



Medical Terminology for Health Care Professionals

Course: HLC145	Clock Hours: 100
	Grading Basis: CLK
First Term: 2022 Fall	
Final Term: Current	

Description: Medical terminology used in health care, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations, symbols, and term spelling.

Requisites: Prerequisites: Admission to program, and successful completion of RDG100 or higher or appropriate reading placement into CRE101.

MCCCD Official Course Competencies

1. Explain how medical terms are created. (I)
2. Apply standard word guidelines to medical terms. (I)
3. Use standard medical suffixes and prefixes accurately. (I)
4. Use system word parts to build and analyze terms. (I-III)
5. Spell medical terms. (I-IX)
6. Describe the organizational components, directional terms and anatomical position of the body. (II)
7. Identify the major body system structures and their related word parts. (III)
8. Identify the main functions of body organs and systems and their related word parts. (III)
9. Define medical terms related to common disease processes. (III)
10. Define standard diagnostic and procedural terms for each body system. (III)
11. Define medical terms commonly used in obstetrics and pediatrics. (IV, V)
12. Recognize common abbreviations and symbols related to each body system and specialty areas. (IV-IX)
13. Define medical terms commonly used in mental health. (VI)
14. Define medical terms commonly used in oncology. (VII)
15. Define medical terms commonly used in diagnostic medical imaging. (VIII)
16. Define medical terms commonly used in surgery. (IX)

MCCCD Official Course Outline

- I. Introduction to medical terminology
 - A. Derivation of medical terms
 1. Acronym
 2. Eponym
 3. Word parts
 - B. Terms from word parts
 1. Word root

- I. Word root
 2. Combining vowel/combining form
 3. Suffixes
 4. Prefixes
- C. Guidelines
 1. Connecting word parts
 2. Reading terms from word parts
 3. Spelling
- II. Body structure
 - A. Body organization
 - B. Planes
 - C. Cavities
 - D. Abdominopelvic regions/quadrants
 - E. Directional terms
 - F. Anatomical position
- III. Terminology by body system
 - A. Structures and word parts
 - B. Functions and word parts
 - C. Additional prefixes and suffixes
 - D. Pathology terms
 - E. Diagnostic tests
 - F. Procedure terms
 - G. Abbreviations and symbols
- IV. Obstetrics
 - A. Body structural and functional changes
 - B. Word parts
 - C. Pathology terms
 - D. Diagnostic tests
 - E. Abbreviations
 - F. Spelling
- V. Pediatrics
 - A. Child growth and development
 - B. Word parts
 - C. Pathology terms
 - D. Abbreviations
 - E. Spelling
- VI. Mental health
 - A. Defense mechanisms
 - B. Word parts
 - C. Mental disorders
 - D. Treatment terms
 - E. Abbreviations
 - F. Spelling
- VII. Oncology
 - A. Neoplasm growth and development
 - B. Word parts
 - C. Grading and staging
 - D. Pathology terms
 - E. Diagnostic and treatment terms
 - F. Abbreviations
 - G. Spelling
- VIII. Diagnostic medical imaging

- A. Word parts
 - B. Diagnostic and procedure terms
 - C. Abbreviations
 - D. Spelling
- IX. Surgery
- A. Surgical process terms
 - B. Common surgical positions
 - C. Common surgical incisions
 - D. Suture terms
 - E. Abbreviations
 - F. Spelling
-
-

Clock Curriculum Committee Approval Date: **12-10-2021**

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.



Fundamentals in Health Care Delivery

Course: **HLC130**

Clock Hours: **30**

Grading Basis: **CLK**

First Term: **2020 Fall 1**

Final Term: **Current**

Description: Overview of current and recent development of health care professions, including career and labor market information, health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Basic communication skills which facilitate inter-professional teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies.

Requisites: Prerequisites: A grade of C or better is required in HLC145.

Course Notes: Students must earn a grade of C or better for all courses required within the program.

MCCCD Official Course Competencies

1. Explore the career and labor market to access information about career employment opportunities. (I)
2. Describe the different types of health care delivery systems and services. (I)
3. Describe major U.S. health care payment sources and the type of populations they cover. (I)
4. Describe the general structure of health care organizations. (I)
5. Explain patient rights measures used in health care. (I)
6. Identify common departments found in health care organizations. (I)
7. Identify selected department and treatment abbreviations and symbols. (I)
8. Describe personal and health care values that influence health care workers and their relationships with others in the health care setting. (II)
9. Describe the professional work ethic necessary of a healthcare professional. (II)
10. Apply effective job application strategies. (II)
11. Explain successful job interviewing techniques. (II)
12. Identify laws and key concepts specific to workers` rights and responsibilities. (II)
13. Describe dimensions of wellness and decision making needed to achieve a wellness lifestyle. (III)
14. Demonstrate principles of body mechanics for personal safety. (III)
15. Describe methods of transmission and control for bloodborne and airborne pathogens. (III)
16. Describe select Occupational Safety and Health Administration (OSHA) standard precautions. (III)
17. Demonstrate hand-washing technique. (III)
18. Explain the goals, components, and types of communication. (IV)

