



# Advanced Health Science

## Course Description

This course is designed to experience health careers at a personal level. Instruction includes anatomy and physiology, medical terminology, medical ethics and law, diseases and disorders, positive and negative health and wellness behaviors, first aid. Skills learned will be applicable to students continuing in the medical science field.

**Course Code: 077301**

**Program(s) of Study to which this course applies:**

- Health Science

Course Content	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarification
<p><b>Standard 1. Students will explore and experience the wide variety of Health Professions.</b></p>				
<p>Benchmark 1.1 Students will compare and contrast at least 15 health careers.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>• Create a presentation for a specific health profession that is of their interest.</li> <li>• Interview and report on a health care professional.</li> <li>• Attend a professional presentation.</li> <li>• Explore specific health professions via online career exploration programs.</li> <li>• Investigate the local needs in the health care field.</li> <li>• Assemble a portfolio of at least 2 colleges that offer a degree program of their interest including cost of tuition and a plan for financing their education.</li> </ul>	N/A	SS.12.2.6.b–d	CR.1.B.1 CR.5.A.1 CR.10.A.1	



Course Content	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarification
<p>Benchmark 1.2 Students will job shadow a health science professional or student for a minimum of 3 hours.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>• Create a questionnaire to accompany them on their job shadow.</li> <li>• Contact their job shadow person prior to the experience, be on time, dress appropriately for the specific experience and show appreciation for their host post experience.</li> <li>• Reflect on their job shadow experience. (Students can explore multiple job shadow experiences to meet the 3 hour requirement.)</li> </ul>	N/A	N/A	CR.10.D.2	
<p><b>Standard 2. Students will understand health literacy.</b></p>				
<p>Benchmark 2.1 Students will explain the fundamentals of health and wellness.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>• Assess their health and develop a plan to encourage a healthy lifestyle.</li> <li>• Develop a community project that promotes health and wellness.</li> <li>• Describe strategies for the prevention of diseases including health screenings and examinations.</li> <li>• Appreciate complementary (alternative) health practices as they relate to wellness and disease prevention.</li> </ul>	ELA.WHST.11–12.2.b ELA.SL.11–12.4	LA.12.2.1.b LA.12.3.1.a	CR.2.B.1 CR.2.C.1	When students <i>explain</i> information or ideas, they communicate their knowledge through either speaking or writing. To demonstrate full knowledge on the topic, students’ written or oral presentations must include all the main ideas and relevant details on the subject (CC: ELA.WHST.11–12.2.b, ELA.SL.11–12.4; NE: CR.2.B.1, CR.2.C.1, LA.12.2.1.b, LA.12.3.1.a).
<p>Benchmark 2.2 Students will explore behavioral aspects of disease prevention.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>• Analyze preventable diseases and develop a prevention program.</li> <li>• Present a plan on how to reduce disease risks.</li> <li>• Explore high risk behaviors and their effects on the quality of life.</li> <li>• Explore healthy behaviors and their effects on the quality of life.</li> </ul>	N/A	SC.12.1.1.b SC.12.1.1.g SC.12.3.1.d	N/A	Alignment presumes that students will design a disease prevention investigation, analyze information about diseases, and explain the effects of certain behaviors on quality of life (NE: SC.12.1.1.b, SC.12.1.1g, SC.12.3.1.d).



