



## Course Syllabus

**Course #:** HIT 2570 **Course Name:** Quality Improvement in Health Care

**Division:** Business Technologies

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**Class Days:**

**Class Time:**

**Location:** Classroom:

Laboratory:

**Credit Hours:** 3      **Contact Hours:** 3

**Lab Hours:** 0      **Lecture Hours:** 3

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### Course Description:

The student will be introduced to procedures to abstract and report data for facility-wide quality management and performance improvement programs. Emphasis will be placed on analyzing clinical data to identify trends that demonstrate healthcare quality, safety, and effectiveness. (Spring)

**Prerequisite(s):**

**Corequisite(s):**

**Entry Level Skills and Knowledge:**

**Required Texts, Supplies and Equipment:**

**Plan Outline:**

| <b>Sessions</b> | <b>Date</b> | <b>Tests</b> | <b>Assignments and Homework</b> |
|-----------------|-------------|--------------|---------------------------------|
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## **I. PERFORMANCE OBJECTIVES:**

Upon successful completion of HIM-2311 Quality Assessment and Improvement, the student should be able to:

- A. Describe the evolution of quality assessment and improvement in healthcare.
- B. Explain the concept of quality and its importance in healthcare.
- C. Differentiate the terms clinical quality assessment, infection control, utilization management, and risk management and differentiate among them.
- D. Select the appropriate elements of a quality assessment program.
- E. Classify and compare the three organizations that publish clinical quality standards and guidelines.
- F. Classify and explain the government regulations and accreditation standards related to clinical quality management.
- G. Explain the various approaches that healthcare organizations take to manage the occurrence of infection.
- H. Explain the Medicare requirements for utilization management.
- I. Analyze the organization of a hospital utilization management program.
- J. Illustrate the basic procedures in the utilization review process.
- K. Compare the clinical and administrative use of utilization management information.
- L. Select the utilization-related activities conducted by quality improvement organizations (QIOs).
- M. Describe the use of severity-of-illness/intensity-of-service screening criteria.
- N. Explain CMS prospective payment systems.
- O. Define the key elements in risk management plan.
- P. Identify and explain performance improvement principles.
- Q. Compare the various philosophies of performance/quality improvement developed by quality management masters.
- R. Explain how performance improvement models can be used by individuals or teams to successfully plan, implement, and evaluate improvement initiatives.
- S. Demonstrate how supervisors can use performance improvement principles and concepts to motivate and manage their employees.
- T. Interpret and discuss the various performance improvement tools and techniques that can be used to facilitate communication, identify root causes and collect and analyze data.
- U. Examine the purposes and uses of registry data.
- V. Explain the overall organization of the cancer registry model.

## AHIMA Knowledge Cluster Content

### Healthcare Statistics and Research

- Indices, databases, and registries.
- Vital statistics.
- Healthcare statistics.
- Descriptive statistics (such as means, frequencies, ranges, percentiles, standard deviations).
- Statistical applications with health care data.
- Institutional Review Board (IRB) processes.
- National guidelines regarding human subjects research.
- Research protocol monitoring.
- Data selection, interpretation, and presentation.
- Knowledge-based research techniques (such as library, Medline, web-based).

### Quality Management and Performance Improvement

- Quality assessment and improvement (such as process, collection tools, data analysis, reporting techniques).
- Utilization management, risk management, and case management.
- Regulatory quality monitoring requirements.
- Outcomes measures and monitoring.

## AHIMA Entry-Level Competencies

- II. Domain: Health Statistics, Biomedical Research and Quality Management
  - B. Subdomain: Quality Management and Performance Improvement
    1. Abstract and report data for facility-wide quality management and performance improvement programs.
    2. Analyze clinical data to identify trends that demonstrate quality, safety, and effectiveness of healthcare.

