

Title 7: Education K-12

Part 57: Health Science, Career Pathway

# Health Sciences

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The Research and Curriculum Unit (RCU), located in Starkville, Mississippi, as part of Mississippi State University, was established to foster educational enhancements and innovations. In keeping with the land grant mission of Mississippi State University, the RCU is dedicated to improving the quality of life for Mississippians. The RCU enhances intellectual and professional development of Mississippi students and educators, while applying knowledge and educational research to the lives of the people of the state. The RCU works within the contexts of curriculum development and revision, research, assessment, professional development, and industrial training.

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Dr. Sam Bounds – Mississippi Association of School Superintendents  
Beverly Brahan – Mississippi Association of Educators  
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Sheree Zbylot – State Board of Nursing, Interim Executive Director  
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Margie Major – Scott Regional Medical Center, Director of Nursing  
Sean Johnson – Quitman County Hospital, CEO  
Becky Ulmer – Jasper General Hospital (Bay Springs)  
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Jodi Rankin – Program Coordinator, Office of Vocational Education and Workforce Development, Mississippi Department of Education, Jackson, MS  
Chris Wall – Director of Instructional Programs and Student Organizations, Office of Vocational Education and Workforce Development, Mississippi Department of Education, Jackson, MS

Finally, standards in the *Health Sciences Curriculum Framework and Supporting Materials* are based on the following:

**Human Anatomy and Physiology**

Mississippi Department of Education Subject Area Testing Program

**21st Century Skills and Information and Communication Technologies Literacy Standards**

In defining 21st century learning, the Partnership for 21st Century Skills has embraced five content and skill areas that represent the essential knowledge for the 21st century: global awareness; civic engagement; financial, economic, and business literacy; learning skills that encompass problem-solving, critical-thinking, and self-directional skills; and Information and Communication Technology (ICT) Literacy.

**National Educational Technology Standards for Students**

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**ACT College Readiness Standards**



The College Readiness Standards are sets of statements intended to help students understand what is expected of them in preparation for the ACT. These standards are integrated into teaching and assessment strategies throughout the curriculum framework.

**National Health Care Foundation Skill Standards**

The National Health Care Skill Standards were developed by the National Consortium on Health Science and Technology and West Ed Regional Research Laboratory, in partnership with educators and health care employers. The standards were developed to inform current and future health care workers, employers, and educators what skills and knowledge workers needs to succeed.



# Health Sciences Executive Summary

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## Program Description

Health Sciences is a pathway of courses for students in the Health Sciences career cluster. The Health Sciences pathway includes classroom and hands-on experiences that will provide students with an overview of the health-care field as outlined in the States' Career Clusters Health Science Cluster and the National Consortium on Health Science and Technology Education as well as begin to prepare students for careers in occupations predicted to have a high number of available jobs in the next 10 years including registered nurses, nurse aides, practical nurses, and home health aides.

## Industry Certification

By implementing the National Health Care Foundation Skill Standards in the Health Sciences Pathway, students who successfully master the curriculum should have the skills required to take the National Health Science Assessment, which is based on industry-validated performance indicators. In addition, students should be prepared to take the Mississippi Home Health Aide and the Mississippi Homemaker exams through the Mississippi Department of Education and to complete the requirements and take the certification test to become a certified nurse aide through a certified nurse aide registry approved site.

## Dual Enrollment

Dual enrollment in a community college practical nursing program provides an opportunity for senior high school students to complete the first semester of a practical nursing program during their senior year. Mississippi's dual enrollment/dual credit practical nursing programs provide qualified high school seniors the opportunity to earn college credit for the first three courses in the postsecondary Practical Nursing (PN) curriculum. Upon successful completion of those courses and graduation from high school, dually enrolled PN students are eligible to sit for CNA licensure and are entitled to advanced placement into the colleges' regular Practical Nursing program. Students who continue seamlessly into the second semester of the regular college program have the potential to sit for the NCLEX-PN licensure exam and become licensed practical nurses within 6 months of high school graduation. The dual enrollment/dual credit practical nursing program is the administrative responsibility of the community colleges and the practical nursing programs, in coordination and cooperation with their partnering high schools.



## **Assessment**

Students will be assessed using the Health Sciences MS-CPAS2 test. The MS-CPAS2 blueprint can be found at <http://info.rcu.msstate.edu/services/curriculum.asp>. If there are questions regarding assessment of this program, please contact the Health Sciences instructional design specialists at the Research and Curriculum Unit at 662.325.2510.

## **Student Prerequisites**

In order for students to be able to experience success in the Health Sciences Pathway program, the following student prerequisites are in place:

1. C or higher in English (the previous year)
  2. C or higher in Math (last course taken or the instructor can specify the math)
- or**
1. TABE Reading Score (eighth grade or higher)
- or**
1. Instructor Approval

## **Applied Academic Credit**

Applied science content from the curriculum was aligned to the 2007 Mississippi Science Framework Revised Academic Benchmarks. Upon the completion of this program, students will earn two applied science credits that can be used for graduation requirements.

## **Licensure Requirements**

Mississippi teacher license endorsement 961 is needed to teach the Health Sciences Pathway. Requirements for the 961 educator endorsement are listed below:

1. Applicants must be registered nurses who are graduates of an accredited school of nursing with associate degrees or higher.
2. Applicants with associate degrees must have at least 2 years of verifiable occupational experience in the past 10 years. Experience must be appropriate to the subject to be taught. Applicants with bachelor or higher degrees must have at least 1 year of verifiable occupational experience in the past 10 years. Experience must be appropriate to the subject to be taught. Applicants must possess and maintain an unrestricted Mississippi Registered Nurse License.
3. Applicants must enroll immediately in the Vocational Instructor Preparation (VIP) or the Redesign Education Program (REP).
4. Applicants must complete the individualized Professional Development Plan (PDP) requirements of the VIP or REP prior to the expiration date of the 3-year vocational license.
5. Applicants must possess and maintain CPR certification.
6. Applicants must possess and maintain health-care provider basic life saver instructor level certification.
7. Applicants must possess and maintain first aid certification.

8. Applicants must successfully complete an MDE-approved computer literacy certification exam.
9. Applicants must successfully complete certification for an online learning workshop, module, or course that is approved by the MDE.
10. Applicants must successfully complete a health science certification workshop, module, or course that is approved by the MDE.

**Note:** If an applicant meets all requirements listed above, that applicant will be issued a 961 endorsement—a 5-year license. If an applicant does not meet all requirements, the applicant will be issued a 3-year endorsement license, and all requirements stated above must be satisfied prior to the ending date of that license.

## Professional Learning

*The professional learning itinerary for the middle school or individual pathways can be found at <http://redesign.rcu.msstate.edu>. If you have specific questions about the content of each training session provided, please contact the Research and Curriculum Unit at 662.325.2510, and ask for the Professional Learning Specialist.*

## Course Outlines

This curriculum provides options for local school districts to meet student needs and scheduling demands. The first option groups units into four 1-Carnegie unit courses. The second option groups units into two 2-Carnegie courses. Please see below for a description of each option.

### Option 1

Upon completion of this course, students will be trained to be entry-level general basic health-care assistants and trained in CPR and first aid. Students will be able to make an informed choice of a health occupation that they plan to pursue. The course consists of four one-credit courses that should be completed in the following sequence:

1. Orientation to Health Science (Course Code: 995002)
2. Theory and Application of Health Science I (Course Code: 995003)
3. Theory and Application of Health Science II (Course Code: 995004)
4. Workplace and Employment Skills in Health Science (Course Code: 995005)

**Course Description:** Orientation to Health Science includes the foundation skills necessary in the health science industry. Content such as safety and standard precautions; medical, legal, and ethical responsibility; medical terminology; and organization, converting support, movement, and protection will be offered to students. This is a 1-Carnegie unit course.

**Course Description:** Theory and Application of Health Science I emphasizes real-world, hands-on practice. Content related to vital organs, intake, and elimination; regulation, coordination, and reproduction; therapeutic personal care; therapeutic services; and diagnostic services is offered to students. This 1-Carnegie unit course should only be taken after students successfully pass Orientation to Health Science (Course Code: 995002).

**Course Description:** Theory and Application of Health Science II focuses on therapeutic personal care, therapeutic services, and diagnostic services. This 1-Carnegie unit course should only be taken after students successfully pass Theory and Application of Health Science, Part A (Course Code: 995003).

**Course Description:** Workplace and Employment Skills in Health Science is a culminating course that places emphasis on growth and development; health informatics; and academic, workplace, and employment skills. This is a 1-Carnegie unit course and should be taken after students successfully pass Orientation to Health Science (Course Code: 995002) and Theory and Application of Health Science, parts A and B (Course Codes: 995003 and 995004).

**Orientation to Health Sciences (One Carnegie Unit) - Course Code: 995002**

Unit	Title	Hours
1	Orientation and Career Exploration	20
2	Safety and Standard Precautions	25
3	Medical, Legal, and Ethical Responsibility	15
4	Introduction to Medical Terminology	20
5	Organization, Covering, Support, Movement, and Protection	40
		120

**Theory and Applications of Health Science I (One Carnegie Unit) - Course Code: 995003**

Unit	Title	Hours
6	Vital Organs, Intake, and Elimination	70
7	Regulation, Coordination, and Reproduction	30
		100

**Theory and Applications of Health Science II (One Carnegie Unit) - Course Code: 995004**

Unit	Title	Hours
8	Orientation, Safety, Asepsis, and Infection Control	40
9	Direct Personal Care	45
10	Therapeutic Services	40
		125

**Workplace and Employment Skills in Health Sciences (One Carnegie Unit) - Course Code: 995005**

Unit	Title	Hours
11	Diagnostic Services	20
12	Growth and Development	20
13	Health Informatics	20
14	Academic, Workplace, and Employment Skills	25
		85

**Option 2**

**Course Description:** The first course of the secondary Health Sciences program introduces students to careers available in the health field, basic anatomy and physiology, and basic patient care skills. Upon completion of this course, students will be trained to be entry-level general basic health-care assistants and trained in CPR and first aid. Students will be able to make an informed choice of a health occupation that they plan to pursue. This course offers 2 Carnegie units. Students who complete Health Sciences I may count one of the credits earned in this course as one science credit toward graduation requirements if they complete both years of the Health Sciences program.

**Course Description:** The emphasis of the second course is primarily to expose students to advanced skills in the various health occupations and the basic health-care sciences. Students may participate in shadowing experiences in selected health-care facilities. Upon completion of this advanced course, students will be trained to work as entry-level assistants in various health occupations and will be certified in CPR at the health-care provider level. This course offers 2 Carnegie units. Students who complete Health Sciences II may count one of the credits earned in this course as one science credit toward graduation requirements if they complete both years of the Health Sciences program.

This program includes a minimum of 100 hours of clinical-type experience during the second course. This clinical-type experience can include tours of health-care facilities, guest speakers, laboratory practice/demonstration in the classroom, and observation experiences in medical facilities.

**Health Sciences I (Course Code: 995000)**

Unit	Title	Hours
1	Orientation and Career Exploration	20
2	Safety and Standard Precautions	25
3	Medical, Legal, and Ethical Responsibility	15
4	Introduction to Medical Terminology	20
5	Organization, Covering, Support, Movement, and Protection	40
6	Vital Organs, Intake, and Elimination	70
7	Regulation, Coordination, and Reproduction	30
		220

**Health Sciences II (Course Code: 995001)**

Unit	Title	Hours
8	Orientation, Safety, Asepsis, and Infection Control	40
9	Growth and Development	20
10	Direct Personal Care	45
11	Therapeutic Services	40
12	Diagnostic Services	20
13	Health Informatics	20
14	Academic, Workplace, and Employment Skills	25
		210

# Preface

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Secondary vocational–technical education programs in Mississippi are faced with many challenges resulting from sweeping educational reforms at the national and state levels. Schools and teachers are increasingly being held accountable for providing true learning activities to every student in the classroom. This accountability is measured through increased requirements for mastery and attainment of competency as documented through both formative and summative assessments.

The courses in this document reflect the statutory requirements as found in Section 37-3-49, Mississippi Code of 1972, as amended (Section 37-3-46). In addition, this curriculum reflects guidelines imposed by federal and state mandates (Laws, 1988, ch. 487, §14; Laws, 1991, ch. 423, §1; Laws, 1992, ch. 519, §4 eff. from and after July 1, 1992; Carl D. Perkins Vocational Education Act IV, 2007; and No Child Left Behind Act of 2001).

# Professional Organizations

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## **American Association of Medical Transcriptionist**

4230 Kiernan Avenue  
Suite 130  
Modesto, CA 95356  
(800) 982-2182 (toll free)  
(209) 527-9620 (direct)  
(209) 527-9633 (fax)  
www.ahdionline.org  
[ahdi@ahdionline.org](mailto:ahdi@ahdionline.org)

## **American Association for Respiratory Care**

9425 N. MacArthur Blvd.  
Suite 100  
Irving, TX 75063-4706  
(972) 243-2272 (phone)  
[www.aarc.org](http://www.aarc.org)

## **American Dental Assistants Association**

35 East Wacker Drive  
Suite 1730  
Chicago, IL 60601-2211  
(312) 541-1550 (phone)  
(312) 541-1496 (fax)  
[www.dentalassistant.org](http://www.dentalassistant.org)

## **American Dental Association**

211 East Chicago Ave.  
Chicago, IL 60611-2678  
(312) 440-2500 (phone)  
[www.ada.org](http://www.ada.org)

## **American Health Care Association**

1201 L Street, N.W.  
Washington, DC 20005  
(202) 842-4444 (phone)  
(202) 842-3860 (fax)  
[www.ahca.org](http://www.ahca.org)

## **American Hospital Association**

One North Franklin  
Chicago, Illinois 60606-3421  
(312) 422-3000 (phone)

[www.aha.org](http://www.aha.org)

## **American Medical Association**

515 N. State Street  
Chicago, IL 60610  
(800) 621-8335 (phone)  
[www.ama-assn.org](http://www.ama-assn.org)

## **American Red Cross National Headquarters**

2025 E Street NW  
Washington, DC 20006  
(800) REDCROSS  
(800) 257-7575 (Español)  
[www.redcross.org](http://www.redcross.org)

## **American Society of Radiologic Technologists**

15000 Central Ave. SE  
Albuquerque, NM 87123-3909  
(800) 444-2778, Press 5  
(505) 298-4500, Press 5  
(505) 298-5063 (fax)  
[www.asrt.org](http://www.asrt.org)

## **Hospital Corporation of America**

One Park Plaza  
Nashville, TN 37203  
(615) 344-9551 (phone)  
[www.hcahealthcare.com](http://www.hcahealthcare.com)

## **National Association of Emergency Medical Technicians**

P.O. Box 1400  
Clinton, MS 39060-1400  
Physical Address  
132-A East Northside Dr.  
Clinton, MS 39056  
(601) 924-7744  
1-800-34-NAEMT (toll free)  
(601) 924-7325 (fax)  
[info@naemt.org](mailto:info@naemt.org)  
[www.naemt.org](http://www.naemt.org)

## **National Athletic Trainer's Association**

2952 Stemmons Freeway #200  
Dallas, TX 75247  
(214) 637-6282 (phone)  
(214) 637-2206 (fax)

[www.nata.org](http://www.nata.org)

LifeWorks: Explore Health and Medical Science  
Careers Early

<http://science.education.nih.gov/lifeworks>

**National Health Council**

1730 M Street, NW  
Suite 500  
Washington, DC 20036  
(202) 785-3910 (phone)  
(202) 785-5923 (fax)  
[www.nationalhealthcouncil.org](http://www.nationalhealthcouncil.org)

**Nurses for a Healthier Tomorrow**

[www.nursesource.org](http://www.nursesource.org)

**Nursing Spectrum**

[www.nurse.com](http://www.nurse.com)

**Ovarian Cancer National Alliance**

910 17th Street, N.W.  
Suite 1190  
Washington, D.C. 20006  
(202) 331-1332 (phone)  
(202) 331-2292 (fax)  
[ocna@ovariancancer.org](mailto:ocna@ovariancancer.org)  
[www.ovariancancer.org](http://www.ovariancancer.org)

**Society of Nuclear Medicine**

1850 Samuel Morse Drive  
Reston, Virginia 20190  
(703) 708.9000 (phone)  
[www.snm.org](http://www.snm.org)

**St. Jude Children's Research Hospital**

332 N. Lauderdale  
Memphis, TN 38105  
(901-)495-3300 (phone)  
[www.stjude.org](http://www.stjude.org)

**Le Bonheur Children's Medical Center**

50 N. Dunlap Street  
Memphis, TN 38103  
(901) 287-KIDS (5437)  
[info@lebonheur.org](mailto:info@lebonheur.org)

**Mississippi Nurses Association**

31 Woodgreen Place  
Madison, MS 39110  
(601) 898-0670 (phone)  
(601) 898-0190 (fax)  
<http://www.msurses.org/>

**American Heart Association**

440 E. Pass Road Gulfport, MS, 39507  
609 Corinne Street Hattiesburg, MS, 39401  
4830 McWillie Circle Jackson, MS, 39206  
[www.americanheart.org](http://www.americanheart.org)

**The Center for Health and Health Care in Schools**

(202) 466-3396  
[chhcs@gwu.edu](mailto:chhcs@gwu.edu)  
[www.healthinschools.org](http://www.healthinschools.org)

**American Cancer Society**

1-800-ACS-2345  
[www.cancer.org](http://www.cancer.org)

**The Diabetes Foundation of Mississippi**

16 Northtown Drive  
Suite 100  
Jackson, MS 39211  
(601) 957-7878 (phone)  
(601) 957-9555 (fax)  
[www.msdiabetes.org](http://www.msdiabetes.org)

**Mississippi Office of Healthy Schools — A Division  
of Mississippi Department of Education**

Central High School  
359 NorthWest Street  
P.O. Box 771  
Jackson, MS 39205-0771  
[www.healthyschoolsms.org](http://www.healthyschoolsms.org)  
[www.rxlist.com](http://www.rxlist.com)  
[www.PDR.net](http://www.PDR.net)

**American Lung Association of Mississippi**

P.O. Box 2178  
Ridgeland, MS 39158  
731 Pear Orchard Road  
Suite 18  
Ridgeland, MS 39157  
(601) 206-5810 (phone)  
(800) 586-4872 (toll free)  
(601) 206-5813 (fax)  
[www.alams.org](http://www.alams.org)

**American Speech-Language-Hearing Association**

2200 Research Boulevard



Rockville, MD 20850-3289  
(800) 638-8255  
[www.asha.org](http://www.asha.org)

**American School Health Association**

7263 State Route 43  
P.O. Box 708  
Kent, Ohio 44240  
(330) 678.1601 (phone)  
(330) 678.4526 (fax)  
[asha@ashaweb.org](mailto:asha@ashaweb.org)  
[www.ashaweb.org](http://www.ashaweb.org)

**National School Boards Association**

1680 Duke Street  
Alexandria, VA 22314  
(703) 838-6722 (phone)  
(703) 683-7590 (fax)  
[info@nsba.org](mailto:info@nsba.org)  
[www.nsba.org](http://www.nsba.org)

**Association for Professionals in Infection Control and Epidemiology**

1275 K St., NW, Suite 1000  
Washington, D.C. 20005-4006  
(202) 789.1890 (phone)  
(202) 789.1899 (fax)  
[www.apic.org](http://www.apic.org)

**The American Assembly for Men in Nursing**

AAMN 6700 Oporto-Madrid Blvd.  
Birmingham, AL 35206  
(205) 956-0146 (phone)  
[www.aamn.org](http://www.aamn.org)

**Association of Allied Health Programs**

4400 Jenifer Street, NW Suite 333  
Washington, D.C. 20015  
(202) 237-6481 (phone)  
(202) 237-6485 (fax)  
[www.asahp.org](http://www.asahp.org)

**Health Professions Network**

1850 Samuel Morse Drive  
Reston, VA 20190-5316  
(703) 708-9000 (phone)  
(703) 708-9015 (fax)  
[membership@healthpronet.org](mailto:membership@healthpronet.org)  
[www.healthpronet.org](http://www.healthpronet.org)

**American Health Information Management**

Association- AHIMA  
233 N. Michigan Avenue, 21st Floor  
Chicago, IL 60601-5800  
(312) 233-1100  
[www.ahima.org](http://www.ahima.org)

**HIPPA Standard Certification**

[www.hippaademo.com](http://www.hippaademo.com) (Provides essential foundation of HIPPA knowledge of which any program can add)  
[www.cdc.gov/train.htm](http://www.cdc.gov/train.htm) (Provides access to training sites Web broadcast for health-care workers/students)

**Centers for Disease Control HBV/HIV/Infection**

**Control** (Allows individuals to subscribe for e-mails related to specific topics and links to other useful sites)  
[www.cdc.gov/subscribe.html](http://www.cdc.gov/subscribe.html)

**OSHA Standards** (Includes PowerPoint slides, questions, tests, and keys to tests given)

[www.healthsafe.uab.edu/pages/educationandtraining/educationandtraining.html](http://www.healthsafe.uab.edu/pages/educationandtraining/educationandtraining.html)

**Catalogue** (Describes allied health professions)

[www.ama-assn.org/go/alliedhealth](http://www.ama-assn.org/go/alliedhealth)

**CPR** (Useful charts for CPR)

[www.funcpr.com](http://www.funcpr.com)

# Using this Document

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Each secondary vocational–technical course consists of a series of instructional units that focus on a common theme. All units have been written using a common format that includes the following components:

## **Unit Number and Title**

### **Suggested Time on Task**

An estimated number of clock hours of instruction that should be required to teach the competencies and objectives of the unit. A minimum of 140 hours of instruction is required for each Carnegie unit credit. The curriculum framework should account for approximately 75 to 80% of the time in the course.

### **Competencies and Suggested Objectives**

A competency represents a general concept or performance that students are expected to master as a requirement for satisfactorily completing a unit. Students will be expected to receive instruction on all competencies. The suggested objectives represent the enabling and supporting knowledge and performances that will indicate mastery of the competency at the course level.

### **Suggested Teaching Strategies**

This section of each unit indicates research-based strategies that can be used to enable students to master each competency. Emphasis has been placed on strategies that reflect active learning methodologies. Teachers should feel free to modify or enhance these suggestions based on needs of their students and resources available in order to provide optimum learning experiences for their students.

### **Suggested Assessment Strategies**

This section indicates research-based strategies that can be used to measure student mastery. Examples of suggested strategies could include rubrics, class participation, reflection, and journaling. Again, teachers should feel free to modify or enhance these suggested assessment strategies based on local needs and resources.

### **Integrated Academic Topics, 21st Century Skills and Information and Communication Technology Literacy Standards, ACT College Readiness Standards, and Technology Standards for Students**

This section identifies related academic topics as required in the Subject Area Assessment Program (SATP) in Algebra I, Biology I, English II, and U. S. History from 1877, which are integrated into the content of the unit. Research-based teaching strategies also incorporate ACT College Readiness standards. It also identifies the 21st Century Skills and Information and Communication Technology Literacy skills. In addition, national technology standards for students are associated with the competencies and suggested objectives for the unit are also identified.

### **References**

A list of suggested references is provided for each unit. The list includes some of the primary instructional resources that may be used to teach the competencies and suggested objectives. Again, these resources are suggested, and the list may be modified or enhanced based on needs and abilities of students and on available resources.



# Health Sciences I

## Unit 1: Orientation and Career Exploration

**Competency 1:** Describe the purpose of the course and related professional organizations. (DOK 1) <sup>HSF2,</sup>

HS4, HSF11

### Suggested Objectives

- a. Identify student and course expectations. (DOK 1)
- b. Identify the role of student and professional organizations in individual career development. (DOK 1)

### Suggested Teaching Strategies

- Hooks (ways to engage students) may include distributing medical equipment related to various careers on each student's desk prior to arrival so that students can guess the function of the equipment. Demonstrate and allow students to use equipment. <sup>T4, T6</sup>
- Introduce the career field, and discuss job requirements (e.g., certifications) and occupation-specific and soft skills needed. Outline the units of the program and how they relate to various jobs in the field. Pre-assess student knowledge by leading students in a discussion about what they know about the field, the types of jobs available, and the salaries of those jobs. Place fake money appropriate to various jobs in envelopes, and have students match the money to the jobs earning that salary. <sup>CLS1, CLS2</sup>
- Use an online Jeopardy game to play a game about various careers and professional and student organizations. <sup>CLS1, CLS2, CLS3, T1, T2, T3, T4</sup>
- Describe key school and program policies and safety procedures to the class based on industry standards and requirements (may use the school handbook and any program-specific information). Introduce workplace skills and how they will be used to relate the classroom work to meet industry requirements. Have students research hospital or clinic policies in the local area and compare and contrast the school policy with those policies. Explain to the students that since workplace skills are so important for their success on the job, they will be evaluated regularly on these skills. <sup>CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Use a multiple learning styles inventory to determine students' learning styles and interests. Share with the students their styles and the impact they have. Throughout the year, provide varied projects to meet the learning styles. Work with the special populations instructor to assess the reading, writing, and math skills of each student and to provide materials that are appropriate for each student. Plan to reassess students at the end of the year. Divide students into groups based on learning styles, and assign each group a specific set of policies and procedures to review from the handbook/information. Have each group use technology to construct a presentation (poster, collage, role-play, multimedia presentation, Photo Story, or Movie Maker) outlining the school and program policies and procedures related to the assigned topic. Have each group present its policies and procedures for peer review. <sup>E1, E2, E3, E4, E5, E6, R1, R5,</sup>  
<sup>CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Have students explore the HOSA Web site and/or view HOSA videos, listen to lecture and participate in class discussion about HOSA, and listen to an explanation of team work skills related to HOSA and medical careers. Have students write a summary about what they have learned about HOSA. Have students participate in parliamentary procedure role-play by

practicing a HOSA meeting. <sup>E1, E2, E3, E4, E5, E6, R1, R5, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate policies presentation for content and appearance using a presentation rubric.
- Evaluate written summary for content and appearance using a written report rubric.
- Assess students' knowledge through a written assessment.

**Competency 2:** Introduce health-care careers, and interpret various roles in the health-care environment and how systems affect services performed and quality of care. (DOK 2) <sup>HSF3</sup>

### Suggested Objectives

- a. Describe systems theory and its components. (DOK 1)
- b. Examine the health-care delivery system including models or factors (e.g., cost, technology, and aging population) that may affect them and cost effectiveness of various systems. (DOK 2)
- c. Describe scope of practice and the interdependence of health-care professions within a given health-care delivery system. (DOK 2)

### Suggested Teaching Strategies

- Show the clip from the movie *John Q* or a movie, television show, or Web Site (such as <http://www.oprah.com>) related to health-care access, and have students answer questions as they watch the movie and write a brief description of what they thought was the most interesting part and why. Prior to showing videos, video clips, Web sites, and so forth, it is strongly advised that you review the content for objectionable material. You may also send a form to parents/guardians prior to showing the information asking for permission for the student to view it. In addition, you must always follow copyright laws. <sup>E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W5</sup>
- Discuss the systems theory, various health-care delivery systems, and the scope of practice of various professionals. Have students work in teams to research and compare and contrast health-care systems in various countries (socialized, private, etc.) and make a poster using word processing or other software to create text and visuals. Give students money based on the job each student is interested in, and have each one choose various insurance plans (with varying deductibles) and compare the benefits with various illnesses. <sup>E1, E2, E3, E4, E5, E6, R1, R5, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Have students research the cost of a heart transplant and the amount of out-of-pocket cost for patients with various types of insurance or government assistance. Lead students in a debate about access to health care from the viewpoint of the insurance agency, the health-care provider, the patient, and so forth. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T3</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate poster for content and appearance using a rubric.
- Use a rubric to assess posters.
- Assess students' knowledge through a written assessment.

