Course Outline

Health Science and Medical Technology

Course Description:
This competency-based course is the fourth in a sequence of five designed for health information technology. It provides students with project-based experiences in diagnostic coding used in medical offices, hospitals, clinical laboratories, private and governmental insurance agencies, and other healthcare-related facilities. Technical instruction includes an introduction as well as reviews of workplace safety policies and procedures and employability skills. Emphasis is placed on the official coding guidelines of the two latest editions of the International Classification of Diseases (ICD). Specific sections of the Tabular List including infectious and parasitic diseases, neoplasms, diseases of the blood and blood-forming organs, endocrine/nutritional/metabolic diseases, and the conditions and diseases of the nervous system, eye and adnexa, ear and mastoid process, circulatory system, respiratory system, digestive system, skin and subcutaneous tissue, musculoskeletal system and connective tissue, and the genitourinary system are covered. Also included are coding conventions for pregnancy, childbirth, and puerperium, congenital malformations, deformations, and chromosomal abnormalities, injury and poisoning, external causes of morbidity and mortality, factors influencing health status, and codes for special purposes. Competencies in this course are aligned with the California High School Academic Content Standards and the California Career Technical Education Model Curriculum Standards.

Job Title: Health Information Technician
Career Pathway: Healthcare Administrative Services
Industry Sector: Health Science and Medical Technology
O*NET-SOC CODE: 29-2071.00
CBEDS Title: Intro to Health Information & Records Systems
CBEDS No.: 4263

76-15-80
Health Information Tech/4: Diagnostic Coding Systems

Credits: 5
Hours: 90

Prerequisites:
Enrollment requires successful completion of the Health Information Tech/3: Insurance and Billing (76-15-70) course.

NOTE: For Perkins purposes this course has been designated as a concentrator/capstone course.

This course cannot be repeated once a student receives a Certificate of Completion.
A course outline reflects the essential intent and content of the course described. Acceptable course outlines have six components. (Education Code Section 52506). Course outlines for all apportionment classes, including those in jails, state hospitals, and convalescent hospitals, contain the six required elements:

(EC 52504; SCCR 10508 [b]; Adult Education Handbook for California [1977], Section 100)

Course Outline Components

GOALS AND PURPOSES

The educational goals or purposes of every course are clearly stated and the class periods are devoted to instruction. The course should be broad enough in scope and should have sufficient educational worth to justify the expenditure of public funds.

The goals and purpose of a course are stated in the COURSE DESCRIPTION. Course descriptions state the major emphasis and content of a course, and are written to be understandable by a prospective student.

PERFORMANCE OBJECTIVES OR COMPETENCIES

Objectives should be delineated and described in terms of measurable results for the student and include the possible ways in which the objectives contribute to the student’s acquisition of skills and competencies.

Performance Objectives are sequentially listed in the COMPETENCY-BASED COMPONENTS section of the course outline. Competency Areas are units of instruction based on related competencies. Competency Statements are competency area goals that together define the framework and purpose of a course. Competencies fall on a continuum between goals and performance objectives and denote the outcome of instruction.

Competency-based instruction tells a student before instruction what skills or knowledge they will demonstrate after instruction. Competency-based education provides instruction which enables each student to attain individual goals as measured against pre-stated standards.

Competency-based instruction provides immediate and continual repetition and in competency-based education the curriculum, instruction, and assessment share common characteristics based on clearly stated competencies. Curriculum, instruction and assessment in competency-based education are: explicit, known, agreed upon, integrated, performance oriented, and adaptive.

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INSTRUCTIONAL STRATEGIES

Instructional techniques or methods could include laboratory techniques, lecture method, small-group discussion, grouping plans, and other strategies used in the classroom.

Instructional strategies for this course are listed in the TEACHING STRATEGIES AND EVALUATION section of the course outline. Instructional strategies and activities for a course should be selected so that the overall teaching approach takes into account the instructional standards of a particular program, i.e., English as a Second Language, Programs for Older Adults, Programs for Adults with Disabilities.

UNITS OF STUDY, WITH APPROXIMATE HOURS ALLOTED FOR EACH UNIT

The approximate time devoted to each instructional unit within the course, as well as the total hours for the course, is indicated. The time in class is consistent with the needs of the student, and the length of the class should be that it ensures the student will learn at an optimum level.