19. Explain strategies to support and barriers to effective communication. (IV)
20. Describe the communication skills of listening, feedback and assertiveness. (IV)
21. Describe specific skills, sensitivities and strategies which enhance intercultural communication. (IV)
22. Describe inter-professional relationships on health care teams including roles, traits, characteristics, activities, and benefits of teams within health care organizations. (IV)
23. Describe basic laws and regulations which govern health care and health care employment. (V)
24. Describe regulatory requirements and agencies which relate to health care professionals, occupations, and facilities. (V)
25. Identify legal guidelines related to documenting, authenticating, and correcting medical records. (V)
26. Describe current issues related to health information technology. (V)
27. Apply legal guidelines in a variety of health care situations. (V)
28. Differentiate between specific types of thinking. (VI)
29. Describe the steps in a decision-making model applied to health care situations. (VI)
30. Apply the decision-making model to health care situations. (VI)
31. Explain ethical decision making and its influence on health care facilities, the professional's role and in client situations. (VI)
32. Define process improvement and customer service. (VI)
33. Identify process improvement techniques and activities used to improve customer service/satisfaction. (VI)
34. Apply the steps of process improvement to selected situations. (VI)

MCCCD Official Course Outline

- I. Health care today
 - A. Employment in the health care field
 1. Career opportunities and employment trends
 - a. Health care careers
 - b. Internet
 - B. Employment resources
 1. Newspaper classified advertisements
 2. Job placement/career counselors
 3. Employment agencies
 4. Health career facility bulletin boards
 5. Internet
 6. Networking with professionals in the field
 7. Instructors
 8. Health care hotlines
 9. Library resources
 - C. World Wide Web
 1. Terminology
 2. Student information
 3. Health career information
 - D. Health care delivery systems and services
 1. Examples of health services
 - a. Acute
 - b. Chronic
 - c. Long term/rehabilitation
 - d. Home health
 - e. Women and children

C. Women and children

f. Community health

g. Hospice

E. Continuum of care delivery system

1. Primary

2. Secondary

3. Tertiary

F. U.S. health care payment sources

1. Third-party payers

a. Medicare

b. Medicaid - Arizona Health Care Cost Containment System (AHCCCS)

c. Indemnity insurance

d. Managed care

e. Worker's Compensation

G. Populations served

H. Health care organizations

1. Ownership

a. Proprietary (for profit)

b. Voluntary (not for profit)

c. Government

2. Mission

3. Governing board

a. Function

b. Personnel

4. Administration

a. Titles

b. Responsibilities

5. Medical staff

a. Organization

b. Specialties

6. Departments

I. Patient rights

1. Sources

a. Omnibus Budget Reconciliation Act 1987 (OBRA)

b. American Hospital Association (AHA)

2. Content

3. Comparison

J. Selected department and treatment abbreviations and symbols

1. Organizational abbreviations

2. Health care symbols

II. Workplace behaviors and values

A. Personal and health care values

1. Definition of values

2. Values clarification

3. Life values

a. Personal values

b. Respect of other values

c. Acceptance of others

d. Different perspectives

B. Workplace ethic behaviors

1. Definition of ethics

2. Work ethic behaviors

- a. Attendance
 - b. Punctuality
 - c. Hygiene
 - d. Personal appearance
 - e. Time management
 - f. Attitude
 - g. Accountability
 - h. Conduct
- C. Job application and interviewing skills
- 1. Preparing a job application
 - 2. Preparing for the interview
 - 3. Interviewing techniques
 - 4. Appearance and behavior
- D. Worker`s rights and responsibilities
- 1. Discrimination
 - a. Civil Rights Act of 1964
 - b. Protected class
 - c. Other criteria
 - d. Bona fide occupational qualifications
 - e. Disparate impact and treatment
 - 2. Harassment
 - a. Retaliation
 - b. Whistle blower
 - c. Protection
 - d. Types of harassment
 - e. Response process to harassment
 - 3. Violence in the workplace
 - a. Potential situation
 - b. Response
 - 4. Employment issues
 - a. Implied consent
 - b. Contracts/negotiation
 - c. Unions vs. at-will
 - d. Employee drug screening
 - e. Fingerprinting
 - f. Communicable disease testing
 - g. Annual in-services
 - h. Employee review of records
 - i. Termination
 - j. Due process
- III. Personal and workplace safety
- A. Dimensions of wellness
- 1. Physical
 - 2. Nutrition
 - 3. Exercise
 - 4. Emotional
 - 5. Intellectual
 - 6. Spiritual
 - 7. Interpersonal
 - 8. Environmental
 - 9. Stress management