**Competency 3:** Analyze the function of the health-care team and the ability to promote the delivery of quality health care. (DOK 2) <sup>HSF8</sup>

### Suggested Objectives

- a. Compare health-care teams to determine the meaning of team concept, characteristics of effective teams, roles of various team participants, and the role of compromise. (DOK 2)
- b. Formulate procedures for team member participation (e.g., communication, collaboration, active listening, leadership, and respect). (DOK 2)

### Suggested Teaching Strategies

- Hook students with the analogy of a football team, a puzzle with a missing piece, the game Jenga, or Lego blocks that would be used to build a structure to illustrate the importance of all members of the team, or give each student a clue that is related to a mystery, and have students work together to solve the mystery. <sup>CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Discuss the health-care team and how it works together to promote quality care. Have students work together to research teamwork concepts and develop a Venn diagram to illustrate how people in a hospital work together. Have students analyze case studies at <http://www.vhct.org/studies.htm> to compare the characteristics of effective teams and present their work (using electronic media such as PowerPoint) to the class. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Have students role-play members of a team in which one member of the team does not act appropriately. Have each student write procedures for appropriate team participation, and then have other students evaluate procedures and make suggestions for changes. <sup>E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate case studies using a rubric.
- Review written procedures for appropriateness.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 4:** Introduce employability skills in order to enhance employment opportunities and job satisfaction; demonstrate key employability skills, and maintain and upgrade skills as needed. (DOK 2)

<sup>HSF4</sup>

### Suggested Objectives

- a. Analyze the effects of key employability skills. (DOK 2)
- b. Develop a health sciences career path (considering levels of education, credentialing requirements, employment opportunities, workplace environments, and career growth potential). (DOK 3)
- c. Design a plan for personal growth and development in order to meet the health sciences career path outlined. (DOK 3)

### Suggested Teaching Strategies

- Use different probing techniques to determine students' prior knowledge of characteristics of desirable behavior. Describe the learning goals of the unit; remind students that behavior,

- personality, and work ethic are important in the workplace; and explain the characteristics of desirable behavior. Lead students in a discussion of the consequences of various scenarios in which employees do not exhibit good behavior, personality, or work ethic (e.g., not telling the truth, stealing, tardiness, or recording fictitious information). Make sure students understand appropriate actions. Lead them to make inferences about what would happen if a particular incident occurred. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5
- Divide students into groups based on learning styles. Give each group a different scenario involving serving the public, communicating with employees, and personal work ethic where desirable characteristics were lacking. Have each group role-play, prepare a multimedia presentation, compose a rap song or rhyme, or create a cartoon of scenario to include the desired professional behavior or characteristics. Following each group presentation, have the class discuss and evaluate the solutions presented by each group. Lead the class to draw conclusions about the consequences of poor personal behavior and characteristics. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
  - Distribute articles related to employability skills to students. Before the students begin to read, ask them to write answers to the following questions: 1. Based on the title of the articles, what do you expect to learn from your reading? 2. What is the purpose of reading this article? Instruct students to ask themselves the following questions after each section of the article and write their responses: 1. Do I understand what I am reading? 2. What new information have I learned so far? After students finish reading the selected articles, ask them to write answers to the following questions: 1. What was the main idea of the articles that you read? 2. What are the supporting topics of the articles? 3. How can you use this information throughout this course? E1, E2, E3, E4, E5, E6, R1, R2, R3, R5, R6, W1, W2, W3, W4, W5, CLS2, CLS4
  - Have students keep a typed weekly journal of their experiences dealing with others in the public or in the workplace throughout the year. Have students identify the behavior and characteristics that are present or that are lacking. E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
  - Have students work together to research and present to the class about health care in other countries, including the culture, people, and so forth. E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
  - Have students discuss the job outlook in various health-care fields in Mississippi, the United States, and internationally and the reasons for growth or decrease in jobs. Have students choose a health-care field and develop a career path and plan for personal growth. Students should determine the salary, and develop a personal budget including gross pay/net pay and explain the reason for deductions. Have students create a podcast in which they compare salaries for high school, community college, and university graduates and discuss advantages and disadvantages of working for someone and owning a business. Have students share it with the class. Have students begin an electronic portfolio of activities performed during the unit and continue to add materials throughout the year. E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### Suggested Assessment Strategies

- Monitor discussion of behavior scenarios.
- Use a rubric to assess role-play, multimedia presentation, rap song or rhyme, or cartoon for content.
- Evaluate answers to questions from articles for content.
- Use a rubric to assess journals according to content and grammar.

- Assess Podcast for content.
- Use a checklist each grading period to assess workplace skills.
- Use a rubric to assess the portfolio.

## Competency 5: Use communication skills. (DOK 2) <sup>HSF2</sup>

### Suggested Objectives

- Apply concepts of interpersonal and written communication, and interpret technical materials used for health-care practices and procedures. (DOK 2)
- Adjust communication to others' (patient and co-worker) abilities to understand. (DOK 2)
- Apply the elements of communication using the sender–receiver model. (DOK 1)
- Apply active listening skills using reflection, restatement, and clarification techniques.
- Demonstrate courtesy to others including self-introduction. (DOK 1)
- Interpret verbal and nonverbal behaviors to augment communication and within scope of practice. (DOK 2)

### Suggested Teaching Strategies

- As a hook, have students line up according to birth date without talking, have students investigate various forms of nonverbal communication and play a game in which a person's body language gives away a secret or indicates if someone is telling the truth, or show a video differentiating personal and professional touch and communication. Conduct pre-assessment inventory of students' communication skills in an informal game of gossip. Begin the game by whispering a statement to one student who then repeats the statement to the next student. When the statement reaches the last student, have the student announce the statement to the class. Compare the last statement to the original statement, and discuss why communication is important. <sup>E1, E2, E3, E4, E5, E6, CLS3</sup>
- Pair students, and have them sit back-to-back with a flat surface in front of each student. Give each student an identical set of Legos or other building blocks, and instruct the students that they cannot look at the other's work or ask each other questions at any time. Have one student build a structure and then give the partner oral instructions to build an identical structure. Compare the structures. (You could also have students draw pictures with crayons.) Repeat the exercise, and allow students to ask questions as they receive instructions. Have students work in small groups to analyze the communication process and discuss communication barriers that were present during any of the suggested activities. Have students complete a reflective writing activity using word processing software to describe how they communicate differently according to their audience (i.e., parents, peers, employer, etc.). <sup>E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Identify, define, and discuss the types of communication to include verbal, nonverbal, and written. Provide examples of each type of communication within your career area. Discuss the complexity of the communication process in the workplace. Explain that effective communication is an essential component of organizational success. Contrast and compare forms of subjective and objective communication. Have students research proper verbal and nonverbal communication techniques in the United States and other countries. Have them work cooperatively to prepare a chart, mural, or television program comparing and contrasting various techniques. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Discuss the components of sending and receiving messages to include sending, decoding, encoding, and receiving. Lead students to critique samples of written and oral communication.



E1, E2, E3, E4, E5, E6, R1, R5

- Conduct post-assessment inventory of students' communication skills in an informal game of gossip as described above. Compare the last statement to the original statement, and compare the differences and similarities between the pre- and post-results. E1, E2, E3, E4, E5, E6, R1, R5, CLS3

### **Suggested Assessment Strategies**

- Evaluate the project comparing communication techniques for accuracy and neatness.
- To evaluate the Lego activity, use a scale of 1 to 5 with 5 being the highest. Have all students rotate through the finished products to evaluate each structure on how it best resembles the original structure. Tally the scores to find the best structure.
- Monitor class activity to ensure that all students participate.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

### ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- R1 Main Ideas and Author's Approach
- R5 Meaning of Words
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

### National Industry Standards

- HSF2 Health-care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.
- HSF3 Health-care workers will understand how their role fits into their department, their organization, and the overall health-care environment. They will identify how key systems affect services they perform and quality of care.
- HSF4 Health-care workers will understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills as needed.
- HSF8 Health-care workers will understand the roles and responsibilities of individual members as part of the healthcare team, including their ability to promote the delivery of quality health care. They will interact effectively and sensitively with all members of the health-care team.
- HSF11 Health-care workers will use information technology applications required within all career specialties. They will demonstrate use as appropriate to health-care applications.

### National Educational Technology Standards

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making

- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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- For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# Case Study Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Accomplished 3 Points	Needs Improvement 2 Points	Unsatisfactory 1 Point	Score
<b>Comprehension</b>	Shows complete understanding of the issues and grasps implications beyond the immediate issue	Asks for more details to clarify understanding of the issue	Shows partial understanding of the issue but does not ask for clarification	Resists attempts to get clarification	
<b>Strategizing</b>	Develops realistic strategies that provide a satisfactory conclusion	Chooses appropriate strategies that may satisfy	Shows evidence of strategy that may or may not satisfy	Needs assistance to choose a strategy	
<b>Innovation</b>	Devises more than one resolution to the problem	Offers a solution	Offers a solution with a limited point of view	Shows some understanding of the problem	
<b>Communication</b>	Convincingly communicates resolution	Explains solution so others can understand	Conveys an opinion	Unsure of how to explain	
<b>TOTAL</b>					

Comments:

# Journal Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

CATEGORY	Excellent 4	Very Good 3	Satisfactory 2	Needs Work 1	SCORE:
Writing Quality	There is a strong writing style and ability to express concepts learned. Excellent spelling, grammar, syntax, spelling, etc.	There is a good writing style and ability to express concepts learned. Very good grammar, syntax, spelling, etc.	There is a writing style that conveys meaning adequately. Some minor grammatical, syntax, and spelling errors	There is difficulty in expressing concepts. There is limited syntax. There are noticeable grammatical and spelling mistakes.	
Content	Clear and complete description of the activity is recorded. All major points are documented.	Very good description of the activity is recorded. Most major points are documented.	Good description of the activity is recorded. Some major points have been omitted.	Limited description of the activity is recorded. Very few major points are documented.	
Insight and Understanding	Definite insights into the implications of the activity are recorded. Awareness of complexity of issues and situations is present.	Some insight into the issue or situation is recorded. Some sense of complexity is present.	Insight is present from a more simplistic standpoint.	Only limited insight into the issue or situation is recorded.	
Application	Content of the activity is connected to the student's personal life and goals.	Content of the activity is connected to the field of agriculture.	Content of the activity is related to life in general.	Only limited connections are made between the content of the activity and the surrounding world.	
<b>Total Score:</b>					

**Comments:**

# What makes a good podcast?

When you listen to a podcast, or when you are making your own, think about these qualities of a well-done podcast. (N/A means Not Applicable--the question can't be answered or it does not pertain to the site you are viewing.)

Your name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of podcast: \_\_\_\_\_

Feed URL (or URL): \_\_\_\_\_

Creator of podcast: \_\_\_\_\_



1. Did the podcast include content that was useful / relevant for your purpose?	YES	NO	N/A
2. Were the technical qualities (audio, slides, etc.) acceptable in the production?	YES	NO	N/A
3. Was a written transcript of the podcast available?	YES	NO	N/A
4. Was the podcast linked from a site which included subject tags?	YES	NO	N/A
5. Was the podcast linked from a site which included links to other resources?	YES	NO	N/A
6. Did the podcast adhere to the copyright guidelines in its use of music, pictures, etc.?	YES	NO	N/A
7. Was the length of the podcast appropriate for its content? (20 min. or less)?	YES	NO	N/A
8. Was the podcast part of a regularly scheduled series?	YES	NO	N/A
9. Did the subjects in the podcast have "personality" to keep you interested??	YES	NO	N/A
10. Did the podcast flow smoothly (introduction, content, summary)?	YES	NO	N/A
11. Was it obvious how to add the podcast feed to your aggregator? (RSS)	YES	NO	N/A
12. If the item was an enhanced podcast, did the use of slides enhance the content?	YES	NO	N/A
13. If the item was an enhanced podcast, was it available in various file formats to allow viewing on various hardware devices?	YES	NO	N/A

In your own words, describe the podcast you listened to and its attributes.


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# Portfolio Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

Comments:

# Poster Assessment Rubric

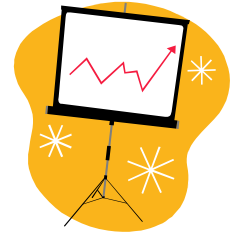


NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
<b>Required Content</b>	The poster includes all required content elements as well as additional information.	All required content elements are included on the poster.	All but one of the required content elements are included on the poster.	Several required content elements were missing.	
<b>Labels</b>	All items of importance on the poster are clearly labeled with labels that are easy to read.	Almost all items of importance on the poster are clearly labeled with labels that are easy to read.	Many items of importance on the poster are clearly labeled with labels that are easy to read.	Labels are too small to read, or no important items were labeled.	
<b>Attractiveness</b>	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout, and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed.	
<b>Grammar</b>	There are no grammatical or mechanical mistakes on the poster.	There are one to two grammatical or mechanical mistakes on the poster.	There are three to four grammatical or mechanical mistakes on the poster.	There are more than four grammatical or mechanical mistakes on the poster.	
				<b>TOTAL</b>	

**Comments:**

# Presentation Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 points	Accomplished 3 points	Developing 2 points	Beginning 1 point	Score
Content	Clear, appropriate, and correct	Mostly clear, appropriate, and correct	Somewhat confusing, incorrect, or flawed	Confusing, incorrect, or flawed	
Clarity	Logical, interesting sequence	Logical sequence	Unclear sequence	No sequence	
Presentation	Clear voice and precise pronunciation	Clear voice and mostly correct pronunciation	Low voice and incorrect pronunciation	Mumbling and incorrect pronunciation	
Visual Aids	Attractive, accurate, and grammatically correct	Adequate, mostly accurate, and few grammatical errors	Poorly planned, somewhat accurate, and some grammatical errors	Weak, inaccurate, and many grammatical errors	
Length	Appropriate length	Slightly too long or short	Moderately too long or short	Extremely too long or short	
Eye Contact	Maintains eye contact, seldom looking at notes	Maintains eye contact most of time but frequently returns to notes	Occasionally uses eye contact but reads most of information	No eye contact because reading information	
				<b>TOTAL</b>	

Comments:

# Role-Play or Skit Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Good 3 Points	Average 2 Points	Needs Improvement 1 Point	Score
Accuracy	All information was accurate.	Almost all information was accurate.	Most information was accurate.	Very little information was accurate.	
Role	Excellent character development; student contributed in a significant manner.	Good character development; student contributed in a cooperative manner.	Fair character development; student may have contributed.	Little or no character development; student did not contribute much at all.	
Knowledge Gained	Can clearly explain several ways in which his or her character "saw" things differently than other characters and can explain why	Can clearly explain several ways in which his or her character "saw" things differently than other characters	Can clearly explain one way in which his or her character "saw" things differently than other characters	Cannot explain any way in which his or her character "saw" things differently than other characters	
Props	Used several props and showed considerable creativity	Used one or two appropriate props that made the presentation better	Used one or two props that made the presentation better	Used no props to make the presentation better	
Required Elements	Included more information than required	Included all required information	Included most required information	Included less information than required	
<b>TOTAL</b>					

Comments:

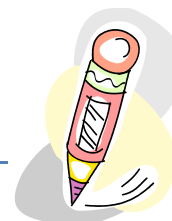


# Workplace Skills Weekly Checklist

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

Behavior Skill	Never	Rarely	Most of the Time	Always
<b>On Time and Prepared</b>				
1. Arrives to class on time				
2. Brings necessary materials				
3. Completes homework				
<b>Respects Peers</b>				
1. Respects others' property				
2. Listens to peers				
3. Responds appropriately to peers				
4. Respects others' opinions				
5. Refrains from abusive language				
<b>Respects Teachers/Staff</b>				
1. Follows directions				
2. Listens to teacher and staff				
3. Accepts responsibility for actions				
<b>Demonstrates Appropriate Character Traits</b>				
1. Demonstrates positive character traits (kindness, trustworthy, and honesty)				
2. Demonstrates productive character traits (patient, thorough, and hardworking)				
3. Demonstrates a level of concern for others				
<b>Demonstrates a Level of Concern for Learning</b>				
1. Remains on task				
2. Allows others to remain on task				

# Written Report Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
Content	Clear thesis and focus that remain apparent	Thesis and focus that remain apparent	Addresses subject matter with minimal support	Does not focus on topic	
Grammar	Correct and effective use of grammar and mechanics	Occasional errors in use of grammar and mechanics	Problems in use of grammar and mechanics	Repeated errors in use of grammar and mechanics	
Organization	Ideas flow smoothly and logically with clarity and coherence	Logical order and appropriate sequencing of ideas with adequate transition	Some evidence of an organizational plan or strategy	Lacks organization	
<b>TOTAL</b>					

Comments:

## Unit 2: Safety and Standard Precautions

**Competency 1:** Summarize safe practices, and predict potential hazards and ways to prevent injury or illness through safe work practices and by following health and safety policies and procedures. (DOK 2)

HSF7

### Suggested Objectives

- Identify common safety hazards using Materials Safety Data Sheets (MSDSs), hazardous labeling, and safety signs, symbols, and labels. (DOK 1)
- Select environmental modifications to insure safe working conditions including methods of fire prevention, proper safety techniques, handling of hazardous chemicals, proper body mechanics and ergonomics, and good housekeeping. (DOK 2)
- Employ personal safety practices to manage a personal exposure incident in compliance with OSHA regulations. (DOK 2)
- Use emergency procedures and protocols to interpret the evacuation plan for the health-care setting, construct an emergency plan for a health-care setting in response to a natural disaster or other emergency, and follow the facility procedure when a fire is discovered. (DOK 3)

### Suggested Teaching Strategies

- As a hook, invite a first responder such as someone from the fire department to demonstrate and allow the students to practice using safety equipment. Have students role-play scenarios in which accidents occur. Or, have an industry speaker present to the class general safety procedures, the necessity of safety in the work environment, and his or her company's safety policy. Take students on a practice drill of the evacuation plan. Show students videos demonstrating examples of accidents in the workplace. Pre-assess knowledge of safety by having each student write a summary of the safety violations present in the videos. Lead the class to identify common hazards and develop safety policies and emergency procedures and protocols for the classroom based on industry policies. Discuss and demonstrate terms, rules, and procedures related to lab and industry safety. Explain to the students that since safety is so important, they will be evaluated regularly on safety. Explain the consequences of violating safety procedures. E1, E2, E3, E4, E5, E6
- Divide students into groups based on learning styles, and assign each group a guideline for personal and lab safety (i.e., clothing, jewelry, hair, eyes, and ears) or general lab conduct. Have each group role-play, create a multimedia presentation or a rap song, or write a story to discuss the proper and improper procedures related to the guideline. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Also, have the groups develop scenarios of hazards and accidents using popular and professional publications and the Internet. Assign each group one of the following hazards or accidents: equipment, fires, or hazardous materials. Have each team read its scenario while the other teams compete to be the first to provide the proper safety measures that should have been used to prevent the hazardous situation or accident. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5
- Describe the components of a MSDS sheet. Have each student prepare a MSDS sheet for a chemical whose description you provide. E1, E2, E3, E4, E5, E6
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities.

NOTE: SAFETY IS TO BE TAUGHT AS AN ONGOING PART OF THE COURSE THROUGHOUT THE YEAR. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### Suggested Assessment Strategies

- Evaluate each student on a written safety test for 100% accuracy.
- Observe each student daily to ensure that he or she abides by safety rules.
- Have students self-evaluate and peer-evaluate the guideline project.
- Use a rubric to evaluate the safety scenario development and presentation.
- Review the MSDS sheet completion for accuracy and neatness.

**Competency 2:** Apply standard precautions as described in the rules and regulations set forth by the Occupational Safety and Health Administration (OSHA). (DOK 2) <sup>HSF7</sup>

### Suggested Objectives

- a. Contrast medical and surgical asepsis. (DOK 2)
- b. Practice infection control procedures as well as appropriate cleaning, disinfecting, and sterilizing processes. (DOK 2)
- c. Demonstrate hand washing technique. (DOK 1)
- d. Use personal protective equipment as appropriate to the environment. (DOK 2)
- e. Demonstrate donning and removing clean gloves. (DOK 1)

### Suggested Teaching Strategies

- Ask students to describe movies or current events in which precautions against the spread of infectious diseases are emphasized. Show clips from movies or television shows where standard precautions are being used. Have students participate in a Glo-Germ activity. Discuss the spread of disease throughout history and the work of various scientists (e.g., Pasteur, Lister, and Salk). Discuss the economic impact of infectious disease and how the work of scientists has impacted people today. Discuss the work of epidemiologists and the role of math in infection control and reporting. Describe the rates of diseases such as AIDS in the United States and in other countries and methods to prevent the transmission of these diseases. <sup>E1, E2, E3, E4, E5, E6</sup>
- Discuss the differences between medical and surgical asepsis. Discuss common occupational hazards and regulations set forth by OSHA and other agencies. Define standard precaution, and emphasize that students will be evaluated for adhering to those rules throughout the course. Divide students into groups based on their learning styles, and have them use the Internet and other resources to determine precautions for specific infectious diseases and present their findings by transcribing an interview with a health-care professional, teaching a lesson, or having a panel discussion. Have the students self-evaluate their own work and the work of the groups and peer-evaluate their classmates' work. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Have each student use the Internet, textbooks, and periodicals to conduct research on isolation procedures and disposal methods by compiling a training guide, giving a speech, or making a videotape. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Demonstrate and have students practice cleaning, disinfecting, and sterilizing processes; doing the hand washing technique; using personal protective equipment as appropriate to the environment; and donning and removing clean gloves. Have students work as a group to prepare a lesson and present it using a multimedia program to students in elementary or middle



school and add it to the electronic portfolio. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### **Suggested Assessment Strategies**

- Monitor each student for adherence to universal precaution rules and sequences (proper hand washing, use of protective equipment, and other safety measures) throughout the course.
- Evaluate student projects on precautions for specific infectious diseases for content, clarity, presentation, and group participation.
- Evaluate isolation procedures and the disposal methods project for content, grammar, and organization.
- Evaluate hand washing using a checklist.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

### ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation

### National Industry Standards

- HSF7 Health-care workers will understand the existing and potential hazards to clients, co-workers, and self. They will prevent injury or illness through safe work practices and follow health and safety policies and procedures.

### National Educational Technology Standards

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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*All hands on deck* [Video]. Retrieved November 29, 2007, from <http://www.brevis.com>

Janse, A. (2005). *The germ freak's guide to outwitting colds and flu*. Deerfield Beach, FL: Health Communications.

Simmers, L. (2004). *Introduction to health science technology*. Albany, NY: Delmar.

Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# Hand Washing Proficiency Checklist

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**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

- \_\_\_\_ 1. The student used hot water.
- \_\_\_\_ 2. The student moistened his or her hands with water and then applied soap.
- \_\_\_\_ 3. The student washed closely around the fingernails.
- \_\_\_\_ 4. The student rubbed his or her hands together for at least 20 seconds.
- \_\_\_\_ 5. The student rinsed his or her hands thoroughly.
- \_\_\_\_ 6. The student dried his or her hands properly.

# Presentation Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 points	Accomplished 3 points	Developing 2 points	Beginning 1 point	Score
Content	Clear, appropriate, and correct	Mostly clear, appropriate, and correct	Somewhat confusing, incorrect, or flawed	Confusing, incorrect, or flawed	
Clarity	Logical, interesting sequence	Logical sequence	Unclear sequence	No sequence	
Presentation	Clear voice and precise pronunciation	Clear voice and mostly correct pronunciation	Low voice and incorrect pronunciation	Mumbling and incorrect pronunciation	
Visual Aids	Attractive, accurate, and grammatically correct	Adequate, mostly accurate, and few grammatical errors	Poorly planned, somewhat accurate, and some grammatical errors	Weak, inaccurate, and many grammatical errors	
Length	Appropriate length	Slightly too long or short	Moderately too long or short	Extremely too long or short	
Eye Contact	Maintains eye contact, seldom looking at notes	Maintains eye contact most of time but frequently returns to notes	Occasionally uses eye contact but reads most of information	No eye contact because reading information	
				<b>TOTAL</b>	

Comments:

## Unit 3: Medical, Legal, and Ethical Responsibility

**Competency 1:** Demonstrate behavior that maintains the patient's rights according to the Patients' Bill of Rights. (DOK 2) <sup>HSF5, HSF6</sup>

### Suggested Objectives

- a. Value the client's independence and determination. (DOK 2)
- b. Provide patients assistance in participating in group activities. (DOK 2)
- c. Confirm patient's identity. (DOK 1)
- d. Maintain care and security of patient's personal possessions. (DOK 1)
- e. Provide care that ensures the patient is free from abuse, mistreatment, and neglect; report any instances of such treatment to appropriate personnel. (DOK 2)
- f. Discuss the use of restraints in accordance with current professional standards. (DOK 2)

### Suggested Teaching Strategies

- As a hook, show clips from the video *The Doctor* or another video in which a health-care provider who acts inappropriately in practice faces a disease and sees health care from the viewpoint of a patient. Pre-assess students' knowledge by showing them an admission packet from a hospital and discussing what they know about the rights of patients. Have students debate if health-care providers who have HIV/AIDS should be required to tell their patients. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3</sup>
- Discuss appropriate behaviors including independence and autonomy, assisting patients to participate in group activities, and personal possessions. Have a social worker discuss abuse, mistreatment, and neglect. Show a video clip from *House Season 1* (episode *DNR*) or another medical show in which a patient requests a DNR or other advanced directive but a health-care provider ignores the request. Lead students in a discussion of the clip, and have students work together to develop a role-play in which a patient was treated inappropriately and present it to the class. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2</sup>
- Discuss the appropriate use of restraints. Use zip ties to attach students to desks (with their permission), and have them discuss their feelings when restrained and write a reflective essay using word processing software. <sup>E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T4, T6</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Use a rubric to evaluate role-play for appropriateness.
- Use a rubric to assess reflection.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Assess the legal responsibilities, limitations, and implications of health-care workers' actions within the health-care delivery setting. (DOK 2) <sup>HSF5</sup>

### Suggested Objectives

- a. Differentiate legal responsibilities, limitations, and implications of actions; use problem-solving techniques when confronted with legal dilemmas or issues. (DOK 2)
- b. Compare and contrast behaviors and practices that could result in malpractice, liability, or negligence. (DOK 2)
- c. Defend policies related to documentation and record keeping. (DOK 2)
- d. Explain reasons for practice within licensure, certification, registration, and legislated scope of practice. (DOK 2)
- e. Evaluate the role of HIPAA, the Health Insurance Portability and Accountability Act. (DOK 2)

### Suggested Teaching Strategies

- Hook students by having them talk to a case manager/attorney about common torts and how to decrease them in the medical facility or by sharing news clips and video clips about past torts. Lead students to debate and role-play legal cases/torts. The student's role will be that of a hospital or medical professional, lawyer, or the patient; other students will act as jurors for the case while the instructor acts as the judge. Each student must identify the tort and state the tort's effect on the patient's rights or privacy. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3</sup>
- Have students identify ways to increase patient privacy and maintain patient rights and write a report or prepare a Podcast explaining these methods. Monitor students to ensure they maintain professionalism and follow legal policy during clinical tours/rotations. <sup>E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Assess the students as they identify the tort, give evidence for or against the case, and vote for or against the case based on evidence in the form of patient's rights or the need for privacy. Students will read the court case aloud, explain the case to the jury, identify the tort, and state one patient's right or patient's privacy that may have been harmed in the civil case.
- Use a rubric to evaluate the report or Podcast for content and appearance.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 3:** Analyze accepted ethical practices within the health-care environment. (DOK 2)<sup>HSF6</sup>

### Suggested Objectives

- a. Differentiate between ethical and legal issues impacting health in such areas as confidentiality and bioethics. (DOK 2)
- b. Plan methods to show professionalism, fairness, and respect when interacting with others. (DOK 2)
- c. Analyze the impact of cultural, social, and ethnic diversity. (DOK 2)
- d. Explain appropriate response to patient behavior. (DOK 2)
- e. Discuss careers in the ethics field. (DOK 1)

### Suggested Teaching Strategies

- As a hook, show students a video clip about cloning from United Streaming, such as *Gattica*, and have them debate the issue. Have students participate in an ethical issue debate or role-play based on current events or a television program. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5</sup>



- Discuss the difference between ethical and legal issues impacting health. Have students work cooperatively to research and then compare and contrast issues related to death and dying in various countries and develop a display, using appropriate software, showing similarities and differences. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Have students read *Frankenstein* and then debate whether genetic manipulation should be able to be used to make perfect humans or to clone humans. Use the HOSA guidelines for a debate. Also, discuss Hitler’s trying to create the perfect human race. Show *QBVII* or another video about doctors’ roles in the Holocaust. Discuss the elimination of genes such as those related to cystic fibrosis, alcoholism, and so forth. Have students make a Frankenstein model out of various materials and display it in the class as a “mascot” during the year. <sup>E1, E2, E3, E4, E5, E6, R1, R2, R3, R4, R5, CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Have students plan methods for showing professionalism, fairness, and respect and present them to the class. Have students role-play situations in which a patient acts inappropriately and the health-care provider demonstrates the appropriate response. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Have each student research a career in the ethics field and prepare a written report or Podcast. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS2, CLS4, T1, T2, T3, T4, T5, T6</sup>
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate display for content and appearance.
- Use a rubric to assess the report or Podcast.
- Assess students’ knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

### ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- R1 Main Ideas and Author’s Approach
- R2 Supporting Details
- R3 Sequential, Comparative, and Cause–Effect Relationships
- R5 Meaning of Words
- R6 Generalizations and Conclusions
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

### National Industry Standards

- HSF5 Health-care workers will understand the legal responsibilities, limitations, and implications of their actions within the health-care delivery setting.
- HSF6 Health-care workers will understand accepted ethical practices with respect to cultural, social, and ethnic differences within the health-care environment. They will perform quality health care-delivery.

