Community Health Science Supplemental Program Resources



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2021

Introduction

This document provides supplemental information for the Community Health Science program of study. It may be updated or revised as the base program of study, or complementary programs, are added, removed, or otherwise updated. Please contact the appropriate Education Programs Professional with any questions.

The Program of Study Information document lists the approved courses, complementary courses, alignment(s) to industry, and postsecondary options.

The Equipment List includes, if applicable, additional items used only in the complementary course(s).

The Crosswalks and Alignments academically connect and support the Community Health Science standards for the Health Science program of study. Complementary course standards are not listed in the crosswalks and alignments.

Program of Study Information

The following program of study information sheet as well as the program structure tables for the courses are provided to be able to print separately for handouts. The information provided is based on the best available information at the time of this document and will be updated as appropriate.

Community Health Science



The Community Health Science program provides students with the knowledge and skills in inquiry science, disease exploration, anatomy and physiology, and public and community health. Areas of study include epidemiology, pathophysiology, health literacy, biostatistics, and environmental risks.

Health Science Career Cluster

This career cluster is focused on planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Postsecondary Options

Secondary

- Certificate of Skills Attainment
- First Aid/CPR

Certificate/License

Public Health (UNLV, UNR)

Associates Degree

- Community Health (TMCC)
- Public Health (TMCC)
- Human Services (GBC)

Bachelor's Degree

- Family Studies (UNLV)
- Public Health (UNLV, UNR, WNC)
- Social Work (UNLV, UNR, GBC)

Master's/Doctoral Degree

- Social Work (UNLV, UNR)
- Epidemiologist (UNLV, UNR)
- Public Health (UNLV, UNR)



Learning that works for America

For additional information on this cluster, please contact:

Jennifer Fisk at jennifer.fisk@doe.nv.gov

Website: https://doe.nv.gov/cte/

Approved Courses

Principles of Health Science Community Health Science

Complementary Courses

Community Health Science Advanced Studies Health Information Management for Community Health Science Pharmacy Practice for Community Health Science CTE Work Experience – Health Science Industry-Recognized Credential – Community Health Science

Work-Based Learning Opportunities

Job Shadowing / Internship / Work Experience / Career Days / Career Fairs / Field Trips / Guest Speakers

Career and Technical Student Organization

HOSA: Future Health Professionals



State Recognized Industry Certifications

Refer to the Governor's Office of Workforce Innovation's <u>Nevada Industry Recognized Credential List</u>

Aligned to Industry						
Occupation	Median Wage Per year	Annual Openings	% Growth			
Social Worker	\$50,390	74,700	9.0%			
Community Health Worker	\$48,860	16,000	12.0%			
Health Service Managers	\$101,340	56,500	28.0%			
Epidemiologist	\$78,530	800	5.0%			
Environmental Health Specialist	\$76,530	7,800	5.0%			

Source U.S. Bureau of Labor Statistics 2022

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2021

Program Structure for Community Health Science

The core course sequencing is provided in the following table. Complementary Courses are available and provided later in this document. The following courses provide a completed program of study.

Required/ Complementary	Course Title	Abbreviated Name	CIP Code	SCED Subject Area	SCED Course Identifier	SCED Course Level	SCED Unit Credit	SCED Course Sequence	SCED Course Number
R	Principles of Health Science	PRN HEALTH SCI	51.0000	14	002	G	1.00	12	14002G1.0012
R	Community Health Science	CMTY HLTH SCI	51.2208	08	053	G	1.00	22	08053G1.0022

Core Course Sequence (R) with Lab Course(s) (C)

The complementary courses are provided in the following table. **The qualifying program of study must be completed prior to enrolling in the complementary course(s)**. A program does not have to utilize the complementary courses for students to complete their program of study.

