

# 3. Unit 3: Health Practitioners and Technicians

Content Area: **Science**  
Course(s):  
Time Period: **Semester**  
Length: **12 Blocks**  
Status: **Published**

## General Overview, Course Description or Course Philosophy

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This course provides an orientation to health care services and their delivery. It presents an interdisciplinary perspective, focusing on process skills such as critical thinking, ethical reasoning, effective communication and ways to continue independent learning throughout life. The course shows how all health care providers acquire professional competence in dealing with the issues and problems they face as well as the role they play as informed consumers.

## OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

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1. List steps for planning a career in health care.
2. Define and differentiate licensure, registration, and certification.
3. Describe the typical work responsibilities, education, training, trends and legal requirements; employment; outlook; and average earnings of selected occupations in therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.
4. List and explain the benefits of membership in a professional organization.
5. State the education, training, and legal requirements for becoming the various healthcare professionals in this unit.
6. Describe the typical work responsibilities in each profession.
7. List desirable personal characteristics of the various healthcare professionals.
8. Identify employment opportunities and key trends for these occupations.
9. Gain a better understanding of each field discussed in this unit.

## CONTENT AREA STANDARDS

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|-------------|--|
| 12.9.3.HL.1 | Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career. |
| 12.9.3.HL.2 | Explain the healthcare workers' role within their department, their organization and the   |

	overall healthcare system.
12.9.3.HL.3	Identify existing and potential hazards to clients, coworkers, visitors and self in the healthcare workplace.
12.9.3.HL.4	Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.
12.9.3.HL.5	Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.
12.9.3.HL.6	Evaluate accepted ethical practices with respect to cultural, social and ethnic differences within the healthcare workplace.
12.9.3.HL-BRD.1	Summarize the goals of biotechnology research and development within legal and ethical protocols.
12.9.3.HL-SUP.1	Describe, differentiate and safely perform the responsibilities of healthcare support services roles.
12.9.3.HL-THR.1	Utilize communication strategies to answer patient/client questions and concerns on planned procedures and goals.
12.9.3.HL-THR.3	Utilize processes for assessing, monitoring and reporting patient's/clients' health status to the treatment team within protocol and scope of practice.
12.9.3.HL-THR.4	Evaluate patient/client needs, strengths and problems in order to determine if treatment goals are being met.

## **RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)**

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12.9.3.ST-ET.5	Apply the knowledge learned in STEM to solve problems.
12.9.3.ST-SM.4	Apply critical thinking skills to review information, explain statistical analysis, and to translate, interpret and summarize research and statistical data.
WRK.9.2.12.CAP.3	Investigate how continuing education contributes to one's career and personal growth.
WRK.9.2.12.CAP.8	Determine job entrance criteria (e.g., education credentials, math/writing/reading comprehension tests, drug tests) used by employers in various industry sectors.

## **STUDENT LEARNING TARGETS**

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Refer to the 'Declarative Knowledge' and 'Procedural Knowledge' sections.

### **Declarative Knowledge**

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Students will understand that:

- The steps for planning a career in health care.
- How the typical work responsibilities, education, training, trends and legal requirements; employment; outlook; and average earnings of selected occupations in therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.
- The benefits of membership in a professional organization.
- State the education, training, and legal requirements for becoming the various healthcare professionals

in this unit.

- The characteristics in the fields discussed in these units.

## **Procedural Knowledge**

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Students will be able to:

1. Differentiate licensure, registration, and certification.
2. Recognize the benefits of membership in a professional organization.
3. Describe the typical work responsibilities in each profession.
4. Recognize the desirable personal characteristics of the various healthcare professionals.
5. Identify employment opportunities and key trends for these occupations.
6. Describe the professional responsibilities of each healthcare provider.
7. Identify the types of specialties in each profession.
8. Describe the work environment for each healthcare professional.
9. Compare and contrast the following for each healthcare professional: employment opportunities, education, opportunities for professional advancement, salary, professional organizations.
10. Compare and contrast the following for each profession: licensing, certification, and registration.
11. Discuss the importance of interprofessional education (IPE) and interprofessional practice (IPP) in healthcare

## **EVIDENCE OF LEARNING**

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Refer to the 'Formative Assessments' and 'Summative Assessments' sections.