### National Educational Technology Standards

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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*Health law* (5th ed.). (2005). New York, NY: Aspen.

HIPAA. (n.d.). Retrieved November 26, 2007, from <http://www.hipaa.org>

Simmers, L. (2004). *Introduction to health science technology*. Albany, NY: Delmar.

Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# Role-Play or Skit Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Good 3 Points	Average 2 Points	Needs Improvement 1 Point	Score
Accuracy	All information was accurate.	Almost all information was accurate.	Most information was accurate.	Very little information was accurate.	
Role	Excellent character development; student contributed in a significant manner.	Good character development; student contributed in a cooperative manner.	Fair character development; student may have contributed.	Little or no character development; student did not contribute much at all.	
Knowledge Gained	Can clearly explain several ways in which his or her character "saw" things differently than other characters and can explain why	Can clearly explain several ways in which his or her character "saw" things differently than other characters	Can clearly explain one way in which his or her character "saw" things differently than other characters	Cannot explain any way in which his or her character "saw" things differently than other characters	
Props	Used several props and showed considerable creativity	Used one or two appropriate props that made the presentation better	Used one or two props that made the presentation better	Used no props to make the presentation better	
Required Elements	Included more information than required	Included all required information	Included most required information	Included less information than required	
<b>TOTAL</b>					

Comments:

# What makes a good podcast?

When you listen to a podcast, or when you are making your own, think about these qualities of a well-done podcast. (N/A means Not Applicable--the question can't be answered or it does not pertain to the site you are viewing.)

Your name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of podcast: \_\_\_\_\_

Feed URL (or URL): \_\_\_\_\_

Creator of podcast: \_\_\_\_\_



1. Did the podcast include content that was useful / relevant for your purpose?	YES	NO	N/A
2. Were the technical qualities (audio, slides, etc.) acceptable in the production?	YES	NO	N/A
3. Was a written transcript of the podcast available?	YES	NO	N/A
4. Was the podcast linked from a site which included subject tags?	YES	NO	N/A
5. Was the podcast linked from a site which included links to other resources?	YES	NO	N/A
6. Did the podcast adhere to the copyright guidelines in its use of music, pictures, etc.?	YES	NO	N/A
7. Was the length of the podcast appropriate for its content? (20 min. or less)?	YES	NO	N/A
8. Was the podcast part of a regularly scheduled series?	YES	NO	N/A
9. Did the subjects in the podcast have "personality" to keep you interested??	YES	NO	N/A
10. Did the podcast flow smoothly (introduction, content, summary)?	YES	NO	N/A
11. Was it obvious how to add the podcast feed to your aggregator? (RSS)	YES	NO	N/A
12. If the item was an enhanced podcast, did the use of slides enhance the content?	YES	NO	N/A
13. If the item was an enhanced podcast, was it available in various file formats to allow viewing on various hardware devices?	YES	NO	N/A

In your own words, describe the podcast you listened to and its attributes.


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# Written Report Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
Content	Clear thesis and focus that remain apparent	Thesis and focus that remain apparent	Addresses subject matter with minimal support	Does not focus on topic	
Grammar	Correct and effective use of grammar and mechanics	Occasional errors in use of grammar and mechanics	Problems in use of grammar and mechanics	Repeated errors in use of grammar and mechanics	
Organization	Ideas flow smoothly and logically with clarity and coherence.	Logical order and appropriate sequencing of ideas with adequate transition	Some evidence of an organizational plan or strategy	Lacks organization	
<b>TOTAL</b>					

Comments:

## Unit 4: Introduction to Medical Terminology

*Note: Medical Terminology will be integrated throughout the Health Sciences I and II programs.*

**Competency 1:** Recognize the components of medical terminology. (DOK 1) <sup>HSF1, HSF2, AP2</sup>

### Suggested Objectives

- Define and divide medical terms into root words, prefixes, and suffixes. (DOK 1)
- Spell designated medical terms correctly. (DOK 1)
- Interpret common medical abbreviations and symbols including meanings and uses. (DOK 1)

### Suggested Teaching Strategies

- Hook students by asking them what types of terminology (e.g., text messaging terms, sports terms, video game terms, and others) they use each day. Lead them in a discussion of the importance of using the correct terminology in various situations. Pre-assess students' knowledge by having them try to define common medical terms. Discuss how medical word parts are combined to form medical terms, the definitions of commonly used medical terms, and some reference books commonly used among health professionals. Show the Dean Vaughn series. Have students discuss how medical terminology can damage the provider/patient relationship. Have students work in groups to create a podcast or Photo Story of medical terms with a jingle, rap, or other product such as photos that remind students of medical terms. <sup>E1, E2, E3, E4, E5, E6, R1, R5, S1, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Provide each student with a list of terms used in the field; have each student write the definitions of the terms on strips of paper using textbooks or the Internet. Divide students into two teams. Read the definition of a term from the strips of paper prepared by students, and have teams compete to identify the correct term. The first team to get the correct answer wins the point and so on until the game is finished. Alternately, students may be given a term and asked to provide the definition for further mastery. <sup>E1, E2, E3, E4, E5, E6, S1, CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Divide students into groups, and have them use the Internet or textbooks to research the development of the field, origination of terms, and the terms used in different countries throughout the world. Have students present their findings by developing a dictionary, writing and conducting a mock training session for new employees, or making a videotape or tape recording. <sup>E1, E2, E3, E4, E5, E6, R1, R5, S1, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### Suggested Assessment Strategies

- Evaluate each student's definitions of terms for accuracy.
- Monitor class activity to ensure that all students participate.
- Evaluate the podcast or Photo Story for content and appearance.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Use medical terminology in order to interpret, transcribe, and communicate information, data, and observations. (DOK 2) <sup>HSF1, HSF2, AP2</sup>



## Suggested Objectives

- a. Demonstrate the use of medical terms and abbreviations in reading, speaking, interpreting, and writing medical records. (DOK 2)
- b. Demonstrate the use of medical references. (DOK 2)

## Suggested Teaching Strategies

- Have students read a medical mystery or other type of medical book and create a poster using word processing software for text and visuals about the book that includes at least 10 medical terms. E1, E2, E3, E4, E5, E6, R1, R2, R3, R5, R6, S1, CLS2, CLS4, T1, T2, T3, T4, T5, T6
- Give students information written using medical terminology, and have students look up the terms in a medical reference and then rewrite the information using common language that would be appropriate for nonmedical personnel. Each student will assume the role of a health-care worker who is working at a Good Samaritan Clinic in an underprivileged neighborhood and is in charge of providing teaching to patients that will include disease information, as well as discharge and care instructions to patients in the clinic. Students must be able to adjust vocabulary to discuss the patient's condition with the physician and health-care team and to discuss care and discharge instructions with the patient while ensuring that the patient understands. Have students prepare a typed handout to give to the patient that explains his or her disease and the treatment plans and present the handout to the instructor or another student who will play the part of the patient. E1, E2, E3, E4, E5, E6, S1, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. E1, E2, E3, E4, E5, E6, S1, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

## Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate the poster for content and appearance using a rubric.
- Evaluate the handout to ensure that it includes a definition of the disease, other terms to which the disease might be referred, any diagnostic treatments or laboratory work required, and medications (include both generic and trade names) and instructions.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP2 Describe the basic organization of the body using the appropriate anatomical concepts.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- S1 Interpretation of Data
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF2 Health-care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.

## National Educational Technology Standards

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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Ehrlich, A., & Schroder, C. L. (2004). *Introduction to medical terminology*. Albany, NY: Delmar.

Simmers, L. (2004). *Introduction to health science technology*. Albany, NY: Delmar.

Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

Vaughn, D. (2004). *Medical terminology* (2nd ed.). DCM Instructional Systems.

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

## Unit 5: Organization, Covering, Support, Movement, and Protection

**Competency 1:** Identify the components of the body, and connect them with the interdependence of the body systems. (DOK 2) <sup>HSF1 AP2, AP3, AP4, AP5</sup>

### Suggested Objectives

- Describe the basic structures and functions of cells, tissues, organs, and systems as they relate to homeostasis. (DOK 2)
- Compare relationships among cells, tissues, organs, and systems. (DOK 2)
- Explain body planes, directional terms, quadrants, and cavities. (DOK 2)
- Analyze the interdependence of the body systems as they relate to wellness, disease, disorders, therapies, and care rehabilitation and how organs compensate for others during times of dysfunction. (DOK 2)

### Suggested Teaching Strategies

- Hook students by working with a culinary class to make cell pizza, pies, or cakes that represent the cellular structure and components. Or, have students view a cell model and then make their own cell models, participating in a class integration activity with a biology class. Show students slides displaying examples of various types of tissues. Pre-assess students' knowledge by asking them to discuss how knowledge of the cells, tissues, organs, and systems benefits the pursuit of a medical career. <sup>E1, E2, E3, E4, E5, E6, S1</sup>
- Discuss body planes, directional terms, quadrants, and cavities. Have students use Play Dough to make a person or animal and use a plastic knife to show the body planes, directions, quadrants, and cavities. Or, show dolls that have been cut or marked with Wiki sticks to show the planes, quadrants, and cavities. Have students draw and label a full size diagram of the body with planes and directional terms, quadrants, and cavities, as well as major organs. <sup>S1</sup>
- Discuss the basic structures, functions, and relationships of cells, tissues, organs, and systems as they relate to homeostasis. Have students prepare a mini-lesson on the normal functions of the human body; this should be a verbal presentation using PowerPoint and handouts and worksheets to accompany the presentation. The report must be no less than 10 minutes in length, include credible sources that are listed, and be at least one informative handout and at least one worksheet that students can complete on their own. <sup>E1, E2, E3, E4, E5, E6, S1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Guide students to complete free online courses related to biology, including cell concepts, developed by Massachusetts Institute of Technology (MIT) located at <http://ocw.mit.edu/OcwWeb/hs/intro-courses/introcourses/index.htm>. <sup>S1, T1, T2, T3, T4, T5, T6</sup>
- Have students develop a poster or presentation covering all systems. Have them play a game such as Family Feud about the systems and components. <sup>E1, E2, E3, E4, E5, E6, S1</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate mini-lessons for content and appearance.
- Use a rubric to assess poster or presentation.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Describe and apply knowledge related to the human integumentary system. (DOK 2) <sup>HSF1,</sup>

### Suggested Objectives

- Interpret the basic structures and functions of the integumentary system. (DOK 1)
- Perform related patient care procedures including bed-making and positioning. (DOK 2)
- Demonstrate knowledge of medical terminology related to the anatomy of the integumentary system. (DOK 1)

### Suggested Teaching Strategies

- Hook students by allowing them to make food with layers (e.g., layered dips and cakes) to represent skin layers. You may also direct students to view Web sites with virtual body tours such as [www.visiblebody.com](http://www.visiblebody.com) or autopsy videos for all systems. Discuss the system; have students look at models. Have students draw and/or color diagrams of the system or work in teams to use Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students create a blog or Wiki about the system on Blackboard. E1, E2, E3, E4, E5, E6, R1,R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate products for content and appearance.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 3:** Describe and apply knowledge related to the human muscular and skeletal systems. (DOK 2) HSF1, HSF10, AP5

### Suggested Objectives

- Interpret the basic structures and functions of the muscular system and types of muscle movement. (DOK 1)
- Interpret the basic structures and functions of the skeletal system. (DOK 1)
- Apply the principles of safety and body mechanics for positioning, transferring, turning, ambulating, and transporting patients in order to perform activities efficiently without injury to the patient or self; use appropriate equipment (e.g., stretcher, wheelchair, and pneumatic lift) safely. (DOK 2)
- Demonstrate knowledge of medical terminology related to the anatomy of the skeletal system. (DOK 1)

### Suggested Teaching Strategies

- Take students to a gym, and have them lift weights and identify muscles affected. Or, have an athletic trainer or physical therapist illustrate various muscle movements. Have students prepare a commercial for weightlifting and/or exercise equipment and discuss the muscles

being worked. Discuss the system; have students look at models and dissect organs. Have students draw and/or color diagrams of the system or work in teams to use Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students create a blog or Wiki about the system on Blackboard. <sup>E1, E2, E3, E4, E5, E6, R1, R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

- Show students pictures of body builders showing various muscles. Have students place duct tape over their major muscles of the body, and then ask them to move muscles that adduct, abduct, and so forth on certain parts of the body. Or, have students make T-shirts with the muscles outlined. Use meat such as beef or chicken to illustrate muscle fibers and connective tissue. <sup>S1, S2</sup>
- Use a disarticulated skeleton, and place bones on the students' desks each day. Have students identify the bones and their locations. Have students make clay models of bones and form a skeleton. Have students then add muscles of clay to the skeleton. To show students the effects of calcium on bones, add chicken bones to vinegar, and watch the leaching of calcium over time, forming "rubber" bones. <sup>S1, S2</sup>
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Include videos in electronic portfolios. <sup>CLS1, CLS2, CLS3, CLS4, CLS5</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate dissection using a rubric.
- Evaluate products for content and appearance.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment.

**Competency 4:** Describe and apply knowledge related to the human immune system. (DOK 2) <sup>HSF1, AP5</sup>

### Suggested Objectives

- a. Interpret the basic structures and functions of the immune system. (DOK 1)
- b. Identify methods to control the spread of pathogenic microorganisms. (DOK 2)
- c. Contrast various types of immunities. (DOK 2)
- d. Demonstrate knowledge of medical terminology related to the anatomy of the immune system. (DOK 1)

### Suggested Teaching Strategies

- Discuss the system; have students look at models. Have students draw and/or color diagrams of the system or work in teams using Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students create a blog or Wiki about the system on Blackboard. <sup>E1, E2, E3, E4, E5, E6, R1, R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Have students read the *Hot Zone* or watch a video such as *Ebola: The Plague Fighters* (Nova), *Osmosis Jones*, or *Outbreak* and discuss the spread of disease. Show *Confessions of a Germ* (Discovery Channel productions) or other videos about patients who have suffered from various diseases, and discuss methods to control the spread of the microorganisms with other students. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5</sup>

- Have students compare and contrast the types of immunity active with exposures to various elements (poison ivy, vaccines, and HIV) and work in teams to develop a graphic organizer. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate products for content and appearance.
- Assess appropriateness of graphic organizer.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 5:** Connect knowledge of organization, covering, support, movement, and protection systems to the impact of diseases and disorders. (DOK 2) <sup>HSF1, HSF9, AP5</sup>

### Suggested Objectives

- Analyze selected diseases/disorders including respective classification(s), causes, diagnoses, therapies, and care/rehabilitation such as the following: (DOK 2)
  - *Integumentary:* skin cancer, melanoma, athlete's foot, dermatitis, eczema, impetigo, ring worm, psoriasis, warts, acne vulgaris, and burns
  - *Skeletal:* arthritis, bursitis, dislocation, osteomyelitis, osteoporosis, ruptured disc, abnormal spinal curvatures, and fractures
  - *Muscular:* muscular dystrophy, strain, sprain, fibromyalgia, myasthenia gravis, and muscle spasm
  - *Immune:* tonsillitis, lymphangitis, Hodgkin's disease, adenitis, HIV/AIDS, and splenomegaly
- Assess body system changes in light of diseases, disorders, and wellness. (DOK 2)

### Suggested Teaching Strategies

- Hook students by having them look at their skin for signs of skin cancer using inexpensive magnifying glasses, and then look at the skin of family members to assess for signs of skin cancer. Discuss related diseases and disorders; take students to tour facilities in which patients are treated, invite guest speakers to speak to the class about disease processes, and/or show pictures and videos of people with diseases/disorders. Have students work in groups to analyze case studies (using a Web site such as <http://www.discovermagazine.com> for case studies); research classifications, causes, diagnoses, therapies, and care/rehabilitation; and prepare and present a solution to the case study to the class using presentation software. Have students explain body system changes in light of the disease/disorder. Place pictures related to disorders on mannequins, and have students identify quadrants, cavities, and other directional terms. <sup>E1, E2, E3, E4, E5, E6, R1,R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate field trip participation using a rubric.
- Use a rubric to assess presentation.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP2 Describe the basic organization of the body using the appropriate anatomical concepts.
- AP3 Discuss the biochemical composition of the human body.
- AP4 Explore the relationship of the cell to the more complex levels of organization within the body.
- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate major disorders/diseases associated with each.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- R1 Main Ideas and Author’s Approach
- R2 Supporting Details
- R3 Sequential, Comparative, and Cause–Effect Relationships
- R5 Meaning of Words
- R6 Generalizations and Conclusions
- S1 Interpretation of Data
- S2 Scientific Investigation
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.
- HSF10 Health-care workers will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.



### **National Educational Technology Standards**

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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Clover, J. (2007). *Sports medicine essentials* (2nd ed.). Albany, NY: Delmar.

Ehrlich, A., & Schroder, C. L. (2004). *Introduction to medical terminology*. Albany, NY: Delmar.

Simmers, L. (2004). *Introduction to health science technology*. Albany, NY: Delmar.

Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

## Unit 6: Vital Organs, Intake, and Elimination

**Competency 1:** Describe and apply knowledge related to the human respiratory system. (DOK 2)<sup>HSF1,</sup>  
HSF10, AP5

### Suggested Objectives

- Interpret the basic structures and functions. (DOK 1)
- Auscultate lung sounds. (DOK 2)
- Demonstrate knowledge of medical terminology related to the anatomy of the human respiratory system. (DOK 1)

### Suggested Teaching Strategies

- Hook students by having them listen to normal and abnormal sounds using a video or Web site (<http://www.stethographics.com/index.html>). Describe the appropriate placement of the stethoscope for listening to lung sounds, and have students listen to classmates' lung sounds. Pre-assess student knowledge by having them match basic structures to their functions. Discuss the system; have students look at models and dissect organs. Have students draw and/or color diagrams of the system or work in teams to use Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students build a model of the lungs (use balloons, clear plastic cups, soda bottles, straws, etc.). Have students create a blog or Wiki about the system on Blackboard. <sup>E1, E2, E3, E4, E5, E6, R1,R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Add videos to electronic portfolio. <sup>CLS1, CLS2, CLS3, CLS4, CLS5</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate dissection using a rubric.
- Evaluate products for content and appearance.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment.

**Competency 2:** Describe and apply knowledge related to the human circulatory system. (DOK 2)<sup>HSF1, HSF10,</sup>  
AP5

### Suggested Objectives

- Interpret the basic structures and functions. (DOK 1)
- Perform related patient care procedures including taking vital signs, height, and weight and auscultating heart sounds. (DOK 2)
- Demonstrate knowledge of medical terminology related to the anatomy of the human circulatory system. (DOK 1)

### Suggested Teaching Strategies

- Have students listen to normal and abnormal heart sounds using a video or Web site (<http://www.stethographics.com/index.html>). Describe the appropriate placement of the stethoscope for listening to heart sounds, and have students listen to classmates' heart sounds. Discuss the system; have students look at models and dissect organs. Have students draw and/or color diagrams of the system or work in teams to use Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students label parts of the heart on a model or specimen and draw a large heart on paper and walk through the blood flow through the heart. Have students use red and blue balloons to indicate if blood is oxygenated at various points in the body. Have students create a blog or Wiki about the system on Blackboard. E1, E2, E3, E4, E5, E6, R1,R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Include in electronic portfolios. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate dissection using a rubric.
- Evaluate products for content and appearance.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment.

**Competency 3:** Qualify for or obtain American Heart Association (AHA) Healthcare Provider Cardiopulmonary Resuscitation (CPR) certification and First Aid Certification. (DOK 2) HSF1, HSF7, AP5

### Suggested Objectives

- Complete American Heart Association Healthcare Provider objectives. (DOK 2)

### Suggested Teaching Strategies

- Follow AHA guidelines. S1

### Suggested Assessment Strategies

- Observe to ensure that all students participate.
- Monitor student behavior to ensure professionalism.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 4:** Describe and apply knowledge related to the human digestive system. (DOK 2) HSF1, HSF10, AP5

### Suggested Objectives

- Interpret the basic structures and functions. (DOK 1)
- Perform related patient care procedures including assisting a patient with eating and hydration (including a patient with a disability). (DOK 2)
- Auscultate bowel sounds. (DOK 2)

- d. Demonstrate knowledge of medical terminology related to the anatomy of the human digestive system. (DOK 1)

### Suggested Teaching Strategies

- Have students listen to normal and abnormal bowel sounds using a video or Web site. Describe the appropriate placement of the stethoscope for listening to bowel sounds, and have students listen to classmates' bowel sounds. Discuss the system; have students look at models and dissect organs. Have students draw and/or color diagrams of the system or work in teams to use Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students draw a life-size body on paper, fill in the organs, and trace peristalsis. Or, use models to trace movement of food. Assign students roles as parts of the digestive system and someone as the bolus. Have the bolus move along the "system" as the appropriate "organs" squirt fluids. Have students create a blog or Wiki about the system on Blackboard. E1, E2, E3, E4, E5, E6, R1, R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Have students practice feeding other students with simulated impairments (i.e., blindfolded). Video students performing skills, and allow students to critique each other. Include in electronic portfolios. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate dissection using a rubric.
- Evaluate products for content and appearance.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 5:** Describe and apply knowledge related to the human urinary system. (DOK 2) HSF1, HSF10, AP5

### Suggested Objectives

- a. Interpret the basic structures and functions. (DOK 1)
- b. Explain the importance of normal fluid and electrolyte functions and values. (DOK 2)
- c. Perform related patient care procedures including calculating intake and output measurements and converting them to metric equivalents. (DOK 2)
- d. Demonstrate knowledge of medical terminology related to the anatomy of the human urinary system. (DOK 1)

### Suggested Teaching Strategies

- As a hook, place a series of urine cups in the front of the room with water with various colors. Tell students the cups are full of urine. Use a urine color wheel (from a Web site), and have students use the wheel to determine the disorder. Then, tell students that, in the past, diabetes was diagnosed by taste, and place your tongue in the cup. (Of course, at that point, tell the students that it is really water.) Discuss the system; have students look at models and dissect organs. Have students draw and/or color diagrams of the system or work in teams to use Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students create a blog or Wiki about the system on Blackboard. E1, E2,

E3, E4, E5, E6, R1, R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

- Discuss the importance of normal fluid and electrolyte functions and values. Show students a video about poisoning and the effects on the body. Take students to a kidney care facility, and talk about the effects of various disorders on the function of the urinary system. Have students use medical math books to calculate intake and output measurements and convert them to metric equivalents. <sup>E1, E2, E3, E4, E5, E6, S1, M1, M3, M7, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Include in electronic portfolios. <sup>CLS1, CLS2, CLS3, CLS4, CLS5</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate dissection using a rubric.
- Evaluate products for content and appearance.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment.

**Competency 6:** Connect knowledge of vital organs and intake and elimination systems to the impact of diseases and disorders. (DOK 2) <sup>HSF1, HSF9, AP5</sup>

### Suggested Objectives

- a. Analyze selected diseases/disorders including respective classification(s), causes, diagnoses, therapies, and care/rehabilitation such as the following: (DOK 2)
  - *Respiratory:* asthma, emphysema, bronchitis, COPD, epistaxis, influenza, laryngitis, lung cancer, pleurisy, pneumonia, rhinitis, sinusitis, tuberculosis, and upper respiratory infection
  - *Circulatory:* anemia, aneurism, atherosclerosis, arteriosclerosis, congestive heart failure, embolus, hemophilia, hypertension, leukemia, myocardial infarction, phlebitis, and varicose veins
  - *Digestive:* appendicitis, cholecystitis, cirrhosis, constipation, diarrhea, diverticulitis, gastroenteritis, hemorrhoids, hepatitis, hernia, pancreatitis, peritonitis, ulcer, and ulcerative colitis
  - *Urinary:* glomerulonephritis, cystitis, pyelonephritis, renal calculus, renal failure, uremia, urethritis, and incontinence
- b. Assess body system changes in light of diseases, disorders, and wellness. (DOK 2)

### Suggested Teaching Strategies

- Discuss related diseases and disorders, take students to tour facilities in which patients are treated, invite guest speakers to speak to the class about disease processes, and/or show pictures and videos of people with diseases/disorders. Have students work in groups to analyze case studies (using a Web site such as <http://www.discovermagazine.com> for case studies); research classifications, causes, diagnoses, therapies, and care/rehabilitation; and prepare and present a solution to the case study to the class using presentation software. Have students explain body system changes in light of the disease/disorder. Place pictures related to disorders on mannequins, and have students identify quadrants, cavities, and other directional terms. <sup>E1, E2, E3, E4, E5, E6, R1, R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Lead students in a discussion of what they have learned in this unit and where they feel they

need more information. Have each student add to his or her electronic portfolio of activities. <sup>E1,</sup>  
E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### **Suggested Assessment Strategies**

- Monitor class activity to ensure that all students participate.
- Evaluate field trip participation using a rubric.
- Use a rubric to assess presentation.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate the major disorders/diseases associated with each.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- M1 Basic Operations and Applications
- M3 Numbers: Concepts and Properties
- M7 Measurement
- R1 Main Ideas and Author’s Approach
- R2 Supporting Details
- R3 Sequential, Comparative, and Cause–Effect Relationships
- R5 Meaning of Words
- R6 Generalizations and Conclusions
- S1 Interpretation of Data
- S2 Scientific Investigation
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF7 Health-care workers will understand the existing and potential hazards to clients, co-workers, and self. They will prevent injury or illness through safe work practices and follow health and safety policies and procedures.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.



