

## Health Sciences Careers Syllabus

School Year: 2015-2016

Certificated Teacher: [Click here to enter text.](#)

### Desired Results

Course Title: Health Sciences Careers

Credit:   x   one semester (.5)        two semesters (1.0)

Prerequisites and/or recommended preparation

None

Estimate of hours per week engaged in learning activities:

5 hours of class work per week per 18 week semester

Instructional Materials:

All learning activities (resources, assignments, assessments) are contained within or referenced in the student's online course. The online course is accessed via login and password assigned by student's school (web account) or emailed directly to student upon enrollment, with the login website.

**Other resources required/Resource Costs:**

*This course requires online videos, examples and activities .*

Course Description:

You will take field trips to multiple health related sites and hear from guest speakers who currently work in health careers. You will learn basic human anatomy, medical terminology, diseases and basic medical skills through Hands-on activities. Handling stress, making ethical decisions, working with a diverse population and leadership skills will be emphasized. This class satisfies the Health graduation requirement, or half of the Career and Technical Education graduation requirement.

Enduring Understandings for Course (Performance Objectives):

*What will students understand (about what big ideas) as a result of the course?*

- Reading and writing with medical terminology is essential for communication in the medical field
- Knowledge of human structure and function allows for understanding diseases and disorders and their appropriate medical treatment, prevention and management.
- Within the medical community, all communication must be accurate and follow legal guidelines.
- Skill competency in career strand is required for proficiency
- Career exploration in the five strands will provide understanding of job opportunities
- Employability skills enhance their employment opportunities and job satisfaction

Course Learning Goals (including WA State Standards, Common Core Standards, National Standards):

*What is the key knowledge and skill needed to develop the desired understandings?*

**Unit: 1 Systems Overview**

**Content Standards:**

IHSC-C-1.3 Use medical terminology.

IHSC-C-9.1 Demonstrate professionalism and key employability skills and job satisfaction  
IHSC-C-4.2 Understand the traditional Health Care Delivery System and complimentary/alternative practices  
Health-2.1.1 Evaluates dimensions of health and relates to personal health behaviors.  
IHSC-C-12.1 Communicate information accurately and within legal/regulatory guidelines

**Unit: Unit 2 Therapeutic Services**

**Content Standards:**

IHSC-C-1.3 Use medical terminology.  
IHSC-C-1.5 Use knowledge of human structure and function.  
IHSC-C-1.6 Use knowledge of diseases and disorders.  
IHSC-C-6.5 Show knowledge of illness prevention  
IHSC-C-10.1 Demonstrate skill and knowledge appropriate for the career strand.  
Health-2.3.2.a Analyzes prevention, causative factors, and treatment of non-communicable diseases.  
Health-2.4.5 Analyzes the stages of addiction and dependency and the impact on the individual, family, and society.

**Unit: 3 Diagnostic Services**

**Content Standards:**

IHSC-C-10.1 Demonstrate skill and knowledge appropriate for the career strand.  
IHSC-C-1.3 Use medical terminology.  
IHSC-C-1.5 Use knowledge of human structure and function.  
IHSC-C-1.6 Use knowledge of diseases and disorders.  
IHSC-C-6.5 Show knowledge of illness prevention  
IHSC-C-12.1 Communicate information accurately and within legal/regulatory guidelines  
Health-2.3.2.a Analyzes prevention, causative factors, and treatment of non-communicable diseases.  
Health-2.4.3/2.4.4 Analyzes stress and how it relates to personal stress-management strategies and creates personal stress-management strategies.

**Unit: 4 Health Informatics**

**Content Standards:**

IHSC-C-1.3 Use medical terminology.  
IHSC-C-1.5 Use knowledge of human structure and function.  
IHSC-C-1.6 Use knowledge of diseases and disorders.  
IHSC-C-6.5 Show knowledge of illness prevention  
IHSC-C-12.1 Communicate information accurately and within legal/regulatory guidelines  
IHSC-C-10.1 Demonstrate skill and knowledge appropriate for the career strand.  
Health-2.2.2 Understands how to maintain sexual health throughout life.  
Health-2.3.1.a Analyzes prevention, causative factors, transmission, and treatment of communicable diseases.

**Unit: 5 Support Services**

**Content Standards:**

IHSC-C-1.3 Use medical terminology.  
IHSC-C-1.5 Use knowledge of human structure and function.

