

SYLLABUS

Health Science Foundation 1b: Professional Responsibilities

Building on the prior prerequisite course, you will further develop your understanding of health science. Starting with safety, you will analyze your responsibilities for ensuring patient and personal safety with special attention paid to emergency procedures. Infection control, first-aid, CPR, and measuring vitals are discussed in detail. You will also learn about numerical data, such as systems of measurement, medical math, and reading and interpreting charts. Finally, examine effective team work and leadership characteristics while building your employment skills.



Unit 1: Health, Safety, Security

Every workplace has dangers, but the risks that occur in healthcare settings are part of the everyday jobs of every player on the healthcare team. From taking care of the safety of vulnerable patients to taking care of your own health so you can continue to help people, there are many things to learn about applying safety measures while working to improve the health of those in your community. Implementing standard precautions and following all hazard warnings, including reading SDSs for the chemicals you use, will ensure safer conduct. When there is an emergency, you not only need to respond to protect yourself but to operate as part of the response to any threat. Finally, we look at how to reduce medical errors in healthcare settings, creating a culture of safety on the job.

What will you learn in this unit?

- Identify and manage safety hazards in a healthcare setting
- Implement proper body mechanics while moving patients
- Explain how different government agencies contribute to safety in health care
- Prepare for and respond to emergencies
- Analyze a problem using root cause analysis

UNIT 1 Assignments

Assignment	Type
Unit 1 Text Questions	Homework
Unit 1 Lab	Homework
Unit 1 Activity	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Discussion

Unit 2: Infection Control

How do we get sick? Tracing the chain of infection, we will learn how pathogens can invade and cause illness. We will learn how the body defends itself and the steps that each person can take to help stop the spread of infection. Something as simple as handwashing is the strongest weapon against pathogens, helping ordinary people and healthcare workers to keep germs at bay. But healthcare workers have a special duty to fight the spread of disease, being in the center of infection control—and with the power to fight the spread of disease, both to themselves and to the public at large.

What will you learn in this unit?

- Summarize the chain of infection
- Compare levels of cleaning in a healthcare setting
- Recommend when and how to cleanse hands in a healthcare setting
- Differentiate between standard precautions and transmission-based precautions
- Link infection control practices to the fight against drug-resistant infections

UNIT 2 Assignments

Assignment	Type
Unit 2 Text Questions	Homework
Unit 2 Lab	Homework
Unit 2 Activity	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Discussion

Unit 3: Bloodborne Pathogens

Jobs in healthcare are on the front lines of the fight against the spread of pathogens, and none more important than the serious bloodborne diseases caused by HIV, Hepatitis B, and Hepatitis C. We will learn the proper techniques for putting on and taking off PPE to stay safe from bloodborne and other pathogens. Each step done properly can stop a deadly pathogen in its tracks. In addition, we will dig into what community members can do to prevent exposure or access resources if they are exposed to a bloodborne disease.

What will you learn in this unit?

- Assess the risks posed by the most common bloodborne pathogens in the United States
- Describe how bloodborne pathogens can spread in healthcare settings
- Reconstruct the steps for properly putting on PPE
- Explain the reasons for safely disposing of biohazardous waste
- Summarize the most risky behaviors for transmission of bloodborne diseases, both in a healthcare setting and in the community

UNIT 3 Assignments

Assignment	Type
Unit 3 Text Questions	Homework
Unit 3 Lab	Homework
Unit 3 Activity	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Discussion

Unit 4: Signs of Life: Vital Signs and CPR

The signs of life, or what we call vital signs, are the ways we can sense the mysterious quality we call “life” in a body. The right temperature, beating of the heart, the in and out of respiration, and the pressure with which blood pumps throughout our bodies are the ways we can tell that we are alive. Anytime any one of the vital signs deviates from the normal range, it can signal a serious health problem, so healthcare workers check on these signs of life very frequently, looking for any early sign of an ailment that they can help. Knowing how to properly check these measurements and record them is an integral part of most healthcare jobs. In an emergency, when these signs are not present or are wavering, learning CPR and first aid will mean that you can help keep these vital signs going, keeping a person alive until advanced medical care can take over.

What will you learn in this unit?