Units of study, with approximate hours allotted for each unit are listed in the COMPETENCY AREA STATEMENT(S) of the course outline. The total hours of the course, including work-based learning hours (community classroom and cooperative vocational education) is listed on the cover of every CBE course outline. Each Competency Area listed within a CBE outline is assigned hours of instruction per unit.

EVALUATION PROCEDURES

The evaluation describes measurable evaluation criteria clearly within the reach of the student. The evaluation indicates anticipated improvement in performances as well as anticipated skills and competencies to be achieved.

Evaluation procedures are detailed in the TEACHING STRATEGIES AND EVALUATION section of the course outline. Instructors monitor students’ progress on a continuing basis, assessing students on attainment of objectives identified in the course outline through a variety of formal and informal tests (applied performance procedures, observations, and simulations), paper and pencil exams, and standardized tests.

REPETITION POLICY THAT PREVENTS PERPETUATION OF STUDENT ENROLLMENT

After a student has completed all the objectives of the course, he or she should not be allowed to reenroll in the course. There is, therefore, a need for a statement about the conditions for possible repetition of a course to prevent perpetuation of students in a particular program for an indefinite period of time.
ACKNOWLEDGMENTS

Thanks to AARON SAENZ, SHEILA SAENZ, PATRICIA SCHNEIDER, TESSIE CASTILLO and FRED PRINZ for developing and editing this curriculum. Acknowledgment is also given to DARLENE NEILSEN for editing this course outline, and to ERICA ROSARIO for designing the original artwork for the course covers. Thanks to ISABEL VÁZQUEZ for the leadership she provided in implementing course sequences.

JUDY DE LA TORRE
Specialist
Career Technical Education

APPROVED:

DONNA BRASHEAR
Executive Director
Division of Adult and Career Education
Health Science and Medical Technology
Knowledge and Performance Anchor Standards

1.0 Academics
Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment. Refer to the Health Science and Medical Technology academic alignment matrix for identification of standards.

2.0 Communications
Acquire and accurately use Health Science and Medical Technology sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats.

3.0 Career Planning and Management
Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans.

4.0 Technology
Use existing and emerging technology to investigate, research, and produce products and services, including new information, as required in the Health Science and Medical Technology sector workplace environment.

5.0 Problem Solving and Critical Thinking
Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Health Science and Medical Technology sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.

6.0 Health and Safety
Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the Health Science and Medical Technology sector workplace environment.

7.0 Responsibility and Flexibility
Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the Health Science and Medical Technology sector workplace environment and community settings.

8.0 Ethics and Legal Responsibilities
Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms.

9.0 Leadership and Teamwork
Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution as practiced in the Cal-HOSA career technical student organization.

10.0 Technical Knowledge and Skills
Apply essential technical knowledge and skills common to all pathways in the Health Science and Medical Technology sector, following procedures when carrying out experiments or performing technical tasks.

11.0 Demonstration and Application
Demonstrate and apply the knowledge and skills contained in the Health Science and Medical Technology anchor standards, pathway standards, and performance indicators in classroom, laboratory, and workplace settings and through the Cal-HOSA career technical student organization.
Health Science and Medical Technology  
Pathway Standards

C. Health Care Administrative Services Pathway

Health care administrative workers include site administrators, managers, attorneys, receptionists, secretaries, billing and coding specialists, health informatics technicians, accountants, managers, and other knowledge workers that support the process of patient care. Health care administrative workers are the invisible backbone of health care; without appropriately skilled workers in these fields, health care systems simply could not function.

Sample occupations associated with this pathway:

- Clinical Data Specialist
- Ethicist
- Medical Illustrator
- Health Care Administrator

C1.0 Understand health care systems as the organization of people, institutions, funding, and resources as well as the broad scope of operations in which health care services are delivered to meet the health needs of target populations.

C2.0 Understand the various health care provider and support roles in patient care as an integrated, comprehensive health care system, to offer the very best options for treatment of patients.

C3.0 Understand the overarching concepts of economic and financial management systems, system and information management, and the latest innovations in health care as they affect health care delivery.

C4.0 Know the role and relationship of public policies and community engagement on the health care delivery system.

C5.0 Understand and maintain standards of excellence, professional, ethical, and moral conduct required in management of personnel and policy within the health care delivery system.

C6.0 Understand the dynamics of human relations, self-management, organizational, and professional leadership skills necessary within the health care administrative system.