IHSC-C-1.6 Use knowledge of diseases and disorders.  
IHSC-C-10.1 Demonstrate skill and knowledge appropriate for the career strand.  
C-5.2 Employ personal safety practices; comply with pertinent regulatory guidelines including OSHA and WISHA standards  
Health-1.5.1.a Compares functions of nutrients and draws conclusions for individual needs based on dietary guidelines.  
Health-1.5.2 Evaluates how nutritional requirements change.  
Health-1.5.3 Analyzes the effectiveness of various nutritional products.  
Health-1.5.4 Evaluates how healthy and unhealthy eating patterns impact the function of the body.

**Unit: 6 Biotechnology**

**Content Standards:**

IHSC-C-1.3 Use medical terminology.  
IHSC C-1.5 Use knowledge of human structure and function.  
IHSC C-1.6 Use knowledge of diseases and disorders.  
IHSC C-12.1 Communicate information accurately and within legal/regulatory guidelines  
Health-2.2.3 Evaluates hereditary factors affecting growth, development, and health.

**Unit: 7-Emergency Treatment**

**Content Standards:**

IHSC-C-1.3 Use medical terminology  
IHSC-C-1.6 Use knowledge of diseases and disorders.  
Health- 2.4.2 Evaluates emergency situations, ways to prevent injuries, and demonstrates skill to respond appropriately and safely

**Evidence of Assessment**

*What evidence will be collected to determine whether or not the understandings have been developed, the knowledge and skill attained, and the state standards met? [Anchor the work in performance tasks that involve application, supplemented as needed by prompted work, quizzes, observations, and assessments]*

**Performance Tasks:**

- Career GRASP
- skill demonstration
- leadership points
- post field trip and guest speaker reflection
- online simulation
- Self- reflection surveys
- Response to a question on a blog or discussion board
- Internet research web based activities
- Written response to Essay prompt
- Short Answer, thought provoking and self- interpretation of material

**Other Evidence (self-assessments, observations, work samples, quizzes, tests and so on):**

- Self-reflection surveys
- Response to a question on a blog or discussion board
- Internet research web based activities
- Quizzes
- Written response to Essay prompt
- Creation of Power Point/Prezi/brochure
- Multiple choice, matching, true/false unit tests

### Types of Learning Activities

Indicate from the table below all applicable learning strategies that may be used in the course.

Direct Instruction	Indirect Instruction	Experiential Learning	Independent Study	Interactive Instruction
<input checked="" type="checkbox"/> Structured Overview <input checked="" type="checkbox"/> Mini presentation <input checked="" type="checkbox"/> Drill & Practice <input checked="" type="checkbox"/> Demonstrations <input type="checkbox"/> Other (List)	<input type="checkbox"/> Problem-based <input type="checkbox"/> Case Studies <input type="checkbox"/> Inquiry <input type="checkbox"/> Reflective Practice <input checked="" type="checkbox"/> Project <input type="checkbox"/> Paper <input type="checkbox"/> Concept Mapping <input type="checkbox"/> Other (List)	<input checked="" type="checkbox"/> Virt. Field Trip <input type="checkbox"/> Experiments <input type="checkbox"/> Simulations <input checked="" type="checkbox"/> Games <input type="checkbox"/> Field Observ. <input type="checkbox"/> Role-playing <input type="checkbox"/> Model Bldg. <input type="checkbox"/> Surveys <input type="checkbox"/> Other (List)	<input type="checkbox"/> Essays <input checked="" type="checkbox"/> Self-paced computer <input checked="" type="checkbox"/> Journals <input type="checkbox"/> Learning Logs <input type="checkbox"/> Reports <input type="checkbox"/> Directed Study <input checked="" type="checkbox"/> Research Projects <input type="checkbox"/> Other (List)	<input type="checkbox"/> Discussion <input checked="" type="checkbox"/> Debates <input type="checkbox"/> Role Playing <input type="checkbox"/> Panels <input type="checkbox"/> Peer Partner Learning <input type="checkbox"/> Project team <input type="checkbox"/> Laboratory Groups <input type="checkbox"/> Think, Pair, Share <input type="checkbox"/> Cooperative Learning <input type="checkbox"/> Tutorial Groups <input checked="" type="checkbox"/> Interviewing <input type="checkbox"/> Conferencing <input type="checkbox"/> Other (List)

**Other:** Click here to enter text.

### Learning Activities

Learning activities (as provided in the student friendly course schedule posted in online course) and contains the scope and sequence of performance tasks, activities and assessments by semester, unit, and weeks.

These learning activities are aligned with the successful completion of the course learning goals and progress towards these learning activities will be reported monthly on a progress report.