- 10. Wellness lifestyle
- 11. Personal decision making
- B. Body mechanics
 - 1. Normal alignment
 - 2. Principles of body movement
 - 3. Correct techniques
 - 4. Principles of ergonomics
 - a. Posture
 - b. Environment
 - c. Repetitive motion
- C. Bloodborne and airborne pathogens
 - 1. Identification and transmission of bloodborne pathogens
 - a. Human immunodeficiency virus (HIV)
 - b. Hepatitis B virus (HBV)
 - 2. Identification and transmission of airborne pathogens
 - a. Tuberculosis (TB)
 - b. Cold/flu
 - c. Respiratory syncytial virus (RSV)
- D. Occupational Safety and Health Administration (OSHA) standards
 - 1. OSHA precautions
 - 2. Personal protection equipment (PPE)
- E. Handwashing technique
 - 1. Use of hand washing criteria
 - 2. Demonstration
- IV. Communication and teamwork
 - A. Communication framework
 - 1. Goals
 - 2. Components of communication
 - 3. Types of communication
 - B. Communication strategies
 - 1. Supportive strategies
 - 2. Barriers to communication
 - 3. Consequences for poor communication
 - C. Listening, feedback, and assertiveness
 - 1. Methods for improving feedback
 - 2. Impact of positive self-image and assertive behavior
 - D. Intercultural communication
 - 1. Cultural diversity
 - 2. Skills for intercultural communication
 - E. Teamwork
 - 1. Traits of a team
 - 2. Role of leader
 - 3. Role of team member
 - 4. Characteristics of a non-effective team
 - 5. Team activities
 - 6. Benefits of effective teams
 - 7. Traditional teams
- V. Ethical/legal issues and decision making
 - A. Health care laws and regulations
 - 1. Terminology
 - a. Accountability

- b. Assault
- c. Battery
- d. Fraud
- e. Law
- f. Legislation
- g. Liability
- h. Malpractice
- i. Negligence
- j. Regulation
- k. Responsibility
- l. Slander
- 2. Health care employment concepts
 - a. Personal
 - b. Patient
 - c. Physician
- 3. Patient abuse and reporting requirements
 - a. Children
 - b. Elder
 - c. Domestic
- 4. Risk management
 - a. Role
 - b. Function
 - c. Reporting procedure
- B. Regulatory requirements and agencies
 - 1. Professional certification, licensure and registration
 - 2. Institutional certification/licensure
 - a. Federal certification/Medicare
 - b. State licensure
- C. Federal regulations and standards
 - 1. Americans with Disabilities Act (ADA)
 - 2. Medicare/Health Care Finance Administration
 - 3. Department of Health and Human Services
 - 4. Food and Drug Administration (FDA)
- D. Voluntary accreditation
 - 1. Joint Commission on Accreditation of Hospitals (JCAH)
 - 2. National Council for Quality Assurance (NCQA)
 - 3. Others
- E. Legal guidelines for medical documentation
 - 1. Ownership of medical record
 - 2. Access
 - 3. Release of information
 - 4. Documenting in record
 - 5. Alteration
- F. Health care legal situations
 - 1. Privacy
 - 2. Confidentiality
 - 3. Privileged communication
- VI. Decision making in the health care setting
 - A. Classifications of thinking
 - 1. Logical
 - a. Deductive

- b. Inductive
- 2. Critical
- 3. Creative
- 4. Directed
- 5. Undirected
- B. Decision making model
 - 1. Elements
 - 2. Process
 - 3. Application of decision making model
- C. Ethical health care decisions
 - 1. Principles
 - a. Beneficence
 - b. Malfeasance
 - c. Veracity
 - d. Fidelity
 - e. Justice
 - 2. Standard of conduct
 - a. Code of ethics
 - b. Scope of practice
 - 3. Ethical decision making
 - a. Process
 - b. Identification
 - c. Facility policy
 - d. Responsibility
 - e. Ethics committee
 - f. Allocation of medical resources
 - 4. Life and death issues
 - a. Individual choices
 - b. Influences of religion/culture
 - c. Patient`s family/significant other
 - d. Health care facility
 - e. State/federal laws
 - f. Advanced directives
- D. Process improvement
 - 1. Definition
 - 2. Elements of process improvement
 - 3. Customer service/satisfaction
 - a. Internal
 - b. External
 - 4. Methodologies
 - a. Continuous quality improvement (CQI)
 - b. Total quality improvement (TQM)
 - c. Quality assurance (QA)
 - d. Quality control
 - 5. Process improvement steps
 - 6. Application of steps

Clock Curriculum Committee Approval Date: **5-6-2020**

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.



Human Pathophysiology and Pharmacology for HMC

Course: HMC200	Clock Hours: 180
	Grading Basis: CLK
First Term: 2020 Fall 1	
Final Term: Current	

Description: This course surveys common disease states and conditions that impact each of the major body systems and the reproductive process. Topics include disease etiology; signs and symptoms of diseases and conditions; prognosis of diseases and conditions; and pharmacological concepts related to drug nomenclatures, sources of drugs, drug actions and dosage, and routes of drug administration.