C7.0 Follow the model of medical safety practices and processes that can help prevent system medication errors and understand the consequences of mistakes.

C8.0 Understand the resources, routes and flow of information within the health care system and participate in the design and implementation of effective systems or processes.

C9.0 Use an electronic health care patient information system to optimize the acquisition, storage, retrieval, and use of information in health and biomedicine.

C10.0 Understand common file formats for document and medical imaging, digitizing paper records, and storing medical images.

C11.0 Know how to schedule and manage appointments for providers.

C12.0 Understand how to use health information effectively.

C13.0 Understand the need to communicate health/medical information accurately and within legal/regulatory bounds across the organization.

C14.0 Understand how to transfer information to third-parties.

C15.0 Code health information and bill payers using industry standard methods of classification of diseases, current procedural terminology, and common health care procedure coding system.

C16.0 Use a systematic method of continual process improvement.
CBE
Competency-Based Education

COMPETENCY-BASED COMPONENTS
for the Health Information Tech/4: Diagnostic Coding Systems Course

<table>
<thead>
<tr>
<th>COMPETENCY AREAS AND STATEMENTS</th>
<th>MINIMAL COMPETENCIES</th>
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<tbody>
<tr>
<td><strong>A. INTRODUCTION AND SAFETY</strong></td>
<td>1. Review the scope and purpose of the course.</td>
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<tr>
<td>Review, apply, and evaluate</td>
<td>2. Review the overall course content as a part of the Linked Learning Initiative.</td>
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<td>classroom and workplace policies</td>
<td>3. Review classroom policies and procedures.</td>
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<td>and procedures used in</td>
<td>4. Review the different occupations in the Health Science and Medical Technology Industry Sector which have an impact on the role of health information technicians.</td>
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<td>accordance with federal, state,</td>
<td>5. Review the opportunities available for promoting gender equity and the representation of non-traditional populations in the health information field.</td>
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<td>and local safety and</td>
<td>6. Review the purpose of the California Occupational Safety and Health Administration (Cal/OSHA) and its laws governing health information technicians.</td>
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<td>environmental regulations.</td>
<td>7. Review the impact of Environmental Protection Agency (EPA) legislation on the Health Science and Medical Technology Industry Sector practices.</td>
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<td>2 hours</td>
<td>8. Review and demonstrate the procedures for contacting proper authorities for the removal of hazardous materials based on the EPA standards.</td>
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<td>9. Review classroom and workplace first aid and emergency procedures according to American Red Cross (ARC) standards.</td>
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<td>10. Review how each of the following insures a safe workplace:</td>
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<td>a. employees’ rights as they apply to job safety</td>
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<td>b. employers’ obligations as they apply to safety</td>
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<td>c. role of the Division of Workers’ Compensation (DWC)</td>
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<td>d. adherence to Universal Precautions</td>
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<td>e. avoidance of falls and filing cabinet mishaps</td>
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<td>11. Pass the safety test with 100% accuracy.</td>
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<tr>
<td><strong>B. INTERNATIONAL CLASSIFICATION OF DISEASES (ICD)</strong></td>
<td>1. Define the following:</td>
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<tr>
<td>Understand, apply, and evaluate</td>
<td>a. World Health Organization (WHO)</td>
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<td>the content of the latest edition</td>
<td>b. International Classification of Diseases (ICD)</td>
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<td>of the International Classification</td>
<td>c. Clinical Modification (CM)</td>
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<td>of Diseases (ICD).</td>
<td>d. mortality statistics</td>
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<td>e. morbidity statistics</td>
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<td>f. family of diseases</td>
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<td>i. epidemic diseases</td>
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<td>ii. constitutional or general diseases</td>
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<td>iii. local diseases arranged by site</td>
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<td>iv. developmental diseases</td>
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<td>v. injuries</td>
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2. Describe the following about the ICD:
   a. origins
   b. purpose
   c. implementation
   d. versions
      i. ICD-9
         • Volume 1
         • Volume 2
      ii. ICD-10
         • Volume 1
         • Volume 2
         • Volume 3
      iii. ICD-9-CM
      iv. ICD-10-CM
   e. updating process

C. OFFICIAL CODING GUIDELINES

Understand, apply, and evaluate the basic coding guidelines, including coding and sequencing instructions.

