d. Understand the basic pathology relating to the need for obstetrical/gynecological intervention. The student will be able to identify and describe the type of instruments, equipment, sutures, and supplies that are the armamentarium of the obstetrical/gynecological surgeon.
- e. Identify the types of surgical procedures performed by urological surgeons and the anatomic structures involved.
- f. Understand the basic pathology relating to the need for urological surgical intervention. The student will be able to identify and describe the types of instruments, equipment, sutures, and supplies that are the armamentarium of the urological surgeon.
- g. Identify the types of surgery performed by otorhinolaryngological surgeons and the anatomic structures involved.
- h. Understand the basic pathology relating to the need for otorhinolaryngological surgical intervention. The student will be able to identify and describe the instruments, equipment, sutures, and supplies that are the armamentarium of the otorhinolaryngological surgeon.
- i. Identify the types of surgical procedures that are performed by orthopaedic surgeons and the anatomic structures involved.
- j. Understand the basic pathology relating to the need for orthopaedic surgical intervention. The student will be able to identify and describe the instruments, equipment, sutures, and supplies that are the armamentarium of the orthopaedic surgeon.
- k. Demonstrate familiarity with basic endoscopic and/or minimal invasive supplies and procedures performed by general/gastrointestinal, obstetrical/gynecological, urological, otorhinolaryngological/head/neck and orthopaedics surgeons.
- l. Incorporate knowledge, skill and abilities into clinical practice as a surgical technologist.

OUTLINE OF INSTRUCTION:

- I. Endoscopy/laparoscopy in today's or environment
 - A. General surgery applications
 - 1.) Diagnostic & operative
 - B. Gynecologic surgery applications
 - 1.) Diagnostic & operative
 - C. Orthopedic surgery applications
 - 1.) Diagnostic & operative
 - D. Other specialties using endoscopy
 - 1.) Urology
 - 2.) Otorhinological
- II. General surgery
 - A. Hernia surgeries
 - B. Breast procedures
 - C. Biliary procedures
 - D. Pancreatic procedures
- III. Gastrointestinal surgery
 - A. Esophageal procedures
 - B. Stomach procedures
 - C. Intestinal procedures
 - D. Colon procedures
 - E. Rectal procedures
- IV. Obstetrical/gynecological surgery
 - A. Obstetrical procedures
 - B. Pelvic procedures
 - C. Vaginal procedures
 - D. Abdominal procedures
- V. Urological surgery
 - A. Endoscopic urology
 - 1.) Cystoscopy
 - 2.) TUR prostate/TUR bladder tumor
 - B. Male reproductive organ surgery
 - 1.) Prostate surgery
- VI. Otorhinolaryngological surgery
 - A. Ear surgery
 - B. Nasal surgery
 - C. Oral cavity and throat surgery
 - D. Tracheal and laryngeal surgery
 - E. Head and neck surgery

- VII. Orthopaedic surgery
 - A. Congenital anomalies
 - B. Cosmetic surgeries
 - C. Grafting procedures
 - D. Flap procedures

REQUIRED TEXTBOOKS:

To be selected by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SUR 123
SURGICAL CLINICAL PRACTICE I

COURSE DESCRIPTION:

Prerequisites: SUR 110 and SUR 111

Corequisites: SUR 122

This course provides clinical experience with a variety of perioperative assignments to build upon skills learned in SUR 111. Emphasis is placed on the scrub and circulating roles of the surgical technologist, including aseptic technique and basic case preparation for selected surgical procedures. Upon completion, students should be able to prepare, assist with, and dismantle basic surgical cases in both the scrub and circulating roles. Course Hours Per Week: Clinical, 21. Semester Hours Credit, 7.

LEARNING OUTCOMES:

Upon successful completion of this course the student should be able to:

- a. Define and explain the roles of scrub and/or circulating nurse in any general/gastrointestinal, obstetrical/gynecological, urological, otorhinolaryngological, and orthopaedic surgical procedures.
- b. Use aseptic technique to prepare an OR for a general/gastrointestinal, obstetrical/gynecological, urological, otorhinolaryngological, and orthopaedic surgical procedures.
- c. Use surgeon's preference card to identify, secure, and prepare supplies and equipment for a general/gastrointestinal, obstetrical/gynecological, otorhinolaryngological, and orthopaedic surgical procedures.
- d. Assist with the positioning, prepping, and draping of a patient undergoing general/gastrointestinal, obstetrical/gynecological, urological, otorhinolaryngological, and orthopaedic surgical procedures.
- e. Correctly pass instrumentation, sutures, and supplies and assist in general/gastrointestinal, obstetrical/gynecological, urological, otorhinolaryngological and orthopaedic surgical procedures.
- f. Properly dismantle case and follow hospital policy for post case clean up for general/gastrointestinal, obstetrical/gynecological, urological, otorhinolaryngological, and orthopaedic surgical procedures.

