

Help shape future versions of this course by sharing your feedback via the [elective feedback form](#).
 For immediate assistance email: ubeats@unmc.edu

Course Design Philosophy

This course was intentionally designed for flexibility, not fidelity.

While a recommended 9-week sequence is provided, schools should adapt implementation to fit available instructional time, student needs, scheduling constraints, and local priorities.

The course provides broad exposure to health science concepts, careers, and scientific thinking. At the middle school level, the emphasis is on breadth rather than depth, helping students build health literacy, scientific reasoning, and career awareness while exploring connections between personal health, community health, and health professions.

Course Overview

Audience: Grades 6-8

Recommended Length: 9 Weeks (Flexible)

Lesson Length: Approximately 42 Minutes

Instructional Approach: Student Sense-Making & Inquiry-Based Learning

Primary Goal: Introduce students to health science concepts, careers, and scientific ways of thinking while building health literacy, scientific reasoning, and career awareness

This course:

- Aligns to Nebraska Science Standards.
- Supports Nebraska Career Readiness Skills.
- Integrates literacy and scientific reasoning.
- Embeds health science career exploration throughout the course.
- Can be taught as a full course or as individual modules.
- Prioritizes breadth of exposure over in-depth specialization.
- Culminates with the Health Careers Badge experience in Week 9.

Lesson Framework

Opening	8 minutes	Introduce a question, phenomenon, or health science scenario and elicit student thinking.
Module	15 minutes	Students engage with the uBEATS module and gather evidence related to the lesson focus. Embedded formative and summative assessments are included in every module.
Application	15 minutes	Students apply learning to a new situation, solve a problem, or explain a claim using evidence.
Reflection	2 minutes	Students reflect on how their thinking changed or what they learned.
Career Connection	2 minutes	Students connect lesson concepts to health science careers and real-world applications.

Course at a Glance	
Week 1	Learning Foundations & STEM Confidence Students develop effective learning habits, build confidence, and strengthen the skills needed for success in science and health-related fields.
Week 2	Microbiology Foundations Students investigate microorganisms and their impact on human health, including bacteria, viruses, and the human microbiome.
Week 3	Cells & Genetics Students explore cells, DNA, proteins, and mutations to understand how living organisms function and how genetic information influences health.
Week 4	Health, Protection & Early Detection Students examine how the body protects itself through immune responses, prevention, vaccination, and advances in medicine.
Week 5	Pharmacology Students learn how medicines are discovered, tested, approved, and used to support health and treat disease.
Week 6	Behavioral Health: Physiology, Choices & Community Impact Students explore stress, resilience, decision-making, and behavioral health through the connections between the brain, body, and behavior.
Week 7	Medical Terminology Students build health literacy by learning how medical language communicates information about the body, health conditions, and health science careers.
Week 8	Public Environment & Health Students expand their perspective from individual health to community health through public health, epidemiology, environmental health, and prevention.
Week 9	Health Careers Week Students synthesize their learning through health science career exploration and completion of the uBEATS Health Careers Badge.

Nebraska Standards	
Middle School Science Standards SC.6.6.2 Gather, analyze, and communicate evidence of the relationship between structure and function in living things. SC.6.9.3 Gather, analyze, and communicate evidence of the inheritance and variation of traits. SC.8.9.4 Gather, analyze, and communicate evidence of the inheritance and variation of traits.	Science & Engineering Practices Students engage in scientific and engineering practices by: • Asking questions and analyzing problems • Developing and using models • Constructing explanations and arguments from evidence • Interpreting information and evaluating claims • Applying scientific reasoning to health science scenarios and investigations
Literacy Integration Literacy skills are embedded throughout the course as students: • analyze scientific evidence • communicate explanations • participate in discussions • evaluate claims • interpret health information Students regularly engage in reading, writing, speaking, and listening through authentic health science contexts.	Nebraska Career Readiness Skills The course supports: • Critical Thinking • Communication • Collaboration • Problem Solving • Career Exploration • Professional Decision Making • Health Literacy • Personal Career Development Health science career exploration is embedded throughout the course and culminates in the Health Careers Badge experience during Week 9.
Family & Consumer Science HSE.MS.8.11 Identify employability skills helpful in obtaining and maintaining a job. HSE.MS.8.12 Use the Nebraska Career Education Model, Nebraska Career Connections and related resources to investigate and learn about the world of work. HSE.MS.8.14 Analyze factors that impact self-formation. HSE.MS.8.16 Incorporate technology tools and skills as they complete research and projects throughout the unit.	