Required/ Complementary	Course Title	Abbreviated Name	CIP Code	SCED Subject Area	SCED Course Identifier	SCED Course Level	SCED Unit Credit	SCED Course Sequence	SCED Course Number
с	Community Health Science Advanced Studies	CMTY HLTH SCI AS	51.2208	08	053	E	1.00	11	08053E1.0011
с	Health Information Management for Community Health Science	HLTH INFO CHS	51.0707	14	157	E	1.00	11	14157E1.0011
с	Pharmacy Practice for Community Health Science	PHARM CHS	51.0805	14	152	E	1.00	11	14152E1.0011
с	CTE Work Experience- Health Science	WORK EXPER HEALTH	99.0008	14	298	G	1.00	11	14298G1.0011
с	Industry- Recognized Credential – Health Science	IRC CMTY HLTH SCI	51.2205	14	999	E	1.00	11	14999E1.0011

CIP Code – Classification of Instructional Programs (CIP) Codes

SCED – School Courses for the Exchange of Data that populates the State Infinite Campus System and the System for Accountability Information in Nevada (SAIN)

Course Descriptions

Principles of Health Science

Prerequisite: None

The course will introduce students to human structure and function. Areas of study include anatomy, healthcare delivery systems, medical terminology, emergency management, health information technology, and legal practices. Students will demonstrate skills in cardiopulmonary resuscitation (CPR) and first aid. The appropriate use of technology and industry-standard equipment is an integral part of this course.

Community Health Science

Prerequisite: Principles of Health Science

This course is designed to provide students with knowledge and skills required for entry into the healthcare field that includes community health worker, biostatistics, epidemiology, public health, substance abuse, person health, cellular and molecular biology, and environmental health. The appropriate use of technology and industry-standard equipment is an integral part of this course. Upon successful completion of this course, students will have acquired entry-level skill for employment and be prepared for postsecondary education.

Community Health Science Advanced Studies

Prerequisite: Completion of Community Health Science Program of Study

This course is offered to students who have completed all content standards in a program and desire to pursue advanced study through investigation and in-depth research. Students are expected to work independently or in a team and consult with their supervising teacher for guidance. The supervising teacher will give directions, monitor, and evaluate the students' topic of study. Coursework may include various work-based learning experiences such as internships and job shadowing, involvement in a school-based enterprise, completion of a capstone project, and/or portfolio development. This course may be repeated for additional instruction and credit.

Health Information Management for Community Health Science

Prerequisite: Completion of Community Health Science Program of Study

This course is offered to students who have completed all content standards in the Community Health Science program of study. The Health Information Management course is designed to familiarize students with computerized account management and to help students develop confidence and skills necessary to become successful users of Medical Account Management software. Areas of study include understanding the legal aspects of HIPPA and responsibilities of medical office staff, utilizing a computer program to maintain patient files.

Pharmacy Practice for Community Health Science

Prerequisite: Completion of Community Health Science Program of Study

This course is offered to students who have completed all content standards in the Community Health Science program of study. The Pharmacy Practice course provides students with an introduction to practices and fundamentals of pharmacology. Areas of study include pharmacy, calculations, routes, inventory management, and factors affecting drug activity.

CTE Work Experience – Health Science

Prerequisite: Completion of Level 2 course in the qualifying program of study

This course is designed to expand the students' opportunities for applied learning. This course provides an in-depth CTE work experience that applies the processes, concepts, and principles as described in the classroom instruction. This course will encourage students to explore and develop advanced skills through work-based learning directly related to the program of study. The course must follow NAC 389.562, 389.564, 389.566 regulations.

Industry-Recognized Credential – Community Health Science

Prerequisite: Completion of Community Health Science Program of Study

This course is offered to students who have completed all content standards in a program of study and desire to pursue an Industry-Recognized Credential that aligns with the standards and skills associated with the Community Health Science Program of Study. This course is designed to expand the students' opportunities to pursue certification aligned with employment standards in the industry aligned with this program of study. The supervising teacher will provide instruction aligned with the certification requirements, monitor progress toward certification, and provide the students with appropriate testing or certification opportunities associated with the intended Industry-Recognized Credential that is the subject of the course. This course may be repeated for additional instruction and credit.

Equipment List

This recommended list is based upon a classroom size of 25 students. All costs are estimated and may be adjusted once verified and justified by districts with current quotes. No specific equipment vendor or brand names are endorsed due to various possibilities, but school districts should consult with stakeholders to ensure industry-recognized equipment and software are purchased. The intent of this list is to provide school districts with guidance on the equipment needed to implement the state standards for a Community Health Science program.