Requisites: Prerequisites: A grade of C or better is required in HLC130.

MCCCD Official Course Competencies

1. Compare mechanisms involved in disease states including predisposing factors and disease pathways. (I)
2. Differentiate between the definitions and characteristics of signs and symptoms of diseases and conditions. (I)
3. Outline the etiologies, risk factors, and diagnostic criteria used for diseases and conditions that impact each of the major body systems. (II-IV)
4. Determine prevention and prognosis criteria for diseases and conditions that impact each of the major body systems. (II-IV)
5. Describe diagnostic testing and pharmaceutical interventions used to treat diseases and conditions of each of the major body systems. (V)
6. Distinguish among the chemical, generic, and trade names of drugs. (V)
7. Explain routes of drug administration. (V)
8. Explain the uses and side effects of selected drug classifications related to each of the major body systems and neoplastic conditions. (V)
9. Identify abbreviations and symbols used in pharmacology. (V)
10. Compare the incidence and prevalence of common disease states at the federal, state, regional, and local levels. (VI)
11. Evaluate cultural implications that impact diagnosis and treatment of diseases and conditions in the U.S. and abroad. (VI)

MCCCD Official Course Outline

- I. Disease, disorder, and syndrome
 - A. Pathology
 - B. Etiology
 - C. Predisposing factors
 - D. Diagnosis
 - E. Prognosis

- F. Treatment
 - G. Ethics
 - II. Mechanisms of disease
 - A. Heredity
 - B. Trauma
 - C. Infection
 - D. Nutrition
 - E. Immunity
 - F. Aging
 - G. Death
 - III. Body system diseases, signs and symptoms, diagnostic tests, and treatments
 - A. Neoplasms
 - B. Infections
 - C. Musculoskeletal diseases and disorders
 - D. Blood and blood-forming diseases and disorders
 - E. Cardiovascular diseases and disorders
 - F. Respiratory diseases and disorders
 - G. Lymphatic diseases and disorders
 - H. Digestive diseases and disorders
 - I. Liver, gallbladder, and pancreatic diseases and disorders
 - J. Urinary diseases and disorders
 - K. Endocrine diseases and disorders
 - L. Nervous diseases and disorders
 - M. Eye and ear diseases and disorders
 - N. Reproductive diseases and disorders
 - O. Integumentary diseases and disorders
 - IV. Other diseases and disorders
 - A. Genetic and developmental diseases and disorders
 - B. Childhood diseases and disorders
 - C. Mental health diseases and disorders
 - V. Pharmacology
 - A. Chemical names
 - B. Generic names
 - C. Trade names
 - D. Routes of administration
 - E. Drug classifications
 - F. Abbreviations and symbols
 - VI. Public health factors
 - A. Epidemiology
 - B. Disease prevalence
 - C. Disease frequency
 - D. Cultural implications of disease and treatment
-
-

Clock Curriculum Committee Approval Date: **5-6-2020**

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.



Introduction to Medical Billing and Reimbursement

Course: HMC180	Clock Hours: 50
	Grading Basis: CLK
First Term: 2020 Fall 1	
Final Term: Current	

Description: This course provides an overview of the medical billing profession and the revenue management process. Topics include Medicare, Medicaid, third-party payers, managed care models, and national insurance schemes.

Requisites: Prerequisites: A grade of C or better is required in HMC200.

MCCCD Official Course Competencies

1. Describe the employment outlook of the medical billing profession and professional affiliations. (I)
2. Categorize various types of professional certifications available to medical billing specialists. (I)
3. Describe legal and ethical issues including fraud and abuse that are specific to the medical billing function. (I)
4. Outline the provisions of the Health Insurance Portability and Accountability Act (HIPAA), the Patient Protection and Affordable Care Act (PPACA), and similar legislation that impacts health reimbursement. (II)
5. Categorize healthcare terminologies, medical nomenclatures, classification systems, and payment methodologies. (III)
6. Describe basic health insurance policy provisions and contracts. (III)
7. Identify the most commonly used claim forms and outline the various forms of demographic, clinical, and administrative information required for their completion. (III)
8. Explain the basic steps for verifying eligibility and processing medical claims, including electronic data interchange. (III, IV)
9. Compare major U.S. healthcare funding models including private insurance, BlueCross BlueShield models, Medicare, Medicaid, TRICARE, and Worker's Compensation. (IV)
10. Explain the benefits and eligibility requirements for major third-party payers. (IV)
11. Explain the reimbursement method(s) used by each of the major health insurance programs. (IV)

MCCCD Official Course Outline

- I. Medical billing profession
 - A. Employment
 - B. Professional affiliations
 - C. Certification
 - D. Medicolegal and ethical issues
- II. HIPAA
 - A. Billing impact