OUTLINE OF INSTRUCTION:

- I. Role of the scrub nurse
 - A. Aseptic technique
 - B. Use of preference cards
 - C. Case preparation
 - D. Back table/Mayo stand preparation
 - E. Prepping and draping
- II. Role of the circulating nurse
 - A. Patient preparation
 - B. Use of preference card
 - C. Case preparation
 - D. Anesthesia assistance
 - E. Patient positioning

- III. Role of the scrub nurse in intraoperative patient care
 - A. Laparoscopic and minimally invasive procedure
 - B. General surgery
 - C. Gastrointestinal surgery
 - D. Obstetrical/gynecological surgery
 - E. Urological procedures
 - F. Otorhinolaryngological procedures
 - G. Orthopaedic procedures
- IV. Role of the circulator in intraoperative patient care
 - A. Laparoscopic and minimally invasive procedures
 - B. General surgery
 - C. Gastrointestinal surgery
 - D. Obstetrical/gynecological surgery
 - E. Urological procedures
 - F. Otorhinolaryngological procedures
 - G. Orthopaedic procedures
- V. Role of the scrub nurse at the end of the procedure
 - A. Counting
 - B. Dressing preparation
 - C. Transfer of patient to post-op bed
 - D. Disassembling instruments and supplies
 - E. Decontamination
- VI. Role of the circulating nurse at the end of case
 - A. Counts
 - B. Report to receiving unit
 - C. Transferring patient to receiving unit
 - D. Specimen disposition
 - E. Documentation
 - F. Decontamination

REQUIRED TEXTBOOKS:

To be selected by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

SUR 134

SURGICAL PROCEDURES II

COURSE DESCRIPTION:

Prerequisites: SUR 122 and SUR 123

Corequisites: SUR 135 and SUR 137

This course provides a comprehensive study of intermediate and advanced surgical specialties that students are exposed to in the second clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment. Course Hours Per Week: Class, 5. Semester Hours Credit, 5.

LEARNING OUTCOMES:

After successful completion of this course the student will be able to:

- a. Identify the types of surgical procedures performed by plastic/reconstruction surgeons and the anatomic structures involved.
- b. The student will understand the basic pathology relating to the need for plastic/reconstruction surgical intervention. The student will be able to identify and describe the types of instrumentation, equipment, sutures, and supplies that are considered the armamentarium of the plastic/reconstruction surgeon.
- c. Identify the types of surgical procedures performed by ophthalmologic surgeons and the basic anatomy of the eye.
- d. The student will understand the basic pathology relating to the need for ophthalmologic intervention. The student will be able to identify and describe the types of instrumentation, equipment, sutures, and supplies that are considered the armamentarium of the ophthalmologic surgeon.
- e. Identify the types of peripheral vascular surgical procedures performed and the anatomic structures involved.
- f. The student will understand the basic pathology relating to the need for peripheral vascular surgical intervention. The student will be able to identify and describe the instrumentation, equipment, sutures, and supplies that are considered the armamentarium of the vascular surgeon.
- g. Identify the types of surgical procedures performed in neurosurgery and the anatomic structures involved.
- h. The student will understand the basic pathology relating to the need for neurosurgical intervention. The student will be able to identify and describe the instruments, equipment sutures, and supplies that are considered the armamentarium of the neurosurgeon.
- i. Identify the types of surgical procedures performed by thoracic surgeons and the anatomic structures involved.
- j. The student will understand the basic pathology relating to the need for thoracic surgical intervention. The student will be able to identify and describe the type of instrumentation, equipment, sutures, and supplies that are considered the armamentarium of the thoracic surgeons.
- k. Identify the types of surgical procedures performed by cardiovascular surgeons and anatomic structures involved.
- l. The student will understand the basic pathology relating to cardiovascular surgical intervention. The student will be able to identify and describe the type of instrumentation, equipment, sutures, and supplies that are considered the armamentarium of the cardiovascular surgeon.
- m. The student will also have a basic understanding of endoscopic and/or minimally invasive procedures in, peripheral vascular, thoracic, and cardiovascular services used by surgeons today.
- n. The student will incorporate this knowledge into clinical practice.

OUTLINE OF INSTRUCTION:

- I. Plastic and reconstructive surgery
 - A. Congenital anomalies
 - B. Cosmetic surgeries
 - C. Grafting procedures
- II. Ophthalmology
 - A. Extraocular procedure
 - B. Intraocular procedures
 - C. Cataract surgery
 - D. Retinal surgery
 - E. Vitrectomy
 - F. Ophthalmologic trauma
- III. Peripheral vascular surgery
 - A. Angioplasty procedures
 - B. Arterial bypass
 - C. Endarterectomy
 - D. Aneurysm surgery
 - E. Thrombectomy/embolectomy
 - F. Vascular access/dialysis procedures
 - G. Shunt procedures
- IV. Neurosurgical procedures
 - A. Spinal procedures
 - B. Peripheral nerve surgery
 - C. Cranial surgery
- V. Thoracic surgery
 - A. Bronchoscopy/mediastinoscopy
 - B. Thoracoscopy
 - C. Thoracotomy
 - D. Esophagectomy
- VI. Cardiac surgery
 - A. Non invasive procedures
 - B. Cardio-pulmonary bypass
 - C. Valvular surgery
 - D. Coronary artery bypass surgery

REQUIRED TEXTBOOKS:

To be selected by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SUR 135

SURGICAL CLINICAL PRACTICE II

COURSE DESCRIPTION:

Prerequisites: SUR 122 and SUR 123

Corequisites: SUR 134 and SUR 137

This course provides clinical experience with a variety of perioperative assignments to build skills required for complex perioperative patient care. Emphasis is on greater technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to function in the role of an entry-level surgical technologist. Course Hours Per Week: Clinical, 12. Semester Hours Credit, 4.

LEARNING OUTCOMES:

Upon successful completion of this course the student should be able to:

- a. Define and explain the roles of the scrub and/or circulating nurse in plastic reconstruction, ophthalmologic, peripheral vascular, thoracic, and cardiovascular surgical procedures.
- b. Use aseptic technique to prepare an operating room for plastic/reconstruction, ophthalmologic, peripheral vascular, neurosurgical, thoracic, and cardiovascular surgical procedures.
- c. Use a surgeon's preference card to identify, secure and prepare supplies and equipment for plastic/reconstruction, ophthalmologic, peripheral vascular, neurosurgical, thoracic, and cardiovascular, surgical procedures.
- d. Assist with the positioning, prepping, and draping of a patient undergoing plastic/reconstruction, ophthalmologic, peripheral vascular, neurosurgical thoracic, and cardiovascular surgical procedures.
- e. Correctly pass instrumentation, sutures, and supplies and assist in plastic/reconstruction, ophthalmologic, peripheral vascular, neurosurgical, thoracic, and cardiovascular surgical procedures.
- f. Properly dismantle case and follow hospital policy for post case clean up for plastic/reconstruction, ophthalmologic, peripheral vascular, neurosurgical, thoracic, and cardiovascular surgical procedures.