1. Define the following:
   a. inclusion terms
   b. exclusion terms
   c. glossary descriptions
   d. dual coding
   e. “dagger and asterisk” system
   f. dagger code (primary code)
   g. asterisk code (optional additional code)
   h. multiple coding
      i. combination coding
      j. mandatory coding
   k. contrasting diagnoses
   l. comparative diagnoses
   m. lead terms
   n. relational terms
   o. medical necessity

2. Identify, locate, and describe the following:
   a. Official Guidelines for Coding and reporting Outpatient Services
   b. three-character classification (categories)
   c. four-character classification (subcategories)
   d. Tabular List structure
   e. Tabular List conventions
   f. Not Otherwise Specified (NOS)
   g. Alphabetical Index structure
   h. Alphabetical Index conventions
   i. Not Elsewhere Classified (NEC)
   j. “U” Codes

3. Describe the following:
   a. guidelines for multiple coding
   b. guidelines for combination coding
   c. guidelines for mandatory coding
   d. unspecified code titles
   e. guidelines for contrasting and comparative diagnoses
   f. guidelines for establishing the principal diagnosis in the inpatient and outpatient settings
   g. guidelines for establishing medical necessity

4. Pass an examination demonstrating mastery of ICD coding guidelines with 100% proficiency.
### D. INFECTIOUS AND PARASITIC DISEASES

Understand and evaluate the correct coding convention applications for infectious and parasitic conditions and diseases.

1. Define and give examples of the following:
   a. infectious diseases
   b. parasitic diseases

2. Identify and locate the following in the ICD:
   a. three intestinal infectious diseases in the Tabular List
   b. cross-reference codes for the three intestinal infectious diseases in the Alphabetical Index
   c. possible classification of procedures from the Tabular List and Alphabetical Index

3. Describe and demonstrate the following:
   a. identifying the type of infectious and parasitic condition/disease statement to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indented terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected from the Alphabetical Index
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code

4. Pass an exam demonstrating correct coding of infectious and parasitic conditions and diseases with 100% accuracy.

### E. NEOPLASMS

Understand and evaluate the correct coding convention applications for neoplastic conditions and diseases.

1. Define the following:
   a. benign neoplasms
   b. malignant neoplasms
   c. in situ neoplasms

2. Identify and locate the following in the ICD:
   a. three malignant neoplasms in the Tabular List
   b. cross-reference codes for the three malignant neoplasms in the Alphabetical Index
   c. possible classification of procedures from the Tabular List and Alphabetical Index

3. Describe and demonstrate the following:
   a. identifying the type of neoplastic condition/disease statement to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indented terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected from the Alphabetical Index
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code

4. Pass an exam demonstrating correct coding of neoplastic conditions and diseases with 100% accuracy.
### F. DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS

Understand and evaluate the correct coding convention applications for the conditions and diseases of the blood and blood-forming organs.

(4 hours)

1. Define the following:
   a. anemia
   b. coagulation

2. Identify and locate the following in the ICD:
   a. three nutritional anemias in the Tabular List
   b. cross-reference codes for the three nutritional anemias in the Alphabetical Index
   c. possible classification of procedures from the Tabular List and Alphabetical Index

3. Describe and demonstrate the following:
   a. identifying the type of blood/blood-forming organ condition/disease statement to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code

4. Pass an exam demonstrating correct coding of blood and blood-forming organ conditions and diseases with 100% accuracy.

### G. ENDOCRINE, NUTRITIONAL, AND METABOLIC DISEASES

Understand and evaluate the correct coding convention applications for endocrine, nutritional, and metabolic conditions and diseases.

1. Define the following:
   a. diabetes mellitus
   b. malnutrition
   c. obesity

2. Identify and locate the following in the ICD:
   a. three disorders of the thyroid gland in the Tabular List
   b. cross-reference codes for the three disorders of the thyroid gland in the Alphabetical Index
   c. possible classification of procedures from the Tabular List and Alphabetical Index

3. Describe and demonstrate the following:
   a. identifying the type of endocrine/nutritional/metabolic condition/disease statement to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
g. referring to the Tabular List to verify suitability of the code number selected  

h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading  
i. assigning the code  

4. Pass an examination demonstrating correct coding of endocrine, nutritional, and metabolic conditions and diseases with 100% accuracy.