#### 1<sup>st</sup> Semester Health Sciences Learning Activities

#### Unit: 1 Systems Overview

**Duration:** 3 weeks

**Enduring Understandings:**

1. Use of medical terminology allows health professionals to accurately communicate. 2. The law guides medical practices 3. There are five career strands in the Health Sciences. 4. Leadership qualities are valued by employers

**Essential Questions:** 1. How can understanding medical terminology help health care professionals communicate in a timely manner? 2. How do knowledge and application of HIPAA laws impact patient care? 3. What impact does career exploration have on the choice of a career? 4. How can keeping in touch with my instructor help me be successful in my online course?

**Student Learning Targets:**

1. I can interpret and use military time 2. I can translate text to medical terminology. 3. I can apply HIPPA laws. 4. I can complete independent research on a health care career. 5. I can connect communication with success.

**Learning Activities:**

Leadership/CTE Requirements, Legal terms/quiz, Confidentiality Power point and HIPAA, Cultural Differences – Dr. Seuss Sneetches & Your family Culture, Medical Terminology Unit 1 and practice, Military time information and practice, Career Investigation Project, Getting started student & parent task.

**Unit : 2 Therapeutic Services**

**Duration:** 3 weeks

**Essential Understandings:** What will students understand (about what big ideas) as a result of the unit?

1. Knowledge of the Musculoskeletal system allows for understanding of diseases and disorders, and their appropriate medical treatment, prevention and management. 2. Use of medical terminology allows health professionals to accurately communicate. 3. Competent physical assessment skills are needed to appropriately treat patients. 4. Therapeutic Services occupations are primarily involved in changing the health status of the client over time

**Essential Questions:** 1. How does identifying abnormal breath sounds help the health care professional treat patients? 2. How does knowledge of the musculoskeletal and respiratory systems enable the practitioner to treat the patient? 3. What impact does tobacco have on the respiratory system. 4. What occupations are within the therapeutic health careers?

**Student Learning Targets:**

1. I can detect abnormal breath sounds, indicating inadequate gas exchange. 2. I can identify basic musculoskeletal, and respiratory structures of the human anatomy. 3. I can understand the effect of tobacco on the respiratory system. 4. I can explain what types of occupations are within the therapeutic services occupational pathway. 5. I can translate text to medical terminology.

**Learning Activities:**

Skeletal system anatomy/ppt/video, Muscular system anatomy/ppt/video, Range of motion, Respiratory system anatomy, Breath sounds lab, Unit 2 medical terminology, Tobacco power point, Therapeutic Guest Speakers/Field Trips

**Unit: 3 Diagnostic Services**

**Duration:** 2 weeks

**Essential Understandings:**

1. Use of medical terminology allows health professionals to accurately communicate. 2. Competent physical assessment skills are needed to appropriately treat patients 3. Knowledge of the Musculoskeletal system allows for understanding of diseases and disorders, and their

appropriate medical treatment, prevention and management.4. Diagnostic Services occupations use tests and evaluations that aid in the detection, diagnosis and treatment of diseases, injuries or other physical condition.

#### **Essential Questions:**

1. How does identifying abnormal heart sounds help the health care professional treat patients? 2. How does knowledge of cardiac systems enable the practitioner to treat the patient? 3. What occupations are within the diagnostic health careers?

**Student Learning Targets:** 1. I can detect abnormal heart sounds. 2. I can identify basic cardiac structures of the human anatomy. 3. I can explain what types of occupations are within the diagnostic services occupational pathway.4. I can translate text to medical terminology. 5. I can explain proper procedure of taking TPR and blood pressure. 6. I can show knowledge of causative factors, treatment, and prevention of Cardiovascular Disease.

#### **Learning Activities:**

Draw the Heart Powerpoint, ECG rhythm Powerpoint, Unit 3 medical terminology, Heart anatomy/quiz, Heart tone lab, TPR Powerpoint/lab & assessment, BP lab & assessment, Cardiovascular Disease power point/video/test, Diagnostic Guest Speakers/Field Trips

### **Unit: 4 Health Informatics**

**Duration: 2 weeks**

**Essential Understandings:** 1. Use of medical terminology allows health professionals to accurately communicate. 2. Knowledge of the genitourinary system allows for understanding of diseases and disorders, and their appropriate medical treatment, prevention and management.4. Health Informatics occupations document client care.

**Essential Questions:** 1. How do infectious diseases affect the human population? 2. How does knowledge of genitourinary system enable the practitioner to treat the patient? 3. What occupations are within the health informatics careers?

