

# Health Sciences Technology (HSCT)

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The Health Sciences Technology program at Cincinnati State offers a flexible curriculum designed to meet the changing needs of the healthcare field. Students are trained to perform multiple functions in more than one healthcare-related discipline, while working toward completion of an Associate of Applied Science degree.

To complete the associate's degree requirements, students combine certificate program coursework (chosen from the certificates listed in the curriculum) with core technical coursework in areas such as science, medical terminology, and professional standards. Students also complete courses in communication and other foundation skill areas.

Students must meet with an advisor before deciding on their areas of study.

Most program graduates are employed in a field related to one of their completed certificates.

For more information, please contact the Health and Public Safety Division at (513) 569-1670.

To apply for this program at Cincinnati State, visit the Admissions (<http://www.cincinnati-state.edu/academics/admission/>) section of the College website.

## Health Sciences Technology (HSCT)

Semester 1		Lec	Lab	Credits
MCH 100	Healthcare Informatics ( T )	2	0	2
ENG 101	English Composition 1 ( G )	3	0	3
XXX XXX	Certificate Electives 1 ( T )	4	2	5
MAT 105	Quantitative Reasoning ( G )	2	2	3
FYE 1XX	First Year Experience Elective ( B )	1	0	1
MCH 10X	Medical Terminology Elective ( T )	3	0	3
Semester 2				
COMM 110	Public Speaking ( B )	3	0	3
MCH 138	Patient Care Skills ( T )	1	3	2
ENG 10X	English Composition Elective ( G )	3	0	3

XXX XXX	Certificate Electives 2 ( T )	4	2	5
Semester 3				
EMS 100	CPR and First Aid for the Health Care Professional ( B )	1	0	1
PSY 110	Introduction to Psychology ( G )	3	0	3
BIO 151	Anatomy and Physiology 1 ( G )	3	2	4
XXX XXX	Certificate Electives 3 ( T )	4	2	5
MCH 108	Professionalism in Healthcare ( T )	3	0	3
Semester 4				
MCH 114	Law and Ethics for Healthcare ( T )	2	0	2
MCH 116	Cultural Competency for Health and Public Safety Professions ( T )	3	0	3
BIO 152	Anatomy and Physiology 2 ( B )	3	2	4
XXX XXX	Certificate Electives 4 ( T )	4	2	5
PSY XXX	Psychology Elective ( B )	3	0	3
<b>Total Credits:</b>		<b>55</b>	<b>17</b>	<b>63</b>

## Electives

### Medical Terminology Elective

MCH 101 & MCH 102	Medical Terminology 1 and Medical Terminology 2	4
MCH 104	Comprehensive Medical Terminology	3

### First Year Experience Elective

FYE 100	College Success Strategies: Overview	1
FYE 105	College Success Strategies: Overview and Application	2
FYE 110	College Success Strategies: Practice and Application	3

### English Composition Elective

ENG 102	English Composition 2: Contemporary Issues	3
ENG 103	English Composition 2: Writing about Literature	3
ENG 104	English Composition 2: Technical Communication	3

### Psychology Elective

PSY 200	Abnormal Psychology	3
PSY 210	Adolescent Development	3
PSY 225	Lifespan Development	3

### Certificate Electives

Students must complete at least two of the following certificates and must earn a minimum of 20 credits in certificate courses that are not already required for the Health Sciences Technology degree. Other healthcare certificates (not listed below) may be used with the prior permission of the Health Sciences Technology Program Chair.

<b>Coding Specialist Certificate</b>		
BIO 240	Pathophysiology	3
HIM 100	Introduction to Health Information Management	3
HIM 115	Clinical Abstracting of Health Data	1
HIM 130	International Classification of Diseases (ICD) Coding	4
HIM 135	Pharmacology for Health Information Management	1
HIM 210	Healthcare Reimbursement Methodologies	3
HIM 215	Advanced Medical Coding	4
HIM 225	Current Procedural Terminology (CPT) Coding	3
<b>Community Health Worker Certificate</b>		
CHW 100	Community Health Worker Training	4
CHW 180	Community Health Worker Practicum	3
MCH 106	Health and Wellness Promotion	2
<b>Electrocardiography (Basic) Certificate</b>		
MCH 141	Electrocardiography 1	3
<b>Electrocardiography (Advanced) - Arrhythmia Recognition Certificate</b>		
MCH 142	Electrocardiography 2	4
<b>Emergency Medical Technician Basic Certificate</b>		
EMS 110	Emergency Medical Technician Theory and Practice	7
<b>Emergency Medical Technician Paramedic Certificate</b>		
EMS 110	Emergency Medical Technician Theory and Practice	7
EMS 120	Paramedic Anatomy and Physiology	3
EMS 211	Paramedic 1	7
EMS 212	Paramedic 2	6
EMS 213	Paramedic 3	6
EMS 221	Paramedic 1 Lab	1
EMS 231	Paramedic 1 Practicum	2
EMS 222	Paramedic 2 Lab	1
EMS 232	Paramedic 2 Practicum	3
EMS 223	Paramedic 3 Lab	1
EMS 233	Paramedic 3 Practicum	3
<b>Group Fitness Instructor Certificate</b>		
EXS 122	Group Fitness Instructor	4
<b>Health and Fitness Special Populations Certificate</b>		
EXS 130	Foundations of Health and Wellness Programs	3
EXS 164	Health and Fitness Across the Life Span 1	3
EXS 168	Health and Fitness Across the Life Span 2	3
<b>Health Unit Coordinator Certificate</b>		
MCH 110	Orientation to Health Records	3
MCH 120	Health Unit Coordinator Training	4
<b>Medical Assistant Certificate</b>		
BIO 117	Human Body in Health and Disease	3
MA 100	Clinical Procedures for Medical Assistants	4