H. MENTAL AND BEHAVIORAL DISORDERS

Understand and evaluate the correct coding convention applications for mental and behavioral disorders.

1. Define the following:  
a. mental disorder  
b. behavioral disorder  

2. Identify and locate the following in the ICD:  
a. three mental disorders in the Tabular List  
b. cross-reference codes for the three mental disorders in the Alphabetical Index  
c. identify possible classification of procedures from the Tabular List and Alphabetical Index  

3. Describe and demonstrate the following:  
a. identifying the type of mental/behavioral disorder statement to be coded  
b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index  
c. locating the lead term  
d. reading and analyzing notes that appear under the lead term  
e. reading terms in parentheses after the lead term  
f. reading the indeed terms under the lead term  
g. referring to the Tabular List to verify suitability of the code number selected  
h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading  
i. assigning the code  

4. Pass an examination demonstrating correct coding of mental and behavioral disorders with 100% accuracy.

I. DISEASES OF THE NERVOUS SYSTEM

Understand and evaluate the correct coding convention applications for the conditions and diseases of the nervous system.

1. Review the organs of the nervous system.  

2. Define the following:  
a. inflammatory diseases  
b. degenerative disease  
c. episodic disorders  
d. cerebral palsy  

3. Identify and locate the following in the ICD:  
a. three inflammatory diseases in the Tabular List  
b. cross-reference codes for the three degenerative diseases in the Alphabetical Index  
c. possible classification of procedures from the Tabular List and Alphabetical Index  

4. Describe and demonstrate the following:  
a. identifying the type of conditions/diseases of the nervous system to be coded  
b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index  
c. locating the lead term
d. reading and analyzing notes that appear under the lead term
e. reading terms in parentheses after the lead term
f. reading the indeed terms under the lead term
g. referring to the Tabular List to verify suitability of the code number selected
h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
i. assigning the code

5. Pass an examination demonstrating correct coding of the conditions and diseases of the nervous system with 100% accuracy.

(4 hours)

J. DISEASES OF THE EYE AND ADNEXA

Understand and evaluate the correct coding convention applications for the conditions and diseases of the eye and adnexa.

1. Review the structure and parts of the eye.
2. Define the following:
   a. adnexa
   b. glaucoma
3. Identify and locate the following in the ICD:
   a. three disorders of the lens in the Tabular List
   b. cross-reference codes for the three disorders of the lens in the Alphabetical Index
   c. possible classification of procedures from the Tabular List and Alphabetical Index
4. Describe and demonstrate the following:
   a. identifying the type of conditions/diseases of the eye/adnexa to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code
5. Pass an examination demonstrating correct coding of the conditions and diseases of the eye and adnexa with 100% accuracy.

(4 hours)
### K. DISEASES OF THE EAR AND MASTOID PROCESS

Understand and evaluate the correct coding convention applications for the conditions and diseases of the ear.

1. Review the structure and parts of the ear.
2. Define mastoid process.
3. Identify and locate the following in the ICD:
   a. three diseases of the middle ear in the Tabular List
   b. cross-reference codes for the three diseases of the middle ear in the Alphabetical Index
   c. identify possible classification of procedures from the Tabular List and Alphabetical Index
4. Describe and demonstrate the following:
   a. identifying the type of conditions/diseases of the ear to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code
5. Pass an examination demonstrating correct coding of the conditions and diseases of the ear and the mastoid process with 100% accuracy.

(4 hours)

### L. DISEASES OF THE CIRCULATORY SYSTEM

Understand and evaluate the correct coding convention applications for the conditions and diseases of the circulatory system.

1. Review the organs of the circulatory system.
2. Define the following:
   a. rheumatic fever
   b. hypertensive diseases
3. Identify and locate the following in the ICD:
   a. three forms of heart diseases in the Tabular List
   b. cross-reference codes for the three forms of heart diseases in the Alphabetical Index
   c. identify possible classification of procedures from the Tabular List and Alphabetical Index
4. Describe and demonstrate the following:
   a. identifying the type of conditions/diseases of the circulatory system to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code
5. Pass an examination demonstrating correct coding of the conditions and diseases of the circulatory system with 100% accuracy.

(4 hours)
### M. DISEASES OF THE RESPIRATORY SYSTEM
Understand and evaluate the correct coding convention applications for the conditions and diseases of the respiratory system.