B. Compliance programs

1. Components
2. Role

III. Process overview

- A. Terminology
- B. Policies and contracts
- C. Obtaining coverage
- D. Eligibility verification
- E. Processing steps
- F. Patient documentation
 1. Ambulatory care
 2. Inpatient care
- G. Claim forms
- H. Diagnostic and procedural coding
- I. Fee determination
 1. Chargemaster
 2. Fee schedule
 3. Prospective payment
 4. Other
- J. Electronic data interchange
- K. Explanation of benefits/remittance advice

IV. Health care payers

- A. Managed care systems
 1. Benefits/programs
 2. Eligibility and identification
 3. Reimbursement method(s)
- B. Commercial insurance carriers
 1. Benefits/programs
 2. Eligibility and identification
 3. Reimbursement method(s)
- C. Medicaid and state programs
 1. Benefits/programs
 2. Eligibility and identification
 3. Reimbursement method(s)
- D. Medicare
 1. Benefits/programs
 2. Eligibility and identification
 3. Advance beneficiary notice
 4. Reimbursement method(s)
- E. Civilian Health and Medical Program of the Veterans Administration (CHAMPVA) and TRICARE (proper name)
 1. Benefits/programs
 2. Eligibility and identification
 3. Reimbursement method(s)
- F. Worker`s Compensation
 1. Benefits/programs
 2. Eligibility and identification
 3. Reimbursement method(s)
- G. Disability income and benefit programs
 1. Benefits/programs
 2. Eligibility and identification
 3. Reimbursement method(s)

Clock Curriculum Committee Approval Date: 5-6-2020

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.



Medical Claims Processing

Course: **HMC181**

Clock Hours: **55**

Grading Basis: **CLK**

First Term: **2020 Fall 1**

Final Term: **Current**

Description: This course provides an in-depth analysis of the medical claims process in ambulatory care settings. Topics include electronic data interchange, claims management, confidentiality, data retention, and the claims review and appeals process.

Requisites: Prerequisites: A grade of C or better is required in HMC180.

MCCCD Official Course Competencies

1. Define selected terms related to computerized billing. (I)
2. Describe prevention measures to ensure computer confidentiality. (I)
3. Follow office procedures for manual and electronic claims processing. (II, III)
4. Explain the requirements for data retention and storage in relation to claims processing. (II, III)
5. Prepare claims for submission to major third-party payers. (II-IV)
6. Design, modify, and/or update superbills to reflect health care services. (III)
7. Explain the claims procedures for the major third-party payers. (III)
8. Develop policies and procedures for managing insurance claims. (IV)
9. Prepare supporting documentation as needed for proper claims processing. (IV)
10. Verify benefits with third-party payers. (IV)
11. Describe steps taken to resolve delinquent and/or denied claims. (IV)
12. Prepare claims for rebilling. (IV)
13. Respond to requests for claims review and appeal. (IV)
14. Describe the process used to gather data for and the content of common end-of-month and audit reports. (IV)

MCCCD Official Course Outline

- I. Computer basics
 - A. Computer terminology
 - B. Confidentiality
- II. Electronic data interchange
 - A. Computer claims systems
 - B. Data interchange
 - C. Data storage
- III. Claims management
 - A. Superbill/source documents
 - B. Claims processing and payment methodologies
 1. Managed care systems

2. Commercial insurance carriers
 3. Medicaid and state programs
 4. Medicare
 5. CHAMPUS, CHAMPVA, and TRICARE
 6. Worker`s compensation
 7. Disability income and benefit programs
- C. Alternative care providers
- IV. Reimbursement management
- A. Policies and procedures
 - B. Documentation
 - C. Series billing
 - D. Explanation of benefits
 - E. Problem claims
 - F. Rebilling
 - G. Review and appeal process
 - H. End of month reports
 - I. Audits
-
-

Clock Curriculum Committee Approval Date: **5-6-2020**

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.



Computer Usage and Applications

Course: **ISP110PC**

Clock Hours: **30**

Grading Basis: **CLK**

First Term: **2020 Fall 1**

Final Term: **Current**

Description: Introduction to business and personal computer operations and usage. Software applications for analyzing and solving business problems including word processing, spreadsheet, database, and presentation graphics.

Requisites: Prerequisites: A grade of C or better is required in HMC200.

MCCCD Official Course Competencies

1. Describe the components and operations of a computer system. (I)
2. Analyze and explain social and ethical issues related to computer technology. (II)
3. Use operating system commands to facilitate and implement information management. (III)
4. Define the functions of word processing programs as used in business. (IV)
5. Analyze and apply word processing program features to create, edit, manipulate, format, print, and store common business documents. (IV)
6. Define the functions of spreadsheet programs as used in business. (V)
7. Construct, test, implement, and analyze spreadsheets that solve financial, mathematical, and statistical problems in business. (V)
8. Create and edit charts and graphs to interpret spreadsheet data. (V)
9. Define the functions of database programs as used in business. (VI)
10. Analyze, design, and create a database to extract, sort, calculate, and report business data. (VI)
11. Define functions of presentation graphics programs as used in business. (VII)
12. Design, create, and execute an artistic presentation to include graphics and animation. (VII)
13. Use the internet as a source of information for computer and software-related topics. (VIII)