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<p><b>Standard 3. Students will survey basic human structure and function and disease processes.</b></p>				
<p>Benchmark 3.1 Students will appreciate the support systems of the human body.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>Classify the basic structural and functional organization of the skeletal, muscular and integumentary systems.</li> <li>Label the major bones of the skeletal system.</li> <li>Identify the main muscles of the body.</li> <li>Identify the layers of the integumentary system.</li> <li>Describe common acquired and/or genetic diseases of the support system.</li> </ul>	<p>ELA.RST.11-12.4</p>	<p>LA.12.1.5</p> <p>SC.12.3.2.c</p>	<p>CR.1.A.4</p>	<p>Alignment presumes that students will consider genetic diseases that affect systems of the human body (NE: SC.12.3.2.c).</p>
<p>Benchmark 3.2 Students will appreciate the transportation systems of the human body.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>Classify the basic structural and functional organization of the transportation systems including the circulatory, respiratory, and immune systems.</li> <li>Label the cardiopulmonary system.</li> <li>Identify the flow of blood through the cardiopulmonary system.</li> <li>Identify the major components of the immune system.</li> <li>Create a working model of the lungs.</li> <li>Describe common acquired and/or genetic diseases of the transportation systems.</li> </ul>	<p>ELA.RST.11-12.4</p>	<p>LA.12.1.5</p> <p>SC.12.3.1.b</p> <p>SC.12.3.1.c</p> <p>SC.12.3.2.a</p> <p>SC.12.3.2.c</p>	<p>CR.1.A.4</p>	<p>Alignment presumes that students will identify cellular function related to the body's transportation systems and consider how genetic diseases are passed on and affect these systems (NE: SC.12.3.1.b, SC.12.3.1.c, SC.12.3.2.a, SC.12.3.2.c).</p>
<p>Benchmark 3.3 Students will appreciate the regulatory systems of the human body.</p>	<p>ELA.RST.11-12.4</p>	<p>LA.12.1.5</p>	<p>CR.1.A.4</p> <p>CR.5.A.4</p>	<p>Alignment presumes that students will identify cellular function related to the body's regulatory systems and consider how genetic diseases are</p>



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<p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>Classify the basic structural and functional organization of the regulatory systems including the endocrine system, nervous system and special senses.</li> <li>Illustrate the function of each area of the brain.</li> <li>Manipulate the special systems including smell, taste, hearing, vision and touch.</li> <li>Identify the major components of the immune system.</li> <li>Create a model of the endocrine system.</li> <li>Describe common acquired and/or genetic diseases of the regulatory systems.</li> </ul>		SC.12.3.1.b SC.12.3.1.c SC.12.3.2.a SC.12.3.2.c		passed on and affect these systems (NE: SC.12.3.1.b, SC.12.3.1.c, SC.12.3.2.a, SC.12.3.2.c).
<p>Benchmark 3.4 Students will appreciate the maintenance systems of the human body.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>Classify the basic structural and functional organization of the digestive and urinary systems.</li> <li>Illustrate the function of the digestive system.</li> <li>Compare and contrast the digestive and urinary systems.</li> <li>Identify the major components of the urinary system.</li> <li>Create a model of the urinary system.</li> <li>Describe common acquired and/or genetic diseases of the maintenance systems.</li> </ul>	ELA.RST.11-12.4	LA.12.1.5  SC.12.3.1.b SC.12.3.1.c SC.12.3.2.a SC.12.3.2.c	CR.1.A.4 CR.5.A.4	
<p>Benchmark 3.5 Students will appreciate the reproductive systems of the human body.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>Classify the basic structural and functional organization of the male and female reproductive systems.</li> <li>Compare and contrast the male and female reproductive systems.</li> <li>Label the male and female reproductive systems.</li> <li>Describe fetal development.</li> <li>Describe common acquired and/or genetic diseases of the reproductive systems.</li> </ul>	ELA.RST.11-12.4	LA.12.1.5  SC.12.3.1.b SC.12.3.1.c SC.12.3.2.a SC.12.3.2.b SC.12.3.2.c SC.12.3.2.d	CR.1.A.4 CR.5.A.4	Alignment presumes that students will identify cellular function related to the body's reproductive systems and consider how genetic diseases are passed on and affect these systems (NE: SC.12.3.1.b, SC.12.3.1.c, SC.12.3.2.a, SC.12.3.2.c).