OUTLINE OF INSTRUCTION:

- I. Role of the scrub nurse
 - A. Aseptic technique
 - B. Use of preference cards
 - C. Case preparation
 - D. Back table/mayo stand preparation
- II. Role of the circulating nurse
 - A. Patient preparation
 - B. Use of preference card
 - C. Case preparation

- D. Anesthesia assistance
- E. Patient positioning

III. Role of the scrub nurse in intraoperative patient care

- A. Plastic/reconstruction procedures
- B. Ophthalmologic procedures
- C. Peripheral procedures
- D. Neurosurgical procedures
- E. Thoracic procedures
- F. Cardiovascular procedures

IV. Role of the circulating nurse in intraoperative patient care

- A. Plastic/reconstruction procedures
- B. Ophthalmologic procedures
- C. Peripheral procedures
- D. Neurosurgical procedures
- E. Thoracic procedures
- F. Cardiovascular procedures

V. Role of the scrub nurse at the end of the procedure

- A. Counting
- B. Dressing preparation
- C. Transfer of patient to post-op bed
- D. Disassembling instruments and supplies
- E. Decontamination

VI. Role of the circulating nurse at end of case

- A. Counts
- B. Report to receiving unit
- C. Transferring patient to receiving unit
- D. Specimen disposal
- E. Documentation

REQUIRED TEXTBOOKS:

To be selected by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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SUR 135
SURGICAL CLINICAL PRACTICE II

COURSE DESCRIPTION:

Prerequisites: SUR 123

Corequisites: SUR 134 and SUR 137

This course provides clinical experience with a variety of perioperative assignments to build skills required for complex perioperative patient care. Emphasis is on greater technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to function in the role of an entry-level surgical technologist. Course Hours Per Week: Clinical, 12. Semester Hours Credit, 4.

COURSE OBJECTIVES:

Upon successful completion of this course the student should be able to:

- a. Define and explain the roles of the scrub and/or circulating nurse in orthopedic, ophthalmologic, peripheral vascular, thoracic, cardiovascular surgical procedures.
- b. Use aseptic technique to prepare an operating room for orthopedic, ophthalmologic, peripheral vascular, neurosurgical, thoracic, and cardiovascular surgical procedures.
- c. Use a surgeon's preference card to identify, secure and prepare supplies and equipment for orthopedic, ophthalmologic, peripheral vascular, neurosurgical, thoracic, and cardiovascular, surgical procedures.
- d. Assist with the positioning, prepping, and draping of a patient undergoing orthopedic, ophthalmologic, peripheral vascular, neurosurgical, thoracic, and cardiovascular surgical procedures.
- e. Correctly pass instrumentation, sutures, and supplies and assist in orthopedic, ophthalmologic, peripheral vascular, neurosurgical, thoracic, and cardiovascular surgical procedures.
- f. Properly dismantle case and follow hospital policy for post case clean up for orthopedic, ophthalmologic, peripheral vascular, neurosurgical, thoracic, and cardiovascular surgical procedures.

OUTLINE OF INSTRUCTION:

- I. Role of the scrub nurse
 - A. Aseptic technique
 - B. Use of preference cards
 - C. Case preparation
 - D. Back table/mayo stand preparation
- II. Role of the circulating nurse
 - A. Patient preparation
 - B. Use of preference card
 - C. Case preparation
 - D. Anesthesia assistance
 - E. Patient positioning
- III. Role of the scrub nurse in intraoperative patient care
 - A. Orthopedic procedures
 - B. Ophthalmologic procedures
 - C. Peripheral procedures
 - D. Neurosurgical procedures
 - E. Thoracic procedures
 - F. Cardiovascular procedures
- IV. Role of the circular in intraoperative patient care
 - A. Orthopedic procedures
 - B. Ophthalmologic procedures
 - C. Peripheral procedures
 - D. Neurosurgical procedures
 - E. Thoracic procedures
 - F. Cardiovascular procedures
- V. Role of the scrub nurse at the end of the procedure
 - A. Counting
 - B. Dressing preparation
 - C. Transfer of patient to post-op bed
 - D. Disassembling instruments and supplies
 - E. Decontamination
- VI. Role of the circulating nurse at end of case
 - A. Counts
 - B. Report to receiving unit
 - C. Transferring patient to receiving unit
 - D. Specimen disposal
 - E. Documentation

REQUIRED TEXTBOOKS:

The Language of Medicine. (7th ed.). Chabner, 2004.

Atkinson and Fortunato. Operating Room Technique. (10th ed.). Mosby, 2004.

Meeker and Roth rock. Alexander's Care of the Patient in Surgery. (12th ed.). Mosby, 2003.

Snyder and Keegan. Pharmacology for the Surgical Technologist. (1st ed.). W.B. Saunders, 1999.

SUGGESTED REFERENCES, PERIODICALS, MATERIALS, & VISUAL AIDS:

Taber's Medical Dictionary. (18th ed.). F.A. Davis, 2003.

Surgical Technology for the Surgical Technologist: A Positive Care Approach. (2nd ed.). Caruthers, Price and Delmar, 2004.