MCCCD Official Course Outline

- I. Computer systems
 - A. Computer operations
 - B. Computer components
 1. Hardware
 2. Software
 3. Networking
 4. Disk handling
- II. Computer technology issues
 - A. Social
 - B. Ethical
- III. Operating system commands

- A. Start-up/shut-down
 - B. Disk management
 - 1. Initialize
 - 2. Format
 - C. File management
 - 1. Save/copy
 - 2. Erase/delete
 - 3. Name/rename
 - 4. Directories/folders
 - D. Print
- IV. Word processing
- A. Functions
 - 1. Input/create
 - 2. Edit
 - 3. Manipulate
 - 4. Format
 - 5. Print
 - 6. Store/save
 - B. Analysis and applications
- V. Spreadsheets
- A. Functions
 - 1. Input/construct
 - 2. Edit
 - 3. Manipulate
 - 4. Formulas/functions
 - a. Financial
 - b. Mathematical
 - c. Statistical
 - 5. Print
 - 6. Store/save
 - B. Charts and graphs
 - 1. Create
 - 2. Edit
 - 3. Interpret
 - C. Analysis and applications
- VI. Databases
- A. Design
 - 1. Record structure
 - 2. File structure
 - B. Functions
 - 1. Input/create
 - 2. Edit
 - 3. Manipulate
 - a. Extract
 - b. Sort
 - c. Calculate
 - 4. Generate reports
 - 5. Print
 - 6. Store/save
 - C. Analysis and applications
- VII. Presentation graphics

- A. Design
 - 1. Style
 - 2. Graphics
 - 3. Animation
 - B. Functions
 - 1. Input/create
 - 2. Edit
 - 3. Manipulate/execute
 - 4. Present
 - 5. Store/save
 - C. Analysis and applications
- VIII. Internet resources
- A. Computer-related
 - B. Software-related
-
-

Clock Curriculum Committee Approval Date: **5-6-2020**

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.



ICD-CM Diagnostic Coding

Course: **HMC208**

Clock Hours: **90**

Grading Basis: **CLK**

First Term: **2020 Fall 1**

Final Term: **Current**

Description: This course introduces students to the International Classification of Diseases, Clinical Modification (ICD-CM) coding system. Topics include application of current ICD-CM guidelines and conventions for symptoms, signs, and abnormal clinical and laboratory findings, diseases, conditions, and external causes of morbidity in inpatient and outpatient settings.

Requisites: Prerequisites: A grade of C or better is required in ISP110PC.

MCCCD Official Course Competencies

1. Describe the purpose and historical development of the International Classification of Diseases (ICD). (I)
2. Differentiate among nomenclatures, classifications, vocabularies, and taxonomies, and describe the role of each in clinical coding systems. (I)
3. Describe the standards and impact of ethical coding. (II)
4. Relate current local, state, and federal regulations to coding situations. (II)
5. Explain the concepts of patient privacy and confidentiality as they relate to code assignment. (II)
6. Describe the impact of coding non-compliance including fraud and abuse. (II)
7. Outline the structure and format of the current International Classification of Diseases Clinical Modification (ICD-CM) code books. (III)
8. Define and use ICD-CM coding conventions including instructional terms and notations for diagnostic code assignment. (III)
9. Define and apply the principles of coding accuracy, totality, and sequencing. (IV)
10. Integrate pharmacology concepts in the coding process. (V)
11. Assign and appropriately sequence ICD-CM diagnostic codes according to general coding guidelines and conventions. (V)
12. Apply ICD-CM coding and sequencing guidelines to symptoms, signs, and abnormal clinical and laboratory findings. (V)
13. Apply ICD-CM coding and sequencing guidelines to factors that influence health status. (V)
14. Apply ICD-CM coding and sequencing guidelines to diseases, disorders, and conditions that affect all major body systems and neoplasms. (V)
15. Apply ICD-CM coding and sequencing guidelines to pregnancy, childbirth, and puerperium conditions. (V)
16. Apply ICD-CM coding and sequencing guidelines to perinatal and congenital conditions. (V)
17. Apply ICD-CM coding and sequencing guidelines to external causes of morbidity. (V)
18. Apply ICD-CM coding and sequencing guidelines to injuries, burns, adverse effects, and poisonings. (V)
19. Apply ICD-CM coding and sequencing guidelines to complications of surgery and medical care. (V)

(V)