## **Formative Assessments**

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- Read Chapter(s) and complete chapter checkpoint questions
- Define Key Terms

- Study Guide
- Chapter Wrap Up Questions

## **Summative Assessments**

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- Benchmarks – departmental benchmark given at the end of MP1, MP2, and MP3 based on lab practices
- Alternative Assessments
  - Lab inquiries and investigations
  - Lab Practicals
  - Exploratory activities based on phenomenon
  - Gallery walks of student work
  - Creative Extension Projects
  - Build a model of a proposed solution
  - Let students design their own flashcards to test each other
  - Keynote presentations made by students on a topic
  - Portfolio

Optional Activities:

Overview of Healthcare Careers:

- Students are placed in groups of 4. On each corner of a paper, they each write their names, career choice, education necessary, expected job description (what would happen on an ordinary day) Students are to discuss the four individuals represented on the corners of their papers and invent a scenario in which each would be professionally involved. Scenarios will be shared with class.
- Students will take the "How do you see yourself" survey on a career interest inventory key. Discussion after .
- Students will be assigned the "Career Research" assignment to be started in class and finished at home. They will be asked to find out the following information: responsibilities, education, advanced degrees available licensing, professional organizations, Salary, job outlook and work environment.

Nursing and Dental:

- Students will watch the video of "Life of a Med Surg Nurse"  
[https://www.youtube.com/watch?v=5\\_mDHUwNAOY](https://www.youtube.com/watch?v=5_mDHUwNAOY)
- Students will review nursing points of interest on <http://www.discovernursing.com/explore->

[specialties#categories=emergency](#) which is the Johnson and Johnson nursing website. Students can also play the nursing game.

- Students will learn how to draw up fluid into a syringe for injection and will inject into an orange.
- Students will review the hierarchy of nursing. (APN, BSN, RN, LPN, CNA)
- Students to complete Investigate it #3 in textbook.
- Students will practice bed making, transfers: chair to bed, bed to chair. Practice positioning patient in bed and protocols regarding call bell accessibility and wheelchair skills.
- Students will complete on going chart of careers

#### Therapy/Alternative Therapies

- Students will choose an alternative therapy (massage, hippo therapy, aquatic, etc.) and will do research and present to the class a synopsis of this therapy and if it is available in this area.
- Students will complete on going chart of careers

#### Diagnostic and Imaging:

- Investigate it #2 on page 145 in class discussion on the tremendous growth in the number and cost of imaging procedures performed. Students will evaluate why there has been an increase in incidence. How can we control costs of these procedures?
- Students will watch a short video on the increase of diagnostic test.  
<http://www.youtube.com/watch?v=YGPYe2Qe7p0> 4)
- Discussion of the definitions of the various fractures from "Identifying Fractures" Class will view various fractures on smartboard and will try to identify the fracture.
- Students will be given the packet of "Identifying Fractures" and will be asked to identify the various fractures from the pictures. 5) Students will watch a short video about a day in the life of a radiologist technician.  
<http://www.youtube.com/watch?v=HvPA-ipmvUQ>
- Students will create their own x-ray using images from the internet and black scratch paper.
- Students will view the website with images of how iphones are being used for diagnostic testing.  
<http://internetmedicine.com/2012/12/14/top-ten-medical-uses-of-the-iphone/>
- Students will need to research a diagnostic procedure and create a google doc that includes pictures and a brief explanation of dx achieved by diagnostic tests. They will then present their findings to the class.
- Students will complete ongoing chart of careers

#### Lab and Pharmacy

- Students will participate in a powerpoint review of chapter.
- Students will review and discuss Emily's Law (Pharmacy tech ruling)

<http://emilyjerryfoundation.org/emilys-story/> <http://www.youtube.com/watch?v=iru56ZO9tKc>  
(interview with pharmacist) Interview with Mr Jerry  
[http://www.youtube.com/watch?v=9jmULQ\\_m04o](http://www.youtube.com/watch?v=9jmULQ_m04o) 3)