Study Guide to Surgical Technology for the Surgical Technologist. (6th ed.). Caruthers, Prince and Delmar, 2004.

Instrumentation for the Operating Room. (6th ed.).

Mosby's Medical, Nursing, & Allied Health Dictionary. (6th ed.). Mosby, 2002.

STATEMENT OF STUDENTS WITH DISABILITIES:

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SUR 137
PROFESSIONAL SUCCESS PREPARATION

COURSE DESCRIPTION:

Prerequisites: SUR 122 and SUR 123

Corequisites: SUR 134 and SUR 135

This course provides job-seeking skills and an overview of theoretical knowledge in preparation for certification. Topics include test-taking strategies, résumé preparation, and interviewing techniques. Upon completion, students should be able to prepare a résumé, demonstrate appropriate interview techniques, and identify strengths and weaknesses in preparation for certification. Course Hours Per Week: Class, 1. Semester Hours Credit, 1.

LEARNING OUTCOMES:

Upon successful completion of this course the student will be able to:

- a. Prepare a professional type résumé that outlines career goals and identifies the clinical and academic skills that have prepared the student for a career as a surgical technologist.
- b. Understand the importance of preparation for an interview, how to conduct him/herself in an interview, and how to dress for an interview.
- c. Demonstrate confidence in fielding questions regarding their strengths and weaknesses in accepting an entry-level surgical technologist position.
- d. Identify from practice certification examinations what areas need particular emphasis for successful completion of the certification exam for surgical technologists.
- e. Identify test-taking strategy for assuring success in standardized tests such as the CST examination.

OUTLINE OF INSTRUCTION:

- I. Test taking strategies
 - A. What is the question asking?
 - B. Eliminating obviously wrong answers
 - 1.) Time management
 - C. Return at a later time
- II. Résumé preparation
 - A. Neatness is paramount
 - B. Type of résumés
 - C. Selling your experience
 - D. Short and to the point

- III. The interview
 - A. Personal appearance
 - B. Asking the right questions
 - C. Showing personal strengths
 - D. Avoiding critical errors
- IV. Practice testing
 - A. What are my strong points?
 - B. What are my weak points?
 - C. Taking advantage of my strong points
 - D. Working on my weak points

REQUIRED TEXTBOOKS:

To be selected by the instructor.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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WEB 110

INTERNET/WEB FUNDAMENTALS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, the student will be able to:

- a. Describe and explain the characteristics of the internet and World Wide Web
- b. Utilize a Search Engine.
- c. Send and receive e-mail.
- d. Download files from the Internet.
- e. Demonstrate ability to use FTP.
- f. Create web pages with HTML.

OUTLINE OF INSTRUCTION:

- I. Introduction
 - A. Internet features
 - B. History
 - C. Connecting to the Internet
 - D. Internet etiquette
 - E. Internet protocols
- II. World Wide Web
 - A. Web browsers
 - B. Search engines
 - C. Searching the Web
 - D. Researching a topic
 - E. Using Google and its different powerful features
- III. The home page
 - A. Purpose
 - B. Characteristics

- C. HTML
- D. Developing a home page

IV. E-mail

- A. Effective use
- B. Sending e-mail
- C. Receiving e-mail

V. Asynchronous and Synchronous Communication

- A. Electronic Mailing Lists
- B. Web based forums
- C. Blogs and Wikis
- D. Internet Chat
- E. Instant Messaging
- F. VoIP and video conferencing

REQUIRED TEXTBOOKS AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT OF STUDENTS WITH DISABILITIES:

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WEB 111
INTRODUCTION TO WEB GRAPHICS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces the creation of web graphics, and addressing problems peculiar to WWW display using appropriate software. Topics include web graphics file types, optimization, RGB color, web typography, elementary special effects, transparency, animation, slicing, basic photo manipulation, and other related topics. Upon completion, students should be able to create graphics, such as animated banners, buttons, backgrounds, logos, and manipulate photographic images for Web delivery. Course Hours per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

STUDENT LEARNING OUTCOMES:

Upon successful completion of this course, the student will be able to

- a. Edit a photo.
- b. Use selection tools.
- c. Work with layers.
- d. Draw and paint with color.
- e. Enhance and repair photos.
- f. Apply filters and patterns.

OUTLINE OF INSTRUCTION:

- I. Editing a Photo.
 - A. Start Photoshop and customize the Photoshop workspace.
 - B. Open a photo.
 - C. Resize a photo.
 - D. Print a photo.
 - E. Close a file.
 - F. Quit Photoshop.
- II. Using Selection Tools.
 - A. Select objects using the marquee tools.
 - B. Move a selection.
 - C. Make transformation edits.
 - D. Add and subtract areas from selections.
 - E. Print to a PDF file.

III. Working with Layers.

- A. Set layer properties.
- B. Hide, view, and rearrange layers.
- C. Create a new layer from another image or selection.
- D. Resize a layer.
- E. Create layer masks.
- F. Create a layer style.

IV. Drawing and Painting with Color.

- A. Create a new file, starting with a blank canvas
- B. Apply a gradient background.
- C. Choose colors using a variety of tools and dialog boxes.
- D. Use brushes to draw lines, shapes, and strokes.
- E. Insert real images combined with drawn images.
- F. Create a stroke layer.

V. Enhancing and Repairing Photos.

- A. Convert an image to Grayscale mode.
- B. Apply blending modes.
- C. Fill using Content-Aware.
- D. Repair documents with aging damage.
- E. Correct red eye.
- F. Remove or correct angle and perspective distortions.

VI. Applying Filters and Patterns.

- A. Select colors using the Color panel.
- B. Use the Filter Gallery to create special effects.
- C. Retouch images with the Liquify filter.
- D. Create Smart objects.
- E. Adjust type.
- F. Convert to CMYK.