CTE Cla	ssroom Equipment Total:		\$1,360
QTY	ITEM DESCRIPTION	UNIT	TOTAL
2	Storage Cabinets (36" x 12" x 72") (lockable)	\$300	\$600
1	Eyewash Station	\$300	\$300
2	Fire Extinguisher	\$130	\$260
1	Sink with Soap Dispenser	\$100	\$100
1	First Aid Kit	\$100	\$100

Program	Program Equipment Tota		77,000
QTY	ITEM DESCRIPTION	UNIT	TOTAL
25	Student Computers	\$1,000	\$25,000
1	Technology Storage/Charging System	\$2,000	\$2,000
1	Anatomy Table (optional)	\$50,000	\$50,000

Instructional	Matariala
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Total:

\$4,485

QTY	ITEM DESCRIPTION	UNIT	TOTAL
25	Student Textbooks (Approved by NDE) CTE Instructional Materials list can be found here.	\$100	\$2,500
1	Teacher Textbook Edition and Resources	\$500	\$500
1	Statistics Software	\$1,000	\$1,000
1	Basic Life Support Cardiopulmonary Resuscitation (CPR) Instructor Kit	\$110	\$110
25	Basic Life Support Student Manuals	\$15	\$375

Instruct	ional Supplies Tota	l:	\$6,400
QTY	ITEM DESCRIPTION	UNIT	TOTAL
5	Automated External Defibrillator (AED) Trainers	\$300	\$1,500
1	Set of Vials (various sizes)	\$200	\$200
10	Water Quality Test Kits	\$100	\$1,000
10	Disease Transmission Kits	\$100	\$1,000
5	Adult CPR Manikins	\$100	\$500
5	Child CPR Manikins	\$100	\$500
5	Infant CPR Manikins	\$90	\$450
10	Adult Bag Masks (BVMs)	\$25	\$250
10	Infant BVMs	\$25	\$250
25	Calculators	\$10	\$250
Varies	Computer Accessories (cases, covers, etc.) (optional)	\$500	\$500

Other

ΟΤΥ	ITEM DESCRIPTION	UNIT	TOTAL
			
1	Basic Life Support CPR Instructor Training	\$200	\$200

Category Totals:

Classroom Equipment	\$1,360
Program Equipment	\$77,000
Instructional Materials	\$4,485
Instructional Supplies	\$6,400
Other	\$200
Estimated Program Total	\$89,445

\$200

Total:

Crosswalks and Alignments for Program of Study Standards

Crosswalks and alignments are intended to assist the teacher make connections for students between the technical skills within the program and academic standards. The crosswalks and alignments are not intended to teach the academic standards but to assist students in making meaningful connections between their CTE program of study and academic courses. The crosswalks are for the required program of study courses, not the complementary courses.

Crosswalks (Academic Standards)

The crosswalks of the Community Health Science Standards show connections with the Nevada Academic Content Standards. The crosswalk identifies the performance indicators in which the learning objectives in the Community Health Science program connect with and support academic learning. The performance indicators are grouped according to their content standard and are crosswalked to the Nevada Academic Content Standards in English Language Arts, Mathematics, and Science.

Alignments (Mathematical Practices)

In addition to connections with the Nevada Academic Content Standards for Mathematics, many performance indicators support the Mathematical Practices. The following table illustrates the alignment of the Community Health Science Standards Performance Indicators and the Mathematical Practices. This alignment identifies the performance indicators in which the learning objectives in the Community Health Science program connect with and support academic learning.

Alignments (Science and Engineering Practices)

In addition to connections with the Nevada Academic Content Standards for Science, many performance indicators support the Science and Engineering Practices. The following table illustrates the alignment of the Community Health Science Standards Performance Indicators and the Science and Engineering Practices. This alignment identifies the performance indicators in which the learning objectives in the Community Health Science program connect with and support academic learning.