MA 109	Administrative Procedures, Coding, and Billing for Medical Assisting	2
MA 110	Medical Office Laboratory Procedures	5
MA 115	Pharmacology for Medical Assistants	3
MA 120	Medical Office Insurance Coding and Billing	2
MA 125	Externship and Seminar for Medical Assistants	4
MCH 104	Comprehensive Medical Terminology	3
PSY 225	Lifespan Development	3
<b>Nurse Aide Training Certificate</b>		
MCH 130	Nurse Aide Training	4
<b>Patient Care Assistant Certificate</b>		
MCH 132	Patient Care Assistant Training	3
<b>Personal Fitness Trainer Certificate</b>		
EXS 151	Principles of Exercise Assessment and Prescription	3
EXS 152	Exercise Programming	3
EXS 156	Establishing a Personal Training Business	3
EXS 182	Personal Fitness Trainer Practicum	2
<b>Phlebotomy Certificate</b>		
PBT 100	Phlebotomy Principles and Techniques	3
PBT 180	Phlebotomy Practicum	2
<b>Practical Nursing Certificate</b>		
PN 101	Practical Nursing Concepts 1	8
PN 102	Practical Nursing Concepts 2	10
PN 103	Practical Nursing Concepts 3	6
PN 185	Practical Nursing Role Transition	2

Some courses are offered in alternative versions identified with a letter after the course number-- for example, ENG 101 and ENG 101A.

- This curriculum displays only course numbers without the added letter.
- The alternative version, when available, meets the requirements of the course version without the added letter.

The letters G, B, and T (displayed after course titles or elective descriptions) identify types of courses required by the Ohio Department of Higher Education as part of an associate's degree curriculum.

G = General Education course in this curriculum

B = Basic Skills course in this curriculum

T = Technical course in this curriculum

## Faculty

### Advisor

Lisa Lucas, MA  
lisa.lucas@cincinnatiastate.edu

## Courses

### **MCH 100 Healthcare Informatics**

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on technology used in the healthcare delivery system and electronic health records (EHR) management. Topics include: hardware, software, user interfaces, telecommunications and networks, and health management information systems.

Prerequisites: None

### **MCH 101 Medical Terminology 1**

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on the basic structure of medical words and abbreviations. Topics include: prefixes, suffixes, word roots, combining forms, and singulars and plurals.

Prerequisites: ENG 085 or appropriate placement

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### **MCH 102 Medical Terminology 2**

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A continuation of MCH 101. Topics include: defining, pronouncing, and spelling medical terms using prefixes, suffixes, roots, and combined forms.

Prerequisites: MCH 101 (minimum grade C)

Ohio Transfer Assurance Guide Approved

### **MCH 104 Comprehensive Medical Terminology**

**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A comprehensive study of medical terminology. Topics include: prefixes, suffixes, word roots, combining forms, singulars and plurals, and abbreviations associated with medical specialties.

Prerequisites: ENG 085 or appropriate placement

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### **MCH 106 Health and Wellness Promotion**

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on promoting health and wellness issues to the public. Topics include: self-empowerment, stress reduction, physical fitness, healthy eating, addiction avoidance, identifying and reducing risk factors in disease, and alternative therapies.

Prerequisites: None

### **MCH 108 Professionalism in Healthcare**

**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on professional standards applicable in healthcare settings. Topics include: communication skills, employability skills, healthcare teams, diversity, career planning, and professional development.

Prerequisites: ENG 080 or appropriate placement

### **MCH 110 Orientation to Health Records**

**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on the content and format of health records. Topics include: standard forms, legal issues related to health records, maintaining health records, and filing and retrieving diagnostic reports.