WEB 115 WEB MARKUP AND SCRIPTING

COURSE DESCRIPTION:

Prerequisites: WEB 110

Corequisites: None

This course introduces Worldwide Web Consortium (W3C) standard client-side Internet programming using industry-established practices. Topics include JavaScript, markup elements, stylesheets, validation, accessibility, standards, and browsers. Upon completion, students should be able to develop hand-coded web pages using current markup standards. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

STUDENT LEARNING OUTCOMES:

Upon successful completion of this course, the student will be able to:

- a. Develop a web site with HTML5.
- b. Design a web page with CSS.
- c. Create page layouts with CSS.
- d. Create a web form.
- e. Program with JavaScript.

OUTLINE OF INSTRUCTION:

- I. Getting Started with HTML5.
- II. Developing a Web Site.
- III. Designing a Web Page with CSS.

- IV. Creating Page Layouts with CSS.
- V. Creating a Web Form.
- VI. Designing a Multimedia Web Site.
- VII. Enhancing a Web Site with Advanced CSS.
- VIII. Working with XHTML.
- IX. Programming with JavaScript.
 - A. Working with Operators and Expressions.
 - B. Working with Arrays, Loops, and Conditional Statements.
 - C. Working with Objects and Styles.
 - D. Working with Events.

REQUIRED TEXTBOOKS AND MATERIALS:

Text to be assigned by the instructor each semester

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.

WEB 120
INTRO INTERNET MULTIMEDIA

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This is the first of two courses covering the creation of Internet Multimedia. Topics include Internet multimedia file types, file type conversion, acquisition digital audio/video, streaming audio/video and graphics animation plug-in programs and other related topics. Upon completion, students should be able to create Internet multimedia presentations utilizing a variety of methods and applications. Course Hours per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, the student will be able to:

- a) Identify the various image, audio, video and animation file types used in Internet Multimedia.
- b) Determine the appropriate file type and format for images, audio, video and animation used in web sites.
- c) Prepare images, audio and video for web use.
- d) Demonstrate proficiency in creating CSS3 animations for the web.
- e) Develop a web page that incorporates multimedia content.

OUTLINE OF INSTRUCTION:

- I. Introduction
 - A. Survey of contemporary Internet Multimedia
 - B. Preparation of Web Page to incorporate Multimedia Elements
 - 1) HTML5 Introduction
 - 2) CSS3 Introduction
 - C. Multimedia Platforms and Browser Compatibility
- II. Imaging Technologies
 - A. Image file formats: BMP, GIF, JPEG, and PNG
 - B. Image file format conversion and optimization
- III. Audio Technologies
 - A. Audio plug-ins
 - B. Audio codes and standards
 - C. Streaming

IV. Video Technologies

- A. Video plug-ins
- B. Video codes and standards
- C. Streaming Technologies

V. CSS3 Animation

A. Animation Overview

- 1) Animated GIF's
- 2) SVG Animation
- 3) JavaScript
- 4) CSS3 Animation

B. CSS3 Animations

- 1) Border and Box Effects, Background images and Gradients
- 2) CSS3 2D Transformations
- 3) CSS3 3D Transformations
- 4) CSS3 Transitions
- 5) CSS3 Animations
- 6) CSS3 Browser Support
- 7) Publish CSS3 Animations to a website

VI. Web page Development Project

- A. Create and deploy a web page that features Multimedia elements

Web 125
MOBILE WEB DESIGN

COURSE DESCRIPTION:

Prerequisites: WEB 110 – INTERNET/WEB FUNDAMENTALS

Corequisites: None

This course introduces students to web design for mobile devices. Topics include planning an effective mobile website, industry standard Mobile Markup Language, CSS3, multimedia, m-commerce, social media, testing and publishing. Upon completion, students should be able to plan, develop, test, and publish web content designed for mobile devices. Course Hours Per Week: Class, 2; Lab, 2. Semester Hours Credit, 3.

STUDENT LEARNING OUTCOMES:

Upon successful completion of this course, the student will be able to:

- a. Justify the need for and purpose of having a mobile presence.
- b. Describe the different layouts and constraints to consider while designing mobile sites.
- c. Comply with copyrights and licenses related to using commercial sources in mobile sites.
- d. Implement the newest technologies in mobile design to build responsive mobile sites.
- e. Identify and implement appropriate testing strategies for mobile sites.

OUTLINE OF INSTRUCTION:

- I. Beginning JQuery Mobile.
 - A. Getting to Know JQuery Mobile.
 - B. Working with HTML, CSS, and JavaScript.
 - C. Using the JQuery Framework.
 - D. Introduction to the JQuery Mobile Framework.
 - E. Building Your First Mobile Site.
- II. Creating the User Interface.
 - A. Knowing the Capabilities of Mobile Devices.
 - B. Learning About Page Layout.
 - C. Tuning the Toolbars.
 - D. Designing Buttons.
 - E. Formulating Your Forms.
 - F. Learning About Lists.
 - G. Handling Events.
 - H. Changing the Default Theme.

Web 125
MOBILE WEB DESIGN

III. Customizing Your Content.

- A. Sprucing Up your Design.
- B. Responsive Site Layout.
- C. Rolling Your Own Theme with ThemeRoller.
- D. Detecting Mobile Devices.

IV. Extending the Mobile Experience.

- A. Embedding Video Playback for Mobile.
- B. Encoding Your Own Video for Mobile.
- C. Creating QR and Tag Codes.
- D. Learning to Minify Everything.
- E. Using Mobile Device Emulators.
- F. Building an App with PhoneGap and JQuery Mobile.
- G. Including JQuery Mobile with Wordpress.