1. Review the organs of the respiratory system.
2. Define the following:
   a. influenza
   b. pneumonia
3. Identify and locate the following in the ICD:
   a. three lung diseases and three lower respiratory infections in the Tabular List
   b. cross-reference codes for the three lung diseases and three lower respiratory infections in the Alphabetic Index
   c. identify possible classification of procedures from the Tabular List and Alphabetic Index
4. Describe and demonstrate the following:
   a. identifying the type of conditions/diseases of the respiratory system to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetic Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code
5. Pass an examination demonstrating correct coding of the conditions and diseases of the respiratory system with 100% accuracy.

### N. DISEASES OF THE DIGESTIVE SYSTEM
Understand and evaluate the correct coding convention applications for the conditions and diseases of the digestive system.

1. Review the organs of the digestive system.
2. Define gastric ulcer.
3. Identify and locate the following in the ICD:
   a. three diseases of the stomach and three diseases of the liver in the Tabular List
   b. cross-reference codes for the three diseases of the stomach and three diseases of the liver in the Alphabetic Index
   c. possible classification of procedures from the Tabular List and Alphabetic Index
4. Describe and demonstrate the following:
   a. identifying the type of conditions/diseases of the digestive system to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetic Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code
5. Pass an examination demonstrating correct coding of the conditions and diseases of the digestive system with 100% accuracy.
### O. DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE

Understand and evaluate the correct coding convention applications for the conditions and diseases of the integument (skin).

| 1. Review the organs of the integumentary system. |
| 2. Define the following: |
| a. bulbous disorders |
| b. dermatitis |
| c. eczema |
| 3. Identify and locate the following in the ICD: |
| a. three infections of the skin and three radiation-related disorders of the skin in the Tabular List |
| b. cross-reference codes for the three infections of the skin and three radiation-related disorders of the skin in the Alphabetical Index |
| c. classification of procedures from the Tabular List and Alphabetical Index |
| 4. Describe and demonstrate the following: |
| a. identifying the type of conditions/diseases of the skin/subcutaneous tissue to be coded |
| b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index |
| c. locating the lead term |
| d. reading and analyzing notes that appear under the lead term |
| e. reading terms in parentheses after the lead term |
| f. reading the indeed terms under the lead term |
| g. referring to the Tabular List to verify suitability of the code number selected |
| h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading |
| i. assigning the code |
| 5. Pass an examination demonstrating correct coding of the conditions and diseases of the integumentary system with 100% accuracy. |

(4 hours)

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### P. DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE

Understand and evaluate the correct coding convention applications for the conditions and diseases of the musculoskeletal system.

| 1. Review the organs of the integumentary system. |
| 2. Define the following: |
| a. arthropathies |
| b. dorsopathies |
| c. osteopathies |
| 3. Identify and locate the following in the ICD: |
| a. three infectious arthropathies and three disorders of the muscles in the Tabular List |
| b. cross-reference codes for the three infectious arthropathies and three disorders of the muscles in the Alphabetical Index |
| c. classification of procedures from the Tabular List and Alphabetical Index |
| 4. Describe and demonstrate the following: |
| a. identifying the type of conditions/diseases of the musculoskeletal system to be coded |
| b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index |
| c. locating the lead term |
| d. reading and analyzing notes that appear under the lead term |
| e. reading terms in parentheses after the lead term |
| f. reading the indeed terms under the lead term |
Q. **DISEASES OF THE GENITOURINARY SYSTEM**

Understand and evaluate the correct coding conventions for the conditions and diseases of the genitourinary system.

1. Review the organs of the genitourinary system.
2. Define the following:
   a. glomerular diseases
   b. renal failure
3. Identify and locate the following in the ICD:
   a. three disorders of the kidney and three disorders of the breast in the Tabular List
   b. cross-reference codes for the three disorders of the kidney and three disorders of the breast in the Alphabetical Index
   c. classification of procedures from the Tabular List and Alphabetical Index
4. Describe and demonstrate the following:
   a. identifying the type of conditions/diseases of the genitourinary system to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code
5. Pass an examination demonstrating correct coding of the conditions and diseases of the integumentary system with 100% accuracy.

R. **PREGNANCY, CHILDBIRTH, AND THE P UERP ERIUM**

Understand and evaluate the correct coding convention applications for the conditions and complications during pregnancy, childbirth, and puerperium.