Prerequisites: MCH 101 (minimum grade C), and IM 105 or appropriate keyboarding score

### **MCH 112 Issues in Health Economics**

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on current trends and concerns related to the economics of health care systems. Topics include: economic differences between medical care and other commodities.

Prerequisites: None

### **MCH 114 Law and Ethics for Healthcare**

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on fundamentals of medical jurisprudence and essentials of professional behavior in healthcare. Topics include: medical ethics, legal concerns in healthcare, and the healthcare provider's role as an agent of the physician.

Prerequisites: ENG 085 or appropriate placement

### **MCH 116 Cultural Competency for Health and Public Safety Professions**

**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on the influences of race, culture, and ethnicity in shaping values, belief systems, and behaviors of Health and Public Safety professionals and patients/clients.

Prerequisites: ENG 085 or appropriate placement

### **MCH 118 Quality Improvement in Healthcare**

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on quality improvement in healthcare, focused on patient-centered care. Topics include: organizations responsible for healthcare accreditation and regulation, healthcare provider departments that address regulations, and trends affecting delivery of quality healthcare services.

Prerequisites: ENG 085 or appropriate placement

### **MCH 120 Health Unit Coordinator Training**

**4 Credits. 3 Lecture Hours. 2 Lab Hours.**

A course on skills required for entry-level medical clerical workers. Topics include: patient charts, transcribing nursing treatment, using computer software, medication, respiratory and physical therapy orders, X-ray and MRI scan procedures, nuclear medicine, ultrasound, and endoscopy.

Prerequisites: MCH 101 or MCH 104 (minimum grade C for either)

### **MCH 130 Nurse Aide Training**

**4 Credits. 3 Lecture Hours. 2 Lab Hours.**

A course on caring for the elderly in long-term care facilities. Topics include: communication skills, mental health and social service needs, resident rights, activities of daily living, safety, and restorative services. Students who complete the course at 80% or above are qualified to take the Ohio Department of Health Competency Evaluation Test for a State Tested Nurse Aide (STNA).

Prerequisites: None

Instructor Consent Required

### **MCH 132 Patient Care Assistant Training**

**3 Credits. 2 Lecture Hours. 2 Lab Hours.**

A course that prepares students for employment in acute care facilities as nursing assistive personnel. Topics include: role definition/classification, communication, basic anatomy/physiology concepts with associated observations, overview of nutrition/diet therapy, introduction to common pathologies, and commonly delegated skills.

Prerequisites: ENG 085 or appropriate placement, and MCH 130, and on State Nurse Aide Registry or eligible for Registry

Instructor Consent Required

### **MCH 134 Medication Aide Training**

**6 Credits. 4 Lecture Hours. 4 Lab Hours.**

A course that prepares students to distribute medications in long-term care and residential care facilities, through a minimum of 80 hours of lecture and laboratory practice and 40 hours of clinical experience.

Prerequisites: MCH 130, and on State Nurse Aide Registry or have one year of experience in a residential care setting

Instructor Consent Required

**MCH 136 Restorative Aide Training**

**2 Credits. 1 Lecture Hour. 2 Lab Hours.**

A course on rehabilitation services used to return individuals to optimal mobility and functioning following various conditions. Topics include: lifting, moving, and ambulation procedures; care of individuals with musculoskeletal, neurological, and integumentary conditions; and restorative approaches to meeting nutrition, hydration, and personal care needs.

Prerequisites: MCH 130, and on State Nurse Aide Registry or eligible for Registry

Instructor Consent Required

**MCH 138 Patient Care Skills**

**2 Credits. 1 Lecture Hour. 3 Lab Hours.**

A course on fundamental health care concepts and skills for students planning a career in healthcare. Topics include: basic body mechanics, patient draping techniques, infection control techniques, oxygen therapy, and problem solving techniques.

Prerequisites: None

**MCH 141 Electrocardiography 1**

**3 Credits. 2 Lecture Hours. 2 Lab Hours.**

A course on basic principles of electrocardiography. Topics include: the electrical conductive system of the heart, patient preparation, setting up the ECG machine, and recognizing and correcting distortion problems.

Prerequisites: BIO 100 or BIO 111 or BIO 151 (minimum grade C for all)

**MCH 142 Electrocardiography 2**

**4 Credits. 3 Lecture Hours. 2 Lab Hours.**

A continuation of MCH 141, including review of basic electrocardiography and 12 lead ECG interpretation. Topics include: cardiac electrophysiology, recognizing common dysrhythmia and advanced cardiac dysrhythmias, chamber enlargement, pacemakers, myocardial ischemia, injury, infarct patterns, and effects of drugs and electrolytes on the ECG.

Prerequisites: MCH 141 (minimum grade C), or certification in EMT, Paramedic, Nursing, or Practical Nursing