Crosswalks (Common Career Technical Core)

The crosswalks of the Community Health Science Standards show connections with the Common Career Technical Core. The crosswalk identifies the performance indicators in which the learning objectives in the Community Health Science program connect with and support the Common Career Technical Core. The Common Career Technical Core defines what students should know and be able to do after completing instruction in a program of study. The Community Health Science Standards are crosswalked to the Health Science Career Cluster[™] and the Support Services Career Pathway.

Crosswalk of Community Health Science Program of Study Standards and the Nevada Academic Content Standards

English Language Arts: Language Standards

	Nevada Academic Content Standards	Performance Indicators
L.11-12.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	1.5.2; 2.1.1; 3.3.4

English Language Arts: Reading Standards for Literacy in Science and Technical Subjects

	Nevada Academic Content Standards	Performance Indicators
RST.11-12.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.	8.2.5
RST.11-12.5	Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.	11.2.3
RST.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.	3.1.3; 4.3.1; 5.1.3; 9.5.3
RST.11-12.8	Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.	5.1.1; 8.1.2
RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	3.1.2; 4.1.2; 5.2.1; 6.1.1; 7.1.1; 8.2.2; 9.1.2; 10.1.2; 11.1.3; 12.2.1

English Language Arts: Speaking and Listening Standards

	Nevada Academic Content Standards	Performance Indicators
SL.11-12.1a	Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.	1.1.1, 1.1.2, 1.2.1, 1.2.4, 1.4.2; 3.2.1
SL.11-12.1c	Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.	3.3.1
SL.11-12.1d	Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	10.2.2
SL.11-12.2	Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the	1.1.1, 1.1.2, 1.2.1, 1.2.4, 1.4.2, 1.5.2; 2.1.1; 5.1.2

	credibility and accuracy of each source and noting any discrepancies among the data.	
SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	
SL.11-12.6	Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate. (See grades 11–12 Language standards 1 and 3 on page 54 for specific expectations.)	9.2.6

English Language Arts: Writing Standards for Literacy in Science and Technical Subjects

	Nevada Academic Content Standards	Performance Indicators
WHST.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	1.2.5, 1.4.1; 6.3.2; 12.3.1
WHST.11-12.5	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	1.4.4
WHST.11-12.6	Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.	1.4.5
WHST.11-12.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	8.1.3; 12.1.1
WHST.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	1.1.2, 1.1.3, 1.4.2, 1.4.3, 1.5.2; 2.2.2; 3.1.2; 4.3.2; 5.2.1; 8.3.3; 9.1.3

Math: Algebra – Creating Equations

	Nevada Academic Content Standards	Performance Indicators
ACED.A.1	Create equations and inequalities in one variable and use them to solve problems.	6.3.4; 7.1.3, 7.2.2

Math: Number & Quantity – Quantities

	Nevada Academic Content Standards	Performance Indicators
NQ.A.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	6.3.1
NQ.A.2	Define appropriate quantities for the purpose of descriptive modeling.	6.3.3
NQ.A.3	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.	6.3.2

Science: HS. Earth and Space Sciences – HS. Human Sustainability

	Nevada Academic Content Standards	Performance Indicators
HS-ESS3-3	Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.	5.2.3; 8.1.1

Science: HS. Engineering Design

	Nevada Academic Content Standards	Performance Indicators
HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.	5.1.3, 5.1.4, 5.2.1, 5.2.2

Science: Science: HS. Life Sciences – HS. Structures and Function

	Nevada Academic Content Standards	Performance Indicators
HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.	3.3.4
HS-LS1-3	Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.	2.1.1

Science: HS. Life Sciences – HS. Inheritance and Variation of Traits

	Nevada Academic Content Standards	Performance Indicators
HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.	3.3.4
HS-LS1-3	Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.	2.1.1
HS-LS3-1	Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.	4.3.2

HS-LS3-2	Make and defend a claim based on evidence that inheritable	2.2.1
	genetic variations may result from: (1) new genetic combinations	
	through meiosis, (2) viable errors occurring during replication,	
	and/or (3) mutations caused by environmental factors.	