20. Apply relevant coding guidelines to outpatient and inpatient diagnostic code assignment. (VI)

21. Compare and contrast outpatient and inpatient ICD diagnostic coding guidelines. (VI)

22. Identify, compare, and use standardized coding references for accurate code assignment. (VII, VIII)

MCCCD Official Course Outline

I. International classification of diseases

A. Purpose

B. Historical development

C. Nomenclatures, classifications, taxonomies, vocabularies

1. Definition

2. Role

II. Coding compliance

A. Standards of ethical coding

B. Government regulations

1. Local

2. State

3. Federal

C. Privacy and confidentiality

D. Fraud and abuse

E. Impact of non-compliance

III. ICD-CM organization and format

A. Alphabetic index and tabular list

1. Format

2. Structure

3. Conventions

B. General coding guidelines

IV. Basic coding steps

A. Location of terms in the alphabetic index

B. Verification of codes in the tabular list

V. Code assignment, guidelines, and common pharmaceuticals

A. Certain infectious and parasitic diseases

B. Neoplasms

C. Diseases of the blood, blood-forming organs, and immune system

D. Endocrine, nutritional, and metabolic diseases

E. Mental and behavioral disorders

F. Diseases of nervous system and sense organs

G. Diseases of eye and adnexa

H. Diseases of ear and mastoid process

I. Diseases of circulatory system

J. Diseases of respiratory system

K. Diseases of digestive system

L. Diseases of skin and subcutaneous tissue

M. Diseases of the musculoskeletal system and connective tissue

N. Diseases of genitourinary system

O. Pregnancy, childbirth, and the puerperium

P. Newborn (perinatal)

Q. Congenital malformations, deformations, and chromosomal abnormalities

R. Symptoms, signs, and abnormal findings

S. Injury, poisoning, and certain other consequences of external causes

S. Injury, poisoning, and certain other consequences of external causes

T. External causes of morbidity

U. Factors influencing health status and contact with health services

VI. Special code reporting and guidelines

A. Inpatient settings

1. Selection of principal diagnosis
2. Sequencing of remaining diagnoses
3. Reporting additional diagnoses

B. Outpatient services

VII. Coding references

A. Coding clinic

B. Drug formulary

C. Other

VIII. Coding tools

A. Encoder

B. Automated code book software

C. Computer-assisted coding (CAC)

D. Other

Clock Curriculum Committee Approval Date: **5-6-2020**

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.



CPT and HCPCS Coding

Course: **HMC213**

Clock Hours: **205**

Grading Basis: **CLK**

First Term: **2022 Fall**

Final Term: **Current**

Description: This course provides students with the foundation for using the Current Procedural Terminology (CPT) and the Healthcare Common Procedure Coding System (HCPCS) coding systems. Topics include coding guidelines, healthcare reimbursement, coding technologies, ethical coding, and compliance issues.

Requisites: Prerequisites: A grade of C or better is required in HMC208.

MCCCD Official Course Competencies

1. Identify the use and purpose of the current procedural terminology (CPT) and the healthcare common procedure coding system (HCPCS) coding systems. (I)
2. Describe the importance of CPT/HCPCS coding in the revenue cycle management process. (II)
3. Correlate the relationship among the international classification of diseases - clinical modification (ICD-CM), CPT, and HCPCS coding systems. (III)
4. Identify the levels of the HCPCS coding system. (III)
5. Outline the organization and content of the CPT manual. (IV)
6. Explain the purpose and use of CPT modifiers and HCPCS level II modifiers. (V)
7. Apply appropriate modifiers to codes for physicians and facilities. (VI)
8. Apply criteria for selecting and assigning evaluation and management service codes. (VII)
9. Assign CPT codes and modifiers for anesthesia services utilizing source documents. (VIII)
10. Apply CPT and HCPCS guidelines to accurately sequence and assign procedure codes for surgical services, pathology, radiology, laboratory, and medicine services. (VIII-XI)
11. Use technology for code assignment and reimbursement determination. (XI)
12. Apply principles of coding compliance and ethical coding when assigning codes. (XII)
13. Interpret and apply medical coding regulatory guidelines and standards at the federal, state, regional, and local levels. (XII)

MCCCD Official Course Outline

- I. Introduction to current procedural terminology (CPT)
 - A. Background
 - B. Purpose
- II. CPT and health care reimbursement
 - A. Inpatient versus outpatient
 - B. Ambulatory care settings
- III. CPT, HCPCS and ICD
 - A. Levels

- B. Relationships
 - IV. CPT basics
 - A. Organization and content
 - B. Format and conventions
 - C. Definitions of key terms
 - V. General guidelines
 - A. Using the index
 - B. Assigning a code
 - C. Using references
 - VI. Modifiers in CPT, HCPCS level II
 - A. Purpose
 - B. Definitions
 - C. Application of anatomic modifiers
 - D. Physician versus facility
 - VII. Evaluation and management services
 - A. Overview
 - B. Definitions
 - C. Levels of service
 - D. Categories, subcategories
 - E. Modifier applications
 - VIII. Coding anesthesiology services
 - A. Format
 - B. Definitions
 - C. Guidelines
 - D. Modifier applications
 - IX. Coding surgical services
 - A. Overview
 - B. Terminology
 - C. General instructions
 - D. Specialty specific guidelines
 - E. Anatomic modifier applications
 - X. Coding radiology, pathology, laboratory, medicine services
 - A. Format
 - B. Terminology
 - C. Guidelines
 - XI. Coding tools
 - A. Encoders
 - B. Automated code book software
 - C. Other
 - XII. Governmental impact on CPT coding
 - A. Fraud and abuse
 - B. Coding compliance
 - 1. American Health Information Management Association (AHIMA) standard of ethical coding
 - 2. Internal and external audits
 - C. National Correct Coding Initiative (NCCI)
 - D. Medicare edits
 - E. Legislative regulations
-
-

Clock Curriculum Committee Approval Date: **12-10-2021**

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.



