

# Nursing Program of Study

## Health Sciences and Technology



A program of study serves as a guide, along with other career planning materials, as learners continue along a career path. Courses listed are only recommended coursework and should be individualized to meet each learner's educational and career goals.

Ultimately, a program of study should be customized with course titles and appropriate high school graduation requirements as well as college entrance requirements. Additional career exploration opportunities should also be offered at upper elementary grade levels to promote higher engagement and learner focus in subsequent years. Student Success Plans outlining career goals should be utilized through the advisement process.

### Requires on-the-job training or industry-recognized credential

- Certified Nursing Assistant
- Geriatric Aide
- Home Health Aide
- Hospice Aide
- Nurse Aide
- Patient Care Technician

### Requires an associate degree

- Licensed Practical Nurse
- Critical Care Technician
- Clinical Operations Coordinator

### Requires a bachelor's degree

- Medical Case Manager
- Nurse Consultant
- Registered Nurse
- Research Nurse

### Requires an advanced degree

- Clinical Nurse Educator
- Clinical Nurse Specialist
- Director of Nursing
- Family Nurse Practitioner
- Nurse Anesthetist
- Nurse Midwife
- Psychiatric Nurse Practitioner
- Public Health Nurse

## Sample occupations



**Illinois**  
**State Board of**  
**Education**

[isbe.net](http://isbe.net)

January 2022

# Course examples

## **Anatomy & Physiology for Health Sciences (03053A001)**

Anatomy & Physiology for Health Sciences courses integrate microbiology, disease processes, growth and development, and genetics with anatomy and physiology of the body systems. Students investigate how to prevent, diagnose, and treat disease and various health conditions. Typically, these courses reinforce science, mathematics, communications, health, and social studies principles and relate them to health care.

## **Health Occupations Introductory Skills (14002A002)**

This course provides students with a core of knowledge of the health care industry and helps refine their health care-related knowledge and competencies/skills. Students will develop cognitive and effective skills and formulate a strong foundation for introductory skill development. Competencies taught usually include, but are not limited to, medical terminology, health care industry and culture, health care delivery practices, health care industry ethics, health professions licensure, emergency response, health care confidentiality, health care personnel and roles, health care sanitation, and health care rules and regulations as defined in the Illinois Recommended Technical and Essential Employability Competencies for College and Career Pathway Endorsements.

## **Introduction to Pathophysiology and Pharmacology (14253A002)**

Introduction to Pathophysiology and Pharmacology courses present the concepts of homeostasis and disease processes. Course topics and experiences enable students to relate how the human body's homeostasis is impacted by both disease and chemical substances, especially by the actions of drugs and other substances commonly used to treat diseases. Pathophysiology emphasizes various human body system disorders and the mechanisms of disease, including, (but not limited to, fluid, electrolyte, and acid-base imbalances; pain; inflammation and healing; infection; and immunity. Pharmacology topics typically include, but are not limited to, the science of medication actions, sources, chemical properties, classification, uses, therapeutic effects, side effects, adverse effects, and routes of administration. Hands-on activities, projects, and real-world problems are encouraged to attain complete comprehension.

## **Medical Terminology (14154A001)**

Medical Terminology courses students learn how to identify medical terms by analyzing their components. These courses emphasize defining medical prefixes, root words, suffixes, and abbreviations. The primary focus is on developing both oral and written skills in the language used to communicate within health care professions.

## **Nursing Assistant (14051A001)**

The course is composed of a combination of subject matter and experiences designed to perform tasks of individuals receiving nursing services. The student learns those competencies needed to perform as a nurse assistant under the direction of the registered nurse. The units of instruction should include the role of the nurse assistant while covering general health care topics; medical terminology; patients/clients and their environment; special feeding techniques; psychological support and, in long-term and terminal illness, death and dying (e.g., chronically ill, children, new mothers, and so on); and all other basic nursing skills. Topics covered typically include normal growth and development; feeding and transporting patients; hygiene and prevention of disease; basic pharmacology; first aid and CPR; observing and reporting; care of equipment and supplies; doctor, nurse, and patient relationships and roles; procedure and policies; medical and professional ethics; and care of various kinds of patients. In order to have an approved nurse assistant program (one in which the students are eligible to sit for the certifying exam), the program must be approved by the Illinois Department of Public Health and meet all applicable requirements contained in 77 Illinois Administrative Code Part 395.