### **I. TOPICAL OUTLINE:**

#### A. Clinical quality assessment

##### 1. Standards of clinical quality

- a. clinical practice guidelines
- b. clinical protocols
- c. critical paths, clinical pathways and care maps
- d. Agency for Healthcare Research and Quality
- e. national guideline clearinghouse
- f. accreditation standards

(1.) Joint Commission on Accreditation of Healthcare Organizations (JCAHO)

(a.) ORYX

(b.) outcome measures

(2.) National Committee for Quality Assurance (NCQA)

- (3.) Commission on Accreditation Facilities
  - 2. Government regulations and licensure requirements
    - a. Medicare Conditions of Participation
    - b. Health Care Quality Improvement Program
      - (1.) quality indicators
    - c. state and local licensure requirements
  - 3. Planning and implementation of clinical quality assessment programs
    - a. medical staff
    - b. nursing staff
    - c. infection control
      - (1.) universal precautions
      - (2.) community-acquired infection
- B. Utilization management
- 1. Functions of utilization management
    - a. utilization review
    - b. screening criteria
      - (1.) intensity-of-service
      - (2.) severity-of-illness
    - c. timing
      - (1.) preadmission review
      - (2.) admission review
      - (3.) continued-stay (concurrent) review
      - (4.) discharge planning
      - (5.) retrospective utilization review
    - d. utilization review process
    - e. case management
    - f. discharge planning
  - 2. Regulatory and accreditation requirements for utilization management in acute care hospitals
    - a. federal regulatory requirements
      - (1.) Quality Improvement organizations (QIOs)
      - (2.) Medicare Conditions of Participation
    - b. accreditation standards
  - 3. Planning and implementation of an utilization management program
    - a. plan
    - b. administrative support
- C. Diagnosis Related Groups (DRGs)
- 1. Background
    - a. purpose and origin
    - b. terms
      - (1.) case mix
      - (2.) severity of illness
  - 2. Basic characteristics
  - 3. Formation of the Medicare DRGs
    - a. principal diagnosis
    - b. major diagnostic categories

- c. surgical procedures
- d. complications and/or comorbidity
- e. patient's age
- f. patient discharge status
- g. outliers
- 4. Assignment process
- 5. Clinically atypical and invalid DRGs
  - a. unrelated procedure and diagnosis
  - b. invalid principal diagnosis code
  - c. ungroupable DRG case
- D. Ambulatory Patient Classifications (APCs)
  - 1. Background
  - 2. Developer, purpose and origin
    - a. objectives
    - b. advantages
    - c. scope
    - d. applicable healthcare providers
    - e. diagram of payment and listing of groups
    - f. APC grouper logic
  - 3. Data reporting requirements
    - a. codes
    - b. patient demographic data
    - c. billing and financial data
      - (1.) outpatient payment window
      - (2.) significant procedure consolidation
      - (3.) ancillary packaging
      - (4.) discounting
    - d. cost outlier policy
- E. Chargemaster
  - 1. Purpose
  - 2. Functions
- F. Risk management
  - 1. Definition
  - 2. Purposes
  - 3. Functions of risk management
    - a. risk identification and analysis
      - (1.) sources of risk management
        - (a.) incident reports
        - (b.) current and past liability
        - (c.) performance improvement reports
        - (d.) internal inspections of the organization's physical plant and medical equipment
        - (e.) reviews conducted by the organization's insurance carriers
        - (f.) survey reports from state and local licensing agencies
        - (g.) survey reports from accreditation organizations