1. Define the following:
   a. abortion
   b. puerperium
2. Identify and locate the following in the ICD:
   a. three complications of labor and delivery in the Tabular List
   b. cross-reference codes for the three complications of labor and delivery in the Alphabetical Index
   c. possible classification of procedures from the Tabular List and Alphabetical Index
3. Describe and demonstrate the following:
   a. identifying the type of conditions/complications during pregnancy and childbirth to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
<table>
<thead>
<tr>
<th>Section</th>
<th>Topics</th>
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<tbody>
<tr>
<td><strong>S.</strong></td>
<td>CONGENITAL MALFORMATIONS, DEFORMATIONS, AND CHROMOSOMAL ABNORMALITIES</td>
</tr>
<tr>
<td><strong>T.</strong></td>
<td>INJURY AND POISONING</td>
</tr>
</tbody>
</table>

**Note:** The text provided is a partial transcription and may not include the full context or formatting of the original document. It is intended for educational purposes and to assist with natural text generation tasks.

1. **Define the following:**
   - congenital malformation
   - chromosomal abnormalities

2. **Identify and locate the following in the ICD:**
   - three congenital malformations of the circulatory system and three chromosomal abnormalities in the Tabular List
   - cross-reference codes for the three congenital malformations of the circulatory system and three chromosomal abnormalities in the Alphabetical Index
   - classification of procedures from the Tabular List and Alphabetical Index

3. **Describe and demonstrate the following:**
   - identifying the type of congenital malformations, deformations, and chromosomal abnormalities system to be coded
   - cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   - locating the lead term
   - reading and analyzing notes that appear under the lead term
   - reading terms in parentheses after the lead term
   - reading the indeed terms under the lead term
   - referring to the Tabular List to verify suitability of the code number selected
   - noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   - assigning the code

4. **Pass an examination demonstrating correct coding of congenital malformations, deformations, and chromosomal abnormalities with 100% accuracy.**
3. Describe and demonstrate the following:
   a. identifying the type of injury/poisoning to be coded
   b. cross-referencing the identified condition/disease to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code

(3 hours)

4. Pass an examination demonstrating correct coding of injuries and poisoning with 100% accuracy.

U. EXTERNAL CAUSES OF MORBIDITY AND MORTALITY

Understand and evaluate the correct coding convention applications for external causes of morbidity and mortality.

1. Define the following:
   a. morbidity
   b. mortality

2. Identify and locate the following in the ICD:
   a. three transport accidents and three other external causes of accidental injury in the Tabular List
   b. cross-reference codes for the three transport accidents and three other external causes of accidental injury in the Alphabetical Index
   c. classification of procedures from the Tabular List and Alphabetical Index

(2 hours)

3. Describe and demonstrate the following:
   a. identifying the type of morbidity and mortality to be coded
   b. cross-referencing the morbidity and mortality to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code

4. Pass an examination demonstrating correct coding of external causes of morbidity and mortality with 100% accuracy.

V. HEALTH STATUS

Understand and evaluate the correct coding convention applications for health status.

1. Define health hazards.

2. Identify and locate the following in the ICD:
   a. persons encountering health services in circumstance related to reproduction and development in the Tabular List
   b. cross-reference codes for the persons encountering health services in circumstance related to reproduction and development in the Alphabetical Index
   c. classification of procedures from the Tabular List and Alphabetical Index
3. Describe and demonstrate the following:
   a. identifying the type of health status to be coded
   b. cross-referencing the identified health status to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code

   (2 hours)

4. Pass an examination demonstrating correct coding of health status with 100% accuracy.

W. CODES FOR SPECIAL PURPOSES

1. Define the following:
   a. provisional assignment
   b. etiology

2. Identify and locate the following in the ICD:
   a. three bacterial agents resistant to antibiotics in the Tabular List
   b. cross-reference codes for the three bacterial agents resistant to antibiotics in the Alphabetical Index
   c. identify possible classification of procedures from the Tabular List and Alphabetical Index

3. Describe and demonstrate the following:
   a. identifying the type of special purpose to be coded
   b. cross-referencing the identified special purpose to the appropriate section of the Alphabetical Index
   c. locating the lead term
   d. reading and analyzing notes that appear under the lead term
   e. reading terms in parentheses after the lead term
   f. reading the indeed terms under the lead term
   g. referring to the Tabular List to verify suitability of the code number selected
   h. noting inclusion or exclusion terms under the selected code or under the chapter, block, or category heading
   i. assigning the code