HSF10 Health-care workers will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.

[National Educational Technology Standards](#)

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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Dugan, D. (2008). *Successful nursing assistant care* (2nd ed.). Albuquerque, NM: Harman.

Ehrlich, A., & Schroder, C. L. (2004). *Introduction to medical terminology*. Albany, NY: Delmar.

Simmers, L. (2004). *Introduction to health science technology*. Albany, NY: Delmar.

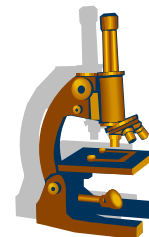
Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# Dissection Assessment Rubric



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Highly Successful 3 Points	Meeting Success 2 Points	Experiencing Difficulty 1 Point	Score
Followed Instructions	Followed all of instructions given	Followed most of instructions given	Followed few of instructions given	
Safety	Followed all lab safety rules	Followed most lab safety rules	Followed few lab safety rules	
Productivity	Completed all dissections	Completed most dissections	Completed few dissections	
Cleanup	Put away all materials and cleaned area thoroughly	Put away most materials and cleaned area	Put away few materials and did not clean area	
<b>TOTAL</b>				

**Comments:**

# Field Trip Participation Checklist

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**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

- \_\_\_\_\_ 1. The student arrived at the designated meeting place on time with all materials and supplies required for the field trip.
- \_\_\_\_\_ 2. The student observed all safety rules and policies while traveling to and participating in the field trip.
- \_\_\_\_\_ 3. The student demonstrated interest in the content of the field trip by paying attention to the exhibits and speakers, asking pertinent questions, and taking notes.
- \_\_\_\_\_ 4. The student exhibited a positive attitude toward the events and activities of the field trip.
- \_\_\_\_\_ 5. The student remained on task throughout the field trip.
- \_\_\_\_\_ 6. The student exhibited cooperative workplace skills with other students throughout the field trip.

# Presentation Assessment Rubric



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

PERIOD: \_\_\_\_\_

	Exemplary 4 points	Accomplished 3 points	Developing 2 points	Beginning 1 point	Score
Content	Clear, appropriate, and correct	Mostly clear, appropriate, and correct	Somewhat confusing, incorrect, or flawed	Confusing, incorrect, or flawed	
Clarity	Logical, interesting sequence	Logical sequence	Unclear sequence	No sequence	
Presentation	Clear voice and precise pronunciation	Clear voice and mostly correct pronunciation	Low voice and incorrect pronunciation	Mumbling and incorrect pronunciation	
Visual Aids	Attractive, accurate, and grammatically correct	Adequate, mostly accurate, and few grammatical errors	Poorly planned, somewhat accurate, and some grammatical errors	Weak, inaccurate, and many grammatical errors	
Length	Appropriate length	Slightly too long or short	Moderately too long or short	Extremely too long or short	
Eye Contact	Maintains eye contact, seldom looking at notes	Maintains eye contact most of time but frequently returns to notes	Occasionally uses eye contact but reads most of information	No eye contact because reading information	
				<b>TOTAL</b>	

**Comments:**

# Group Work Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Highly Successful 3 points	Meeting Success 2 points	Experiencing Difficulty 1 point	Score
Sharing	Shared ideas with others	Occasionally shared ideas with others	Seldom shared ideas with others	
Listening	Always listened to peers	Occasionally listened to peers	Ignored ideas of peers	
Respecting	Interacted with, encouraged, and supported ideas of others	Occasionally encouraged and supported others	Seldom encouraged and supported others	
Participating	Shared task equally with group members	Did most of the task	Did very little of the task	
<b>TOTAL</b>				

Comments:

# Portfolio Assessment Rubric



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

**Comments:**



# Case Study Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Accomplished 3 Points	Needs Improvement 2 Points	Unsatisfactory 1 Point	Score
<b>Comprehension</b>	Shows complete understanding of the issues and grasps implications beyond the immediate issue	Asks for more details to clarify understanding of the issue	Shows partial understanding of the issue but does not ask for clarification	Resists attempts to get clarification	
<b>Strategizing</b>	Develops realistic strategies that provide a satisfactory conclusion	Chooses appropriate strategies that may satisfy	Shows evidence of strategy that may or may not satisfy	Needs assistance to choose a strategy	
<b>Innovation</b>	Devises more than one resolution to the problem	Offers a solution	Offers a solution with a limited point of view	Shows some understanding of the problem	
<b>Communication</b>	Convincingly communicates resolution	Explains solution so others can understand	Conveys an opinion	Unsure of how to explain	
<b>TOTAL</b>					

**Comments:**

## Unit 7: Regulation, Coordination, and Reproduction

**Competency 1:** Describe and apply knowledge related to the human nervous and sensory systems. (DOK 2) <sup>HSF1, HSF10, APS</sup>

### Suggested Objectives

- Interpret the basic structures and functions. (DOK 1)
- Perform related patient care procedures including a basic neurological exam (i.e., reflexes, level of consciousness, orientation, grip strength, and pupil dilation). (DOK 2)
- Discuss and observe vision and hearing testing. (DOK 2)

### Suggested Teaching Strategies

- Hook students by showing videos or discussing case studies of people with various disorders, having them try to rotate the foot one way and the hand the opposite way, or by demonstrating the effects of a concussion using an egg in a jar. Pre-assess students' knowledge by leading them in a discussion of the causes and treatments of the disorders. Discuss the system; have students look at models and dissect organs. Have students draw and/or color diagrams of the system or work in teams to use Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students create a blog or Wiki about the system on Blackboard. <sup>E1, E2, E3, E4, E5, E6, R1, R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Include in electronic portfolios. <sup>CLS1, CLS2, CLS3, CLS4, CLS5</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate dissection using a rubric.
- Evaluate products for content and appearance.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Describe and apply knowledge related to the human reproductive system. (DOK 2) <sup>HSF1, HSF10, APS</sup>

### Suggested Objectives

- Interpret the basic structures and functions. (DOK 1)
- Perform related patient care procedures including breast and testicular exams. (DOK 2)

### Suggested Teaching Strategies

- Discuss the system; have students look at models and dissect organs. Have students draw and/or color diagrams of the system or work in teams using Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students create a blog or Wiki about the system on Blackboard. <sup>E1, E2, E3, E4, E5, E6, R1, R2, R3, R5, R6, S1, S2, W1, W2,</sup>

W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Include in electronic portfolios. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate dissection using a rubric.
- Evaluate products for content and appearance.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 3:** Describe and apply knowledge related to the human endocrine system. (DOK 2) HSF1, HSF10, AP5

### Suggested Objectives

- a. Interpret the basic structures and functions. (DOK 1)
- b. Discuss special considerations for diabetic care such as glucose screening and foot care. (DOK 2)

### Suggested Teaching Strategies

- Discuss the system; have students look at models and dissect organs. Have students draw and/or color diagrams of the system or work in teams using Photo Story, Movie Maker, or Puzzle Maker software to create products related to the system to present to the class. Have students create a blog or Wiki about the system on Blackboard. E1, E2, E3, E4, E5, E6, R1,R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Include in electronic portfolios. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate dissection using a rubric.
- Evaluate products for content and appearance.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment.

**Competency 4:** Connect knowledge of regulation, coordination, and reproduction systems to the impact of diseases and disorders. (DOK 2) HSF1, HSF9, AP5

### Suggested Objectives

- a. Analyze selected diseases/disorders including respective classification(s), causes, diagnoses, therapies, and care/rehabilitation such as the following: (DOK 2)
  - *Nervous:* cerebral palsy, cerebrovascular accident (stroke), encephalitis, epilepsy, hydrocephalus, meningitis, multiple sclerosis, neuralgia, paralysis, Parkinson's disease, and shingles
  - *Reproductive:* epididymitis, orchitis, prostatic hypertrophy, testicular cancer, breast tumor,

cancer of cervix/uterus, endometriosis, ovarian cancer, pelvic inflammatory disease, and premenstrual syndrome

- *Endocrine*: acromegaly, gigantism, diabetes insipidus, dwarfism, goiter, hyperthyroidism, Graves' disease, hypothyroidism, hyperparathyroidism, hypoparathyroidism, Addison's disease, Cushing's syndrome, and diabetes mellitus
- b. Assess body system changes in light of diseases, disorders, and wellness. (DOK 2)

### Suggested Teaching Strategies

- As a hook, have students research different endocrine disorders and relate them to circus side shows (tall man or hairy woman) or television shows (*Little People, Big World*) and present the information with PowerPoint to health-care professionals who will judge the presentations. Discuss related diseases and disorders, take students to tour facilities in which patients are treated, invite guest speakers to speak to the class about disease processes, and/or show pictures and videos of people with diseases/disorders. Have students work in groups to analyze case studies (using a Web site such as <http://www.discovermagazine.com> for case studies); research classifications, causes, diagnoses, therapies, and care/rehabilitation; and prepare and present a solution to the case study to the class using presentation software. Have students explain body system changes in light of the disease/disorder. Place pictures related to disorders on mannequins, and have students identify quadrants, cavities, and other directional terms. <sup>E1,</sup>  
E2, E3, E4, E5, E6, R1, R2, R3, R5, R6, S1, S2, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. <sup>E1,</sup>  
E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate field trip participation using a rubric.
- Use a rubric to assess presentation.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate major disorders/diseases associated with each.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- R1 Main Ideas and Author’s Approach
- R2 Supporting Details
- R3 Sequential, Comparative, and Cause–Effect Relationships
- R5 Meaning of Words
- R6 Generalizations and Conclusions
- S1 Interpretation of Data
- S2 Scientific Investigation
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.
- HSF10 Health-care workers will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.

## National Educational Technology Standards

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making

T5 Digital Citizenship  
T6 Technology Operations and Concepts

# Suggested References

---

Dugan, D. (2008). *Successful nursing assistant care* (2nd ed.). Albuquerque, NM: Harman.

Ehrlich, A., & Schroder, C. L. (2004). *Introduction to medical terminology*. Albany, NY: Delmar.

Simmers, L. (2004). *Introduction to health science technology*. Albany, NY: Delmar.

Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

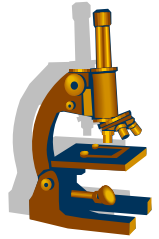
For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# Dissection Assessment Rubric



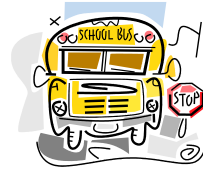
**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Highly Successful 3 Points	Meeting Success 2 Points	Experiencing Difficulty 1 Point	Score
Followed Instructions	Followed all of instructions given	Followed most of instructions given	Followed few of instructions given	
Safety	Followed all lab safety rules	Followed most lab safety rules	Followed few lab safety rules	
Productivity	Completed all dissections	Completed most dissections	Completed few dissections	
Cleanup	Put away all materials and cleaned area thoroughly	Put away most materials and cleaned area	Put away few materials and did not clean area	
<b>TOTAL</b>				

**Comments:**

# Field Trip Participation Checklist

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**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

- \_\_\_\_\_ 1. The student arrived at the designated meeting place on time with all materials and supplies required for the field trip.
- \_\_\_\_\_ 2. The student observed all safety rules and policies while traveling to and participating in the field trip.
- \_\_\_\_\_ 3. The student demonstrated interest in the content of the field trip by paying attention to the exhibits and speakers, asking pertinent questions, and taking notes.
- \_\_\_\_\_ 4. The student exhibited a positive attitude toward the events and activities of the field trip.
- \_\_\_\_\_ 5. The student remained on task throughout the field trip.
- \_\_\_\_\_ 6. The student exhibited cooperative workplace skills with other students throughout the field trip.

# Group Work Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Highly Successful 3 points	Meeting Success 2 points	Experiencing Difficulty 1 point	Score
Sharing	Shared ideas with others	Occasionally shared ideas with others	Seldom shared ideas with others	
Listening	Always listened to peers	Occasionally listened to peers	Ignored ideas of peers	
Respecting	Interacted with, encouraged, and supported ideas of others	Occasionally encouraged and supported others	Seldom encouraged and supported others	
Participating	Shared task equally with group members	Did most of the task	Did very little of the task	
<b>TOTAL</b>				

Comments:

# Portfolio Assessment Rubric



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

**Comments:**

# Case Study Assessment Rubric

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Accomplished 3 Points	Needs Improvement 2 Points	Unsatisfactory 1 Point	Score
<b>Comprehension</b>	Shows complete understanding of the issues and grasps implications beyond the immediate issue	Asks for more details to clarify understanding of the issue	Shows partial understanding of the issue but does not ask for clarification	Resists attempts to get clarification	
<b>Strategizing</b>	Develops realistic strategies that provide a satisfactory conclusion	Chooses appropriate strategies that may satisfy	Shows evidence of strategy that may or may not satisfy	Needs assistance to choose a strategy	
<b>Innovation</b>	Devises more than one resolution to the problem	Offers a solution	Offers a solution with a limited point of view	Shows some understanding of the problem	
<b>Communication</b>	Convincingly communicates resolution	Explains solution so others can understand	Conveys an opinion	Unsure of how to explain	
<b>TOTAL</b>					

Comments:

## Unit 8: Orientation, Safety, Asepsis, and Infection Control

**Competency 1:** Review student and course expectations including safety procedures and policies and school and clinical facility policies. (DOK 1) HSF2, HSF4, HSF11

### Suggested Objectives

- Review skills related to clinical rotation (e.g., bed making, vital signs, hand washing, and body mechanics). (DOK 2)
- Describe standard precautions, basic safety procedures, accident prevention methods, and disaster plans. (DOK 2)
- Discuss a safe and clean environment. (DOK 2)
- Follow state and facility guidelines, including dress requirements for clinical-type experiences. (DOK 1)
- Discuss responsibilities of clinical rotation. (DOK 1)
- Discuss school district policies. (DOK 1)
- Pass a safety test with 100% proficiency (which will be kept on file). (DOK 2)

### Suggested Teaching Strategies

- Hook students by reviewing the electronic portfolios created by students during the first year. Pre-assess their knowledge by asking questions related to materials collected in the portfolio. Review skills and procedures necessary for the Health Sciences program. Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. CLS1, CLS2, CLS3, CLS4, CLS5
- Have students begin an electronic portfolio of activities performed during the unit, and continue to add materials throughout the year. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Use a rubric to assess the portfolio.
- Use a rubric to assess the skill techniques.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Review related body systems and disease implications, and demonstrate concepts and procedures related to infection control. (DOK 2) HSF1, HSF7, HSF9, HSF10, AP1, AP2, AP3, AP4, AP5

## Suggested Objectives

- a. Define terms related to infection control and asepsis as well as common microorganisms. (DOK 1)
- b. Discuss the chain of infection. (DOK 2)
- c. Define general principles, purposes, and types of isolation. (DOK 1)
- d. Demonstrate how to don and remove isolation garments and equipment including sterile gloves. (DOK 1)
- e. Describe basic methods of sterilization and disinfection. (DOK 1)
- f. Discuss concurrent and terminal cleaning of a patient unit. (DOK 2)
- g. Demonstrate a sterile procedure maintaining a sterile field (e.g., catheterization, sterile dressing change, and trach care). (DOK 2)
- h. Describe basic techniques to prepare, wrap, and sterilize instruments. (DOK 1)
- i. Demonstrate a surgical scrub. (DOK 2)
- j. Interpret procedures for dealing with hazardous and infectious materials. (DOK 2)
- k. Discuss methods for medical waste disposal. (DOK 1)
- l. Discuss careers in epidemiology. (DOK 1)

## Suggested Teaching Strategies

- Have students write a musical play about yellow fever using *1793 Fever* or *The American Plague* and other research about Benjamin Rush, Clara Moss, and so forth. Have students act out the play, assuming the roles of mosquitoes, health-care workers, victims, and so forth. E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5
- Take students to the Center for Disease Control or a state health lab or animal lab. Take students to visit a research facility to view current research and then design and perform an experiment related to health. E1, E2, E3, E4, E5, E6, S1, S2, S3, CLS2, CLS4
- Have students work in groups to make a chain of infection from various materials. Have students explain the chain, break the chain, and explain what happens when the chain is broken. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5
- Have students research and make germs that replicate the shape of various microorganisms. Give germs a “business card” explaining characteristics, routes, and so forth using word processing software. Create a “Wanted: Dead Only” poster with a scientific name, a made-up name, the number of people infected or killed annually, and the amount of health-care dollars spent treating infection. E1, E2, E3, E4, E5, E6, CLS2, CLS5, T1, T2, T3, T4, T5, T6
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. (electronic portfolio) CLS1, CLS2, CLS3, CLS4, CLS5

## Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate experiment for appropriateness.
- Use a rubric to assess the “business card.”
- Use a rubric to assess the poster.
- Use a rubric to assess skill techniques.
- Assess students’ knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP1 Utilize critical thinking and scientific problem solving in designing and performing biological research and experimentation.
- AP2 Describe the basic organization of the body using the appropriate anatomical concepts.
- AP3 Discuss the biochemical composition of the human body.
- AP4 Explore the relationship of the cell to the more complex levels of organization within the body.
- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate major disorders/diseases associated with each.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- R1 Main Ideas and Author's Approach
- R5 Meaning of Words
- S1 Interpretation of Data
- S2 Scientific Investigation
- S3 Evaluation of Models, Inferences, and Experimental Results

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF2 Health-care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.
- HSF4 Health-care workers will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.
- HSF7 Health-care workers will understand the existing and potential hazards to clients, co-workers, and self. They will prevent injury or illness through safe work practices and follow health and safety policies and procedures.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.



- HSF10 Health-care workers will understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills, as needed.
- HSF11 Health-care workers will use information technology applications required within all career specialties. They will demonstrate use as appropriate to health-care applications.

#### **National Educational Technology Standards**

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# Portfolio Assessment Rubric



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

**Comments:**

# Germ Business Card Grading Sheet



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

Create a business card for your assigned germ using the following rubric. Be sure to complete the self and peer assessments before turning in your final product. Place scores in the blanks to the right of the criteria. (S=Self, P=Peer, T=Teacher)

		S	P	T
5 pts	Germ named using alliteration (ex. Polly Polio)			
10 pts	Catchy slogan for germ's company (ex. "Invisible but Deadly")			
10 pts	Mode of transmission (ex. Oral-fecal contaminated water)			
10 pts	Five signs or symptoms of infection (ex. High fever)			
10 pts	Complete Web address of germ information			
10 pts	Creative design			
10 pts	Neatness, grammar, and spelling			
10 pts	Creative drawing of germ			
25 pts	Introduction of germ			
<b>TOTAL</b>				

# Poster Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
<b>Required Content</b>	The poster includes all required content elements as well as additional information.	All required content elements are included on the poster.	All but one of the required content elements are included on the poster.	Several required content elements were missing.	
<b>Labels</b>	All items of importance on the poster are clearly labeled with labels that are easy to read.	Almost all items of importance on the poster are clearly labeled with labels that are easy to read.	Many items of importance on the poster are clearly labeled with labels that are easy to read.	Labels are too small to read, or no important items were labeled.	
<b>Attractiveness</b>	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout, and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed.	
<b>Grammar</b>	There are no grammatical or mechanical mistakes on the poster.	There are one to two grammatical or mechanical mistakes on the poster.	There are three to four grammatical or mechanical mistakes on the poster.	There are more than four grammatical or mechanical mistakes on the poster.	
				<b>TOTAL</b>	

Comments:

# Group Work Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Highly Successful 3 points	Meeting Success 2 points	Experiencing Difficulty 1 point	Score
Sharing	Shared ideas with others	Occasionally shared ideas with others	Seldom shared ideas with others	
Listening	Always listened to peers	Occasionally listened to peers	Ignored ideas of peers	
Respecting	Interacted with, encouraged, and supported ideas of others	Occasionally encouraged and supported others	Seldom encouraged and supported others	
Participating	Shared task equally with group members	Did most of the task	Did very little of the task	
<b>TOTAL</b>				

Comments:

# Wanted: Dead Only Poster Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

Overview of Activity: Create a “Wanted: Dead Only” poster with your germ’s name, picture, charges against him or her, and the methods of execution by using Microsoft publisher (or by drawing and printing the information). The information must be accurate and based on your WHO or CDC research. Complete a self and peer assessment of your project before turning it in. (S=Self, P=Peer, T=Teacher)

		S	P	T
10 pts	Germ’s scientific name and aliases (AKA) using alliteration			
10 pts	Germ’s picture			
10 pts	Charges brought against the germ (ex. kills 30,000 innocent people in the U.S. each year)			
10 pts	Methods of execution when caught (ex. boiling, chemicals such as chlorine bleach, vaccines, antibiotics, or anti-virals)			
10 pts	Bounty for eradication of the germ (health-care dollars saved by preventing the infection, if known)			
15 pts	Creativity of writing			
10 pts	Grammar, spelling, and neatness			
10 pts	Complete reference given using MLA or APA format (on back of the poster)			
5 pts	Name of group offering the bounty (creative name for your group; ex. “Germ-Busters)			
10 pts	Beauty and creativity of poster (style, originality, color, design, and neatness)			
		<b>TOTAL</b>		



# Role-Play or Skit Assessment Rubric



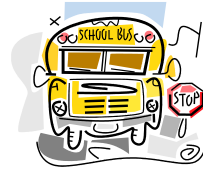
NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Good 3 Points	Average 2 Points	Needs Improvement 1 Point	Score
Accuracy	All information was accurate.	Almost all information was accurate.	Most information was accurate.	Very little information was accurate.	
Role	Excellent character development; student contributed in a significant manner.	Good character development; student contributed in a cooperative manner.	Fair character development; student may have contributed.	Little or no character development; student did not contribute much at all.	
Knowledge Gained	Can clearly explain several ways in which his or her character "saw" things differently than other characters and can explain why	Can clearly explain several ways in which his or her character "saw" things differently than other characters	Can clearly explain one way in which his or her character "saw" things differently than other characters	Cannot explain any way in which his or her character "saw" things differently than other characters	
Props	Used several props and showed considerable creativity	Used one or two appropriate props that made the presentation better	Used one or two props that made the presentation better	Used no props to make the presentation better	
Required Elements	Included more information than required	Included all required information	Included most required information	Included less information than required	
<b>TOTAL</b>					

Comments:

# Field Trip Participation Checklist

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**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

- \_\_\_\_\_ 1. The student arrived at the designated meeting place on time with all materials and supplies required for the field trip.
- \_\_\_\_\_ 2. The student observed all safety rules and policies while traveling to and participating in the field trip.
- \_\_\_\_\_ 3. The student demonstrated interest in the content of the field trip by paying attention to the exhibits and speakers, asking pertinent questions, and taking notes.
- \_\_\_\_\_ 4. The student exhibited a positive attitude toward the events and activities of the field trip.
- \_\_\_\_\_ 5. The student remained on task throughout the field trip.
- \_\_\_\_\_ 6. The student exhibited cooperative workplace skills with other students throughout the field trip.

## Unit 9: Growth and Development

**Competency 1:** Compare and contrast the stages of growth and development across the lifespan. (DOK 2) <sup>HSF1, AP5</sup>

### Suggested Objectives

- a. Compare and contrast physical, mental, emotional, and social development characteristics of each of Erikson's stages of development from infancy through late adulthood. (DOK 2)
- b. Discuss Maslow's Hierarchy of Human Needs. (DOK 2)

### Suggested Teaching Strategies

- Discuss Erikson's stages of development and Maslow's Hierarchy of Human Needs. Hook and pre-assess students by having them indicate people they know who are in each stage of development and connect characteristics to those people. Have students form a collage or box with pictures of people (or themselves) at various life stages, indicating characteristics of development for each and also what they would like to be in the future. <sup>E1, E2, E3, E4, E5, E6, CLS2, CLS5</sup>
- Have students role-play a particular life stage, interview people of different ages, or visit a day care to observe and assess development characteristics. Assign students a life stage, and have them role-play the appropriate characteristics of the life stage using various props such as a pebble in the shoe to simulate bone spurs, toothpaste smeared on safety glasses, fingers taped together to simulate arthritis, and so forth. Have students complete the Denver Developmental or SAMS Screening tests. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Have students list items that describe them, impact their lives, or they hate or love (are passionate about); draw silhouettes of students' faces, and then have them draw an artistic representation of the items on the head using bright colors. <sup>E1, E2, E3, E4, E5, E6</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate the collage or box for content and appearance.
- Use a rubric to assess appropriateness of role-play.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Apply concepts related to death and dying. (DOK 2) <sup>HSF1, HSF10, AP5</sup>

### Suggested Objectives

- a. Describe the five stages of grief, hospice care, advance directives, and organ donation. (DOK 1)
- b. Discuss care when death is imminent, and perform post-mortem care. (DOK 2)
- c. Discuss procedures to prepare the human body for a funeral. (DOK 2)
- d. Differentiate funeral planning, including how cultural beliefs impact funeral services. (DOK 2)

### Suggested Teaching Strategies

- Ask students to discuss the following: <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5</sup>
  - How is the understanding of development or lack of development through the life stages used to better meet the needs of clients in health care?

- How do the ethical issues surrounding the right to die affect individuals and their families?
- How do unmet needs of clients make it harder for health-care professionals to deliver care?
- How are direct methods of satisfying human needs used?
- How are indirect methods of satisfying human needs used?
- How do different individuals move through the stages of death and dying?
- Tell students a story about a hospice client who died at a young age. Walk students through the emotional and physical journey of both the child and parents. Also walk them through the challenges faced as the nurse for the child over a 5-year period leading to his death. Present information in client case models. Use real client situations and problems. Lead students in class discussions related to client situations, and give examples of solutions for client situations. Students will meet in small groups to discuss, receive feedback, and revise projects prior to grading. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5
- Have students participate in an activity as a hospice nursing supervisor/team leader to take an assigned list of items and determine what stage of grief the client is in and in what order he or she has traveled through the stages. Determine ways to assist client/family to reach the remainder of stages. Have students work in groups to write (using word processing software) an updated plan of care for this client using knowledge of the client's situation; students should determine which member or members of the hospice team should be primarily used to assist the client in reaching the stage of acceptance and how it should be accomplished based on the client's developmental level and life stage. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Have students take a living will and advance directive home and discuss the forms with their parents. Have students listen to a representative from an organ transplant organization talk about organ donation. E1, E2, E3, E4, E5, E6
- Take students to a local funeral home to discuss preparation of a body for a funeral, and have students demonstrate postmortem care on a mannequin. E1, E2, E3, E4, E5, E6
- Have students work in groups to prepare and present a report on assigned cultural practices associated with funeral services. Take students to funeral homes from various cultures, or have them watch a video. Have them simulate postmortem care. Have students research burial customs from various cultures. Have students complete a death certificate. Students may read the book *Stiff*, which has information about the body after death. Take students to visit a cemetery, and discuss cremation. Have students plan a funeral and write an obituary using word processing software. E1, E2, E3, E4, E5, E6, R1, R5, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T4, T5, T6

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate the care plan for content and appearance.
- Use a rubric to assess presentation.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 3:** Compare psychological outcomes related to growth and development. (DOK 2) HSF1, AP5

### Suggested Objectives

- a. Discuss cultural, social, and ethnic diversity and how they affect needs. (DOK 2)
- b. Discuss body image and role changes. (DOK 2)
- c. Explore mental health disorders such as chemical and substance abuse, suicide, and eating disorders. (DOK 2)

- d. Discuss dementia (Alzheimer’s disease and others) and how it affects clients and techniques used in addressing individuals with dementia. (DOK 2)
- e. Examine the behavior of cognitively impaired patients, and discuss methods for communicating with them, appropriate response to behaviors, and methods of reducing the effects of cognitive impairments. (DOK 2)

### Suggested Teaching Strategies

- Discuss diversity, body image, and mental health disorders. Invite a guest speaker from an organization such as MADD, AA, or Partnership for a Healthy Mississippi or a police K9 unit to speak about chemical or substance abuse. Show a video about a person with anorexia or other disorder or suicide; discuss what might lead someone to commit suicide. Have students role-play a suicide prevention scenario that includes preventive measures and warning signs. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Have students tour a local facility that has Alzheimer’s clients and discuss safety issues surrounding this disease or interview a person who has a family member with Alzheimer’s disease. Have each student prepare a podcast based on the interview. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Assess participation in the field trip using a rubric.
- Use a rubric to evaluate the podcast for content and appearance.
- Assess students’ knowledge through an online assessment in Blackboard.