#### **Student Learning Targets:**

1.. I can identify causes and preventions of infectious diseases. 2. I can explain what types of occupations are within the health informatics occupational pathway.3. I can translate text to medical terminology. 4. I can identify basic anatomical structures of the genitourinary system.

#### **Learning Activities:**

Male & Female reproductive systems, Unit 4 medical terminology, Virus vs. Bacteria Power point, Infectious disease power point/assignment, Catch the Fever Pathogen research assignment, STD (District 81) Power point, Health Informatics Guest Speakers/Field Trips, Hormonal birth control power point, Barrier birth control power point, Abstinence

### **Unit: 5 Support Services**

**Duration: 2 weeks**

**Essential Understandings:** : 1. Use of medical terminology allows health professionals to accurately communicate. 2. Knowledge of the gastrointestinal system allows for understanding of diseases and disorders, and their appropriate medical treatment, prevention and management.4. Support services involve direct or indirect care that creates a therapeutic environment.

**Essential Questions:** 1. What effect does nutrition have on bodily function? 2. How does knowledge of gastrointestinal system enable the practitioner to treat the patient? 3. What occupations are within the support services careers? 4. What effect does alcohol have on the body? 5. Is obesity a danger to health?

#### **Student Learning Targets:**

1. I can identify the functions of the gastrointestinal system.. 2. I can explain what types of occupations are within the support systems occupational pathway.3. I can translate text to medical terminology. 4. I can identify basic anatomical structures of the gastrointestinal system. 5. I can understand the importance of OSHA laws. 6. I can demonstrate proper body mechanics when lifting and positioning a patient. 7. I can understand the effect that nutrition has on the body's function. 8. I can explain what effects obesity can have. 9. I can understand the effects of alcohol on the body.

#### **Learning Activities:**

**GI system anatomy, Nutrition and Digestion powerpoint/Nutrition Plan, Unit 5 Medical Terminology/practice/quiz, Alcohol article/facts, Obesity- Killer at large video/assignment, OSHA Powerpoint/assignment, Body Mechanics Powerpoint and lab/Transfer,Lifting and Repositioning, Support Services Guest Speakers/Field Trips**

#### **Unit: 6 Biotechnology**

**Duration: 3 weeks**

#### **Essential Understandings:**

1. Use of medical terminology allows health professionals to accurately communicate. 2. Knowledge of the neurological system allows for understanding of diseases and disorders, and their appropriate medical treatment, prevention and management.4. Biotechnology involves use of biological processes, organisms, or systems to manufacture products intended to improve the quality of human life.

**Essential Questions:** : 1. What is ethical medical practice? 2. How does knowledge of neurological system enable the practitioner to treat the patient? 3. What occupations are within the biotechnology careers? 4. How can errors in healthcare affect the patient? 5. Why is accuracy important in medical filing systems? 6. Do all people feel the same regarding stem cell research?

#### **Student Learning Targets:**

1. I can identify the functions of the neurological system.. 2. I can explain what types of occupations are within the biotechnology occupational pathway.3. I can translate text to medical terminology. 4. I can identify basic anatomical structures of the neurological system. 5. I can debate medical ethics. 6. I can file medical charts. 7. I can identify different errors made in healthcare.

#### **Learning Activities:**

**Activities: Nervous system-Anatomy/ppt, Unit 6 Medical Terminology/practice, Video: NOVA - Ghost in your Genes, & Can we Live Forever, Stem Cell, Introduction to history and physical, Writing on Hospital Charts ppt, Filing Patient Records, Code of Ethics Power Point, Ethics scenarios, Stem Cell research, Biotechnical Guest Speakers/Field Trips**

#### **Unit: 7 Emergency Treatment**

**Duration: 2 weeks**

**Essential Understandings:** 1. Use of medical terminology allows health professionals to accurately communicate. 2. Emergency treatment can save a human life.

**Essential Questions:** 1. How can being proficient in CPR save lives? 2. What role does AED play in CPR? 3. How can being proficient in First Aid save lives?

**Student Learning Targets:** 1. I can proficiently perform the steps of CPR. 2. I can evaluate emergency situations and demonstrate skill to respond appropriately and safely. 3. I can accurately describe the use of an AED.

#### **Learning Activities:**

**•CCC instruction/practice , AED use lab , Unit 7 Medical Terminology , Medical Terminology Practice , First**

**Aid Power Point, Environmental Emergencies, Paramedic Field Trip, CCC/AED Power point Emergency Guest Speakers/Field Trips**

**Unit: 8 Makeup Week**

**Duration: 1 week**