- Measure and assess body temperature readings, integrating knowledge about thermoregulation
- Trace the changes in breathing and pulse rates throughout the lifespan
- Appraise the relationship between the oxygen saturation of the blood and other vital signs
- Summarize the difference between systolic and diastolic blood pressure readings
- Describe the effects that CPR can have on a patient in cardiac arrest

UNIT 4 Assignments

Assignment	Type
Unit 4 Text Questions	Homework
Unit 4 Lab	Homework
Unit 4 Activity	Homework
Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Discussion

Health Science Foundation 1b Midterm Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments

Assignment	Type
Midterm Exam	Exam
Midterm Discussion	Discussion

Unit 5: Data, Measurement, and Math

It's as easy as 1, 2, 3 to apply math skills to healthcare calculations that are used every day. In fact, fractions, decimals, and converting measurements are numerical tools that healthcare workers use all the time.

Measuring time, temperature, height, weight, distance, angle and many other parameters provides valuable data for treating patients or analyzing public health problems. Once that important data is collected, turning it

into a visually interesting graph, table, diagram, or chart can help healthcare professionals and their patients understand this information quickly and easily.

What will you learn in this unit?

- Distinguish between ratios and percentages
- Name the units of measurement in imperial and metric systems
- Convert between imperial and metric measurements
- Calculate body mass index
- Interpret charts, diagrams, graphs, and tables to use numeric information

UNIT 5 Assignments

Assignment	Type
Unit 5 Text Questions	Homework
Unit 5 Lab	Homework
Unit 5 Activity	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Discussion

Unit 6: Technology in Healthcare

Information technology as well as simple and advanced technologies used in diagnosing and treating patients plays a crucial role in medicine today. From stethoscopes to CT scanners, all this tech requires skilled, observant workers to correctly operate and maintain. But some of the biggest changes that tech brings to healthcare are in the electronic health records (EHRs) that store all types of patient information so medical professionals can help patients to optimize their health. Of course, along with the ease of using EHRs comes the danger of compromising patient privacy—either by posting about your work on social media (a big no-no!)

or simply sending a record to the wrong person. Learning how to appropriately handle medical records is therefore of the utmost importance - let's dive in!

What will you learn in this unit?

- Describe the different types of technology used to diagnose, treat, and track patient health
- Troubleshoot simple computer problems
- Summarize the different parts of an electronic health record (EHR)
- Evaluate the reliability of health resources on the web
- Explain steps to keep protected health information (PHI) safe as an allied health professional

UNIT 6 Assignments

Assignment	Type
Unit 6 Text Questions	Homework
Unit 6 Lab	Homework
Unit 6 Activity	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Discussion

Unit 7: Teamwork and Leadership

Healthcare is a team sport—each person on the team has a job, and if they all work together effectively, the goal of high-quality patient care can be met. Everyone wins when the team pulls together. But just what can each person do to be a great team member? Read on for some great teamwork tips, as well as guidance on how to become a leader. Leadership can be practiced whether you are a member of a team or leading a team. And when the team comes into conflict, there are some basic strategies to manage and resolve issues so everyone can continue to work towards the goal of health for the community.

What will you learn in this unit?

- Analyze the roles of different healthcare team members
- List and explain characteristics of good teams
- Lead or participate effectively in meetings
- Recognize resistance to change in patients and colleagues
- Apply conflict resolution techniques to disagreements

UNIT 7 Assignments

Assignment	Type
Unit 7 Text Questions	Homework
Unit 7 Lab	Homework
Unit 7 Activity	Homework
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Discussion

Unit 8: Employability in Healthcare

The healthcare industry has the most jobs of any sector of the US economy. Students who can demonstrate both competent skills and strong “soft” skills will likely become valuable team members. Enthusiasm, integrity, and a strong work ethic will impress potential employers, so improving these qualities in oneself is an important part of preparing for a career. Read on for some tips regarding how to find and successfully apply for job opportunities in the field.

What will you learn in this unit?

- Present a professional image through behavior, appearance, and demeanor
- Demonstrate work-ready characteristics and habits such as punctuality, dependability, discretion, and flexibility
- Analyze your career goals and assess their feasibility

- Evaluate and interpret employment opportunities in healthcare
- Create elements of a career portfolio

UNIT 8 Assignments

Assignment	Type
Unit 8 Text Questions	Homework
Unit 8 Lab	Homework
Unit 8 Activity	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Discussion

Health Science Foundation 1b Final Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units five to eight in this course – the last four units. (Note: You will be able to open this exam only one time.)

FINAL Assignments

Assignment	Type
Final Exam	Exam
Class Reflection Discussion	Discussion