### Competency 4: Analyze the fundamentals of wellness and the prevention of disease processes. (DOK 2)

HSF1, HSF9, AP2, AP3, AP4, AP5

### Suggested Objectives

- a. Formulate plans for behaviors that promote health and wellness (e.g., preventive health screening and examinations, practices that promote the prevention of disease and injury, and evaluation of alternative health practices). (DOK 3)
- b. Critique the benefit of family interactions including utilizing the patient’s family as a source of emotional support. (DOK 2)
- c. Discuss the aging process as it relates to health and wellness. (DOK 2)

### Suggested Teaching Strategies

- Discuss fundamentals of health and wellness, family interactions, and the aging process related to health and wellness. Have students develop a plan for behaviors that promotes health and wellness and prepares a wellness/safety poster and an exercise and eating plan. <sup>E1, E2, E3, E4, E5, E6</sup>
- Host a wellness and safety fair, and assess BMI, % body fat, glucose, seat belt use, and so forth. Or, assist with a body walk or a similar activity, and go to an elementary school to present information. Teach a skill (e.g., hand washing, basic first aid, or preventing spread of lice) to elementary students. <sup>E1, E2, E3, E4, E5, E6, S1, CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### **Suggested Assessment Strategies**

- Monitor class activity to ensure that all students participate.
- Evaluate the poster for content and appearance using a rubric.
- Use a rubric to assess portfolio.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP2 Describe the basic organization of the body using the appropriate anatomical concepts.
- AP3 Discuss the biochemical composition of the human body.
- AP4 Explore the relationship of the cell to the more complex levels of organization within the body.
- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate major disorders/diseases associated with each.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- R1 Main Ideas and Author's Approach
- R5 Meaning of Words
- S1 Interpretation of Data
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.
- HSF10 Health-care workers will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.

## National Educational Technology Standards

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship





# Suggested References

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For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# Role-Play or Skit Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Good 3 Points	Average 2 Points	Needs Improvement 1 Point	Score
Accuracy	All information was accurate.	Almost all information was accurate.	Most information was accurate.	Very little information was accurate.	
Role	Excellent character development; student contributed in a significant manner.	Good character development; student contributed in a cooperative manner.	Fair character development; student may have contributed.	Little or no character development; student did not contribute much at all.	
Knowledge Gained	Can clearly explain several ways in which his or her character "saw" things differently than other characters and can explain why	Can clearly explain several ways in which his or her character "saw" things differently than other characters	Can clearly explain one way in which his or her character "saw" things differently than other characters	Cannot explain any way in which his or her character "saw" things differently than other characters	
Props	Used several props and showed considerable creativity	Used one or two appropriate props that made the presentation better	Used one or two props that made the presentation better	Used no props to make the presentation better	
Required Elements	Included more information than required	Included all required information	Included most required information	Included less information than required	
<b>TOTAL</b>					

**Comments:** \_\_\_\_\_

# Field Trip Participation Checklist

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**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

- \_\_\_\_\_ 1. The student arrived at the designated meeting place on time with all materials and supplies required for the field trip.
- \_\_\_\_\_ 2. The student observed all safety rules and policies while traveling to and participating in the field trip.
- \_\_\_\_\_ 3. The student demonstrated interest in the content of the field trip by paying attention to the exhibits and speakers, asking pertinent questions, and taking notes.
- \_\_\_\_\_ 4. The student exhibited a positive attitude toward the events and activities of the field trip.
- \_\_\_\_\_ 5. The student remained on task throughout the field trip.
- \_\_\_\_\_ 6. The student exhibited cooperative workplace skills with other students throughout the field trip.

# What makes a good podcast?

When you listen to a podcast, or when you are making your own, think about these qualities of a well-done podcast. (N/A means Not Applicable--the question can't be answered or it does not pertain to the site you are viewing.)

Your name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of podcast: \_\_\_\_\_

Feed URL (or URL): \_\_\_\_\_

Creator of podcast: \_\_\_\_\_



1. Did the podcast include content that was useful / relevant for your purpose?	YES	NO	N/A
2. Were the technical qualities (audio, slides, etc.) acceptable in the production?	YES	NO	N/A
3. Was a written transcript of the podcast available?	YES	NO	N/A
4. Was the podcast linked from a site which included subject tags?	YES	NO	N/A
5. Was the podcast linked from a site which included links to other resources?	YES	NO	N/A
6. Did the podcast adhere to the copyright guidelines in its use of music, pictures, etc.?	YES	NO	N/A
7. Was the length of the podcast appropriate for its content? (20 min. or less)?	YES	NO	N/A
8. Was the podcast part of a regularly scheduled series?	YES	NO	N/A
9. Did the subjects in the podcast have "personality" to keep you interested??	YES	NO	N/A
10. Did the podcast flow smoothly (introduction, content, summary)?	YES	NO	N/A
11. Was it obvious how to add the podcast feed to your aggregator? (RSS)	YES	NO	N/A
12. If the item was an enhanced podcast, did the use of slides enhance the content?	YES	NO	N/A
13. If the item was an enhanced podcast, was it available in various file formats to allow viewing on various hardware devices?	YES	NO	N/A

In your own words, describe the podcast you listened to and its attributes.


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# Poster Assessment Rubric

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NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
<b>Required Content</b>	The poster includes all required content elements as well as additional information.	All required content elements are included on the poster.	All but one of the required content elements are included on the poster.	Several required content elements were missing.	
<b>Labels</b>	All items of importance on the poster are clearly labeled with labels that are easy to read.	Almost all items of importance on the poster are clearly labeled with labels that are easy to read.	Many items of importance on the poster are clearly labeled with labels that are easy to read.	Labels are too small to read, or no important items were labeled.	
<b>Attractiveness</b>	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout, and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed.	
<b>Grammar</b>	There are no grammatical or mechanical mistakes on the poster.	There are one to two grammatical or mechanical mistakes on the poster.	There are three to four grammatical or mechanical mistakes on the poster.	There are more than four grammatical or mechanical mistakes on the poster.	
				<b>TOTAL</b>	

**Comments:**

# Portfolio Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

Comments:

# Group Work Assessment Rubric



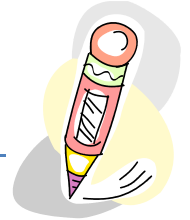
NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Highly Successful 3 points	Meeting Success 2 points	Experiencing Difficulty 1 point	Score
Sharing	Shared ideas with others	Occasionally shared ideas with others	Seldom shared ideas with others	
Listening	Always listened to peers	Occasionally listened to peers	Ignored ideas of peers	
Respecting	Interacted with, encouraged, and supported ideas of others	Occasionally encouraged and supported others	Seldom encouraged and supported others	
Participating	Shared task equally with group members	Did most of the task	Did very little of the task	
<b>TOTAL</b>				

Comments:



# Written Report Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
Content	Clear thesis and focus that remain apparent	Thesis and focus that remain apparent	Addresses subject matter with minimal support	Does not focus on topic	
Grammar	Correct and effective use of grammar and mechanics	Occasional errors in use of grammar and mechanics	Problems in use of grammar and mechanics	Repeated errors in use of grammar and mechanics	
Organization	Ideas flow smoothly and logically with clarity and coherence	Logical order and appropriate sequencing of ideas with adequate transition	Some evidence of an organizational plan or strategy	Lacks organization	
<b>TOTAL</b>					

Comments:

## Unit 10: Direct Personal Care

**Competency 1:** Discuss the roles of members of the health-care team, and employ appropriate communication strategies in therapeutic care. (DOK 2) HSF1, HSF2, HSF3, HSF4, HSF5, HSF6, HSF7, HSF8, HSF9, HSF10, HSF11, AP2, AP3, AP4, AP5

AP3, AP4, AP5

### Suggested Objectives

- Discuss careers in the therapeutic services area such as nursing, veterinary science, optometry, physician specialties, paramedics, surgical technology, chiropractor, dentistry, athletic training, and mortician science. (DOK 1)
- Explain planned procedures to patients including goals, side effects, and coping strategies; use various strategies to respond to questions and concerns of patients. (DOK 2)
- Use written communication, develop clear written patient information and instructions, and keep written records as appropriate within facility policies and protocols. (DOK 2)
- Communicate patient information among team members allowing for feedback as needed. (DOK 2)

### Suggested Teaching Strategies

- Hook students by having someone in a therapeutic career speak to the class about his or her career. Pre-assess student knowledge of the therapeutic services by asking the students to list what they think people in these careers do and then compare their lists to the information provided by the speaker. Have students choose a career they are interested in and develop a career plan (where go to college, cost, job openings, salary, and job responsibilities) and begin an employment portfolio that will be developed throughout the year. Have students do a podcast, interviewing someone in their health-care career of interest. Have someone from the community observe presentations by students. Ask students if they are still interested in the career, and ask why or why not. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Discuss means of communication, and have students perform procedures and self-assess techniques. Introduce students to computer charting software. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Use a rubric to assess the portfolio.
- Evaluate student communication procedures.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Review related body systems and disease implications, and perform therapeutic personal care skills. (DOK 2) HSF1, HSF2, HSF3, HSF4, HSF5, HSF6, HSF7, HSF8, HSF9, HSF10, HSF11, AP2, AP3, AP4, AP5

### Suggested Objectives

- Discuss patient care plans. (DOK 2)
- Take patient vital signs. (DOK 2)
- Perform or assist with patient hygiene including bathing (tub, shower, and sponge), dressing, applying elastic stockings, grooming, and oral care including dentures, nail care, and foot care.

- (DOK 2)
- d. Apply bandages, and change dressings. (DOK 2)
  - e. Give a back rub. (DOK 2)
  - f. Discuss the use of restraints, and use appropriately. (DOK 2)
  - g. Perform or assist with patient elimination including ostomy, enema, bedpan, catheter, and perineal care. (DOK 3)
  - h. Employ environmental techniques to promote rest, sleep, and comfort. (DOK 2)
  - i. Demonstrate methods used for oxygen therapy. (DOK 2)
  - j. Demonstrate range of motion exercises and indications for use. (DOK 2)
  - k. Demonstrate the use of assistive devices (crutches, cane, walker, and gait belt) for activities of daily living and ambulation. (DOK 2)
  - l. Apply hot, cold, and moist compresses. (DOK 2)
  - m. Discuss concepts related to dentistry. (DOK 2)
  - n. Discuss concepts related to veterinary medicine. (DOK 2)

### Suggested Teaching Strategies

- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. CLS1, CLS2, CLS3, CLS4, CLS5
- Have students review magazine articles or news reports about mistreatment/abuse/neglect of patients and discuss within a group the consequences of the actions. Discuss with students what is meant by patient care, how a lack of proper patient care might affect the patient, ways health-care workers show respect when providing patient care, and how patient care procedures might vary among patients. Show students a video or demonstration outlining patient care procedures and related regulations. Have students use the Internet, magazines, and books to research diseases/disorders and write/type a one-page report about diseases/disorders using appropriate terminology and anatomy and physiology concepts. E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W5, CLS2, CLS5, T1, T2, T3, T4, T5, T6
- Review examples of care plans and ADL or flow charts; discuss components with the class. Have students research reasons for and methods of electronic charting. T1, T2, T3, T4, T5, T6
- Have students role-play and serve as health-care workers and provide care for an assigned “patient” with a certain disease/disorder. Each student will research information about the patient’s condition, develop an appropriate care plan for providing care while noting special procedures related to the patient’s condition, and provide the appropriate care. The care must reflect respect for the patient and meet the requirements outlined by state and national regulations. Have students track procedures using an ADL or flowchart and enter data into an electronic file. Students should revise the care plan based on self-assessment. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### Suggested Assessment Strategies

- Evaluate the care plan and ADL or flowchart to ensure it is neatly prepared and grammatically correct, that appropriate care procedures for the patient’s condition are performed, that procedures follow state and national regulations, and that respect is shown to the patient at all times.
- Check off on patient care procedures.
- Monitor student self-assessment of patient care.
- Use the Written Report Rubric to evaluate the research report on patient condition.

**Competency 3:** Recognize and report a patient’s change in status. (DOK 2) HSF1, HSF2, HSF3, HSF4, HSF5, HSF6, HSF7, HSF8, HSF9, HSF10, HSF11, AP2, AP3, AP4, AP5

### Suggested Objectives

- a. Recognize and report changes related to the vital organs such as shortness of breath, rapid respiration, fever, coughs, chills, pains in chest, and blue color to lips. (DOK 2)
- b. Recognize and report changes related to the digestive system such as pain in the abdomen, nausea, and vomiting. (DOK 2)
- c. Recognize and report changes related to the urinary system such as blood or sediment in urine, difficulty urinating, frequent urination in small amounts, pain or burning during urination, and urine that has dark color or strong odor. (DOK 2)
- d. Recognize and report other changes such as drowsiness, excessive thirst, sweating, and pus. (DOK 2)

### Suggested Teaching Strategies

- Discuss recognizing and reporting changes in patient status. Use case studies with doctors’ progress notes to demonstrate changes. Have students role-play (know what problems a “patient” should exhibit and have student monitor) or use a dummy or smart dummy (vital signs or arrhythmia) and recognize and report changes. E1, E2, E3, E4, E5, E6, S1, CLS1, CLS2, CLS3, CLS4, CLS5
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Use a rubric to evaluate role-play for appropriateness.
- Use a rubric to assess portfolio.
- Assess students’ knowledge through an online assessment in Blackboard.

**Competency 4:** Follow guidelines for collecting patient information. (DOK 2) HSF2, HSF4, HSF5, HSF6, HSF10, HSF11

### Suggested Objectives

- a. Review HIPAA guidelines. (DOK 1)
- b. Collect and format information using appropriate guidelines. (DOK 2)
- c. Discuss the use of electronic records. (DOK 1)
- d. Maintain confidentiality according to appropriate protocol. (DOK 2)

### Suggested Teaching Strategies

- Have students research the HIPAA Web site and summarize the information located there. Review communication skills, and obtain information from the patient. Have students complete case studies, including guidelines, in which they identify times when patient information was or was not collected, formatted, and recorded using appropriate guidelines and protocols. E1, E2, E3, E4, E5, E6, R1, R5, T1, T2, T3, T4, T5, T6

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate the case study for appropriateness.
- Use a rubric to assess the Web site summary.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP2 Describe the basic organization of the body using the appropriate anatomical concepts.
- AP3 Discuss the biochemical composition of the human body.
- AP4 Explore the relationship of the cell to the more complex levels of organization within the body.
- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate major disorders/diseases associated with each.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- S1 Interpretation of Data
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF2 Health-care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.
- HSF3 Health-care workers will understand how their role fits into their department, their organization, and the overall health care environment. They will identify how key systems affect services they perform and quality of care.
- HSF4 Health-care workers will understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills, as needed.
- HSF5 Health-care workers will understand the legal responsibilities, limitations, and implications of their actions within the health-care delivery setting.

- HSF6 Health-care workers will understand accepted ethical practices with respect to cultural, social, and ethnic differences within the health-care environment. They will perform quality health-care delivery.
- HSF7 Health-care workers will understand the existing and potential hazards to clients, co-workers, and self. They will prevent injury or illness through safe work practices and follow health and safety policies and procedures.
- HSF8 Health-care workers will understand the roles and responsibilities of individual members as part of the health-care team, including their ability to promote the delivery of quality health care.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.
- HSF10 Health-care workers will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.
- HSF11 Health-care workers will use information technology applications required within all career specialties. They will demonstrate use as appropriate to health-care applications.

### **National Educational Technology Standards**

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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Dugan, D. (2008). *Successful nursing assistant care* (2nd ed.). Albuquerque, NM: Harman.

Ehrlich, A., & Schroder, C. L. (2004). *Introduction to medical terminology*. Albany, NY: Delmar.

Mississippi Nurse Aide Candidate Handbook. (2007). Retrieved October 3, 2007, from <http://www.asisvcs.com/indhome.asp?CPCAT=0725NURSE>

Simmers, L. (2004). *Introduction to health science technology*. Albany, NY: Delmar.

Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).



# Suggested Rubrics and Checklists

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# What makes a good podcast?

When you listen to a podcast, or when you are making your own, think about these qualities of a well-done podcast. (N/A means Not Applicable--the question can't be answered or it does not pertain to the site you are viewing.)

Your name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of podcast: \_\_\_\_\_

Feed URL (or URL): \_\_\_\_\_

Creator of podcast: \_\_\_\_\_



1. Did the podcast include content that was useful / relevant for your purpose?	YES	NO	N/A
2. Were the technical qualities (audio, slides, etc.) acceptable in the production?	YES	NO	N/A
3. Was a written transcript of the podcast available?	YES	NO	N/A
4. Was the podcast linked from a site which included subject tags?	YES	NO	N/A
5. Was the podcast linked from a site which included links to other resources?	YES	NO	N/A
6. Did the podcast adhere to the copyright guidelines in its use of music, pictures, etc.?	YES	NO	N/A
7. Was the length of the podcast appropriate for its content? (20 min. or less)?	YES	NO	N/A
8. Was the podcast part of a regularly scheduled series?	YES	NO	N/A
9. Did the subjects in the podcast have "personality" to keep you interested??	YES	NO	N/A
10. Did the podcast flow smoothly (introduction, content, summary)?	YES	NO	N/A
11. Was it obvious how to add the podcast feed to your aggregator? (RSS)	YES	NO	N/A
12. If the item was an enhanced podcast, did the use of slides enhance the content?	YES	NO	N/A
13. If the item was an enhanced podcast, was it available in various file formats to allow viewing on various hardware devices?	YES	NO	N/A

In your own words, describe the podcast you listened to and its attributes.


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# Portfolio Assessment Rubric



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

**Comments:**

# Written Report Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
Content	Clear thesis and focus that remain apparent	Thesis and focus that remain apparent	Addresses subject matter with minimal support	Does not focus on topic	
Grammar	Correct and effective use of grammar and mechanics	Occasional errors in use of grammar and mechanics	Problems in use of grammar and mechanics	Repeated errors in use of grammar and mechanics	
Organization	Ideas flow smoothly and logically with clarity and coherence	Logical order and appropriate sequencing of ideas with adequate transition	Some evidence of an organizational plan or strategy	Lacks organization	
<b>TOTAL</b>					

Comments:

# Role-Play or Skit Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Good 3 Points	Average 2 Points	Needs Improvement 1 Point	Score
Accuracy	All information was accurate.	Almost all information was accurate.	Most information was accurate.	Very little information was accurate.	
Role	Excellent character development; student contributed in a significant manner.	Good character development; student contributed in a cooperative manner.	Fair character development; student may have contributed.	Little or no character development; student did not contribute much at all.	
Knowledge Gained	Can clearly explain several ways in which his or her character "saw" things differently than other characters and can explain why	Can clearly explain several ways in which his or her character "saw" things differently than other characters	Can clearly explain one way in which his or her character "saw" things differently than other characters	Cannot explain any way in which his or her character "saw" things differently than other characters	
Props	Used several props and showed considerable creativity	Used one or two appropriate props that made the presentation better	Used one or two props that made the presentation better	Used no props to make the presentation better	
Required Elements	Included more information than required	Included all required information	Included most required information	Included less information than required	
<b>TOTAL</b>					

Comments:

# Presentation Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 points	Accomplished 3 points	Developing 2 points	Beginning 1 point	Score
Content	Clear, appropriate, and correct	Mostly clear, appropriate, and correct	Somewhat confusing, incorrect, or flawed	Confusing, incorrect, or flawed	
Clarity	Logical, interesting sequence	Logical sequence	Unclear sequence	No sequence	
Presentation	Clear voice and precise pronunciation	Clear voice and mostly correct pronunciation	Low voice and incorrect pronunciation	Mumbling and incorrect pronunciation	
Visual Aids	Attractive, accurate, and grammatically correct	Adequate, mostly accurate, and few grammatical errors	Poorly planned, somewhat accurate, and some grammatical errors	Weak, inaccurate, and many grammatical errors	
Length	Appropriate length	Slightly too long or short	Moderately too long or short	Extremely too long or short	
Eye Contact	Maintains eye contact, seldom looking at notes	Maintains eye contact most of time but frequently returns to notes	Occasionally uses eye contact but reads most of information	No eye contact because reading information	
				<b>TOTAL</b>	

**Comments:**

## Unit 11: Therapeutic Services

**Competency 1:** Review related body systems and disease implications, and explain procedures related to mental health care. (DOK 2) HSF9, AP2, AP3, AP4, AP5

### Suggested Objectives

- Discuss the role of play therapy, music therapy, art therapy, aroma therapy, dance therapy, recreation therapy, puppet therapy, pet therapy, physical therapy, occupational therapy, speech therapy, pharmacy, psychology, social work, respiratory therapy, and so forth. (DOK 2)
- Identify techniques of reality orientation. (DOK 2)
- Differentiate between psychotic and psycho-neurotic disorders. (DOK 2)

### Suggested Teaching Strategies

- Hook students by showing videos or discussing case studies of people with various disorders. Pre-assess student knowledge by leading them in a discussion of the causes and treatments of the disorders. Compare and contrast disorders using butcher paper. E1, E2, E3, E4, E5, E6, S1
- Show students *A Beautiful Mind* or other multiple personality videos, and lead them in a discussion about mental illness. Discuss types of reality orientation and various disorders. Have students research a type of therapy and prepare a written report using word processing software. E1, E2, E3, E4, E5, E6, S1, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate comparison for content and appearance.
- Use a rubric to assess the report.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Review related body systems and disease implications, and perform procedures related to sensory impairment. (DOK 2) HSF9, AP2, AP3, AP4, AP5

### Suggested Objectives

- Perform vision and hearing screening. (DOK 2)
- Identify methods necessary for the assistance and safety of the visually, hearing, and speech impaired. (DOK 2)
- Care for vision and hearing assistive devices as well as dental appliances. (DOK 2)

### Suggested Teaching Strategies

- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. CLS1, CLS2, CLS3, CLS4, CLS5
- Use simulations such as glasses covered in Vaseline, and have students choose “medicine” (candy); have students work together to develop an appropriate medication regime. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Use a rubric to assess skill techniques.
- Observe simulations.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 3:** Review related body systems and disease implications, and demonstrate procedures related to food and nutrition. (DOK 2) HSF9, AP2, AP3, AP4, AP5

### Suggested Objectives

- a. Discuss the food guide pyramid. (DOK 1)
- b. Describe basic therapeutic diets (i.e., clear liquid, full liquid, soft, bland, and regular), specialty diets (e.g., cardiac, diabetic, calorie restricted, high calorie, low sodium, renal, low fat, low cholesterol, high fiber, restricted residue, bland, and kosher), and examples of medical conditions that are treated with these diets. (DOK 2)
- c. Prepare a 24-hour menu for a therapeutic diet. (DOK 3)
- d. Discuss the principles of asepsis in food preparation. (DOK 2)
- e. Complete a menu requisition. (DOK 2)
- f. Deliver and retrieve food trays. (DOK 2)

### Suggested Teaching Strategies

- Discuss the food guide pyramid, types of diets, and food preparation and delivery. Discuss nutritional value of foods and drinks in vending machines and the serving sizes and amounts in each package. Have students compare food labels, identifying the amounts of various nutrients present in each type of food. Have each student role-play a vitamin or mineral and create a jingle or rap about the vitamin or mineral. E1, E2, E3, E4, E5, E6
- Have students analyze popular diets such as Atkins or South Beach and discuss what is wrong with diets. Also, look at Weight Watchers, NutriSystem, or other diets, and discuss why they are appropriate. Have students prepare a 24-hour menu on one therapeutic diet using nutritional books, restaurant nutritional guides, and Internet nutrition sites and computer software as resources. They should present the diet to the class as a dietitian would teach it to a newly diagnosed patient with the need for the particular therapeutic diet and bring samples of the food that is included in the diet to share with the class showing what one serving of the food looks like. E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Include in the electronic portfolios. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate presentation for content and appearance using a rubric.
- Use a rubric to evaluate role-play.
- Assess students' knowledge through an online assessment in Blackboard.



**Competency 4:** Review related body systems and disease implications, and discuss procedures related to reproduction. (DOK 2) HSF9, AP2, AP3, AP4, AP5

### Suggested Objectives

- a. Discuss sexually transmitted infections (STI) and their prevention. (DOK 2)

### Suggested Teaching Strategies

- Discuss sexually transmitted infections (STI) and their prevention. Have an STI investigator from the health department speak to the class, and lead the class in a discussion about the information presented. Have students choose an infection and write a report and do a podcast including the statistics, characteristics, and treatment. E1, E2, E3, E4, E5, E6, T1, T2, T3, T4, T5, T6

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate the report for content and appearance using a rubric.
- Have students peer evaluate the podcasts.
- Assess students' knowledge through an online assessment.

**Competency 5:** Train patients in skills that incorporate principles of restorative care. (DOK 2) HSF1, HSF2, HSF3, HSF4, HSF5, HSF6, HSF7, HSF8, HSF9, HSF10, HSF11, AP2, AP3, AP4, AP5

### Suggested Objectives

- a. Train patients in self-care according to their abilities. (DOK 2)
- b. Train patients to use assistive devices for transferring, ambulating, eating, and dressing. (DOK 2)
- c. Discuss bowel and bladder training. (DOK 2)
- d. Assist with the care and use of prosthetic and orthotic devices. (DOK 2)

### Suggested Teaching Strategies

- Discuss methods for training patients in skills that incorporate principles of restorative care, and take students to observe in a facility where restorative care is performed. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5
- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Include in the electronic portfolios. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Use a rubric to assess participation in the field trip.
- Use a rubric to assess skill techniques.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 6:** Review related body systems and disease implications, and apply concepts related to pharmaceutical agents. (DOK 2) HSF1, HSF9, AP2, AP3, AP4, AP5

## Suggested Objectives

- a. Contrast common drug classifications with actions using the PDR and nursing drug reference. This may include analgesic, anesthetic, antacid, antibiotic, anticholinergic, anticoagulant, anticonvulsive, antidepressant, antidiarrheal, antiemetic, antihistamine, antihypertensive, anti-inflammatory agent, antineoplastic agent, antipyretic, antitussive, bronchodilator, central nervous system depressant, central nervous system stimulant, coagulant, decongestant, desensitization agent, diuretic, emetic, hormones and hypoglycemics, hypnotic, laxative, sedative, sulfonamide, vaccines and immunizations, vasodilator, and vitamins and minerals. (DOK 2)
- b. Determine the components of an authorized drug prescription. (DOK 2)
- c. Calculate medication dosages for parenteral, oral, and IV medications. (DOK 2)

## Suggested Teaching Strategies

- Discuss common drug classifications and actions. Have students make a giant pill out of poster board that is cut to the appropriate shape and colored appropriately based on PDR. Have students list side effects, actions and uses, contraindications, and so forth on the pill and present the information to the class. <sup>E1, E2, E3, E4, E5, E6, S1</sup>
- Have students fill out mock drug prescriptions using medical terminology, calculate drug dosages, and participate in a mock pharmacy giving mock pills using candy. Or, prepare 10 stations with index cards with a case study and how much medicine to give a patient. Provide labeled bottles and IV bags, and have students calculate dosages. <sup>E1, E2, E3, E4, E5, E6, M1, M3, M7, CLS1, CLS2, CLS3, CLS4, CLS5</sup>

## Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate the giant pill for appropriateness.
- Assess dosage calculation.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 7:** Evaluate the purposes of the treatment plan, and collaborate in planning procedures that support the goals for the patient. (DOK 3) <sup>HSF1, HSF2, HSF3, HSF4, HSF5, HSF6, HSF7, HSF8, HSF9, HSF10, HSF11, AP5</sup>

## Suggested Objectives

- a. Create an appropriate treatment plan using a problem-solving model. (DOK 3)
- b. Implement a treatment plan, evaluate priorities in order to organize work, use equipment and instruments appropriately, and document actions according to facility protocol. (DOK 3)

## Suggested Teaching Strategies

- Discuss treatment plans and their development. Have students analyze a case study or care plan from a hospital and create an appropriate treatment plan. Have students role-play as a team the implementation of the plan and methods of documentation. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

### **Suggested Assessment Strategies**

- Monitor class activity to ensure that all students participate.
- Evaluate the treatment plan for content and appearance.
- Use a rubric to evaluate role-play.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP2 Describe the basic organization of the body using the appropriate anatomical concepts.
- AP3 Discuss the biochemical composition of the human body.
- AP4 Explore the relationship of the cell to the more complex levels of organization within the body.
- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate major disorders/diseases associated with each.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- M1 Basic Operations and Applications
- M3 Numbers: Concepts and Properties
- M7 Measurement
- R1 Main Ideas and Author's Approach
- S1 Interpretation of Data
- R5 Meaning of Words
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF2 Health-care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.
- HSF3 Health-care workers will understand how their role fits into their department, their organization, and the overall health care environment. They will identify how key systems affect services they perform and quality of care.