Science: HS. Life Sciences – HS. Natural Selection and Evolution

	Nevada Academic Content Standards	Performance Indicators
HS-LS4-5	Evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.	3.1.3

Mathematical Practices	Community Health Science Performance Indicators
1. Make sense of problems and persevere in solving them.	3.1.1
	4.1.1
	6.2.2; 6.3.1
	8.1.1; 8.2.2, 8.2.5
2. Reason abstractly and quantitatively.	2.2.2
	4.1.1-4.1.4; 4.2.1-4.2.4
	5.2.3
	9.1.2
3. Construct viable arguments and critique the reasoning of others.	3.1.3, 3.3.4
	4.1.2, 4.1.4; 4.2.2
4. Model with mathematics.	4.2.3; 4.4.4
	6.3.1-6.3.5
	7.1.1-7.1.3
5. Use appropriate tools strategically.	2.2.2
	6.3.2
6. Attend to precision.	5.1.4
	7.2.1-7.2.3
7. Look for and make use of structure.	3.1.1-3.1.3
	8.3.1-8.3.7
	9.5.3
8. Look for and express regularity in repeated reasoning.	6.3.1-6.3.5

Alignment of Community Health Science Standards and the Mathematical Practices

Alignment of Community Health Science Standards and the Science and Engineering Practices

Science and Engineering Practices	Community Health Science Performance Indicators
 Asking questions (for science) and defining problems (for engineering). 	3.1.1 5.1.1
2. Developing and using models.	2.2.2 4.1.1-4.1.4; 4.2.1-4.2.4 5.1.3; 5.2.1, 5.2.4
3. Planning and carrying out investigations.	2.2.1 5.1.1
4. Analyzing and interpreting data.	3.1.1-3.1.3; 3.3.2, 3.3.4 4.1.2; 4.2.1, 4.2.2, 4.2.3; 4.3.2; 4.4.4 5.1.2, 5.1.4; 5.2.2, 5.2.4 6.2.2; 6.3.1-6.3.5 7.1.1-7.1.3; 7.2.1-7.2.3 8.1.2; 8.3.3, 8.3.5 10.2.1
5. Using mathematics and computational thinking.	6.2.2; 6.3.1-6.3.5 7.1.1-7.1.3; 7.2.1-7.2.3
 Constructing explanations (for science) and designing solutions (for engineering). 	2.2.2 3.3.4 4.2.2, 4.2.3; 4.4.3 5.1.2-5.1.4; 5.2.2, 5.2.4 6.1.5; 6.2.2 8.1.2, 8.2.5; 8.3.7 9.4.2 10.2.4
7. Engaging in argument from evidence.	2.1.1; 2.2.6 3.3.1, 3.3.4 4.2.2; 4.3.2 8.1.2
8. Obtaining, evaluating, and communicating information.	2.2.1 3.1.3 4.1.2; 4.4.3 5.2.3, 5.2.4 6.2.1-6.2.3 8.3.1-8.3.7 9.2.6

Crosswalks of Community Health Science Standards and the Common Career Technical Core

	Health Science Career Cluster	Performance Indicators
1.	Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career.	11.2.1-11.2.3 12.2.1-12.2.3
2.	Explain the healthcare worker's role within their department, their organization, and the overall healthcare system	12.1.1
3.	Identify existing and potential hazards to clients, coworkers, visitors, and self in the healthcare workplace	8.1.1; 8.1.4
4.	Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care	8.2.1, 8.2.4, 8.2.5
5.	Analyze the legal and ethical responsibilities, limitations, and implications of actions within the healthcare workplace.	5.1.2 8.1.1-8.1.4
6.	Evaluate accepted ethical practices with respect to cultural, social, and ethnic difference within the healthcare workplace.	8.1.1-8.1.4

	Support Services Career Pathway	Performance Indicators
1.	Describe, differentiate, and safely perform the responsibilities of healthcare support service roles.	2.2.1 8.3.2
2.	Demonstrate work practices that maintain a clean and healthy healthcare facility to reduce or eliminate pathogenic organisms.	5.1.1 6.1.1
3.	Follow established internal and external guidelines in order to provide high-quality, effective support services in the healthcare facility.	2.2.5 8.3.1
4.	Maximize available resources for proper care and use of healthcare equipment and materials.	8.2.5 10.2.2
5.	Implement healthcare facility standards in order to maintain high-quality healthcare facilities.	8.3.1-8.3.7

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