REQUIRED TEXTBOOKS AND MATERIALS:

Text to be assigned by the instructor each semester.

STATEMENT OF STUDENTS WITH DISABILITIES:

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WEB 140

WEB DEVELOPMENT TOOLS

COURSE DESCRIPTION:

Prerequisite: None

Corequisite: None

This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

After successful completion of this course, the student will be able to:

- a. Create web pages using industry standard web development software;
- b. Apply syntax rules of HTML and XHTML;
- c. Insert images, videos, and flash objects into a web page using industry standard web development software;
- d. Create web pages with tables, forms, styles and style sheets (CSS) using industry standard web development software;
- e. Create a fully developed website;
- f. Create interactive web forms using industry standard web development software;

OUTLINE OF INSTRUCTION:

- I. Introduction to Web Site Development
 - A. Planning a Web Site
 - B. Web Site Navigation - Navigation Map
 - C. Development Basics - Typography, Images, Page Layout and Color
- II. Authoring Tools Basics
 - A. Environment and Workspace Management
 - B. Adding elements to a web page (text, headings, lists, formatting)
 - C. Project – Basic Web Page
- III. Adding Elements to a Web Site
 - A. Adding Pages
 - B. Adding Images
 - C. Understanding Different Types of Links
 - D. Project – Basic Web Site

- IV. Tables and Page Layout
 - A. Understanding Tables and Page Layout
 - B. Table Layout
 - C. Head Content
 - D. Project – Web Page Formatted Tables with Images
- V. Templates and Style Sheets
 - A. Understanding and using templates to streamline web site production
 - B. Introduction to Style Sheets
- VI. Absolute Positioning, Image Maps, and Navigation Bars
 - A. Understanding AP Elements
 - B. Adding Behaviors
 - C. Creating a Navigation Bar
 - D. Project – Using AP elements and Image Maps and Creating a Navigation Bar
- VII. Page Layout with Frames
 - A. Understand the advantages and disadvantages of using frames on a Web page
 - B. Describe frameset layout and properties
 - C. Create a frameset and frames
- VIII. Media Objects
 - A. Describe media objects
 - B. Insert an Adobe Flash Object into a Web page
 - C. Insert a video into a Web page
 - D. Project – Multimedia Web Page
- IX. Using Adobe Spry Framework to Create Interactive Web Pages.
 - A. Describe the Spry framework
 - B. Describe Spry widgets
 - C. Format a Spry widget
 - D. Describe Spry effects

REQUIRED TEXTBOOKS AND MATERIALS:

Text to be assigned by the instructor each semester.

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WEB 151
MOBILE APPLICATION DEVELOPMENT

COURSE DESCRIPTION:

Prerequisites: CIS 115

Corequisites: None

This course introduces students to programming technologies, design, and development related to mobile applications. Topics include accessing device capabilities, industry standards, operating systems, and programming for mobile applications using an OS Software Development Kit (SDK). Upon completion, students should be able to create basic applications for mobile devices. Course Hours per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

STUDENT LEARNING OUTCOMES:

Upon successful completion of this course, the student will be able to:

- a. Outline logical actions needed to convert an idea to a fully functioning mobile application.
- b. Break logical actions into primitive, programmable steps.
- c. Implement primitive, programmable steps using web-based graphical user interface builder and drag-and-drop coding techniques.
- d. Verify, debug, and deploy mobile applications.

OUTLINE OF INSTRUCTION:

- I. Introduction to Programming and App Inventor
 - A. What is a Computer Program
 - B. Introducing App Inventor
 - C. Getting Hands-On with App Inventor
- II. Working with Media
 - A. Displaying Images
 - B. Duplicating Blocks and Using Dropdowns
 - C. Sounds
 - D. Color Blocks
 - E. Layout Components
 - F. Commenting Blocks
- III. Input, Variables, and Calculations
 - A. The Textbox Component
 - B. Performing Calculations
 - C. Storing Data with Variables
 - D. Creating Blocks with Typeblocking
 - E. The Slider Component
 - F. Math Functions

- IV. Decision Blocks and Boolean Logic
 - A. Introduction to Decision Blocks
 - B. Relational Operators and **if** Block
 - C. The **if then else** Block
 - D. A First Look at Comparing Strings
 - E. Logical Operators
 - F. Nested Decision Blocks
 - G. The **if then else if** Block
 - H. Working with Random Numbers
 - I. The Screen's **Initialize** Event
 - J. The ListPicker Component
 - K. The CheckBox Component
- V. Repetition Blocks, Times, and Dates
 - A. The Notifier Component
 - B. The **while** Loop
 - C. The **for each** Loop
 - D. The Clock Component
 - E. The DatePicker Component
- VI. Procedures and Functions
 - A. Modularizing Your Code with Procedures
 - B. Procedures
 - C. Passing Arguments to Procedures
 - D. Returning Values from Procedures
- VII. Lists
 - A. Creating Lists
 - B. Iterating Over a List with for each Loop
 - C. Selecting and Item
 - D. Inserting and Appending Items
 - E. Removing Items
 - F. Replacing Items
 - G. Searching for an Item
 - H. Other List Functions
- VIII. Storing Data on the Device
 - A. App Inventor Storage Components
 - B. The Application Sandbox
 - C. File Components
 - D. Retrieving a File
 - E. TinyDB
 - F. Tag-Value Pairs
 - G. Storing a Tag-Value Pair
 - H. Retrieving a Value
 - I. Tag-Value Pairs when the Value is a List
 - J. TinyDB across Multiple Screens