- HSF4 Health-care workers will understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills, as needed.
- HSF5 Health-care workers will understand the legal responsibilities, limitations, and implications of their actions within the health-care delivery setting.
- HSF6 Health-care workers will understand accepted ethical practices with respect to cultural, social, and ethnic differences within the health-care environment. They will perform quality health-care delivery.
- HSF7 Health-care workers will understand the existing and potential hazards to clients, co-workers, and self. They will prevent injury or illness through safe work practices and follow health and safety policies and procedures.
- HSF8 Health-care workers will understand the roles and responsibilities of individual members as part of the health-care team, including their ability to promote the delivery of quality health care.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.
- HSF10 Health-care workers will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.
- HSF11 Health-care workers will use information technology applications required within all career specialties. They will demonstrate use as appropriate to health-care applications.

#### **National Educational Technology Standards**

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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Dugan, D. (2008). *Successful nursing assistant care* (2nd ed.). Albuquerque, NM: Harman.

Ehrlich, A., & Schroder, C. L. (2004). *Introduction to medical terminology*. Albany, NY: Delmar.

Mississippi Nurse Aide Candidate Handbook. (2007). Retrieved October 3, 2007, from  
<http://www.asisvcs.com/indhome.asp?CPCAT=0725NURSE>

Simmers, L. (2004). *Introduction to health science technology*. Albany, NY: Delmar.

Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# What makes a good podcast?

When you listen to a podcast, or when you are making your own, think about these qualities of a well-done podcast. (N/A means Not Applicable--the question can't be answered or it does not pertain to the site you are viewing.)

Your name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of podcast: \_\_\_\_\_

Feed URL (or URL): \_\_\_\_\_

Creator of podcast: \_\_\_\_\_



1. Did the podcast include content that was useful / relevant for your purpose?	YES	NO	N/A
2. Were the technical qualities (audio, slides, etc.) acceptable in the production?	YES	NO	N/A
3. Was a written transcript of the podcast available?	YES	NO	N/A
4. Was the podcast linked from a site which included subject tags?	YES	NO	N/A
5. Was the podcast linked from a site which included links to other resources?	YES	NO	N/A
6. Did the podcast adhere to the copyright guidelines in its use of music, pictures, etc.?	YES	NO	N/A
7. Was the length of the podcast appropriate for its content? (20 min. or less)?	YES	NO	N/A
8. Was the podcast part of a regularly scheduled series?	YES	NO	N/A
9. Did the subjects in the podcast have "personality" to keep you interested??	YES	NO	N/A
10. Did the podcast flow smoothly (introduction, content, summary)?	YES	NO	N/A
11. Was it obvious how to add the podcast feed to your aggregator? (RSS)	YES	NO	N/A
12. If the item was an enhanced podcast, did the use of slides enhance the content?	YES	NO	N/A
13. If the item was an enhanced podcast, was it available in various file formats to allow viewing on various hardware devices?	YES	NO	N/A

In your own words, describe the podcast you listened to and its attributes.


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# Portfolio Assessment Rubric



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

**Comments:**

# Poster Assessment Rubric

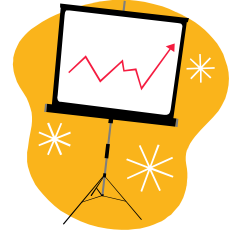


NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
<b>Required Content</b>	The poster includes all required content elements as well as additional information.	All required content elements are included on the poster.	All but one of the required content elements are included on the poster.	Several required content elements were missing.	
<b>Labels</b>	All items of importance on the poster are clearly labeled with labels that are easy to read.	Almost all items of importance on the poster are clearly labeled with labels that are easy to read.	Many items of importance on the poster are clearly labeled with labels that are easy to read.	Labels are too small to read, or no important items were labeled.	
<b>Attractiveness</b>	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout, and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed.	
<b>Grammar</b>	There are no grammatical or mechanical mistakes on the poster.	There are one to two grammatical or mechanical mistakes on the poster.	There are three to four grammatical or mechanical mistakes on the poster.	There are more than four grammatical or mechanical mistakes on the poster.	
				<b>TOTAL</b>	

**Comments:**

# Presentation Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 points	Accomplished 3 points	Developing 2 points	Beginning 1 point	Score
Content	Clear, appropriate, and correct	Mostly clear, appropriate, and correct	Somewhat confusing, incorrect, or flawed	Confusing, incorrect, or flawed	
Clarity	Logical, interesting sequence	Logical sequence	Unclear sequence	No sequence	
Presentation	Clear voice and precise pronunciation	Clear voice and mostly correct pronunciation	Low voice and incorrect pronunciation	Mumbling and incorrect pronunciation	
Visual Aids	Attractive, accurate, and grammatically correct	Adequate, mostly accurate, and few grammatical errors	Poorly planned, somewhat accurate, and some grammatical errors	Weak, inaccurate, and many grammatical errors	
Length	Appropriate length	Slightly too long or short	Moderately too long or short	Extremely too long or short	
Eye Contact	Maintains eye contact, seldom looking at notes	Maintains eye contact most of time but frequently returns to notes	Occasionally uses eye contact but reads most of information	No eye contact because reading information	
				<b>TOTAL</b>	

**Comments:**

# Role-Play or Skit Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Good 3 Points	Average 2 Points	Needs Improvement 1 Point	Score
Accuracy	All information was accurate.	Almost all information was accurate.	Most information was accurate.	Very little information was accurate.	
Role	Excellent character development; student contributed in a significant manner.	Good character development; student contributed in a cooperative manner.	Fair character development; student may have contributed.	Little or no character development; student did not contribute much at all.	
Knowledge Gained	Can clearly explain several ways in which his or her character "saw" things differently than other characters and can explain why	Can clearly explain several ways in which his or her character "saw" things differently than other characters	Can clearly explain one way in which his or her character "saw" things differently than other characters	Cannot explain any way in which his or her character "saw" things differently than other characters	
Props	Used several props and showed considerable creativity	Used one or two appropriate props that made the presentation better	Used one or two props that made the presentation better	Used no props to make the presentation better	
Required Elements	Included more information than required	Included all required information	Included most required information	Included less information than required	
<b>TOTAL</b>					

Comments:

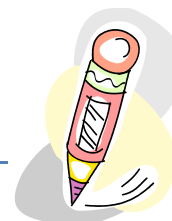
# Workplace Skills Weekly Checklist



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

Behavior Skill	Never	Rarely	Most of the Time	Always
<b>On Time and Prepared</b>				
1. Arrives to class on time				
2. Brings necessary materials				
3. Completes homework				
<b>Respects Peers</b>				
1. Respects others' property				
2. Listens to peers				
3. Responds appropriately to peers				
4. Respects others' opinions				
5. Refrains from abusive language				
<b>Respects Teachers/Staff</b>				
1. Follows directions				
2. Listens to teacher and staff				
3. Accepts responsibility for actions				
<b>Demonstrates Appropriate Character Traits</b>				
1. Demonstrates positive character traits (kindness, trustworthy, and honesty)				
2. Demonstrates productive character traits (patient, thorough, and hardworking)				
3. Demonstrates a level of concern for others				
<b>Demonstrates a Level of Concern for Learning</b>				
1. Remains on task				
2. Allows others to remain on task				

# Written Report Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
Content	Clear thesis and focus that remain apparent	Thesis and focus that remain apparent	Addresses subject matter with minimal support	Does not focus on topic	
Grammar	Correct and effective use of grammar and mechanics	Occasional errors in use of grammar and mechanics	Problems in use of grammar and mechanics	Repeated errors in use of grammar and mechanics	
Organization	Ideas flow smoothly and logically with clarity and coherence	Logical order and appropriate sequencing of ideas with adequate transition	Some evidence of an organizational plan or strategy	Lacks organization	
<b>TOTAL</b>					

Comments:

# Field Trip Participation Checklist

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**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

- \_\_\_\_\_ 1. The student arrived at the designated meeting place on time with all materials and supplies required for the field trip.
- \_\_\_\_\_ 2. The student observed all safety rules and policies while traveling to and participating in the field trip.
- \_\_\_\_\_ 3. The student demonstrated interest in the content of the field trip by paying attention to the exhibits and speakers, asking pertinent questions, and taking notes.
- \_\_\_\_\_ 4. The student exhibited a positive attitude toward the events and activities of the field trip.
- \_\_\_\_\_ 5. The student remained on task throughout the field trip.
- \_\_\_\_\_ 6. The student exhibited cooperative workplace skills with other students throughout the field trip.

# Case Study Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Accomplished 3 Points	Needs Improvement 2 Points	Unsatisfactory 1 Point	Score
<b>Comprehension</b>	Shows complete understanding of the issues and grasps implications beyond the immediate issue	Asks for more details to clarify understanding of the issue	Shows partial understanding of the issue but does not ask for clarification	Resists attempts to get clarification	
<b>Strategizing</b>	Develops realistic strategies that provide a satisfactory conclusion	Chooses appropriate strategies that may satisfy	Shows evidence of strategy that may or may not satisfy	Needs assistance to choose a strategy	
<b>Innovation</b>	Devises more than one resolution to the problem	Offers a solution	Offers a solution with a limited point of view	Shows some understanding of the problem	
<b>Communication</b>	Convincingly communicates resolution	Explains solution so others can understand	Conveys an opinion	Unsure of how to explain	
<b>TOTAL</b>					

**Comments:**



# Portfolio Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

**Comments:**

## Unit 12: Diagnostic Services

**Competency 1:** Review related body systems and disease implications, and explore medical imaging procedures and circumstances requiring use. (DOK 2) HSF1, HSF9, AP2, AP3, AP4, AP5

### Suggested Objectives

- Discuss careers in the medical imaging diagnostic services area. (DOK 1)
- Discuss echocardiography, fluoroscopy, magnetic resonance imagery, mammography, nuclear medicine, radiography, sonography, and tomography. (DOK 1)
- Discuss advancements in medical imagery. (DOK 1)
- Discuss hazards and safety measures associated with medical imaging. (DOK 2)
- Demonstrate basic radiological positioning (i.e., posterior-anterior, anterior-posterior, and lateral). (DOK 2)

### Suggested Teaching Strategies

- Hook students by showing videos or discussing case studies of people with various disorders, and pre-assess student knowledge by leading students in a discussion of the causes and treatments of the disorders. E1, E2, E3, E4, E5, E6
- Have students work in groups to research a career in medical imaging and present the information to the class using a podcast or Movie Maker. Visit the local community college to observe X-ray technology or related programs, or invite students from programs to speak to the class. E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Discuss procedures in medical imaging diagnostic services as well as advancements in the field. Have students research hazards and safety measures that are appropriate and develop posters or brochures that could be used with patients to explain the concepts. Have students research current topics related to unnecessary scans and radiation exposure and participate in a debate about appropriate imaging procedures. E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Demonstrate proper skill techniques such as positioning and reading discarded X-rays. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. Include in the electronic portfolios. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate the presentation for content and appearance using a rubric.
- Use a rubric to assess posters or brochures.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Review related body systems and disease implications, and explore medical laboratory procedures and circumstances requiring use. (DOK 2) HSF1, HSF9, AP2, AP3, AP4, AP5

### Suggested Objectives

- Discuss careers in the medical laboratory diagnostic services area. (DOK 1)
- Describe methods of collecting specimens of urine, stool, sputum, blood, and emesis. (DOK 2)
- Identify basic laboratory tests, and perform basic laboratory procedures. (DOK 2)
- Identify common laboratory values such as hematocrit, hemoglobin, white blood cell count, sodium, potassium, blood urea nitrogen, creatinine, low density lipoprotein, high density lipoprotein, and glucose. (DOK 1)

### Suggested Teaching Strategies

- Have students research a career in medical laboratory services and present the information to the class using a podcast or Movie Maker. Visit a local community college to observe a medical laboratory technology program, or invite students from programs to speak to the class. <sup>E1, E2, E3, E4, E5, E6, R1, R5, CLS2, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Have students perform simulated lab tests such as blood typing, cholesterol screening, urinalysis, blood smear, Gram-staining, bacterial culture, growth and/or transfer, and phlebotomy. <sup>E1, E2, E3, E4, E5, E6</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate the presentation for content and appearance using a rubric.
- Use a rubric to assess participation in lab activity.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 3:** Review related body systems and disease implications, and describe major types of physical exams. (DOK 2) <sup>HSF1, HSF9, AP2, AP3, AP4, AP5</sup>

### Suggested Objectives

- Identify the equipment required for major types of physical exams. (DOK 1)
- Position for physical exams. (DOK 2)
- Describe assessment techniques used in a physical exam (i.e. observation, auscultation, percussion, and palpation). (DOK 1)

### Suggested Teaching Strategies

- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Video students performing skills, and allow students to critique each other. <sup>CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Discuss how to use equipment for an exam, lay out equipment, and have students choose appropriate equipment for various procedures. Have students role-play performing physical exams on mannequins or other students, perform body positioning for exams, and chart findings or results. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5</sup>

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Use a rubric to assess skill techniques.
- Use a rubric to evaluate role-play.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP2 Describe the basic organization of the body using the appropriate anatomical concepts.
- AP3 Discuss the biochemical composition of the human body.
- AP4 Explore the relationship of the cell to the more complex levels of organization within the body.
- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate major disorders/diseases associated with each.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- R1 Main Ideas and Author's Approach
- R5 Meaning of Words
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.

## National Educational Technology Standards

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# Presentation Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 points	Accomplished 3 points	Developing 2 points	Beginning 1 point	Score
Content	Clear, appropriate, and correct	Mostly clear, appropriate, and correct	Somewhat confusing, incorrect, or flawed	Confusing, incorrect, or flawed	
Clarity	Logical, interesting sequence	Logical sequence	Unclear sequence	No sequence	
Presentation	Clear voice and precise pronunciation	Clear voice and mostly correct pronunciation	Low voice and incorrect pronunciation	Mumbling and incorrect pronunciation	
Visual Aids	Attractive, accurate, and grammatically correct	Adequate, mostly accurate, and few grammatical errors	Poorly planned, somewhat accurate, and some grammatical errors	Weak, inaccurate, and many grammatical errors	
Length	Appropriate length	Slightly too long or short	Moderately too long or short	Extremely too long or short	
Eye Contact	Maintains eye contact, seldom looking at notes	Maintains eye contact most of time but frequently returns to notes	Occasionally uses eye contact but reads most of information	No eye contact because reading information	
				<b>TOTAL</b>	

**Comments:**

# Poster Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
<b>Required Content</b>	The poster includes all required content elements as well as additional information.	All required content elements are included on the poster.	All but one of the required content elements are included on the poster.	Several required content elements were missing.	
<b>Labels</b>	All items of importance on the poster are clearly labeled with labels that are easy to read.	Almost all items of importance on the poster are clearly labeled with labels that are easy to read.	Many items of importance on the poster are clearly labeled with labels that are easy to read.	Labels are too small to read, or no important items were labeled.	
<b>Attractiveness</b>	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout, and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed.	
<b>Grammar</b>	There are no grammatical or mechanical mistakes on the poster.	There are one to two grammatical or mechanical mistakes on the poster.	There are three to four grammatical or mechanical mistakes on the poster.	There are more than four grammatical or mechanical mistakes on the poster.	
				<b>TOTAL</b>	

Comments:





# Brochure Assessment Rubric

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

CATEGORY	20	18	16	14	Score
Content - Accuracy	All facts in the brochure are accurate.	90–99% of the facts in the brochure are accurate.	80–89% of the facts in the brochure are accurate.	Fewer than 80% of the facts in the brochure are accurate.	
Spelling	No spelling errors occur.	No more than three spelling errors occur.	No more than six spelling errors occur.	Several spelling errors occur and make meaning for the reader difficult.	
Sources	Careful and accurate records are kept to document the source of 95–100% of the facts and graphics in the brochure.	Careful and accurate records are kept to document the source of 85–94% of the facts and graphics in the brochure.	Careful and accurate records are kept to document the source of 75–84% of the facts and graphics in the brochure.	Sources are not documented accurately or are not kept on many facts and graphics.	
Knowledge Gained	All students in the group can accurately answer all questions related to facts in the brochure and to technical processes used to create the brochure.	All students in the group can accurately answer most questions related to facts in the brochure and to technical processes used to create the brochure.	Most students in the group can accurately answer most questions related to facts in the brochure and to technical processes used to create the brochure.	Several students in the group appear to have little knowledge about the facts or technical processes used in the brochure.	
Attractiveness and Organization	The brochure has exceptionally attractive formatting and	The brochure has attractive formatting and well-organized information.	The brochure has well-organized information.	The brochure's formatting and organization of material are confusing to the	

	well-organized information.			reader.	
					Total

**Comments:**

# What makes a good podcast?

When you listen to a podcast, or when you are making your own, think about these qualities of a well-done podcast. (N/A means Not Applicable--the question can't be answered or it does not pertain to the site you are viewing.)

**Your name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Title of podcast:** \_\_\_\_\_

**Feed URL (or URL):** \_\_\_\_\_

**Creator of podcast:** \_\_\_\_\_



1. Did the podcast include content that was useful / relevant for your purpose?	YES	NO	N/A
2. Were the technical qualities (audio, slides, etc.) acceptable in the production?	YES	NO	N/A
3. Was a written transcript of the podcast available?	YES	NO	N/A
4. Was the podcast linked from a site which included subject tags?	YES	NO	N/A
5. Was the podcast linked from a site which included links to other resources?	YES	NO	N/A
6. Did the podcast adhere to the copyright guidelines in its use of music, pictures, etc.?	YES	NO	N/A
7. Was the length of the podcast appropriate for its content? (20 min. or less)?	YES	NO	N/A
8. Was the podcast part of a regularly scheduled series?	YES	NO	N/A
9. Did the subjects in the podcast have "personality" to keep you interested??	YES	NO	N/A
10. Did the podcast flow smoothly (introduction, content, summary)?	YES	NO	N/A
11. Was it obvious how to add the podcast feed to your aggregator? (RSS)	YES	NO	N/A
12. If the item was an enhanced podcast, did the use of slides enhance the content?	YES	NO	N/A
13. If the item was an enhanced podcast, was it available in various file formats to allow viewing on various hardware devices?	YES	NO	N/A

In your own words, describe the podcast you listened to and its attributes.


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# Role-Play or Skit Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Good 3 Points	Average 2 Points	Needs Improvement 1 Point	Score
Accuracy	All information was accurate.	Almost all information was accurate.	Most information was accurate.	Very little information was accurate.	
Role	Excellent character development; student contributed in a significant manner.	Good character development; student contributed in a cooperative manner.	Fair character development; student may have contributed.	Little or no character development; student did not contribute much at all.	
Knowledge Gained	Can clearly explain several ways in which his or her character "saw" things differently than other characters and can explain why	Can clearly explain several ways in which his or her character "saw" things differently than other characters	Can clearly explain one way in which his or her character "saw" things differently than other characters	Cannot explain any way in which his or her character "saw" things differently than other characters	
Props	Used several props and showed considerable creativity	Used one or two appropriate props that made the presentation better	Used one or two props that made the presentation better	Used no props to make the presentation better	
Required Elements	Included more information than required	Included all required information	Included most required information	Included less information than required	
<b>TOTAL</b>					

Comments:

# Field Trip Participation Checklist

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**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

- \_\_\_\_\_ 1. The student arrived at the designated meeting place on time with all materials and supplies required for the field trip.
- \_\_\_\_\_ 2. The student observed all safety rules and policies while traveling to and participating in the field trip.
- \_\_\_\_\_ 3. The student demonstrated interest in the content of the field trip by paying attention to the exhibits and speakers, asking pertinent questions, and taking notes.
- \_\_\_\_\_ 4. The student exhibited a positive attitude toward the events and activities of the field trip.
- \_\_\_\_\_ 5. The student remained on task throughout the field trip.
- \_\_\_\_\_ 6. The student exhibited cooperative workplace skills with other students throughout the field trip.

# Group Work Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Highly Successful 3 points	Meeting Success 2 points	Experiencing Difficulty 1 point	Score
Sharing	Shared ideas with others	Occasionally shared ideas with others	Seldom shared ideas with others	
Listening	Always listened to peers	Occasionally listened to peers	Ignored ideas of peers	
Respecting	Interacted with, encouraged, and supported ideas of others	Occasionally encouraged and supported others	Seldom encouraged and supported others	
Participating	Shared task equally with group members	Did most of the task	Did very little of the task	
<b>TOTAL</b>				

Comments:

## Unit 13: Health Informatics

**Competency 1:** Discuss concepts related to health informatics. (DOK 2) HSF1, HSF2, HSF3, HSF4, HSF5, HSF6, HSF8, HSF10, HSF11, AP5

### Suggested Objectives

- Discuss careers in the health informatics area such as administration, coding, transcription, health information, medical assisting, unit coordination, and health education. (DOK 1)
- Discuss admission and discharge. (DOK 2)
- Discuss the steps of the referral process. (DOK 2)

### Suggested Teaching Strategies

- Hook students by having someone in an informatics career speak to the class about his or her career. Pre-assess student knowledge of the informatics services by asking the students to list what they think people in these careers do and then compare their lists to the information provided by the speaker. Have students explore a Web site such as <http://www.healthinformationcareers.com>, the American Health Information Management Association <http://www.ahima.org>, and Healthcare Informatics Magazine <http://www.healthcare-informatics.com>. E1, E2, E3, E4, E5, T1, T2, T3, T4, T5, T6
- Discuss and have students complete admission and discharge forms. E1, E2, E3, E4, E5, E6
- Discuss the importance of following referral processes to ensure reimbursement; have students respond to questions about discussion. E1, E2, E3, E4, E5, E6

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Check the list for appropriateness.
- Assess accuracy of forms.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 2:** Demonstrate procedures related to health informatics. (DOK 2) HSF1, HSF2, HSF3, HSF4, HSF5, HSF6, HSF8, HSF10, HSF11, AP5

### Suggested Objectives

- Use information and communication technology required within all career specialties. (DOK 2)
- Utilize electronic charting. (DOK 2)
- Show computer and Internet proficiency. (DOK 2)
- Utilize spreadsheets. (DOK 2)
- File documents correctly. (DOK 2)
- Dictate and transcribe information. (DOK 2)
- Utilize correct telephone etiquette and communication techniques. (DOK 2)

### Suggested Teaching Strategies

- Discuss procedures related to health informatics. Use the HOSA Web site or local facilities for forms, and work with students in the business technology program to complete procedures. E1,

E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

- Demonstrate proper skill techniques. Have students perform procedures and self-assess techniques. Have students role-play telephone etiquette (personal and professional) as well as other career skills (file, use spreadsheets, dictate, transcribe, and complete related forms such as job application and birth and death certificates). Have students evaluate peers' writing and oral communication. CLS1, CLS2, CLS3, CLS4, CLS5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Use a rubric to assess procedures.
- Monitor peer evaluation of communication.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 3:** Read, interpret, and extract information from medical documents, applying knowledge of medical terminology and codes. (DOK 2) HSF1, HSF2, HSF3, HSF4, HSF5, HSF6, HSF8, HSF10, HSF11, AP5

### Suggested Objectives

- a. Assemble appropriate, accurate information including proper codes to record charges for reimbursement. (DOK 2)
- b. Assess and apply information for regulatory and legal purposes. (DOK 2)

### Suggested Teaching Strategies

- Have students work in groups to interpret doctors' orders from medical records (use forms from local hospital), listen to a tape recording of an oral report being given to the oncoming shift (listen to a real one from the hospital or develop one), and synthesize information from an oral report tape recording into useable notes. E1, E2, E3, E4, E5, E6, R1, R5, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Have students check orders and obtain permission using a fake hospital chart; have them read, perform, and then record information performing coding using a Web site or software. E1, E2, E3, E4, E5, E6, R1, R5, T1, T2, T3, T4, T5, T6
- Give fake records to students, and have them analyze and disaggregate components to determine if there is malpractice based on records. E1, E2, E3, E4, E5, E6, R1, R5

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate notes for content and appearance.
- Assess the coding activity.
- Assess students' knowledge through an online assessment in Blackboard.



**Competency 4:** Discuss the resources, routes, and flow of information within the health-care system. (DOK 2) HSF1, HSF2, HSF3, HSF4, HSF5, HSF6, HSF8, HSF10, HSF11, AP5

### Suggested Objectives

- a. Discuss the information systems utilized by organizations. (DOK 2)

### Suggested Teaching Strategies

- Invite a guest speaker to talk about HIPAA and patient confidentiality. Trace a patient's information from admission to discharge in a system: who has access, where does it go, how many people look at information, confidentiality issues, and so forth. Have students work in pairs to research different information systems, interview someone in the informatics field about various systems, and summarize the results of the interview. E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate the summary for content and appearance using a rubric.
- Use a rubric to assess portfolios.
- Assess students' knowledge through an online assessment in Blackboard.

**Competency 5:** Discuss the principles of quality assurance/performance improvement. (DOK 2) HSF2, HSF3, HSF8, HSF11

### Suggested Objectives

- a. Discuss procedural and personal evaluation. (DOK 2)
- b. Discuss quality assurance/performance improvement. (DOK 2)
- c. Describe reporting methods (written, oral, and electronic). (DOK 1)
- d. Discuss careers in risk management. (DOK 1)

### Suggested Teaching Strategies

- Invite a guest speaker from a community college, hospital, clinic, or other organization to discuss the importance of quality assurance and performance improvement. Have students summarize the speaker's comments. Discuss the importance of monitoring, the role of quality assurance throughout history, and the role of the Joint Accreditation Commission of Health Organizations. E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W5
- Discuss methods of evaluation, quality assurance/performance improvement, and reporting methods. Have students read scenarios with errors to find errors and discuss what to do. E1, E2, E3, E4, E5, E6, R1, R5, CLS1, CLS2, CLS3, CLS4, CLS5
- Have students work in teams to research careers in risk management and write a poem about the careers. E1, E2, E3, E4, E5, E6, W1, W2, W4, W5, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6
- Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student add to his or her electronic portfolio of activities. E1,

E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### **Suggested Assessment Strategies**

- Monitor class activity to ensure that all students participate.
- Evaluate the summary for content and appearance using a rubric.
- Have students peer evaluate poems.
- Assess students' knowledge through an online assessment in Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate major disorders/diseases associated with each.

## ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- R1 Main Ideas and Author's Approach
- R5 Meaning of Words
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

## National Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF2 Health-care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.
- HSF3 Health-care workers will understand how their role fits into their department, their organization, and the overall health care environment. They will identify how key systems affect services they perform and quality of care.
- HSF4 Health-care workers will understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills, as needed.
- HSF5 Health-care workers will understand the legal responsibilities, limitations, and implications of their actions within the health-care delivery setting.
- HSF6 Health-care workers will understand accepted ethical practices with respect to cultural, social, and ethnic differences within the health-care environment. They will perform quality health-care delivery.

- HSF7 Health-care workers will understand the existing and potential hazards to clients, co-workers, and self. They will prevent injury or illness through safe work practices and follow health and safety policies and procedures.
- HSF8 Health-care workers will understand the roles and responsibilities of individual members as part of the health-care team, including their ability to promote the delivery of quality health care.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.
- HSF10 Health-care workers will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.
- HSF11 Health-care workers will use information technology applications required within all career specialties. They will demonstrate use as appropriate to health-care applications.

#### **National Educational Technology Standards**

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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Ehrlich, A., & Schroder, C. L. (2004). *Introduction to medical terminology*. Albany, NY: Delmar.

Simmers, L. (2004). *Introduction to health science technology*. Albany, NY: Delmar.

Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

Thede, L. Q. (2001, September 30). Telehealth: Promise or Peril? Overview. *The Online Journal of Issues in Nursing*, 6(3). Retrieved September 26, 2007, from <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/Ta bleofContents/Volume62001/Number3September30/TelehealthOverview.aspx>

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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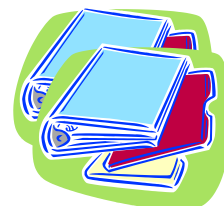
# Written Report Assessment Rubric

**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
Content	Clear thesis and focus that remain apparent	Thesis and focus that remain apparent	Addresses subject matter with minimal support	Does not focus on topic	
Grammar	Correct and effective use of grammar and mechanics	Occasional errors in use of grammar and mechanics	Problems in use of grammar and mechanics	Repeated errors in use of grammar and mechanics	
Organization	Ideas flow smoothly and logically with clarity and coherence	Logical order and appropriate sequencing of ideas with adequate transition	Some evidence of an organizational plan or strategy	Lacks organization	
<b>TOTAL</b>					

**Comments:**

# Portfolio Assessment Rubric



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

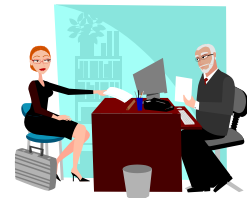
	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

**Comments:**





# Interview Assessment Rubric



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Excellent 4 Points	Good 3 Points	Needs Improvement 2 Points	Unacceptable 1 Point	Score
Body language Displays confidence					
Eye contact Maintains good eye contact with interviewer					
Introduction Provides a self- introduction					
Handshakes Extends hand and shakes firmly					
Dress Dressed appropriately for an interview, business attire					
Language Concise and grammatically correct					
Questions Asks appropriate questions, demonstrates a knowledge of the business					
Closure Responds appropriately					
<b>TOTAL</b>					

**Comments:**

# Group Work Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Highly Successful 3 points	Meeting Success 2 points	Experiencing Difficulty 1 point	Score
Sharing	Shared ideas with others	Occasionally shared ideas with others	Seldom shared ideas with others	
Listening	Always listened to peers	Occasionally listened to peers	Ignored ideas of peers	
Respecting	Interacted with, encouraged, and supported ideas of others	Occasionally encouraged and supported others	Seldom encouraged and supported others	
Participating	Shared task equally with group members	Did most of the task	Did very little of the task	
<b>TOTAL</b>				

Comments:

## Unit 14: Academic, Workplace, and Employment Skills

### Competency 1: Demonstrate employment skills. (DOK 2) <sup>HSF2, HSF4</sup>

#### Suggested Objectives

- Prepare a resume, complete a job application form, and demonstrate interviewing skills. (DOK 2)
- Discuss positive relations with clients and peers. (DOK 2)
- Describe appropriate resource management (time, money, etc.). (DOK 1)
- Write a letter of resignation. (DOK 2)

#### Suggested Teaching Strategies

- Hook students by showing them examples of good and bad resumes, job applications, and interviewing skills. Pre-assess student knowledge by having them brainstorm which employment skills are most important and prepare a graphic organizer showing their importance. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5</sup>
- Have students use computer word processing software to complete a resume and letter of resignation and go online to complete a job application form. Have students add this to the career portfolio they began at the beginning of the year (which also includes attendance, transcripts, CPAS scores, and career info). Have students participate in a mock interview with employers in the community (such as hospital human resource personnel). Have employers write down which students they would have hired that day and why. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>
- Have students make a poster showing what to wear and what not to wear to a job interview. Make a book with photos of students on the day of interviews. Have students work through activities related to work ethics located at <http://www.gvtc.org/workethics.asp>. <sup>E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6</sup>

#### Suggested Assessment Strategies

- Monitor class activity to ensure that all students participate.
- Evaluate products for content and appearance.
- Use a rubric to assess the posters.
- Assess students' knowledge through an online assessment in Blackboard.

### Competency 2: Demonstrate written communication skills. (DOK 2) <sup>HSF2</sup>

#### Suggested Objectives

- Report relevant information in order of occurrence. (DOK 2)
- Report subjective information. (DOK 2)
- Report objective information. (DOK 2)
- Analyze communications for appropriate response, and provide feedback. (DOK 2)
- Organize, write, and compile technical information and summaries. (DOK 3)

#### Suggested Teaching Strategies

- As a hook, have students write the steps for making a peanut butter sandwich, and then try to make the sandwich based strictly on the written steps to emphasize the importance of clear

- writing. Discuss the importance of written communication, and use a scenario with a fake patient to identify subjective and objective information, and chart it. E1, E2, E3, E4, E5, E6
- Have students report relevant information, subjective information, and objective information for case studies and analyze communications for appropriateness. Have students assess each other and provide feedback. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5
  - Have students read health articles from popular magazines or newspapers as well as health-care journals and summarize the articles. Have students search Google Scholar, read an article, summarize it, and find various components such as a literature review, methods, results, and a discussion. E1, E2, E3, E4, E5, E6, R1, R5, W1, W2, W3, W4, W5, T1, T2, T3, T4, T5, T6
  - Lead students in a discussion of what they have learned in this unit and where they feel they need more information. Have each student complete his or her electronic portfolio of activities and present his or her portfolio to a member of the health-care community. E1, E2, E3, E4, E5, E6, CLS1, CLS2, CLS3, CLS4, CLS5, T1, T2, T3, T4, T5, T6

### **Suggested Assessment Strategies**

- Monitor class activity to ensure that all students participate.
- Observe case studies.
- Use a rubric to assess summary.
- Assess students' knowledge through an online assessment through Blackboard.

# Standards

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## 21st Century Skills Standards

- CLS1 Flexibility and Adaptability
- CLS2 Initiative and Self-Direction
- CLS3 Social and Cross-Cultural Skills
- CLS4 Productivity and Accountability
- CLS5 Leadership and Responsibility

## MS Academic Standards

### ACT College Readiness Standards

- E1 Topic Development in Terms of Purpose and Focus
- E2 Organization, Unity, and Coherence
- E3 Word Choice in Terms of Style, Tone, Clarity, and Economy
- E4 Sentence Structure and Formation
- E5 Conventions of Usage
- E6 Conventions of Punctuation
- R1 Main Ideas and Author's Approach
- R5 Meaning of Words
- W1 Expressing Judgments
- W2 Focusing on the Topic
- W3 Developing a Position
- W4 Organizing Ideas
- W5 Using Language

### National Industry Standards

- HSF2 Health-care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.
- HSF4 Health-care workers will understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills, as needed.

### National Educational Technology Standards

- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

# Suggested References

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Jones, A. (1998). *104 activities that build: Self-esteem, teamwork, communication, anger management, self-discovery, coping skills*. Richland, WA: Rec Room.

Predmore, S. R. (2005, March). Another positive for career and technical education: A good work ethic. *Techniques*, 80(3), 52–55.

Simmers, L. (2004). *Diversified health occupations* (6th ed.). Albany, NY: Delmar.

U.S. Department of Labor. (n.d.). Retrieved November 26, 2007, from <http://www.dol.gov/>

For additional references, activities, and Web resources, please refer to Health Sciences P.A.C.E. Web site: <http://www.rcu.blackboard.com> (available only to registered users).

# Suggested Rubrics and Checklists

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# Poster Assessment Rubric

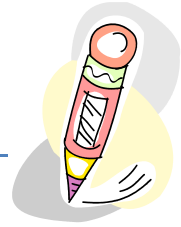


NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
<b>Required Content</b>	The poster includes all required content elements as well as additional information.	All required content elements are included on the poster.	All but one of the required content elements are included on the poster.	Several required content elements were missing.	
<b>Labels</b>	All items of importance on the poster are clearly labeled with labels that are easy to read.	Almost all items of importance on the poster are clearly labeled with labels that are easy to read.	Many items of importance on the poster are clearly labeled with labels that are easy to read.	Labels are too small to read, or no important items were labeled.	
<b>Attractiveness</b>	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout, and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed.	
<b>Grammar</b>	There are no grammatical or mechanical mistakes on the poster.	There are one to two grammatical or mechanical mistakes on the poster.	There are three to four grammatical or mechanical mistakes on the poster.	There are more than four grammatical or mechanical mistakes on the poster.	
				<b>TOTAL</b>	

**Comments:**

# Written Report Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Exemplary 4 Points	Accomplished 3 Points	Developing 2 Points	Beginning 1 Point	Score
Content	Clear thesis and focus that remain apparent	Thesis and focus that remain apparent	Addresses subject matter with minimal support	Does not focus on topic	
Grammar	Correct and effective use of grammar and mechanics	Occasional errors in use of grammar and mechanics	Problems in use of grammar and mechanics	Repeated errors in use of grammar and mechanics	
Organization	Ideas flow smoothly and logically with clarity and coherence	Logical order and appropriate sequencing of ideas with adequate transition	Some evidence of an organizational plan or strategy	Lacks organization	
<b>TOTAL</b>					

Comments:

# Portfolio Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 5 Points	Good 4 Points	Needs Some Improvement 3 Points	Needs Much Improvement 2 Points	Unsatisfactory 1 Point	Score
Visual Appeal						
Cover Page						
Table of Contents						
Letter of Introduction						
Letter of Recommendation						
Resume						
Content						
<b>TOTAL</b>						

**Comments:**

# Resume Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 25 Points	Well Done 20 Points	Meets Standards 15 Points	Beginning 10 Points	No Evidence 0 Points	Score
<b>Format</b>	Resume contains name, address, objective, education, experience, and references. All words spelled correctly	Contains at least six of the criteria, no more than two spelling errors	Contains at least five of the criteria, no more than four spelling errors	Contains minimal information, more than four spelling errors	Assignment not submitted	
<b>Education</b>	Education includes all schools attended, graduation dates, diploma/degree awarded, and major field of study	Education includes three of the criteria	Education includes two of the criteria	Education includes one of the criteria	Assignment not submitted	
<b>Experience</b>	Experience includes internships, entry level jobs, and current position	Experience includes two of the criteria	Experience includes one of the criteria	Experience includes current position only	Assignment not submitted	
<b>Factual</b>	Contains factual names and dates, is believable	Contains fairly believable resume with factual names or dates	Resume has unrealistic dates or names	Resume is unrealistic and contains conflicting information	Assignment not submitted	
<b>TOTAL</b>						

Comments:

# Interview Assessment Rubric



**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **PERIOD:** \_\_\_\_\_

	Excellent 4 Points	Good 3 Points	Needs Improvement 2 Points	Unacceptable 1 Point	Score
Body language Displays confidence					
Eye contact Maintains good eye contact with interviewer					
Introduction Provides a self- introduction					
Handshakes Extends hand and shakes firmly					
Dress Dressed appropriately for an interview, business attire					
Language Concise and grammatically correct					
Questions Asks appropriate questions, demonstrates a knowledge of the business					
Closure Responds appropriately					
<b>TOTAL</b>					

**Comments:**

# Business Letter Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Proficient 3 Points	Needs Improvement 2 points	Unsatisfactory 1 Point	Score
Layout/Design	Creatively designed, easily read, excellent business letter	Attractive, easy to read, good business letter	Appears busy or boring, difficult to read, needs improvement	Unattractive or inappropriate, very difficult to read, not acceptable	
Information, Style, Audience, and Tone	Accurate and complete information, very well written and presented	Well written and interesting to read	Some information provided but is limited or inaccurate	Poorly written, inaccurate, or incomplete	
Accurate Parts	Complete with all required parts	Some elements may be missing	Most elements are missing or out of place	Proper form for a letter not used	
Grammar, Punctuation, and Wording	Excellent presentation, style, grammar, and punctuation	Fair presentation, style, grammar, and punctuation	Missing information, inaccurate punctuation and/or grammar	Poor grammar, punctuation, and wording	
Following Directions and Guidelines	Always on task, always followed directions	Followed directions with some guidance	Required a good bit of extra guidance	Did not follow directions and did not ask for extra help	
				<b>Total</b>	

Comments:

# Case Study Assessment Rubric



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ PERIOD: \_\_\_\_\_

	Excellent 4 Points	Accomplished 3 Points	Needs Improvement 2 Points	Unsatisfactory 1 Point	Score
<b>Comprehension</b>	Shows complete understanding of the issues and grasps implications beyond the immediate issue	Asks for more details to clarify understanding of the issue	Shows partial understanding of the issue but does not ask for clarification	Resists attempts to get clarification	
<b>Strategizing</b>	Develops realistic strategies that provide a satisfactory conclusion	Chooses appropriate strategies that may satisfy	Shows evidence of strategy that may or may not satisfy	Needs assistance to choose a strategy	
<b>Innovation</b>	Devises more than one resolution to the problem	Offers a solution	Offers a solution with a limited point of view	Shows some understanding of the problem	
<b>Communication</b>	Convincingly communicates resolution	Explains solution so others can understand	Conveys an opinion	Unsure of how to explain	
<b>TOTAL</b>					

**Comments:**

# Student Competency Profile for Health Sciences

**Student Name:** \_\_\_\_\_

This record is intended to serve as a method of noting student achievement of the competencies in each unit. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the course.

In the blank before each competency, place the date on which the student mastered the competency.

Unit 1: Orientation and Career Exploration	
	Describe the purpose of the course and related professional organizations.
	Introduce health-care careers, and interpret various roles in the health-care environment and how systems affect services performed and quality of care.
	Analyze the function of the health-care team and the ability to promote the delivery of quality health care.
	Introduce employability skills in order to enhance employment opportunities and job satisfaction; demonstrate key employability skills, and maintain and upgrade skills as needed.
	Use communication skills.
Unit 2: Safety and Standard Precautions	
	Summarize safe practices, and predict potential hazards and ways to prevent injury or illness through safe work practices and by following health and safety policies and procedures.
	Apply standard precautions as described in the rules and regulations set forth by the Occupational Safety and Health Administration (OSHA).
Unit 3: Medical, Legal, and Ethical Responsibility	
	Demonstrate behavior that maintains the patient's rights according to the Patients' Bill of Rights.
	Assess the legal responsibilities, limitations, and implications of health-care workers' actions within the health-care delivery setting.
	Analyze accepted ethical practices within the health-care environment.
Unit 4: Introduction to Medical Terminology	
	Recognize the components of medical terminology.
	Use medical terminology in order to interpret, transcribe, and communicate information, data, and observations.
Unit 5: Organization, Covering, Support, Movement, and Protection	



	Identify the components of the body, and connect them with the interdependence of the body systems.
	Describe and apply knowledge related to the human integumentary system.
	Describe and apply knowledge related to the human muscular and skeletal systems.
	Describe and apply knowledge related to the human immune system.
	Connect knowledge of organization, covering, support, movement, and protection systems to the impact of diseases and disorders.
<b>Unit 6: Vital Organs, Intake, and Elimination</b>	
	Describe and apply knowledge related to the human respiratory system.
	Describe and apply knowledge related to the human circulatory system.
	Qualify for or obtain American Heart Association (AHA) Healthcare Provider Cardiopulmonary Resuscitation (CPR) certification and First Aid Certification.
	Describe and apply knowledge related to the human digestive system.
	Describe and apply knowledge related to the human urinary system.
	Connect knowledge of vital organs and intake and elimination systems to the impact of diseases and disorders.
<b>Unit 7: Regulation, Coordination, and Reproduction</b>	
	Describe and apply knowledge related to the human nervous and sensory systems.
	Describe and apply knowledge related to the human reproductive system.
	Describe and apply knowledge related to the human endocrine system.
	Connect knowledge of regulation, coordination, and reproduction systems to the impact of diseases and disorders.
<b>Unit 8: Orientation, Safety, Asepsis, and Infection Control</b>	
	Review student and course expectations including safety procedures and policies and school and clinical facility policies.
	Review related body systems and disease implications, and demonstrate concepts and procedures related to infection control.
<b>Unit 9: Growth and Development</b>	
	Compare and contrast the stages of growth and development across the lifespan.
	Apply concepts related to death and dying.
	Compare psychological outcomes related to growth and development.
	Analyze the fundamentals of wellness and the prevention of disease processes.
<b>Unit 10: Direct Personal Care</b>	
	Discuss the roles of members of the health-care team, and employ appropriate communication strategies in therapeutic care.
	Review related body systems and disease implications, and perform therapeutic personal care skills.

	Recognize and report a patient's change in status.
	Follow guidelines for collecting patient information.
<b>Unit 11: Therapeutic Services</b>	
	Review related body systems and disease implications, and explain procedures related to mental health care.
	Review related body systems and disease implications, and perform procedures related to sensory impairment.
	Review related body systems and disease implications, and demonstrate procedures related to food and nutrition.
	Review related body systems and disease implications, and discuss procedures related to reproduction.
	Train patients in skills that incorporate principles of restorative care.
	Review related body systems and disease implications, and apply concepts related to pharmaceutical agents.
	Evaluate the purposes of the treatment plan, and collaborate in planning procedures that support the goals for the patient.
<b>Unit 12: Diagnostic Services</b>	
	Review related body systems and disease implications, and explore medical imaging procedures and circumstances requiring use.
	Review related body systems and disease implications, and explore medical laboratory procedures and circumstances requiring use.
	Review related body systems and disease implications, and describe major types of physical exams.
<b>Unit 13: Health Informatics</b>	
	Discuss concepts related to health informatics.
	Demonstrate procedures related to health informatics.
	Read, interpret, and extract information from medical documents, applying knowledge of medical terminology and codes.
	Discuss the resources, routes, and flow of information within the health-care system.
<b>Unit 14: Academic, Workplace, and Employment Skills</b>	
	Demonstrate employment skills.

# Recommended Tools and Equipment

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## CAPITALIZED

1. Student laptop or desktop computer - laptop or desktop (15 per classroom)
2. Wireless access point (for laptop configuration only—1 per classroom)
3. Laptop mobile storage cart (for laptop configuration only—1 per classroom)
4. 48-port 10/100 Base T managed switch with gigabit capability (for desktop configuration only—1 per classroom)
5. Teacher portable computer with port replicator/docking station (1 per classroom)
6. LCD projector with installation of mount (1 per classroom)
7. Interactive board
8. Microscope projection system or dual microscope (1 per program)
9. Networked color laser printer (1 per classroom)
10. Networked black and white laser printer (1 per classroom)
11. Network connectivity
12. Cat 5e or 6 patch cables to match cabling type (20 per classroom)
13. Surge protectors (8 per classroom)
14. Wireless presentation remote (1 per classroom)
15. Digital Web cam (2 per classroom)
16. Networked document flatbed scanner (1 per classroom)
17. Headphones with microphone (16 per classroom)
18. Digital camera (6 per classroom)
19. Digital video camera with tripod (1 per classroom)
20. Voting system - set of 25 devices (1 per classroom)
21. Electronic charting software (1 per computer)
22. Office productivity software: Microsoft Office 2007 (16 per classroom)
23. Concept mapping software: Inspiration (16 per classroom)
24. Symantec Ghost Solution Suite, SID Utility (16 per classroom)
25. Deep Freeze Enterprise Edition or equivalent (16 per classroom)
26. Lab/student management software (16 per classroom)
27. Antivirus software (16 per classroom)
28. Teacher computer workstation (1 per classroom)
29. Printer stand (2 per classroom)
30. Multimedia cabinet with lock (1 per classroom)
31. Bookcase (OPTIONAL—1 per classroom)
32. Student work tables (OPTIONAL—maximum of 4)
33. Dean Vaughn Medical Terminology DVD program
34. Teacher's resource kit: Diversified Health Occupations
35. Electronic Classroom Manager: Diversified Health Occupations
36. Medical assisting video series
37. Practice Kit for Medical Front Office Skills (16 per classroom)
38. Arm, blood pressure (4 per classroom) \*\*Need an additional 3—should already have 1
39. Autoclave, table top (1 per classroom)
40. Bed, electric with side rails (2 per classroom) \*\*Need 1 more – should have 1
41. Bed, manual - high-low with side rails (1 per classroom)
42. CPR, heads, adult (1 per 2 students) \*\*Number needed changed from 1 per classroom

43. Dental head and mount (1 per classroom)
44. Dryer (1 per classroom)
45. EKG machine (1 per program)
46. Mannequin, hospital training (1 per bed)
47. Mannequin, trauma (1 per classroom)
48. Mannequin, weighted (1 per classroom)
49. Pneumatic lift (1 per classroom)
50. Skeleton, life size adult (1 per classroom)
51. Skeleton, complete disarticulated (1 per classroom)
52. Stretcher (1 per classroom)
53. Cart, AV (1 per classroom)
54. Table, exam (1 per classroom)
55. Team responder lights (1 per classroom)
56. Taping table (treatment) (1 per classroom)
57. Torso, human (1 per classroom)
58. TV, 35 in. minimum (1 per classroom)
59. Washer (1 per classroom)
60. Wheelchair with foot rest, folding (2 per classroom)\*\*Quantity required changed from 1–2 per classroom
61. Audiometer (1 per classroom)
62. Vital signs monitor on stand (Blood pressure, temperature, pulse rate, pulse oxygen) (1 per classroom)
63. Models, varied (1 type per classroom) ex. Tooth Heart
64. Ophthalmoscope/otoscope combo (2 per class)
65. Heart and lung sound adult simulator
66. Medication cart
67. AED training system (Little Anne) (1 per program)
68. EMT causality stimulation kit
69. Forensic wound simulation kit
70. Electronic teaching stethoscope
71. Small refind
72. Male catheterization simulator
73. Female catheterization simulator

#### NON-CAPITALIZED ITEMS

1. AED trainer (2 per program)\*\*Should have 1; additional 1 needed
2. Bags, hamper
3. Bandages, triangular
4. Basin, bath
5. Basin, emesis
6. Bath, sitz
7. Bedpan, fracture
8. Bedpan, regular
9. Blood pressure cuffs (1 per 2 students)
10. Cabinet, file lateral with lock (3 per classroom)
11. Cabinet, bed side (1 per bed)
12. Cane (1 per classroom)
13. Cases, pillow

14. Chair, commode (1 per classroom)
15. Charts, anatomy (1 per classroom)
16. Chart, snellen eye (1 per classroom)
17. Chart, tripod, A&P (1 per classroom)
18. CPR, dog (1 per classroom)
19. CPR, heads, baby (1 per classroom)
20. Crutches
21. Cups, drinking
22. Curtain, privacy, ceiling or wall mount
23. Dish, soap
24. Dispenser, glove
25. Dispenser, soap wall mounted
26. Dispenser, paper towel
27. First aid kit
28. Forceps, crile hemostatic, 5½ in.
29. Forceps, jac
30. Forceps, mosquito
31. Forceps, thumb
32. Forceps, tissue
33. Forceps, utility
34. Goggles
35. Gowns, hospital
36. Hammer, percussion
37. Hemostat, curved
38. Hemostat, straight
39. Holder, needle
40. Ishihara Color Vision Chart
41. Mannequin, new born baby
42. Mannequin, adult choking (1 per classroom)
43. Mattress for hospital bed
44. Microhematocrit centrifuge
45. Testicle model, self exam model (Small) (1 per classroom)
46. Breast model, self exam model (Small) (1 per classroom)
47. Model, circulatory system (1 per classroom)
48. Model, digestive (1 per classroom)
49. Model, ear (1 per classroom)
50. Model, eye (1 per classroom)
51. Model, heart (1 per classroom)
52. Model, integumentary (1 per classroom)
53. Model, nervous system (1 per classroom)
54. Model, respiratory system (1 per classroom)
55. Model, urinary (1 per classroom)
56. Penlight, battery operated
57. Pillows, standard (3 per bed)
58. Pitcher, graduated
59. Pitcher, water
60. Plastic pillow case cover
61. Hospital bedspreads

62. Red biohazard waste cans
63. Specimen bowel (nun's hat)
64. Plates, non-disposables
65. Restraint, jacket
66. Restraint, wrist
67. Scale, physicians (1 infant and 1 adult)
68. Scissors, bandage
69. Scissors, suture 5½ in.
70. Scissors, iris 4-5 ½ in.
71. Scissors, mayo dissecting 5½ in.
72. Sheets
73. Mattress covers, fitted
74. Sphygmomanometer, aneroid
75. Sphygmomanometer, mercurial
76. Sphygmomanometer, wall mounted (1 per bed) (automated)
77. Splints, 18 in.
78. Splints, 36 in.
79. Sam's splint - assortment
80. Spreads
81. Stand, IV
82. Stethoscope 22 in.
83. Stethoscope 22-in. teacher training (1 per 3 students)
84. Stool, bedside step
85. Thermometer, bath
86. Thermometers, clinical glass (mercury free)
87. Thermometer, digital (1 per 10 students)
88. Thermometer, tympanic (1 per classroom)
89. Electronic thermometer
90. Timer
91. Tooth model with brush (1 per classroom)
92. Towels
93. Trapeze bar
94. Tray, food
95. Tray, instrument
96. Tuning fork
97. Urinal (male and female)
98. Utensils, feeding
99. Walker
100. Washcloths
101. Dental instrument kit (1 per classroom) (what HOSA uses)
102. Microscope (1 per 3 students)
103. Table, overbed, rolling (1 per bed)
104. VCR/DVD, combination (1 per classroom)
105. Upper body vest restraint
106. Waist roll belt
107. Ambulation gait belt with hand holds
108. Gait belts

# Appendix A: 21st Century Skills Standards<sup>1</sup>

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- CLS1 Flexibility and Adaptability**
- CLS2 Initiative and Self-Direction**
- CLS3 Social and Cross-Cultural Skills**
- CLS4 Productivity and Accountability**
- CLS5 Leadership and Responsibility**

Today's life and work environments require far more than thinking skills and content knowledge. The ability to navigate the complex life and work environments in the globally competitive information age requires students to pay rigorous attention to developing adequate life and career skills.