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<b>Standard 4. Students will assess basic first aid situations.</b>				
Benchmark 4.1 Students will demonstrate primary survey.  <u>Sample performance indicators:</u> <ul style="list-style-type: none"> <li>• Roles play surveying the scene for safety.</li> <li>• Practice checking the victim.</li> <li>• Mock a 911 call.</li> <li>• Select the appropriate treatment for the victim(s).</li> </ul>	ELA.RST.11–12.3	LA.12.1.6.k LA.12.3.2	CR.1.A.4 CR.3.B.4	Alignment presumes that students must comprehend oral or written instructions to complete the task (CC: ELA.RST.11–12.3; NE: CR.1.A.4, LA.12.1.6.k, LA.12.3.2).
Benchmark 4.2 Students will exhibit secondary survey skills.  <u>Sample performance indicators:</u> <ul style="list-style-type: none"> <li>• Perform a head to toe scan in under a minute.</li> <li>• Recognize life threatening injuries.</li> <li>• Prioritize and triage injuries.</li> <li>•</li> </ul>	ELA.RST.11–12.3	LA.12.1.6.k LA.12.3.2	CR.1.A.4 CR.3.B.4	Alignment presumes that students must comprehend oral or written instructions to complete the task (CC: ELA.RST.11–12.3; NE: CR.1.A.4, LA.12.1.6.k, LA.12.3.2).
Benchmark 4.3 Students will apply effective first aid skills.  <u>Sample performance indicators:</u> <ul style="list-style-type: none"> <li>• Control bleeding.</li> <li>• Stabilize head and neck injuries.</li> <li>• Identify and respond to a poisoning emergency.</li> <li>• Construct a splint for a skeletal injury.</li> <li>• Respond to various traumas as necessary.</li> </ul>	ELA.RST.11–12.3	LA.12.1.6.k LA.12.3.2	CR.1.A.4 CR.3.B.4	Alignment presumes that students must comprehend oral or written instructions to complete the task (CC: ELA.RST.11–12.3; NE: CR.1.A.4, LA.12.1.6.k, LA.12.3.2).
<b>Standard 5. Students will analyze and evaluate legal and ethical issues in health care.</b>				



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<p>Benchmark 5.1 Students will understand accepted ethical practices with respect to cultural, religious, social, and ethnic differences within the healthcare environment.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>• Compare and contrast ethical and unethical case studies.</li> <li>• Explore terminology related to ethical issues including stereotyping and discrimination.</li> <li>• Students will appreciate own beliefs and differentiate the beliefs and health practices of others.</li> <li>• Demonstrate respectful and empathetic treatment of all patients/clients and family members.</li> <li>• Students will apply procedures for reporting activities and behaviors that affect the health, safety and welfare of others.</li> </ul>	N/A	N/A	CR.7.B.1-2	
<p>Benchmark 5.2 Students will differentiate between ethical and legal issues impacting healthcare.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>• Debate current issues relating to ethical and legal outcomes.</li> <li>• Review case scenarios and discuss outcomes based on information.</li> <li>• Explore terminology related to ethical issues including stereotyping and discrimination.</li> </ul>	N/A	N/A	CR.3.B.4 CR.5.A.1 CR.7.B.1	
<p>Benchmark 5.3 Students will understand the legal responsibilities, limitations and implications relating to regulations, policies, laws and patient rights.</p> <p><u>Sample performance indicators:</u></p> <ul style="list-style-type: none"> <li>• Analyze legal responsibilities of the health care professional.</li> <li>• Practice decision making regarding laws, governing harassment, labor and scope of practice.</li> <li>• Review and apply HIPPA standards to job shadows, case studies and publications regarding HIPPA.</li> </ul>	N/A	N/A	CR.3.B.4 CR.3.C.3	



*Reference Standards Sources*

- NHFSAC = National Healthcare Foundation Standards and Accountability Criteria
- Utah = Utah Standards of Health Science (Introduction)

**Other Information**

Suggestions for innovative teaching and learning strategies:	<ul style="list-style-type: none"><li>• Guest speakers from certified agencies</li><li>• Virtual Anatomy, Surgeries, Autopsies</li></ul>
Related assessments:	<ul style="list-style-type: none"><li>• First Aid certifications from American Red Cross, American Heart Association, National Safety Council</li></ul>
Extended learning opportunities:	<ul style="list-style-type: none"><li>• HOSA</li><li>• Skills USA</li><li>• Nebraska Statutes</li></ul>

Comments: Include procedures/terms that may occur in the different systems ex. Appendectomy, amniocentesis,