## **Nursing Assistant Workplace Experience (14098A005)**

Nursing Assistant Workplace Experience courses provide students with work experience in fields related to nursing services. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

## **Orientation to Health Occupations (14001A001)**

The course should expose students to the variety of opportunities available within the health care industry (e.g., nursing, therapy, vision and dental care, administrative services, and lab technology), which should include classroom and community-based activities. The main purpose of this course is to assist students in further development of their self-concept and in matching personal abilities and interest to a tentative career choice. The suggested course content should provide in-depth information into health occupations, careers, and trends; occupational and educational opportunities; and educational, physical, emotional, and attitudinal requirements.

# Full sequence

	Grade	English	Math	Science	Social Studies	Required Courses, Electives, and Learner Activities	Career and Technical Courses
Middle School	7	ELA 7	Math 7	Science 7	Social Studies 7		Career Exploration
	8	ELA 8	Math 8	Science 8	Social Studies 8		Employability Skills
Secondary	9	ELA 9	Algebra I	NGSS-Aligned Science 9	U.S. History	All programs of study should meet local and state high school graduation requirements and college entrance requirements. Participation in a Career and Technical Student Organization is also important for developing appropriate skills and competencies.	Orientation to Health Occupations* or Health Occupations Introductory Skills
	10	ELA 10	Geometry	NGSS-Aligned Science 10	American Government		Medical Terminology* or Anatomy & Physiology for Health Sciences*
	11	ELA 11	Algebra II	Biology* or AP Biology	World History or Economics		Introduction to Pathophysiology and Pharmacology
	12	Transitional English or English Composition*	TM QL & Statistics, Calculus*, or General Education Math*†	Chemistry*	Psychology*		Nursing Assistant* or Nursing Assistant Workplace Experience
Postsecondary	13	English Composition <sup>†</sup> or Oral Communication <sup>†</sup>	General Education Math <sup>**†</sup>	Biology <sup>**</sup> General Chemistry <sup>**</sup> Anatomy & Physiology Microbiology	Psychology <sup>**†</sup> Sociology <sup>†</sup>	All programs of study should meet learner's career goals with regard to required degrees, licenses, certifications, or journey worker status. Participation in student organizations is also important for developing appropriate skills and competencies.	Continue required courses in learner's chosen area of specialization to complete the desired certification and/or credential.
	14						
	15	Continue courses in learner's chosen area of specialization.					
	16	Continue courses in learner's chosen area of specialization.					

A program of study:

- Incorporates state academic standards.
- Addresses academic and technical knowledge and skills, including employability skills.
- Aligns with the needs of industries in the economy of the state, region, Tribal community, or local area.
- Progresses in specificity.
- Has multiple entry and exit points that incorporate credentialing.
- Culminates in the attainment of a recognized postsecondary credential.

\* AP/Dual Credit Opportunities

\*\* May have already been met with an appropriate dual credit agreement

† Postsecondary course affiliated with Illinois Articulation Initiative Code

# Additional opportunities

## Early career opportunities learning about work

- Career Planning
- Career Fairs
- Industry Speakers
- Informational Interviews
- Career Presentations
- Worksite Tours
- Cooperative Education
- Job Shadow
- Simulated Skill Development
- Other

## Credit Transfer and WBL opportunities

- Dual Enrollment/Dual Credit
- Advanced Placement
- Articulated Credit
- Career-Related Service Learning
- School-Based Enterprise
- Student-Led Enterprise
- Project-Based Learning
- Internships
- Apprenticeships (i.e., youth, pre-registered, non-registered, research)
- Other

## Industry-recognized credentials

- Certification
- License
- Other

## Student organizations

- Business Professionals of America
- Educators Rising
- Future Business Leaders of America
- Family, Career and Community Leaders of America
- National FFA Organization (Illinois Association FFA)
- Future Health Professionals
- Illinois Distributive Education Clubs of America
- Science Olympiad
- Skills USA Illinois
- Technology Student Association
- Other
- Team-Based Challenge