- Students will watch the following video on Lab Technologist  
<http://www.youtube.com/watch?v=AqNAXCyTh-c>
- Students will discuss job overview of the following occupations: \* Clinical laboratory technologists \* Clinical laboratory technicians \* Laboratory assistants \* Pharmacists \* Pharmacy technicians
- Students will be broken up into groups of 2-3 and will discuss common blood work and interpretation of the blood work: Students are to use a class powerpoint in which each group will find a copy of a lab report of their designated lab test. <http://labtestsonline.org/> -CBC -Chem Screen -Lyme Titer -Sed Rate -LFT's -Lipid panel
- Students will use the class before the assessment to play other students board games to review for unit test.
- Students will complete ongoing chart

## **RESOURCES (Instructional, Supplemental, Intervention Materials)**

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- Choosing a career
- <https://libguides.rutgers.edu/c.php?g=336182&p=2265218>
- <https://shp.rutgers.edu/fast-facts/>
- <https://careers.rutgers.edu/students-alumni/discover-yourself/explore-your-interests-values/guide-self-assessment>
- New Jersey Career Center
- [https://careerconnections.nj.gov/?\\_ga=2.248027524.20711934.1591891695-7847488.1591891695](https://careerconnections.nj.gov/?_ga=2.248027524.20711934.1591891695-7847488.1591891695)
- US Bureau of Labor Statistics Career Outlooks
- <https://www.bls.gov/careeroutlook/>
- Career One Stop- A source for career exploration sponsored by the Department of Labor - Click on Health Sciences to locate videos on a variety of careers in the health professions
- <https://www.careeronestop.org/Videos/CareerVideos/career-videos.aspx>

- Health Science Career Cluster - National Center for O\*NET Development
- <https://www.onetonline.org/find/career?c=8&g=Go>
- Career Materials for Students
- <https://www.bls.gov/k12/students/careers/how-can-bls-help-me-explore-careers.htm#materials>
- New Jersey Center for Occupational Information
- [https://www.nj.gov/labor/lwdhome/coei/coei\\_index.html](https://www.nj.gov/labor/lwdhome/coei/coei_index.html)
- Accreditation and Health Professions
- <http://www.asahp.org/accreditation>
- Specialized and Professional Accreditation
- <https://www.cahiim.org/accreditation/hi-and-him-accreditation>
- Nutrition and Dietetics
- What a registered dietician nutritionist can do for you?
- <https://www.eatright.org/videos> (downloaded 4-16-21, 3:59)
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=29103100> (Downloaded 4-16-21, 1:32)
- How to become a dietician nutritionist
- <https://www.eatrightpro.org/about-us/become-an-rdn-or-dtr/high-school-students>
- Physician Assistants (PAs)
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=29107100> (Downloaded 4-13-21, 1:30)

- Become a PA
- <https://www.aapa.org/career-central/become-a-pa/>
- <https://www.onetonline.org/link/summary/29-1071.00>
- PA infographic
- [https://www.aapa.org/wp-content/uploads/2019/08/What\\_Is\\_A\\_PA\\_Infographic\\_LetterSize\\_Jan2020.pdf](https://www.aapa.org/wp-content/uploads/2019/08/What_Is_A_PA_Infographic_LetterSize_Jan2020.pdf)
- PA and NPs
- <https://www.aapa.org/download/60509/>
- Nurse Practitioners (NPs)
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=29117100> (Downloaded 4-13-21, 1:30)
- Nurse Practitioners (NPs)
- <https://www.aanp.org/>
- Physicians (Doctors)
- <https://students-residents.aamc.org/>
- <https://www.ama-assn.org/residents-students/preparing-medical-school/which-undergrad-majors-are-best-med-school>
- MDs and DOs
- <https://www.ama-assn.org/residents-students/preparing-medical-school/do-vs-md-how-much-does-medical-school-degree-type>