- IX. Graphics and Animation
 - A. The Canvas Component
 - B. The Ball and ImageSprite Component
 - C. Using the Clock Component to Create Animations
 - D. Dragging Sprites
 - E. Detecting Collisions
- X. Working with Text
 - A. Concatenating Strings
 - B. Comparing Strings
 - C. Trimming a String
 - D. Converting Case
 - E. Finding a Substring
 - F. Replacing a Substring
 - G. Extracting a Substring
 - H. Splitting a Substring
- XI. Text to Speech and Text Messaging
 - A. Text to Speech
 - B. The Texting Component
 - C. Receiving Text Messages
 - D. Sending Text Messages
- XII. Sensors
 - A. The LocationSensor
 - B. The OrientationSensor
 - C. The Accelerometer
 - D. Using the ActivityStarter Component to Launch Google Maps
- XIII. Other App Inventor Capabilities
 - A. Recording Audio
 - B. Taking a Photo with the Phone's Camera
 - C. The Camcorder Component
 - D. Playing Video
 - E. Selecting Contacts from the Contact List and Placing Phone Calls
 - F. Scanning a Barcode
 - G. Using Voice Recognition
 - H. Connecting to a Twitter Account
 - I. TinyWebDB

Useful Things for the Developer.

- A. Special Functional Areas.
- B. Tips and Tools.

WEB 210 WEB DESIGN

COURSE DESCRIPTION:

Prerequisite: WEB 110

Corequisite: None

This course introduces intermediate to advanced web page design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high-impact and highly functional web pages. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

After successful completion of this course, the student will be able to:

- a. Create web pages
 - Format color and text
 - Add graphic images
 - Add links to web pages
- b. Organize web pages
 - Develop web pages using CSS page layouts
 - Create forms
 - Create tables
- c. Design web sites
 - Create site maps
 - Create wireframes
 - Develop web sites using best practices
- d. Redesign web sites
 - Add Multimedia technologies
 - Evaluate and enhance web site usability
 - Develop web sites using accessibility practices

OUTLINE OF INSTRUCTION:

- I. Developing a Basic Web Page
 - A. Introducing the World Wide Web
 - B. Creating an HTML Document
 - C. Working with Elements and Special Characters

II. Developing a Basic Web Site:

- A. Working with Links
- B. Working with Web Site Structures
- C. Creating Links between Documents
- D. Linking to Resources on the Internet
- E. Working with Hypertext Attributes

III. Designing a Web Page

- A. Working with Color in HTML
- B. Working with Fonts and Text Styles
- C. Adding Graphic Elements to Your Web Pages
- D. Working with GIFs and JPGs
- E. Understanding Image Maps

IV. Develop Web Pages with XHTML

- A. Test Web pages with Validation tools
- B. Evaluate Web Site Accessibility
- C. Create Web Sites using current Web Standards

V. Designing Web Page Tables

- A. Creating Tables on the World Wide Web
- B. Formatting with Style Sheets

VI. Designing Web Page Forms and Styles

- A. Creating Web Page Forms
- B. Formatting with Style Sheets
- C. Using Multimedia on the Web

REQUIRED TEXTBOOKS AND MATERIALS:

Text to be assigned by the instructor each semester

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WEB 230

IMPLEMENTING WEB SERVICES

COURSE DESCRIPTION:

Prerequisite: NET 110 or NET 125

Corequisite: None

This course covers website and web server architecture. Topics include installation, configuration, administration, and security of web servers, services and sites. Upon completion, students should be able to effectively manage the web services deployment lifecycle according to industry standards. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

STUDENT LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Install and configure a web server software on an OS
- b. Configure a web site to be administered according to the server software
- c. Implement server security, authentication and performance measures
- d. Execute server applications
- e. Manage a web server remotely
- f. Manage a web server using the command line and WSH
- g. Extend the server to incorporate other services

OUTLINE OF INSTRUCTION:

- I. Web server software-Apache and IIS on Windows platform
- II. Installation of Apache
- III. Starting/stopping the server
- IV. HTTP Administration
- V. Server environment, directory listings, Request and Response headers
- VI. Apache configuration file
- VII. Content handling, error and response handling, Aliases and redirection
- VIII. Dynamic content-SSI, CGI and other scripting options.
- IX. Web hosting-single and multiple
- X. Performance directives, proxying and caching.
- XI. Monitoring and tracking
- XII. Securing a web server
- XIII. Web application and database
- XIV. Web server Extension

REQUIRED TEXTBOOKS AND MATERIALS:

Text to be assigned by the instructor each semester.

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WEB 250

DATABASE DRIVEN WEBSITES

COURSE DESCRIPTION

Prerequisites: DBA 110

Co requisites: None

This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according to industry standards. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of the course, the student will be able to:

- a. Explain the architecture of data-driven web applications in terms of client, server and a database server.
- b. Create interactive web form creation using HTML.
- c. Create databases using SQL and wizards.
- d. Use SQL commands to Insert, Delete, Update, and Select data to and from a database.
- e. Validate data using server side scripting and client side scripting.
- f. Save data from the web form to a back end database.
- g. Process data transactions between the client, server and database server using a scripting language.
- h. Retrieve data from a database and populate a form.
- i. Identify databases compliant with ODBC.