Medical Billing and Coding Examination Review

Course: **HMC100**

Clock Hours: **45**

Grading Basis: **CLK**

First Term: **2020 Fall 1**

Final Term: **Current**

Description: This course reviews separate subjects that will be taught in preparation for the National Certified Professional Coder (CPC) Examination administered through the American Academy of Professional Coders (AAPC).

Requisites: Prerequisites: A grade of C or better is required in HMC213 or permission of Instructor.

MCCCD Official Course Competencies

1. Apply coding knowledge and skills in the international classification of diseases - clinical modification (ICD-10-CM), current procedural terminology (CPT), and the healthcare common procedure coding system (HCPCS) while taking a mock timed test simulating the Certified Professional Coder (CPC) National Certification Examination. (I)
2. Utilize medical terminology, pathophysiology, and pharmacology skills as they apply while taking a mock timed test simulating the CPC National Certification Examination. (I)
3. Practice strategies of time management while testing. (I)
4. Identify test-taking techniques while using critical thinking skills. (I)

MCCCD Official Course Outline

- I. Simulated timed tests including:
 - A. Medical terminology
 - B. Pathophysiology
 - C. Pharmacology
 - D. ICD-10 diagnostic coding
 - E. CPT procedural coding
 - F. HCPCS coding

Clock Curriculum Committee Approval Date: **5-6-2020**

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.



MARICOPA
COMMUNITY COLLEGES

Computers in Healthcare and Health Record Systems

Course: **HMC105**

Clock Hours: **20**

Grading Basis: **CLK**

First Term: **2020 Fall 1**

Final Term: **Current**

Description: Introduction to computer applications in healthcare settings including electronic health records, health record content, structure, and origin of clinical information for various healthcare settings. A basic review of federal, state, and organizational documentation guidelines. Legal and ethical issues applicable to health information documentation and coding practices.

Requisites: Prerequisites: A grade of C or better is required in HMC181 and HMC213.

MCCCD Official Course Competencies

1. Describe common computer applications found in health care settings. (I)
2. Identify the various types, uses, users, and formats of health records. (II)
3. Compare the responsibilities of various providers and disciplines, and their roles to support documentation requirements throughout the continuum of care. (II, V)
4. Describe electronic health records (EHR) and benefits of EHR adoption. (III)
5. Describe the content of health records and documentation guidelines used in various healthcare settings. (IV, V)
6. Identify key documents and verify the documentation in the health record is timely, complete, and accurate. (V)
7. Identify and use secondary data sources. (VI)
8. Apply key legal concepts and principles related to health information management. (VII)

MCCCD Official Course Outline

- I. Computers in healthcare
 - A. Evolution
 - B. Types of applications
 1. Administrative
 2. Clinical
 3. Management support
 - C. Health information management applications
 1. Overview
 2. Impact on processes
- II. Health records
 - A. Definition
 - B. History and development
 - C. Purpose, uses, and users
 1. Internal

- 2. External
 - D. Formats
 - 1. Paper-based
 - 2. Electronic
 - 3. Hybrid
 - III. Electronic health records (EHR)
 - A. Overview
 - B. Standards
 - C. Components and format
 - D. Documentation
 - E. Benefits
 - IV. Types of health records
 - A. Hospital
 - B. Ambulatory
 - C. Long-term care
 - D. Other healthcare settings
 - V. Health records and documentation
 - A. Key components and origin
 - 1. Medical history
 - 2. Physical exam
 - 3. Physician orders
 - 4. Discharge summary
 - 5. Consultation reports
 - 6. Operative reports
 - 7. Ancillary records
 - 8. Other components
 - B. Documentation guidelines
 - 1. Internal and external
 - 2. Professional standards
 - VI. Data sources
 - A. Primary
 - B. Secondary
 - VII. Legal concepts, policies and procedures related to health information
 - A. Access and release of information (ROI)
 - B. Privacy
 - C. Confidentiality
 - D. Security
 - E. Retention and destruction
-
-

Clock Curriculum Committee Approval Date: **5-6-2020**

All information published is subject to change without notice. Every effort has been made to ensure the accuracy of information presented, but based on the dynamic nature of the curricular process, course and program information is subject to change in order to reflect the most current information available.