- <https://www.aacom.org/become-a-doctor>
- I chose DO
- [https://www.youtube.com/watch?time\\_continue=12&v=iewW5wjH3nE&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=12&v=iewW5wjH3nE&feature=emb_logo) (2020, 3:20)
- Medical Assistants
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=31909200>
- Downloaded 4-13-21 1:20
- How to become a nurse
- <https://www.nursingworld.org/practice-policy/workforce/what-is-nursing/how-to-become-a-nurse/>
- <https://www.ncsbn.org/nursing-terms.htm>
- Johnson and Johnson website on careers in nursing
- <https://nursing.jnj.com/>
- <https://nursing.jnj.com/specialty#categories=emergency>
- Registered Nurses (RNs)
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=29114100> (downloaded 4-13-21, 1:36)
- Licensed Practical Nurses (LPNs)/Licensed Vocational Nurses (LVNs)
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=29206100> (downloaded 4-13-21, 1:20)

## Dentists

- <https://www.careeronestop.org/Toolkit/Careers/Occupations/Occupation-profile.aspx?keyword=Dentists,%20General&onetcode=29102100&location=UNITED%20STATES>

(downloaded 4-13-21, 1:27)

- Applying for Dental School

- <https://www.ada.org/en/education-careers/careers-in-dentistry/be-a-dentist/applying-for-dental-school>

- <https://www.ada.org/en/education-careers/careers-in-dentistry/be-a-dentist>

- Dental Hygienists

- <https://www.ada.org/en/education-careers/careers-in-dentistry/dental-team-careers/dental-hygienist/education-training-requirements-dental-hygienist>

- <https://www.careeronestop.org/toolkit/careers/occupations/Occupation-profile.aspx?keyword=Dental%20Hygienists&onetcode=29129200&location=UNITED%20STATES>  
(downloaded 4-13-21, 1:10)

- Dental Assistants

- <https://www.ada.org/en/education-careers/careers-in-dentistry/dental-team-careers/dental-assistant>
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=31909100> (downloaded 4-13-21, 1:14)

- Pharmacists

- <https://www.aacp.org/resource/top-ten-reasons-become-pharmacist>
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=29105100>

- (downloaded 4-13-21, 1:25)

- How to become a pharmacist

- <https://www.aacp.org/resources/students/future>

- Pharmacy Technicians

- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=29205200> (Downloaded 4-13-21 1:36)

- Careers in the Medical Laboratory
- <https://www.ascp.org/content/careers/learn-about-careers>
- <https://www.ascls.org/careers-ascls/career-recruitment-tool-kit>
- <http://www.laboratorysciencecareers.com/>
- <https://www.ascls.org/careers-ascls/how-do-i-become-a-laboratory-professional>
- Who's who in the lab
- <https://labtestsonline.org/articles/medical-laboratory-professionals>
- A Life saved – laboratory professionals
- [https://www.youtube.com/watch?time\\_continue=1&v=T0OZfMzxU-o&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=1&v=T0OZfMzxU-o&feature=emb_logo) (2011, 9:53)
- ASCLS Career Recruitment Video
- <https://www.youtube.com/watch?v=VffKMB3kJ0&feature=youtu.be> (2016, 2:09)
- Medical and Laboratory technologists and technicians
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=29201100> (downloaded 4-13-21, 1:35)
- Phlebotomists
- <https://www.careeronestop.org/videos/careeronestop-videos.aspx?videocode=31909700> (downloaded 4-13-21, 1:16)
- Careers in Cytopathology/ Cytotechnology
- <https://cytopathology.org/page/careercytotechnology>
- <https://www.youtube.com/watch?v=mkC-EuUoidA&feature=youtu.be> (2020, 1:10)
- [https://www.asct.com/ASCTWeb/About\\_ASCT/Profession\\_of\\_Cytotechnology/ASCTWeb/Content/Pr](https://www.asct.com/ASCTWeb/About_ASCT/Profession_of_Cytotechnology/ASCTWeb/Content/Pr)

[ofession\\_of\\_Cytotechnology.aspx](#)

- <https://www.caahep.org/Students/Program-Info/Cytotechnology.aspx>

## **INTERDISCIPLINARY CONNECTIONS**

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- Group and partner activities are assigned when possible
- Students will be grouped based on learning styles and approach to processing content

## **ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS**

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See link to Accommodations & Modifications document in course folder.