OUTLINE OF INSTRUCTION:

- I. Server side scripting and Forms
 - A. Introduction to server side scripting using PHP
 - B. server side code fundamentals with variables, loops, conditions and arrays
 - C. Handling strings, files and objects
 - D. Introduction to form in HTML and creating forms using a wizard (ex-Dreamweaver)
 - E. Form Validation (using PHP) and Submission and processing
- II. Database connections
 - A. Query server (RDBMS) and File Server
 - B. MySQL client and Server
 - C. SQL premier, DDL and DML

III. Processing data

- A. Connecting to Database
- B. Data Insertion and Retrieval
- C. Data presentation on web browser
- D. Creating Data Application with forms and executing SQL in the server

IV. Database Application and XML

- A. Binding data to controls
- B. Searching on the web form
- C. XML and web Service
- D. Special Projects

REQUIRED TEXTBOOKS AND MATERIALS:

Text to be assigned by the instructor each semester

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WLD 112

BASIC WELDING PROCESSES

COURSE DESCRIPTION:

Prerequisite: DMA 010, 020, 030, DRE 096, or satisfactory score on placement test

Corequisite: None

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes. Course Hours Per Week: Class, 1; Lab, 3 Semester Hours Credit: 2

LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- a. Demonstrate Oxyacetylene setup and safety processes
- b. Demonstrate Oxyfuel welding and torch cutting
- c. Demonstrate SMAW (stick) plate equipment setup, safety and operation
- d. Demonstrate GMAW (MIG) equipment setup, safety and operation
- e. Demonstrate GTAW (TIG) equipment setup, safety and operation
- f. Explain the basic welding joint designs, symbols, codes and standards

OUTLINE OF INSTRUCTION:

- I. Introduction to welding
 - a. History of welding
 - b. Welding defined
 - c. The uses of welding
 - d. Welding and cutting processes
 - e. Oxyacetylene welding, cutting, and brazing
 - f. Thermal cutting processes
 - g. Occupational opportunities in welding
- II. Safety
 - a. Burn classifications
 - b. Face, eye, and ear protection
 - c. Respiratory protection
 - d. Ventilation
 - e. Material Safety Data Sheets (MSDS)
 - f. Special protective clothing
 - g. Fire protection
 - h. Equipment maintenance
 - i. Electrical safety

- j. Ladder safety
- III. Flame cutting
 - a. Metals cut by the oxyfuel process
 - b. Eye protection
 - c. Cutting torches and tips
 - d. Oxyfuel cutting, setup and operation
 - e. Hand cutting
 - f. The physics of a cut
 - g. Cutting applications
 - h. Pipe cutting
- IV. Plasma Arc cutting
 - a. The plasma torch
 - b. Power and gas cables
 - c. Power requirements
 - d. Heat input
 - e. Distortion
 - f. Applications
 - g. Machine cutting
 - h. Manual cutting
 - i. Plasma Arc gouging
- V. Shielded Metal Arc Welding (SMAW) (stick welding)
 - a. Welding current
 - b. SMA welding arc temperature and heat
 - c. Types of welding power
 - d. Arc blow
 - e. Types of power sources
 - f. Generator and Alternator type welding machines
 - g. Converting AC to DC
 - h. Duty cycle
 - i. Welder accessories
 - j. Arc length
 - k. Electrode angle
 - l. Electrode manipulation
 - m. Positioning of the welder and the plate
 - n. Stringer beads
 - o. Edge welds
 - p. Square butt joints
 - q. Outside corner joint
 - r. Lap joint
- VI. Gas Metal Arc Welding (GMAW) (MIG welding)
 - a. Weld metal transfer method
 - b. Shielding gases
 - c. Welding power supplies

- d. Speed of the wire electrode
- e. Molten weld pool control
- f. Power settings
- g. Gun angle
- h. Electrode (wire) feed unit
- i. GMA spot welding
- j. Setup of GMAW equipment
- k. Gas density and flow rates
- l. Wire speed feed
- m. Arc voltage and amperage characteristics
- n. Electrode extension
- o. Welding gun angle
- p. Metal preparation

VII. Gas Tungsten Arc Welding (GTAW) (TIG welding)

- a. Equipment and setup
- b. Types of tungsten electrodes
- c. Shaping the tungsten
- d. Types of welding current
- e. Shielding gases
- f. Pre flow and post flow
- g. Shielding gas flow rates
- h. Remote controls
- i. Torch angle
- j. Filler rod manipulation
- k. Tungsten contamination
- l. Current setting

REQUIRED TEXTBOOKS AND MATERIALS:

Jeffus, Larry, Welding, Principles and Applications. 7th ed. ISBN: 978-1-111-03917-2
Students will also need OSHA approved safety glasses. Steel toe work boots or shoes are preferred but not required.

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WLD 141

SYMBOLS AND SPECIFICATIONS

COURSE DESCRIPTION:

Prerequisite: DMA 010, 020, 030, DRE 096, or satisfactory score on placement test

Corequisite: None

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.
Course Hours per Week: Class, 2; Lab, 2; Semester Hours Credit, 2.

LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- a. Read basic welding blueprints.
- b. Identify lines.
- c. Identify abbreviations, symbols and terminology on welding drawings.
- d. Interpret basic orthographic projection.
- e. Interpret basic dimensioning standards.
- f. Interpret auxiliary views encountered by individuals in the welding trades.
- g. Interpret welding assembly drawings

OUTLINE OF INSTRUCTION:

- I. Types of drawings
 - a. Working drawings
 - b. One and Two view drawings
 - c. Multi detail drawings
 - d. Partial views
 - e. Assembly drawings
- II. Welding joint design
 - a. Joint dimensions
 - b. Metal type
 - c. Welding positions
 - d. Code or standard requirements
 - e. Welding symbols
 - f. Indicating types of welds
 - g. Weld location
 - h. Location significance of arrow
 - i. Fillet welds

- j. Spot welds
- k. Plug welds
- l. Seam welds
- m. Groove welds
- n. Backing
- o. Flanged welds
- p. Nondestructive testing symbols

III. Welding Codes and Standards

- a. Codes standards, procedures, and specifications
- b. Welding procedure qualification
- c. Welding procedure specification (WPS)
- d. Qualifying the WPS
- e. General Information
- f. Procedure Qualification Record (PQR)

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined by the Instructor.

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