## **CS 1 Flexibility and Adaptability**

- Adapting to varied roles and responsibilities
- Working effectively in a climate of ambiguity and changing priorities

## **CS 2 Initiative and Self-Direction**

- Monitoring one's own understanding and learning needs
- Going beyond basic mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise
- Demonstrating initiative to advance skill levels toward a professional level
- Defining, prioritizing, and completing tasks without direct oversight
- Utilizing time efficiently and managing workload
- Demonstrating commitment to learning as a lifelong process

## **CS 3 Social and Cross-Cultural Skills**

- Working appropriately and productively with others
- Leveraging the collective intelligence of groups when appropriate
- Bridging cultural differences and using differing perspectives to increase innovation and the quality of work

## **CS 4 Productivity and Accountability**

- Setting and meeting high standards and goals for delivering quality work on time
- Demonstrating diligence and a positive work ethic (e.g., being punctual and reliable)

## **CS 5 Leadership and Responsibility**

- Using interpersonal and problem-solving skills to influence and guide others toward a goal
- Leveraging strengths of others to accomplish a common goal
- Demonstrating integrity and ethical behavior
- Acting responsibly with the interests of the larger community in mind

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<sup>1</sup> *21st century skills* (n.d.). Washington, DC: Partnership for 21st Century Skills.





# Appendix B: Mississippi Academic Standards

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## **Anatomy and Physiology**

- AP1 Utilize critical thinking and scientific problem solving in designing and performing biological research and experimentation.
- AP2 Describe the basic organization of the body using the appropriate anatomical concepts.
- AP3 Discuss the biochemical composition of the human body.
- AP4 Explore the relationship of the cell to the more complex levels of organization within the body.
- AP5 Identify the structure and function of the human body systems, explore the interactions among the systems, and investigate major disorders/diseases associated with each.

# Appendix C: ACT College Readiness Standards

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## English

### E1 Topic Development in Terms of Purpose and Focus

- Identify the basic purpose or role of a specified phrase or sentence.
- Delete a clause or sentence because it is obviously irrelevant to the essay.
- Identify the central idea or main topic of a straightforward piece of writing.
- Determine relevancy when presented with a variety of sentence-level details.
- Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal.
- Delete material primarily because it disturbs the flow and development of the paragraph.
- Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement.
- Apply an awareness of the focus and purpose of a fairly involved essay to determine the rhetorical effect and suitability of an existing phrase or sentence or to determine the need to delete plausible but irrelevant material.
- Add a sentence to accomplish a subtle rhetorical purpose such as to emphasize, to add supporting detail, or to express meaning through connotation.
- Determine whether a complex essay has accomplished a specific purpose.
- Add a phrase or sentence to accomplish a complex purpose, often expressed in terms of the main focus of the essay.

### E2 Organization, Unity, and Coherence

- Use conjunctive adverbs or phrases to show time relationship in simple narrative essays (e.g., then, this time, etc.).
- Select the most logical place to add a sentence in a paragraph.
- Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., first, afterward, and in response).
- Decide the most logical place to add a sentence in an essay.
- Add a sentence that introduces a simple paragraph.
- Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., therefore, however, and in addition).
- Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic.
- Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward.
- Make sophisticated distinctions concerning the logical use of conjunctive adverbs or phrases, particularly when signaling a shift between paragraphs.
- Rearrange sentences to improve the logic and coherence of a complex paragraph.
- Add a sentence to introduce or conclude a fairly complex paragraph.
- Consider the need for introductory sentences or transitions, basing decisions on a thorough understanding of both the logic and rhetorical effect of the paragraph and essay.

### E3 Word Choice in Terms of Style, Tone, Clarity, and Economy

- Revise sentences to correct awkward and confusing arrangements of sentence elements.
- Revise vague nouns and pronouns that create obvious logic problems.
- Delete obviously synonymous and wordy material in a sentence.
- Revise expressions that deviate from the style of an essay.
- Delete redundant material when information is repeated in different parts of speech (e.g., alarmingly startled).
- Use the word or phrase most consistent with the style and tone of a fairly straightforward essay.
- Determine the clearest and most logical conjunction to link clauses.
- Revise a phrase that is redundant in terms of the meaning and logic of the entire sentence.
- Identify and correct ambiguous pronoun references.
- Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay.
- Correct redundant material that involves sophisticated vocabulary and sounds acceptable as conversational English (e.g., “an aesthetic viewpoint” versus “the outlook of an aesthetic viewpoint”).
- Correct vague and wordy or clumsy and confusing writing containing sophisticated language.
- Delete redundant material that involves subtle concepts or that is redundant in terms of the paragraph as a whole.

#### **E4 Sentence Structure and Formation**

- Use conjunctions or punctuation to join simple clauses.
- Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences.
- Determine the need for punctuation and conjunctions to avoid awkward sounding sentence fragments and fused sentences.
- Decide the appropriate verb tense and voice by considering the meaning of the entire sentence.
- Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, or dangling or misplaced modifiers).
- Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems.
- Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence.
- Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs.
- Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole.
- Work comfortably with long sentences and complex clausal relationships within sentences, avoiding weak conjunctions between independent clauses and maintaining parallel structure between clauses.

#### **E5 Conventions of Usage**

- Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives.
- Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts.

- Recognize and use the appropriate word in frequently confused pairs such as there and their, past and passed, and led and lead.
- Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., long for and appeal to).
- Ensure that a verb agrees with its subject when there is some text between the two.
- Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences.
- Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using have rather than of.
- Correctly use reflexive pronouns, the possessive pronouns its and your, and the relative pronouns who and whom.
- Ensure that a verb agrees with its subject in unusual situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun).
- Provide idiomatically and contextually appropriate prepositions following verbs in situations involving sophisticated language or ideas.
- Ensure that a verb agrees with its subject when a phrase or clause between the two suggests a different number for the verb.

## **E6 Conventions of Punctuation**

- Delete commas that create basic sense problems (e.g., between verb and direct object).
- Provide appropriate punctuation in straightforward situations (e.g., items in a series).
- Delete commas that disturb the sentence flow (e.g., between modifier and modified element).
- Use commas to set off simple parenthetical phrases.
- Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause).
- Use punctuation to set off complex parenthetical phrases.
- Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by and).
- Use apostrophes to indicate simple possessive nouns.
- Recognize inappropriate uses of colons and semicolons.
- Use commas to set off a nonessential/nonrestrictive appositive or clause.
- Deal with multiple punctuation problems (e.g., compound sentences containing unnecessary commas and phrases that may or may not be parenthetical).
- Use an apostrophe to show possession, especially with irregular plural nouns.
- Use a semicolon to indicate a relationship between closely related independent clauses.
- Use a colon to introduce an example or an elaboration.

## **Math**

### **M1 Basic Operations and Applications**

- Perform one-operation computation with whole numbers and decimals.
- Solve problems in one or two steps using whole numbers.
- Perform common conversions (e.g., inches to feet or hours to minutes).
- Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent.
- Solve some routine two-step arithmetic problems.

- Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average.
- Solve multi-step arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour).
- Solve word problems containing several rates, proportions, or percentages.
- Solve complex arithmetic problems involving percent of increase or decrease and problems requiring integration of several concepts from pre-algebra and/or pre-geometry (e.g., comparing percentages or averages, using several ratios, and finding ratios in geometry settings).

### **M2 Probability, Statistics, and Data Analysis**

- Calculate the average of a list of positive whole numbers.
- Perform a single computation using information from a table or chart.
- Calculate the average of a list of numbers.
- Calculate the average, given the number of data values and the sum of the data values.
- Read tables and graphs.
- Perform computations on data from tables and graphs.
- Use the relationship between the probability of an event and the probability of its complement.
- Calculate the missing data value, given the average and all data values but one.
- Translate from one representation of data to another (e.g., a bar graph to a circle graph).
- Determine the probability of a simple event.
- Exhibit knowledge of simple counting techniques.\*
- Calculate the average, given the frequency counts of all the data values.
- Manipulate data from tables and graphs.
- Compute straightforward probabilities for common situations.
- Use Venn diagrams in counting.\*
- Calculate or use a weighted average.
- Interpret and use information from figures, tables, and graphs.
- Apply counting techniques.
- Compute a probability when the event and/or sample space is not given or obvious.
- Distinguish between mean, median, and mode for a list of numbers.
- Analyze and draw conclusions based on information from figures, tables, and graphs.
- Exhibit knowledge of conditional and joint probability.

### **M3 Numbers: Concepts and Properties**

- Recognize equivalent fractions and fractions in lowest terms.
- Recognize one-digit factors of a number.
- Identify a digit's place value.
- Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor.
- Find and use the least common multiple.
- Order fractions.
- Work with numerical factors.
- Work with scientific notation.
- Work with squares and square roots of numbers.
- Work problems involving positive integer exponents.\*

- Work with cubes and cube roots of numbers.\*
- Determine when an expression is undefined.\*
- Exhibit some knowledge of the complex numbers.†
- Apply number properties involving prime factorization.
- Apply number properties involving even/odd numbers and factors/multiples.
- Apply number properties involving positive/negative numbers.
- Apply rules of exponents.
- Multiply two complex numbers.†
- Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers.
- Exhibit knowledge of logarithms and geometric sequences.
- Apply properties of complex numbers.

#### **M4 Expressions, Equations, and Inequalities**

- Exhibit knowledge of basic expressions (e.g., identify an expression for a total as  $b + g$ ).
- Solve equations in the form  $x + a = b$ , where  $a$  and  $b$  are whole numbers or decimals.
- Substitute whole numbers for unknown quantities to evaluate expressions.
- Solve one-step equations having integer or decimal answers.
- Combine like terms (e.g.,  $2x + 5x$ ).
- Evaluate algebraic expressions by substituting integers for unknown quantities.
- Add and subtract simple algebraic expressions.
- Solve routine first-degree equations.
- Perform straightforward word-to-symbol translations.
- Multiply two binomials.\*
- Solve real-world problems using first-degree equations.
- Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions).
- Identify solutions to simple quadratic equations.
- Add, subtract, and multiply polynomials.\*
- Factor simple quadratics (e.g., the difference of squares and perfect square trinomials).\*
- Solve first-degree inequalities that do not require reversing the inequality sign.\*
- Manipulate expressions and equations.
- Write expressions, equations, and inequalities for common algebra settings.
- Solve linear inequalities that require reversing the inequality sign.
- Solve absolute value equations.
- Solve quadratic equations.
- Find solutions to systems of linear equations.
- Write expressions that require planning and/or manipulating to accurately model a situation.
- Write equations and inequalities that require planning, manipulating, and/or solving.
- Solve simple absolute value inequalities.

#### **M5 Graphical Representations**

- Identify the location of a point with a positive coordinate on the number line.
- Locate points on the number line and in the first quadrant.
- Locate points in the coordinate plane.

- Comprehend the concept of length on the number line.\*
- Exhibit knowledge of slope.\*
- Identify the graph of a linear inequality on the number line.\*
- Determine the slope of a line from points or equations.\*
- Match linear graphs with their equations.\*
- Find the midpoint of a line segment.\*
- Interpret and use information from graphs in the coordinate plane.
- Match number line graphs with solution sets of linear inequalities.
- Use the distance formula.
- Use properties of parallel and perpendicular lines to determine an equation of a line or coordinates of a point.
- Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle).†
- Match number line graphs with solution sets of simple quadratic inequalities.
- Identify characteristics of graphs based on a set of conditions or on a general equation such as  $y = ax^2 + c$ .
- Solve problems integrating multiple algebraic and/or geometric concepts.
- Analyze and draw conclusions based on information from graphs in the coordinate plane.

#### **M6 Properties of Plane Figures**

- Exhibit some knowledge of the angles associated with parallel lines.
- Find the measure of an angle using properties of parallel lines.
- Exhibit knowledge of basic angle properties and special sums of angle measures (e.g.,  $90^\circ$ ,  $180^\circ$ , and  $360^\circ$ ).
- Use several angle properties to find an unknown angle measure.
- Recognize Pythagorean triples.\*
- Use properties of isosceles triangles.\*
- Apply properties of  $30^\circ$ - $60^\circ$ - $90^\circ$ ,  $45^\circ$ - $45^\circ$ - $90^\circ$ , similar, and congruent triangles.
- Use the Pythagorean Theorem.
- Draw conclusions based on a set of conditions.
- Solve multi-step geometry problems that involve integrating concepts, planning, visualization, and/or making connections with other content areas.
- Use relationships among angles, arcs, and distances in a circle.

#### **M7 Measurement**

- Estimate or calculate the length of a line segment based on other lengths given on a geometric figure.
- Compute the perimeter of polygons when all side lengths are given.
- Compute the area of rectangles when whole number dimensions are given.
- Compute the area and perimeter of triangles and rectangles in simple problems.
- Use geometric formulas when all necessary information is given.
- Compute the area of triangles and rectangles when one or more additional simple steps are required.
- Compute the area and circumference of circles after identifying necessary information.
- Compute the perimeter of simple composite geometric figures with unknown side lengths.\*

- Use relationships involving area, perimeter, and volume of geometric figures to compute another measure.
- Use scale factors to determine the magnitude of a size change.
- Compute the area of composite geometric figures when planning or visualization is required.

### **M8 Functions**

- Evaluate quadratic functions, expressed in function notation, at integer values.
- Evaluate polynomial functions, expressed in function notation, at integer values.†
- Express the sine, cosine, and tangent of an angle in a right triangle as a ratio of given side lengths.†
- Evaluate composite functions at integer values.†
- Apply basic trigonometric ratios to solve right-triangle problems.†
- Write an expression for the composite of two simple functions.†
- Use trigonometric concepts and basic identities to solve problems.†
- Exhibit knowledge of unit circle trigonometry.†
- Match graphs of basic trigonometric functions with their equations.

### **Notes:**

- Students who score in the 1–12 range are most likely beginning to develop the knowledge and skills assessed in the other ranges.
- Standards followed by an asterisk (\*) apply to the PLAN and ACT Mathematics Tests only.
- Standards followed by a dagger (†) apply to the ACT Mathematics Test only.

### **Reading**

#### **R1 Main Ideas and Author’s Approach**

- Recognize a clear intent of an author or narrator in uncomplicated literary narratives.
- Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives.
- Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives.
- Understand the overall approach taken by an author or narrator (e.g., point of view and kinds of evidence used) in uncomplicated passages.
- Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages.
- Infer the main idea or purpose of straightforward paragraphs in more challenging passages.
- Summarize basic events and ideas in more challenging passages.
- Understand the overall approach taken by an author or narrator (e.g., point of view and kinds of evidence used) in more challenging passages.
- Infer the main idea or purpose of more challenging passages or their paragraphs.
- Summarize events and ideas in virtually any passage.
- Understand the overall approach taken by an author or narrator (e.g., point of view and kinds of evidence used) in virtually any passage.
- Identify clear main ideas or purposes of complex passages or their paragraphs.

#### **R2 Supporting Details**

- Locate basic facts (e.g., names, dates, and events) clearly stated in a passage.



- Locate simple details at the sentence and paragraph level in uncomplicated passages.
- Recognize a clear function of a part of an uncomplicated passage.
- Locate important details in uncomplicated passages.
- Make simple inferences about how details are used in passages.
- Locate important details in more challenging passages.
- Locate and interpret minor or subtly stated details in uncomplicated passages.
- Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages.
- Locate and interpret minor or subtly stated details in more challenging passages.
- Use details from different sections of some complex informational passages to support a specific point or argument.
- Locate and interpret details in complex passages.
- Understand the function of a part of a passage when the function is subtle or complex.

### **R3 Sequential, Comparative, and Cause–Effect Relationships**

- Determine when (e.g., first, last, before, and after) or if an event occurred in uncomplicated passages.
- Recognize clear cause–effect relationships described within a single sentence in a passage.
- Identify relationships between main characters in uncomplicated literary narratives.
- Recognize clear cause–effect relationships within a single paragraph in uncomplicated literary narratives.
- Order simple sequences of events in uncomplicated literary narratives.
- Identify clear relationships between people, ideas, and so on in uncomplicated passages.
- Identify clear cause–effect relationships in uncomplicated passages.
- Order sequences of events in uncomplicated passages.
- Understand relationships between people, ideas, and so on in uncomplicated passages.
- Identify clear relationships between characters, ideas, and so on in more challenging literary narratives.
- Understand implied or subtly stated cause–effect relationships in uncomplicated passages.
- Identify clear cause–effect relationships in more challenging passages.
- Order sequences of events in more challenging passages.
- Understand the dynamics between people, ideas, and so on in more challenging passages.
- Understand implied or subtly stated cause–effect relationships in more challenging passages.
- Order sequences of events in complex passages.
- Understand the subtleties in relationships between people, ideas, and so on in virtually any passage.
- Understand implied, subtle, or complex cause–effect relationships in virtually any passage.

### **R5 Meaning of Words**

- Understand the implication of a familiar word or phrase and of simple descriptive language.
- Use context to understand basic figurative language.
- Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages.
- Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages.

- Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages.
- Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts.
- Determine, even when the language is richly figurative and the vocabulary is difficult, the appropriate meaning of context-dependent words, phrases, or statements in virtually any passage.

## **R6 Generalizations and Conclusions**

- Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives.
- Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages.
- Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages.
- Draw simple generalizations and conclusions using details that support the main points of more challenging passages.
- Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives.
- Draw generalizations and conclusions about people, ideas, and so on in more challenging passages.
- Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on.
- Draw complex or subtle generalizations and conclusions about people, ideas, and so on, often by synthesizing information from different portions of the passage.
- Understand and generalize about portions of a complex literary narrative.

## **Science**

### **S1 Interpretation of Data**

- Select a single piece of data (numerical or non-numerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram).
- Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, and axis labels).
- Select two or more pieces of data from a simple data presentation.
- Understand basic scientific terminology.
- Find basic information in a brief body of text.
- Determine how the value of one variable changes as the value of another variable changes in a simple data presentation.
- Select data from a complex data presentation (e.g., a table or graph with more than three variables; a phase diagram).
- Compare or combine data from a simple data presentation (e.g., order or sum data from a table).
- Translate information into a table, graph, or diagram.
- Compare or combine data from two or more simple data presentations (e.g., categorize data from a table using a scale from another table).
- Compare or combine data from a complex data presentation.
- Interpolate between data points in a table or graph.

- Determine how the value of one variable changes as the value of another variable changes in a complex data presentation.
- Identify and/or use a simple (e.g., linear) mathematical relationship between data.
- Analyze given information when presented with new, simple information.
- Compare or combine data from a simple data presentation with data from a complex data presentation.
- Identify and/or use a complex (e.g., nonlinear) mathematical relationship between data.
- Extrapolate from data points in a table or graph.
- Compare or combine data from two or more complex data presentations.
- Analyze given information when presented with new, complex information.

## **S2 Scientific Investigation**

- Understand the methods and tools used in a simple experiment.
- Understand the methods and tools used in a moderately complex experiment.
- Understand a simple experimental design.
- Identify a control in an experiment.
- Identify similarities and differences between experiments.
- Understand the methods and tools used in a complex experiment.
- Understand a complex experimental design.
- Predict the results of an additional trial or measurement in an experiment.
- Determine the experimental conditions that would produce specified results.
- Determine the hypothesis for an experiment.
- Identify an alternate method for testing a hypothesis.
- Understand precision and accuracy issues.
- Predict how modifying the design or methods of an experiment will affect results.
- Identify an additional trial or experiment that could be performed to enhance or evaluate experimental results.

## **S3 Evaluation of Models, Inferences, and Experimental Results**

- Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model.
- Identify key issues or assumptions in a model.
- Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models.
- Determine whether given information supports or contradicts a simple hypothesis or conclusion and why.
- Identify strengths and weaknesses in one or more models.
- Identify similarities and differences between models.
- Determine which model(s) is(are) supported or weakened by new information.
- Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion.
- Select a complex hypothesis, prediction, or conclusion that is supported by a data presentation or model.
- Determine whether new information supports or weakens a model and why.
- Use new information to make a prediction based on a model.

- Select a complex hypothesis, prediction, or conclusion that is supported by two or more data presentations or models.
- Determine whether given information supports or contradicts a complex hypothesis or conclusion and why.

## Writing

### W1 Expressing Judgments

- Show a little understanding of the persuasive purpose of the task, but neglect to take or to maintain a position on the issue in the prompt.
- Show limited recognition of the complexity of the issue in the prompt.
- Show a basic understanding of the persuasive purpose of the task by taking a position on the issue in the prompt but not maintaining that position.
- Show a little recognition of the complexity of the issue in the prompt by acknowledging, but only briefly describing, a counterargument to the writer’s position.
- Show understanding of the persuasive purpose of the task by taking a position on the issue in the prompt.
- Show some recognition of the complexity of the issue in the prompt by doing the following:
  - Acknowledging counterarguments to the writer’s position
  - Providing some response to counter-arguments to the writer’s position
- Show clear understanding of the persuasive purpose of the task by taking a position on the specific issue in the prompt and offering a broad context for discussion.
- Show recognition of the complexity of the issue in the prompt by doing the following:
  - Partially evaluating implications and/or complications of the issue
  - Posing and partially responding to counter-arguments to the writer’s position
- Show clear understanding of the persuasive purpose of the task by taking a position on the specific issue in the prompt and offering a critical context for discussion.
- Show understanding of the complexity of the issue in the prompt by doing the following:
  - Examining different perspectives
  - Evaluating implications or complications of the issue
  - Posing and fully discussing counter-arguments to the writer’s position

### W2 Focusing on the Topic

- Maintain a focus on the general topic in the prompt through most of the essay.
- Maintain a focus on the general topic in the prompt throughout the essay.
- Maintain a focus on the general topic in the prompt throughout the essay, and attempt a focus on the specific issue in the prompt.
- Present a thesis that establishes focus on the topic.
- Maintain a focus on discussion of the specific topic and issue in the prompt throughout the essay.
- Present a thesis that establishes a focus on the writer’s position on the issue.
- Maintain a clear focus on discussion of the specific topic and issue in the prompt throughout the essay.
- Present a critical thesis that clearly establishes the focus on the writer’s position on the issue.

### W3 Developing a Position

- Offer a little development, with one or two ideas; if examples are given, they are general and may not be clearly relevant; resort often to merely repeating ideas.
- Show little or no movement between general and specific ideas and examples.
- Offer a limited development of ideas using a few general examples; resort sometimes to merely repeating ideas.
- Show little movement between general and specific ideas and examples.
- Develop ideas by using some specific reasons, details, and examples.
- Show some movement between general and specific ideas and examples.
- Develop most ideas fully, using some specific and relevant reasons, details, and examples.
- Show clear movement between general and specific ideas and examples.
- Develop several ideas fully, using specific and relevant reasons, details, and examples.
- Show effective movement between general and specific ideas and examples.

#### **W4 Organizing Ideas**

- Provide a discernible organization with some logical grouping of ideas in parts of the essay.
- Use a few simple and obvious transitions.
- Present a discernible, though minimally developed, introduction and conclusion.
- Provide a simple organization with logical grouping of ideas in parts of the essay.
- Use some simple and obvious transitional words, though they may at times be inappropriate or misleading.
- Present a discernible, though underdeveloped, introduction and conclusion.
- Provide an adequate but simple organization with logical grouping of ideas in parts of the essay but with little evidence of logical progression of ideas.
- Use some simple and obvious, but appropriate, transitional words and phrases.
- Present a discernible introduction and conclusion with a little development.
- Provide unity and coherence throughout the essay, sometimes with a logical progression of ideas.
- Use relevant, though at times simple and obvious, transitional words and phrases to convey logical relationships between ideas.
- Present a somewhat developed introduction and conclusion.
- Provide unity and coherence throughout the essay, often with a logical progression of ideas.
- Use relevant transitional words, phrases, and sentences to convey logical relationships between ideas.
- Present a well-developed introduction and conclusion.

#### **W5 Using Language**

- Show limited control of language by doing the following:
  - Correctly employing some of the conventions of standard English grammar, usage, and mechanics but with distracting errors that sometimes significantly impede understanding
  - Using simple vocabulary
  - Using simple sentence structure
  - Correctly employing some of the conventions of standard English grammar, usage, and mechanics but with distracting errors that sometimes impede understanding
  - Using simple but appropriate vocabulary
  - Using a little sentence variety, though most sentences are simple in structure

- Correctly employing many of the conventions of standard English grammar, usage, and mechanics but with some distracting errors that may occasionally impede understanding
- Using appropriate vocabulary
- Using some varied kinds of sentence structures to vary pace
- Correctly employing most conventions of standard English grammar, usage, and mechanics with a few distracting errors but none that impede understanding
- Using some precise and varied vocabulary
- Using several kinds of sentence structures to vary pace and to support meaning
- Correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors
- Using precise and varied vocabulary
- Using a variety of kinds of sentence structures to vary pace and to support meaning

# Appendix D: National Industry Standards

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## Industry Standards

- HSF1 Health-care workers will know the academic subject matter required (in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their roles.
- HSF2 Health-care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.
- HSF3 Health-care workers will understand how their role fits into their department, their organization, and the overall health care environment. They will identify how key systems affect services they perform and quality of care.
- HSF4 Health-care workers will understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills, as needed.
- HSF5 Health-care workers will understand the legal responsibilities, limitations, and implications of their actions within the health-care delivery setting.
- HSF6 Health-care workers will understand accepted ethical practices with respect to cultural, social, and ethnic differences within the health-care environment. They will perform quality health-care delivery.
- HSF7 Health-care workers will understand the existing and potential hazards to clients, co-workers, and self. They will prevent injury or illness through safe work practices and follow health and safety policies and procedures.
- HSF8 Health-care workers will understand the roles and responsibilities of individual members as part of the health-care team, including their ability to promote the delivery of quality health care.
- HSF9 Health-care workers will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.
- HSF10 Health-care workers will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.
- HSF11 Health-care workers will use information technology applications required within all career specialties. They will demonstrate use as appropriate to health-care applications.

# Appendix E: National Educational Technology Standards for Students<sup>2</sup>

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- T1 Creativity and Innovation
- T2 Communication and Collaboration
- T3 Research and Information Fluency
- T4 Critical Thinking, Problem Solving, and Decision Making
- T5 Digital Citizenship
- T6 Technology Operations and Concepts

- T1 Creativity and Innovation  
Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students do the following:
- a. Apply existing knowledge to generate new ideas, products, or processes.
  - b. Create original works as a means of personal or group expression.
  - c. Use models and simulations to explore complex systems and issues.
  - d. Identify trends and forecast possibilities.
- T2 Communication and Collaboration  
Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students do the following:
- a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
  - b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
  - c. Develop cultural understanding and global awareness by engaging with learners of other cultures.
  - d. Contribute to project teams to produce original works or solve problems.
- T3 Research and Information Fluency  
Students apply digital tools to gather, evaluate, and use information. Students do the following:
- a. Plan strategies to guide inquiry.
  - b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
  - c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
  - d. Process data and report results.
- T4 Critical Thinking, Problem Solving, and Decision Making  
Students use critical-thinking skills to plan and conduct research, manage projects, solve

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<sup>2</sup> International Society for Technology in Education. (2000). *National educational technology standards for students (NETS)*. Retrieved February 27, 2008, from <http://www.iste.org/>



problems, and make informed decisions using appropriate digital tools and resources. Students do the following:

- a. Identify and define authentic problems and significant questions for investigation.
- b. Plan and manage activities to develop a solution or complete a project.
- c. Collect and analyze data to identify solutions and/or make informed decisions.
- d. Use multiple processes and diverse perspectives to explore alternative solutions.

T5 Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students do the following:

- a. Advocate and practice safe, legal, and responsible use of information and technology.
- b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c. Demonstrate personal responsibility for lifelong learning.
- d. Exhibit leadership for digital citizenship.

T6 Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students do the following:

- a. Understand and use technology systems.
- b. Select and use applications effectively and productively.
- c. Troubleshoot systems and applications.
- d. Transfer current knowledge to learning of new technologies.