- (h.) report of complaints from patients, visitors, medical staff and employees
      - (i.) results of patient satisfaction surveys
    - (2.) potential compensable event (PCE)
  - b. loss prevention and reduction
  - c. claims management
    - (1.) reporting of claims
    - (2.) initial investigation of claims
    - (3.) protection of primary and secondary health records
    - (4.) negotiation of settlement
    - (5.) management of litigation
    - (6.) use of information on claims resolution in performance improvement activities
  - d. patient advocacy
- 4. Process of risk management
  - a. basic steps
    - (1.) identify and analyze potential losses
    - (2.) examine the feasibility of alternative risk management techniques
    - (3.) select the best risk management technique or combination of techniques for the organization
    - (4.) implement the technique (s) selected
    - (5.) monitor and improve the organization's risk management activities
- 5. Managing risk
  - a. risk acceptance
  - b. risk avoidance
  - c. risk reduction or minimization
  - d. risk transfer
- 6. Regulatory and accreditation requirements for risk management in acute care hospitals
  - a. federal regulations
    - (1.) Food, Drug, and Cosmetic Act of 1938
    - (2.) Occupational Safety and Health Act of 1971
    - (3.) Employee Retirement Income Security Act of 1974
    - (4.) Emergency Medical Treatment and Active Labor Act of 1985
    - (5.) Health Care Quality Improvement Act of 1986
    - (6.) Patient Self-Determination Act of 1990
    - (7.) Americans with Disabilities Act of 1990
    - (8.) Safe Medical Devices Act of 1993
    - (9.) Health Insurance Portability and Accountability Act of 1996
  - b. federal agencies which monitor and regulate the safety of healthcare facilities
    - (1.) Centers for Disease Control (CDC)
    - (2.) Centers for Medicare and Medicaid Services (CMS)
    - (3.) Environmental Protection Agency (EPA)
    - (4.) Equal Employment Opportunity Commission (EEOC)
    - (5.) Food and Drug Administration (FDA)
    - (6.) Nuclear Regulatory Commission (NRC)
    - (7.) Occupational Safety and Health Administration (OSHA)

- c. state and local laws
    - d. accreditation standards
  - 7. Role of the health record in risk management
  - 8. Planning and implementation of a risk management program
  - 9. Real-world case
  - 10. Application exercises
- G. Performance improvement
- 1. Definition
  - 2. Performance improvement in today's healthcare organizations
    - a. structure indicators
    - b. process indicators
    - c. outcome indicators
  - 3. Principles and concepts of performance improvement
    - a. the problem is usually the system
    - b. variation is constant
    - c. data are important
    - d. the focus is on the customer
    - e. support must come from the top down
    - f. the organization must have a shared vision
    - g. staff and management must be involved in the process
    - h. teamwork is vital
    - i. training is essential
    - j. setting goals is crucial
    - k. effective communication is important
    - l. success should be celebrated
  - 4. Quality masters
    - a. Walter A. Shewhart
    - b. W. Edwards Deming
    - c. Joseph M. Juran
    - d. Armand F. Feigenbaum
    - e. Philip Crosby
    - f. Brain Joiner
  - 5. Organizational components of quality management
    - a. governing board of directors
    - b. quality management board
    - c. service improvement council
    - d. practice improvement council
  - 6. governance improvement council
    - a. performance measurement council
    - b. change management
    - c. supervisory components of quality management
    - d. maximization of individual performance
  - 7. Performance improvement models
    - a. organizational commitment to learning
      - (1.) Langley, Nolan, and Nolan model for improvement
        - (a.) part one - fundamental questions

- (b.) what is the goal?
  - (i.) how does one know that the change will be an improvement?
  - (ii.) what changes can one make that may result in improvement?
- (c.) part two - The Plan, Do, Check, Act (PDCA) cycle
  - (i.) plan
  - (ii.) do
  - (iii.) check
- (d.) act

8. Performance improvement tools and techniques

- a. brainstorming
- b. affinity grouping
- c. nominal group technique
- d. multivoting technique
- e. flowcharts
- f. fishbone diagram (root cause analysis)
- g. Pareto charts
- h. force-field analysis
- i. checksheets
- j. scatter diagrams
- k. histograms
- l. run charts
- m. statistical process control chart

9. Real-world case

10. Application exercises

H. Registries

- 1. Definition and purposes
- 2. Types of registries
  - a. cancer
  - b. cardiovascular
  - c. trauma
  - d. other
- 3. Terms
  - a. case eligibility
  - b. casefinding
  - c. abstracting
  - d. coding
  - e. management

I. Cancer registry

- 1. Data system for cancer patients
- 2. Types of tumor registries
- 3. Major functions of tumor registries
  - a. computerization of the data base
  - b. cancer management
  - c. commission on cancer

- d. criteria for an approved clinical program
- e. cancer conferences and tumor board
- f. patient care evaluation
- g. registry organization
- h. registry data base
- i. casefinding procedures
- j. coding principles
- k. staging principles
- l. summary staging systems
  - (1.) AJC staging [TNM] system
  - (2.) other staging systems
- m. abstracting principles
- n. follow-up principles
- o. patient care evaluation
- p. ACOS pattern-of-care studies
- q. cancer program annual report
- r. other uses of data
- s. quality control of registry data
- t. legal aspects of registry data
- u. procedure manual
- v. cancer program coordinator