   (2 hours)

4. Pass an examination demonstrating correct coding of special purposes with 100% accuracy.

X. EMPLOYABILITY SKILLS REVIEW

1. Review employer requirements for the following:
   a. punctuality
   b. attendance
   c. attitude toward work
   d. quality of work
   e. teamwork
   f. timeliness
   g. communication skills

2. Update list of potential employers through traditional and internet sources.

3. Review the role of electronic social networking in job search.
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<tr>
<td>4.</td>
<td>Update sample résumés.</td>
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<tr>
<td>5.</td>
<td>Review the importance of filling out a job application legibly, with accurate and complete information.</td>
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<tr>
<td>6.</td>
<td>Complete job application forms correctly.</td>
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<tr>
<td>7.</td>
<td>Review the importance of enthusiasm on a job.</td>
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<tr>
<td>8.</td>
<td>Review the importance of appropriate appearance on a job.</td>
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<tr>
<td>9.</td>
<td>Review the importance of the continuous upgrading of job skills.</td>
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<tr>
<td>10.</td>
<td>Review the importance of customer service as a method of building permanent relationships between the organization and the customer.</td>
</tr>
<tr>
<td>11.</td>
<td>Review and demonstrate appropriate interviewing techniques.</td>
</tr>
<tr>
<td>12.</td>
<td>Review the informational materials and resources needed to be successful in an interview.</td>
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<tr>
<td>13.</td>
<td>Review and demonstrate appropriate follow-up procedures.</td>
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</table>

(3 hours)
SUGGESTED INSTRUCTIONAL MATERIALS and OTHER RESOURCES

TEXTS AND SUPPLEMENTAL MATERIAL


RESOURCES

Employer Advisory Board members

Foundation Standards
http://www.cde.ca.gov/be/st/ss/documents/ctestandards.doc

ICD-10
http://www.who.int/classifications/icd/en/
http://apps.who.int/classifications/apps/icd/icd10online/

A.D.A.M. Medical Encyclopedia

American Academy of Professional Coders
http://www.aapcnati.org

American Health Information Management Association (AHIMA),
http://www.ahima.org

Office of the Inspector General
http://www.os.dhhs.gov/progorg/oig/

COMPETENCY CHECKLIST
TEACHING STRATEGIES and EVALUATION

METHODS AND PROCEDURES

A. Lectures and discussions
B. Multimedia presentations
C. Demonstrations and participation
D. Individualized instruction
E. Peer teaching
F. Role-playing
G. Guest speakers
H. Field trips and field study experiences
I. Projects

EVALUATION

SECTION A – Introduction and Safety – Pass the safety test with a score of 100%.

SECTION B – International Classification of Diseases (ICD) – Pass all assignments and exams on resource management with a minimum score of 80% or higher.

SECTION C – Official Coding Guidelines – Pass all assignments and exams on communication with a minimum score of 80% or higher.

SECTION D – Infectious and Parasitic Diseases – Pass all assignments and exams on clinical experience with a minimum score of 80% or higher.

SECTION E – Neoplasms – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION F – Diseases of the Blood and Blood-forming Organs – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION G – Endocrine, Nutritional, and Metabolic Diseases – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION H – Mental and Behavioral Disorders – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION I – Diseases of the Nervous System – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.
SECTION J – Diseases of the Eye and Adnexa – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION K – Diseases of the Ear and Mastoid Process – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION L – Diseases of the Circulatory System – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION M – Diseases of the Respiratory System – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION N – Diseases of the Digestive System – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION O – Diseases of the Skin and Subcutaneous Tissue – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION P – Diseases of the Musculoskeletal System and Connective Tissue – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION Q – Diseases of the Genitourinary System – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION R – Pregnancy, Childbirth, and the Puerperium – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION S – Congenital Malformations, Deformations, and Chromosomal Abnormalities – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION T – Injury and Poisoning – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION U – External Causes of Morbidity and Mortality – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION V – Health Status – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION W – Codes for Special Purposes – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

SECTION X – Employability Skills Review – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.
Statement for Civil Rights

All educational and vocational opportunities are offered without regard to race, color, national origin, gender, or physical disability.