

### CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY

CAREER CLUSTER	Health Science	Health Science	Health Science	Health Science	Health Science	Health Science	Health Science
CIP	51.0000	51.0601	51.0703	51.0713	51.0801	51.0805	51.0902
PROGRAM TITLE	HEALTH SERVICES/ ALLIED HEALTH/ HEALTH SCIENCES	DENTAL ASSISTING/ ASSISTANT	HEALTH UNIT COORDINATOR/ WARD CLERK	MEDICAL INSURANCE CODING SPECIALIST/ CODER	MEDICAL/ CLINICAL ASSISTANT	PHARMACY TECHNICIAN/ ASSISTANT	ELECTRO-CARDIOGRAPH TECHNOLOGY/ TECHNICIAN
<b>GROUP 1: ORIENTATION COURSES (Minimum Selection: One course from Group 1 or 2)</b>							
ORIENTATION COURSES	Career Exploration	Career Exploration	Career Exploration	Career Exploration	Career Exploration	Career Exploration	Career Exploration
	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations
<b>GROUP 2: INTRODUCTORY COURSES</b>							
INTRODUCTORY COURSES	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development
	Basic Life Support	Basic Life Support	Basic Life Support	Basic Life Support	Basic Life Support	Basic Life Support	Basic Life Support
	Medical Terminology*	Medical Terminology*	Medical Terminology*	Medical Terminology*	Medical Terminology*	Medical Terminology*	Medical Terminology*
	Principles of Biomedical Science	Principles of Biomedical Science	Principles of Biomedical Science	Principles of Biomedical Science	Principles of Biomedical Science	Principles of Biomedical Science	Principles of Biomedical Science
	Anatomy and Physiology for Health Sciences*	Anatomy and Physiology for Health Sciences*	Anatomy and Physiology for Health Sciences*	Anatomy and Physiology for Health Sciences*	Anatomy and Physiology for Health Sciences*	Anatomy and Physiology for Health Sciences*	Anatomy and Physiology for Health Sciences*
	Medical Law & Ethics	Medical Law & Ethics	Medical Law & Ethics	Medical Law & Ethics	Medical Law & Ethics	Medical Law & Ethics	Medical Law & Ethics
	Medical Office Procedures	Medical Office Procedures	Medical Office Procedures	Medical Office Procedures	Medical Office Procedures	Medical Office Procedures	Medical Office Procedures
<b>GROUP 3: SKILLS COURSE (Minimum Selection 1)</b>							
SKILLS COURSES	Health Occupations Advanced Skill Development	Dental Assistant	Unit Coordination	Medical Records Assistant	Medical/Clinical Assisting	Pharmacy Assisting	Electrocardiograph (EKG/ECG) Technician
	Biomedical Innovations			Medical Office Procedures		Pharmacology Technician	
	Medical Interventions						
<b>GROUP 4: ADVANCED COURSES</b>							
ADVANCED COURSES	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology
	Gerontology	Gerontology	Gerontology	Gerontology	Gerontology	Gerontology	Gerontology
	Human Body Systems	Dental Laboratory Aide	Health Informatics and Data Management	Health Informatics and Data Management	Health Informatics and Data Management		
	Public Health		Medical Coding and Transcription	Medical Coding and Transcription	Medical Coding and Transcription		
<b>GROUP 5: WORKPLACE EXPERIENCE COURSES</b>							
WORKPLACE EXPERIENCE	Health Sciences Workplace Experience	Health Sciences Workplace Experience	Health Sciences Workplace Experience	Health Sciences Workplace Experience	Health Sciences Workplace Experience	Health Sciences Workplace Experience	Health Sciences Workplace Experience
	Allied Health Workplace Experience	Dental Assisting Workplace Experience	Health Unit Coordinator Workplace Experience	Medical Insurance Coding Workplace Experience	Medical/Clinical Assistant Workplace Experience	Pharmacy Technician Workplace Experience	EKG/ECG Workplace Experience

### CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY

CAREER CLUSTER	Health Science	Health Science	Health Science	Health Science	Health Science	Health Science
CIP	51.0904	51.0913	51.2605	51.1004	51.1009	51.3902
PROGRAM TITLE	EMERGENCY MEDICAL TECHNOLOGY/ TECHNICIAN (EMT)	ATHLETIC TRAINING/ TRAINER	PHYSICAL THERAPY TECHNICIAN/ AIDE	CLINICAL/MEDICAL LABORATORY TECHNICIAN	PHLEBOTOMY TECHNICIAN/ PHLEBOTOMIST	NURSING ASSISTANT/AIDE AND PATIENT CARE ASSISTANT/AIDE
<b>GROUP 1: ORIENTATION COURSES (Minimum Selection: One course from Group 1 or 2)</b>						
ORIENTATION COURSES	Career Exploration	Career Exploration	Career Exploration	Career Exploration	Career Exploration	Career Exploration
	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations	Orientation to Diversified Health Occupations
<b>GROUP 2: INTRODUCTORY COURSES</b>						
INTRODUCTORY COURSES	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development	Health Occupations Introductory Concepts and Skill Development
	Basic Life Support	Basic Life Support	Basic Life Support	Basic Life Support	Basic Life Support	Basic Life Support
	Medical Terminology*	Medical Terminology*	Medical Terminology*	Medical Terminology*	Medical Terminology*	Medical Terminology*
	Principles of Biomedical Science	Principles of Biomedical Science	Principles of Biomedical Science	Principles of Biomedical Science	Principles of Biomedical Science	Principles of Biomedical Science
	Anatomy and Physiology for Health Sciences	Anatomy and Physiology for Health Sciences	Anatomy and Physiology for Health Sciences	Anatomy and Physiology for Health Sciences	Anatomy and Physiology for Health Sciences	Anatomy and Physiology for Health Sciences
	Medical Law & Ethics	Medical Law & Ethics	Medical Law & Ethics	Medical Law & Ethics	Medical Law & Ethics	Medical Law & Ethics
<b>GROUP 3: SKILLS COURSE (Minimum Selection 1)</b>						
SKILLS COURSE	Emergency Medical Technician	Sports Medicine	Physical Therapy Aide	Medical Lab Technician	Clinical Laboratory Assistant/ Phlebotomist	Nursing Assistant I
<b>GROUP 4: ADVANCED COURSES</b>						
ADVANCED COURSES	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology	Introduction to Pathophysiology and Pharmacology
	Gerontology		Gerontology	Gerontology	Gerontology	Gerontology
			Occupational Therapy Aide	Biotechnology	Biotechnology	Geriatric Aide
			Rehabilitation Aide			Home Health Aide
<b>GROUP 5: WORKPLACE EXPERIENCE COURSES</b>						
WORKPLACE EXPERIENCE	Health Sciences Workplace Experience	Health Sciences Workplace Experience	Health Sciences Workplace Experience	Health Sciences Workplace Experience	Health Sciences Workplace Experience	Health Sciences Workplace Experience
	EMT Workplace Experience	Athletic Training Workplace Experience	Physical Therapy Aide Workplace Experience	Medical Laboratory Technician Workplace Experience	Phlebotomy Workplace Experience	Nursing Assistant Workplace Experience
<p>A quality CTE program delivers all required elements of Illinois' definition of Size, Scope, Quality. CTE program elements include: a sequence of courses, each educational entity offering approved courses provides assurance that the course content includes at a minimum the State course description, meets the State's minimum requirements for course offerings by program, curriculum aligned to state recognized learning standards &amp; industry standards, career pathway guidance, resources to support program/course delivery (licensed &amp; qualified staff, appropriate facilities, adequate equipment, instructional materials, work-based learning experiences, special populations support services, an active affiliated CTSO chapter), articulation/dual credit agreements, documentation of state agency certification or licensing requirements for occupations regulated by law or licensure, &amp; content which prepare students for reflective of current labor &amp; opportunity for workplace experience or a structured capstone course. <b>Orientation courses are suggested to be taught at the prior-to-secondary or 9th grade levels. Introductory level courses are suggested to be taught at the 9th-11th grade level. Skill level courses are suggested to be taught at the 10th – 12th grade levels. Workplace Experiences Courses are suggested to be taught at the 12th grade level.</b></p>						

**CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY**

<b>Group</b>	<b>State Course Code</b>	<b>State Course Title</b>	<b>State Course Description</b>
Group 1	22151A001	Career Exploration	Career Exploration courses help students identify and evaluate personal goals, priorities, aptitudes, and interests with the goal of helping them make informed decisions about their careers. These courses expose students to various sources of information on career and training options and may also assist them in developing job search and employability skills.
Group 1	14001A001	Orientation to Diversified Health Occupations	The course should expose students to the variety of opportunities available within the health care industry (e.g., such as 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, the occupational and educational opportunities, and the educational, physical, emotional, and attitudinal requirements. Courses should include content to prepare students for successful completion of the Occupational Safety and Health Administration-10 hour for General Industry.
Group 2	14002A002	Health Occupations Introductory Concepts and Skill Development	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.
Group 2	14154A001	Medical Terminology	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.
Group 2		Basic Life Support	This course trains students for CPR and basic life supporting skills and to promptly recognize several life-threatening emergencies and provide instruction consistent with emergency care practices for CPR, first aid, and covers breathing and cardiac emergencies - including CPR, AED, and obstructed airway - for adult, child, and infant victims. The course topics could also include training to prepare students for blood-borne pathogen certification.
Group 2	14153A001	Medical Office Procedures	Medical Office Procedures courses expose students to clerical knowledge, abilities, and procedures as they apply to the medical field. These courses typically include (but are not limited to) topics such as medical transcription, medical insurance, financial accounting, scheduling, and patient record-keeping. Medical terminology and routine medical procedures are covered to provide a context for clerical duties

### CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY

Group 2	14255A001	Principles of Biomedical Sciences	Principles of Biomedical Science courses introduce students to the broad field of biomedical science. It provides the study of human medicine, research processes, and an introduction to bioinformatics. Students investigate how various health conditions and medical treatments impact human physiology.
Group 2	03053A001	Anatomy & Physiology for Health Sciences	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.
Group 2	14003A001	Medical Law and Ethics	Medical Law and Ethics courses introduce students to the principles of medical law, medical ethics, and bioethics. These courses emphasize the function of law and ethical issues as it applies to the medical environment.
Group 3	14002A003	Health Occupations Advanced Skill Development	This course builds on the competencies developed in the Health Occupations Introductory Skills course. Students will develop cognitive and effective skills and formulate a strong foundation for advanced level skill development. The course provides a sequence of organized learning experiences and skills to prepare a person to recognize the signs and symptoms of illness, injury, and disease and to determine appropriate primary, secondary and tertiary care; to begin the approved and appropriate life -support procedures, such as first aid and cardiopulmonary resuscitation (CPR); to communicate effectively with healthcare personnel and patients; and to properly document health care delivery procedures and outcomes. The course should include skills to prepare the student for an allied health occupation.
Group 3	14255A002	Biomedical Innovations	Biomedical Innovation courses help students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. These courses help students design innovative solutions for emerging health challenges and address topics such as clinical medicine, human physiology, medical innovation, water contamination, public health, molecular biology, and forensic autopsy, and public health. These courses may also provide students with the opportunity to work with a mentor or advisor from a university or hospital, physician's office, or industry. Students may design and complete an independent project as part of the course.
Group 3	03068A001	Medical Interventions	Medical Interventions courses provides opportunities to investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.
Group 3	14054A001	Dental Assistant	The course exposes students to the tools, terminology, and procedures necessary for a career in the dental industry. The course is responsible for preparing materials for impressions and restorations; and for exposing, processing, and mounting dental radiographs. The dental assistant maintains infection control according to Occupational Safety and Health Administration (OSHA) and American Dental Association standards. They also prepare tray setups for dental procedures and provide preventative dental patient/client information. The dental assistant is also trained to manage the office. This includes arranging and confirming appointments, greeting patients/clients, maintaining treatment records, mailing statements, receiving payments, and ordering supplies.

### CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY

Group 3	14203A001	Unit Coordination	Unit Coordination courses provide students with instruction and experiences so that they can manage components of nonpatient care activities in health care facilities. This course provides a sequence of organized learning experiences and skills necessary for a person to perform tasks requiring good communication skills, correct terminology and spelling, and an understanding of policies, rules, and regulations regarding visitors, patients /clients, and coworkers. Clerical responsibilities of record keeping, transcribing physicians' orders and requisitions, operating a computer, and using a multiplicity of standard and special chart forms are a necessary part of this occupational training program. Patient/client care activities involving areas of admission, discharge, transfer, death, laboratory listing, etc., are performed under the direction of the professional nurse/unit manager in long-term care facilities, hospitals, or clinics. Topics covered usually include medical terminology, transcription, and general reception duties and responsibilities; recordkeeping; and stocking medical and office supplies and equipment.
Group 3	14202A001	Medical Records Assistant	This course provides a sequence of organized learning experiences and skills designed to prepare an individual to assist other medical record personnel by typing, filing, and performing general office duties; organizing, analyzing, and technically evaluating health records; coding symptoms, diseases, or operations; preparing health data for input into computers; and compiling administrative and health statistics for use by public health and/or clinical health care officials under the direction of the medical records administrator or other health care administrator.
Group 3	14202A001	Medical Records Assistant	This course provides a sequence of organized learning experiences and skills designed to prepare an individual to assist other medical record personnel by typing, filing, and performing general office duties; organizing, analyzing, and technically evaluating health records; coding symptoms, diseases, or operations; preparing health data for input into computers; and compiling administrative and health statistics for use by public health and/or clinical health care officials under the direction of the medical records administrator or other health care administrator.
Group 3	14151A001	Medical/Clerical Assisting	Medical/Clerical Assisting course provides student development in a sequence of organized learning experiences and skills designed knowledge and skills that combine the medical and clerical fields. Students typically develop skills such as patient exam preparation, assessment of vital signs, routine lab procedures, medical transcription, financial accounting, patient and insurance company billing, and record-keeping. This course suggest common clerical duties which include answering phones; greeting patients/clients; handling mail, patient/client data files, and medical histories; ordering supplies; dealing with representatives from pharmaceutical companies and medical suppliers; and performing common clinical duties which include sterilizing instruments; preparing patients/clients for examination or treatment; taking temperatures, pulse, respiration, and blood pressure; measuring height and weight; performing routine laboratory procedures; and assisting the physician with patient/client examinations and treatment under the direction of the professional medical staff. In addition, the medical assistant should be able to understand the health problems of patients /clients, ethics and legal issues, human relationships, and interpersonal relationships.
Group 3	14152A001	Pharmacy Assisting	Pharmacy Assisting courses emphasize the knowledge and skills necessary to assist a pharmacist or pharmacy technician. Course topics and experiences enable students to understand medical terminology, keep and maintain records, label medication, perform computer patient billing, perform stock inventory, and order supplies. These courses also emphasize pharmaceutical classification, drug interactions, and interpersonal/communication skills.

### CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY

Group 3	14253A001	Pharmacology Technician	Pharmacy Technician courses provide a sequence of organized learning experiences and skills designed to prepare the person to input information into the computer; obtain the client's records; file requisitions and prescriptions; check and order supplies; perform interdepartmental communications; use pharmacological terminology; observe drug dispensing, drugs, and dosages; understand the Unit Dosage System; and review physician's drug order sheet. All the skills listed above are performed under the supervision of a registered pharmacist. Course topics and experiences enable students to understand medical terminology, keep and maintain records, label medications, perform computer patient billing, perform stock inventory, and order supplies. These courses also emphasize pharmaceutical classification, drug interactions, and interpersonal/communication skills.
Group 3	14103A001	Electrocardiograph (EKG) Technician	In EKG Technology courses, students acquire the knowledge and skills to perform electrocardiograph activities and learn about the cardiovascular system (including its function, diseases, and rhythms); EKG machinery; and the use of drugs and their effects. This course provides a sequence of organized learning experiences and skills designed to utilize the electrocardiograph machine to record the variation in time and potential of the electric current associated with action of the heart muscle by learning proper electrode sites and placement; quality control; interpersonal relationships; interdepartmental relationships; anatomy and physiology; and observing and reporting. The student learns the competencies needed to perform as an EKG technician in a hospital, clinic, or doctor's office under the direction of a physician. These courses usually include general health care topics as well, such as basic anatomy and physiology, patient care, first aid and CPR, identification and use of medical equipment, and medical terminology.
Group 3	14055A001	Emergency Medical Technician	Emergency Medical Technology courses place a special emphasis on the knowledge and skills needed in medical emergencies. Topics typically include clearing airway obstructions, controlling bleeding, bandaging, methods for lifting and transporting injured persons, simple spinal immobilization, infection control, stabilizing fractures, and responding to cardiac arrest. The courses should also cover the legal and ethical responsibilities involved in dealing with medical emergencies. The Illinois Department of Public Health approves EMT training programs in the State of Illinois. Approved programs must meet or exceed the National Emergency Medical Services Education Standards for the Emergency Medical Technician and meet all other applicable requirements contained in 77 Illinois Administrative Code Part 515. To become licensed as an EMT-B in the State of Illinois or nationally certified, the student must be 18 years of age, complete a state-approved EMT program, have a current CPR-BLS for "Healthcare Provider" or equivalent credential, and pass the National Registry of Emergency Medical Technicians examination (required for national certification) or the Illinois Department of Public Health's EMT-B examination.
Group 3	14062A001	Sports Medicine	Sports Medicine courses introduce students to the basic principles and techniques for the prevention, recognition, treatment, and rehabilitation of common injuries and illnesses. Students may learn to measure cardiorespiratory endurance, muscular strength and endurance, flexibility, body composition, and blood pressure. Topics covered may include taping and bandaging, proper use of protective padding, treatment modalities, medical terminology, budgeting, and ordering supplies, as well as general operation of a training room facility. More advanced topics may include injury assessment, the phases of healing, and the use of exercise and equipment to help in the reconditioning of injured athletes.
Group 3	14060A001	Physical Therapy Aide	Physical Therapy Aide courses provide students with the knowledge and skills necessary to work with patients who need to achieve and maintain functional rehabilitation and to prevent malfunction or

### CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY

			<p>deformity. This course provides a sequence of organized learning experiences and skills designed to prepare a person to be knowledgeable of the organizational structure of the physical therapy department; relationships of anatomical structures to normal and abnormal movement (building upon the unit of body systems in an earlier course); pathophysiological conditions resulting from injury and/or disease; terminology; record keeping; interpersonal relationships; first aid; body mechanics; and uses of electricity, hot and cold packs, paraffin, whirlpool, diathermy, microwave, massage assistive and supporting devices, and therapeutic exercises and tractions. The physical therapy aide assists in implementing the plan of therapy for a patient /client as prescribed by a physician. This knowledge is necessary to perform as a physical therapy aide in hospitals, long -term care facilities and clinics under the direction of a physical therapy assistant or physical therapist. Topics covered typically include therapeutic exercises and activities (such as stretching and strengthening), how to train patients to perform the activities of daily living, the use of special equipment, and evaluation of patient progress.</p>
Group 3	14102A001	Medical Lab Technician	<p>Medical Lab Technician courses provide students with the knowledge and skills necessary for employment in health care-related laboratories. Topics include basic principles of anatomy and physiology, relevant concepts in microbiology and chemistry, and laboratory techniques (including preparation and analysis of various cultures and specimens). These courses provide a sequence of organized competencies necessary to perform tasks which include laboratory requisitions and reports; care of laboratory equipment; aseptic techniques; basic laboratory mathematics (metrics); handling of specimens; blood collection techniques; and interdepartmental relationships such as introduction to the departments of hematology, urology, serology, bacteriology, and others. The courses may also cover such components as venipuncture, EKG, and CPR procedures.</p>
Group 3	14104A001	Clinical Laboratory Assistant/Phlebotomist	<p>In Phlebotomy courses, students acquire knowledge, skills, and experiences related to the drawing of blood and typically learn about such topics as infection control, sterilization practices, medical /hospital procedures and environments, diagnostic procedures, and the process of drawing blood. This course provides a sequence of organized competencies necessary to perform tasks which include laboratory requisitions and reports; care of laboratory equipment; aseptic techniques; basic laboratory mathematics (metrics); handling of specimens; blood collection techniques; and interdepartmental relationships such as introduction to the departments of hematology, urology, serology, bacteriology, and others. In addition, students should be introduced to departmental procedures, policies, and standards.</p>
Group 3	14051A001	Nursing Assistant I	<p>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, transporting patients, hygiene, and disease prevention; 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</p>

### CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY

			approved by the Illinois Department of Public Health and meet all applicable requirements contained in 77 Illinois Administrative Code Part 395.
Group 4	14253A002	Introduction to Pathophysiology and Pharmacology	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 effect, side-effects, adverse effects, and routes of administration. Hands-on activities, projects, and real-world problems are encouraged to attain complete comprehension.
Group 4	14059A002	Gerontology	Gerontology courses provide students with knowledge and understanding of the processes of adult development and aging. Topics covered may include the study of the biological, economic, psychological, social, and health/fitness aspects of the aging process.
Group 4	14063A002	Occupational Therapy Aide	This course provides a sequence of organized learning experiences and skills designed to prepare a person to be knowledgeable of the organizational structure of the occupational therapy department; relationships of anatomical structures to normal and abnormal movement (building upon the unit of body systems in an earlier course); pathophysiological conditions resulting from injury and/or disease; terminology; record keeping; interpersonal relationships; first aid; body mechanics; and assist in implementing the plan of therapy for a patient/client as prescribed by a physician as directed by the occupational therapist in a hospital, long-term care facility, retirement home, or clinic. This knowledge is necessary to perform as an occupational therapy aide in hospitals, long-term care facilities, and clinics under the direction of an occupational therapy assistant or occupational therapist
Group 4	14063A003	Rehabilitation Aide	This course provides a sequence of organized learning experiences and skills to prepare a person to perform tasks involved in the personal and rehabilitative care of patients/clients. The rehabilitation aide concept is the integration of three major interdisciplinary teams that are the basic skills in the areas of nursing, occupational therapy, and physical therapy. This health care person can help ensure that the approach to the care of the patient /client is consistent regardless of which specialty area is rendering the service. The rehabilitation aide performs under the supervision of a registered nurse, licensed physical therapist, or licensed occupational therapist in rehabilitation clinics or units in hospitals, extended care facilities, and long-term care facilities. This unit of instruction could be offered after the student has obtained the Certified Nursing Assistant credential.
Group 4	14252A002	Biotechnology	Biotechnology courses involve the study of the bioprocesses of organisms, cells, and/or their components and enable students to use this knowledge to produce or refine products, procedures, and techniques. Course topics typically include laboratory measurement, monitoring, and calculation; growth and reproduction; chemistry and biology of living systems; quantitative problem-solving; data acquisition and display; and ethics. Advanced topics may include elements of biochemistry, genetics, and protein purification techniques.
Group 4	14059A001	Geriatric Aide	Geriatric Aide courses provide students with knowledge and understanding of the processes of adult development and aging. The geriatric aide course is composed of a combination of subject matter and



### CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY

			learning activities designed to prepare a person to perform simple tasks involved in the personal care of elderly individuals receiving nursing services. These tasks are performed under the supervision of a licensed practical nurse or registered nurse. Topics covered may include the study of the biological, economic, psychological, social, health, and special nutritional needs; fitness and maintenance of body processes; aspects of the aging process; activities of daily living; rehabilitation activities; diagnostic and treatment procedures; patient /client care procedures; and special nursing care needs of the elderly.
Group 4	14053A001	Home Health Aide	The course is composed of a combination of subject matter and learning activities designed to prepare a person to care for individuals within their homes. The student learns competencies needed to perform simple tasks involved in the personal care of ill or handicapped individuals under the direction of the attending physician, registered professional nurse, and /or licensed practical nurse. The home health agency assigns a registered nurse to provide continuing supervision of this health care. The home health aide is employed in private homes, hospitals, long-term care facilities, and health care institutions. Course content relates health care practices and procedures to the home environment, and typically includes patient care, comfort, observing, recording, reporting, and safety; process of aging; personal care and daily living activities; family relationships; behavior patterns; home management; the prevention of disease and infection; nutrition and meal preparation; human relations; and first aid and CPR. The student must be a certified nurse assistant before becoming a home health aide.
Group 4	14251A001	Human Body Systems	Human Body Systems courses provide the study of basic human anatomy and physiology, especially in relationship to human health. A central theme is research and investigation into how the body systems work together to maintain internal balance and good health. Students use models and data acquisition software to study body structure and to monitor body functions.
Group 4	15202A002	Public Health	Public Health courses provide students with knowledge and understanding of careers in the public health arena. Students will learn historical and contemporary public health stories to understand the systems, careers, tools, and skills associated with the public health enterprise. Additional topics may include disease prevention and containment; health literacy; health policy; and social, economic, environmental, and geographical impacts on public health.
Group 4	14255A002	Biomedical Innovation	Biomedical Innovation courses help students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. These courses help students design innovative solutions for emerging health challenges and address topics such as clinical medicine, human physiology, medical innovation, water contamination, public health, molecular biology, and forensic autopsy, and public health. These courses may also provide students with the opportunity to work with a mentor or advisor from a university or hospital, physician's office, or industry. Students may design and complete an independent project as part of the course.
Group 4	14101A001	Dental Laboratory Aide	The course exposes students to the principals, tools, terminology, and procedures necessary for a career in a dental laboratory. The student is introduced to working with the dentist, dental assistant, and dental hygienist in the examination of patients/clients. The student learns to arrange and confirm appointments, greet patients /clients, and maintain treatment records. The students learn to maintain infection control according to Occupational Safety and Health Administration (OSHA) and American Dental Association (ADA) standards in assisting the dental assistant or dentist in preparing for dental procedures. The dental laboratory aide may also learn to assist the dental laboratory technologist in making, repairing, and

**CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY**

			polishing dentures; constructing crowns or bridges for partially destroyed teeth; and making orthodontic appliances (tooth straightening devices).
Group 4	14157A001	Health Informatics and Data Management	Health Informatics and Data Management courses introduce students to automated information systems in the health care delivery system. These courses teach students terminology and essential concepts of health information systems and management of data, including the purpose, content, and structure of health data; numbering and filing systems; storage and retention methods; and the construction and design of forms, records, indexes, and registers. These courses may also examine data integrity, privacy/security issues, and the purposes of accreditation and regulatory standards in developing health record practice guidelines.
Group 4	14156A001	Medical Coding and Transcription	Medical Coding and Transcription courses introduce students to the International Classification of Diseases, Clinical Modification (ICD-10) and its system of hospital codes for Current Procedural Terminology (CPT) diagnoses and procedures. These courses provide opportunities for students to practice and develop skills in the use of transcription equipment and to gain familiarity with common formats of medical terminology and reports.
Group 5	14998A002	Health Sciences Workplace Experience	<b>Health Sciences Workplace Experience courses provide work experience in fields related to the Health Sciences cluster. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.</b>
Group 5	14298A001	Allied Health Workplace Experience	<b>Allied Health Workplace Experience courses provide students with work experience in fields involving the general allied health sciences. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.</b>
Group 5	14098A001	Dental Assisting Workplace Experience	<b>Dental Assisting Workplace Experience courses provide students with work experience in fields related to dental assisting services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career</b>

**CAREER PROGRAMS IN HEALTH SCIENCES & TECHNOLOGY**

			Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.
Group 5	14098A002	Pharmacy Technician Workplace Experience	Pharmacy Technician Workplace Experience courses provide students with work experience in fields related to pharmacy services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.
Group 5	14098A003	Athletic Training Workplace Experience	Athletic Training Workplace Experience courses provide students with work experience in fields related to athletic training services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.
Group 5	14098A004	Physical Therapy Aide Workplace Experience	Physical Therapy Aide Workplace Experience courses provide students with work experience in fields related to physical therapy services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.
Group 5	14098A005	Nursing Assistant Workplace Experience	Nursing Assistant Workplace Experience courses provide students with work experience in fields related to nursing services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career

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Group 5	14198A001	Medical Insurance Coding Workplace Experience	Medical Insurance Coding Workplace Experience courses provide students with work experience in fields related to medical insurance coding. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.
Group 5	14198A002	Health Unit Coordinator Workplace Experience	Health Unit Coordinator Workplace Experience courses provide students with work experience in fields related to health unit coordination. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.
Group 5	14148A001	Medical/Clinical Assistant Workplace Experience	Medical/Clinical Assistant Workplace Experience courses provide students with work experience in fields related to medical/clinical assisting services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.
Group 5	14148A002	ECG Workplace Experience	ECG Workplace Experience courses provide students with work experience in fields related to ECG diagnostic services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career

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Group 5	14148A003	EMT Workplace Experience	EMT Workplace Experience courses provide students with work experience in fields related to emergency medical services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.
Group 5	14148A004	Medical Laboratory Technician Workplace Experience	Medical Laboratory Technician Workplace Experience courses provide students with work experience in fields related to medical laboratory services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.
Group 5	14148A005	Phlebotomy Workplace Experience	Phlebotomy Workplace Experience courses provide students with work experience in fields related to phlebotomy services. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Health Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.