**II. METHODS OF STUDENT EVALUATION MAY INCLUDE ANY OF THE FOLLOWING:**

- A. Class participation
- B. Quizzes
- C. Attendance
- D. Midterm examination
- E. Final examination

**Grading:**

|                  |                                  |
|------------------|----------------------------------|
| Grading:         | 25% = Tests + computer exercises |
| A = 90-100       | 25% = Project                    |
| B = 80-89        | 40% = Final Exam                 |
| C = 70-79        | 10% = Participation              |
| D = 60-69        |                                  |
| F = 59 and below |                                  |

**Learning Outcomes:**

**General Education**

The purpose of this course is to introduce the student to the use of medical practice software as a work-based, task-oriented function. In addition the student will apply clinical knowledge as it pertains to health care data management in coding for maximal reimbursement of health care services, the evaluation of practice patterns, the assessment of clinical outcomes, and the analysis of cost-effectiveness of service provided.

## Technical Education

Upon completion of this course, the student will have an understanding of how to:

### **Assessment of Student Learning:**

This course may include a project that is one of several that will be used by faculty to assess student academic performance in the program. A panel of faculty will review all (projects or whatever assessment activity you are doing), then assess and summarize the academic performance of students at this point in the program. The results of this assessment will be shared among the department faculty, used to identify needed changes or improvements, and submitted to the Student Academic Assessment Committee as part of the college's overall student academic assessment effort.

Assessment Project and Measurement in course (if any):

### **Course Requirements:**

25% = Tests and computer Exercises

25% = Project

40% = Final Exam

10% = Participation

**Participation/Attendance:** Regular class attendance is necessary for successful completion of the course. Each student is responsible for all material assigned in this syllabus. Poor attendance can reflect in poor achievement. Please make every effort to extend the courtesy of informing the instructor of absences PRIOR to class.

Test will be completed independently in class and submitted for evaluation. Tentative exam dates are provided in the "Plan of Work". Grading scales are provided on each exam.

**It is the student's responsibility to the instructor to make arrangements for make-up tests. Late exams will reduced by one (1) letter grade per day late. Make-up exams will be dated and taken in the Testing Center in the LRC, Building B, 3<sup>rd</sup> Floor.**

**Computer use:** During class, students are permitted to use the computers for applications relevant to that class only (i.e. no email, games, internet, etc.) Use of other applications may be a distraction to other students.

### **Policies**

**Course Withdrawing:** If for any reason you need to withdraw from this course, be certain that you do so according to College procedure. It is your responsibility to know and follow this procedure. If you simply stop coming to class, without officially withdrawing from the course, your grade is an automatic "F." Please follow official College procedure for withdrawing from this or any course.

*College Academic Policies are located in the College Catalog. A copy of the current catalog may be picked up in any of the division offices or admissions. The list of college policies is also available online at <https://www.terra.edu/register/Collegecat/policies.asp>.*

**Support Services:** The College offers a number of support services to assist in your success in this course and all courses. Among these services are the Writing & Math Center in B105, the Office of Learning Support Services, which coordinates the campus disability services and tutoring programs, the computer labs, and the computers in the atriums.

Any student who feels he/she may need an accommodation based on the documentation of a disability should contact the Office of Learning Support Services privately to discuss his/her specific issues. Please contact the OLSS at (419) 559-2208 or visit 100 Roy Klay Hall (Building A) to coordinate reasonable accommodations.

***If you have a documented disability and are receiving academic accommodations through the Office of Learning Support Services, please schedule a meeting with your instructor in a timely manner so that we may discuss how these services will be arranged.***

Tutoring services are available to students beginning the second week of every quarter. Students requesting tutoring services should obtain a tutor request form from the OLSS in 100 Roy Klay Hall (Building A) or online at the Terra website. Please note that instructor verification and acceptance of the Student Learner Agreement is necessary for all tutoring requests. All requests should be submitted to 100 Roy Klay Hall (Building A).