El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	**Health Information Management**
COURSE RUBRIC AND NUMBER	**HITT 2443**
COURSE TITLE	**Quality Assessment and Performance Improvement**
COURSE CREDIT HOURS	**4 3 : 4** **Credits Lec Lab**

I. Catalog Description

Studies quality standards and methodologies in the health information management environment. Includes topics on licensing, accreditation, compilation, and presentation of data in statistical formats, quality management and performance improvement functions, utilization management, risk management, and medical staff data quality issues and approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems. A grade of "C" or better is required in this course to take the next course. **Corequisites: HITT 2339 and HITT 2361. (3:4).**

II. CAHIIM Mandated Outcomes

1. Analyze the documentation in the health record to ensure it support the diagnosis and reflect the patient's progress, clinical findings, and discharge status (4)
2. Apply graphical tools for data presentations (3)
3. Identify and use secondary data sources (3)
4. Validate the reliability and accuracy of secondary data sources (3)
5. Apply retention and destruction policies for health information (3)
6. Apply policies and procedures surrounding issues of access and disclosure of protected health information (3)
7. Explain analytics and decision support (2)
8. Apply report generation technologies to facilitate decision-making (3)
9. Utilize basic descriptive, institutional, and healthcare statistics (3)
10. Analyze data to identify trends (4)
11. Adhere to the legal and regulatory requirements related to the health information management (3) plain common research methodologies and why they are used in healthcare (2)
12. Identify potential abuse or fraudulent trends through data analysis (3)
13. Utilize data for facility-wide outcomes reporting for quality management and performance improvement (3)
14. Summarize a collection methodology for data to guide strategic and organizational management (2)
15. Explain common research methodologies and why they are used in healthcare (2)

III. Additional Course Objectives

Unit I. Introduction to Health Statistics and Mathematics Review

Define statistics

1. Differentiate between descriptive and inferential statistics.
2. Recognize where statistics in healthcare originate.
3. Identify the users of healthcare statistics.
4. Explain fraction, quotient, decimal, ratio, proportion, rate, and percentage.
5. Understand the difference between a numerator and denominator.
6. Understand how to round whole numbers and decimals.
7. Convert fractions and decimals to percentages.
8. Understand how to average a group of numbers.

Unit II. Patient Census Data

1. Define, differentiate, and apply the terms inpatient census, daily inpatient census, inpatient service day, total inpatient service days, and admission and discharge (A&D).
2. Differentiate between an inter-hospital (inter-facility) transfer and an intra-hospital transfer.
3. Compute daily census and inpatient service days using the admission and discharge data provided.
4. Compute census and inpatient service days with data given for births and transfers.
5. Compute the average daily inpatient census for a patient care unit given inpatient service days for any such unit.

Unit III. Percentage of Occupancy

1. Define and differentiate among the terms inpatient bed count, bed complement, total bed count days, newborn bassinet count, bed count days, newborn bassinet count days.
2. Identify the beds that are included in bed count.
3. Compute the bed occupancy percentage for any period given the data representing bed count and inpatient service days. (adults and children)
4. Compute the bassinet occupancy percentage for any period given bassinet count and newborn inpatient service days. (newborn)
5. Compute the percentage of occupancy for a period when there has been a change in the number of beds during that period.
6. Calculate the direct and indirect bed turnover rate.

Unit IV. Length of Stay

1. Define the terms length of stay and discharge days.
2. Compute the length of stay for one patient based on data provided.
3. Calculate the total length of stay for a group of discharged patients.
4. Compute average length of stay.
5. Compute the average length of stay for newborns.
6. Describe a leave of absence data and identify when it is used in calculations.

Unit V. Death (Mortality) Rates

1. Define and calculate the following death rates: gross, net, postoperative, anesthesia, maternal, newborn, and fetal.
2. Calculate the case fatality rate.
3. Differentiate between operation and procedure.
4. Define cancer mortality and calculate is rate.

Unit VI. Hospital Autopsies and Autopsy Rates

1. Define the terms autopsy, hospital inpatient autopsy, hospital autopsy, and autopsy rate.
2. Define and differentiate between a coroner and medical examiner.
3. Define a coroner's case and determine when it would be included in a hospital's autopsy rate.
4. Compute the following autopsy rates: gross, net, adjusted hospital, newborn, and fetal.

Unit VII. Morbidity and Other Miscellaneous Rates

1. Define nosocomial infection
2. Discuss and calculate infection rate.
3. Define and calculate the postoperative infection rate.
4. Distinguish between a surgical procedure and a surgical operation.
5. Define complication and calculate complication rate.
6. When provided with appropriate data, compute the following rates: C-section, consultation, and other rates.

Unit VIII. Statistics Computed within the Health Information Management Department

1. Describe the uses of statistics computed within the HIM department in terms of unit cost, productivity, and staffing levels.
2. Recognize how statistics are used in the creation of the health information department budget.
3. Define budget and differentiate between the operational and capital budgets.
4. Verify computerized statistical reports for accuracy.
5. Recalculate statistics for greater specificity.
6. Generate computerized statistical reports.

Unit IX. Descriptive Statistics in Healthcare

1. Define descriptive statistics.
2. Define the terms rank, quartile, decile, and percentile.
3. Explain how and why percentiles are used.
4. Compute the percentile from an ungrouped distribution.
5. Define and compute the mean, median, and mode.
6. Define and differentiate among range, variance, and standard deviation.
7. Calculate range, variance, and standard deviation.
8. Define and compute correlation.

Unit X. Presentation of Date

1. Discuss categorical data: nominal, ordinal, interval, and ratio.
2. Differentiate between discrete data and continuous data.
3. Describe and differentiate between tables and the following graphs: bar graphs, pie charts, line graphs, histograms, frequency polygons, pictograms, and scatter diagrams.
4. Create tables and graphs to display statistical information.
5. Understand the basic elements in preparing a report.

Unit XI. Basic Research Principles

1. Explain the different types of research.
2. Describe the difference between quantitative and qualitative research.
3. Differentiate among research designs: exploratory, historical, descriptive, casual, correlational, evaluation, and experimental.
4. Describe the steps in the research process.
5. Explain exploratory and conclusive research design methods.
6. Describe the various data-collection techniques.
7. Differentiate among the following types of samples: probability and nonprobability, simple random, stratified, cluster, judgment, quota, and convenience.
8. Define Institutional Review Board (IRB) and understand its role in research.
9. Define hypothesis.
10. Define reliability and validity.
11. Differentiate between primary and secondary research.
12. Describe the Institutional Review Board in healthcare facilities conducting research.
13. Understand the various data interpretation issues and the importance of verification of data.
14 Apply ethical guidelines in the use of statistics.

Unit XII. Inferential Statistics in Healthcare

1. Define inferential statistics.
2. Interpret the standard error of the mean and confidence intervals.
3. Identify and describe the null hypothesis.
4. Understand the importance of t tests.
5. Interpret ANOVA.
6. Understand the significance of chi square.

Transition to Performance Improvement Units

Unit I. Healthcare Quality Management Introduction

1. Define quality and quality management.
2. Explain the impact of external groups.
3. List federal agencies and groups impacting quality management.
4. Identify accreditation organizations.
5. Identify professional and consumer groups.
6. Define a quality management system
7. Explain how the following entities are involved in a quality management system: governing board, senior leaders, second tier groups, third tier groups, quality management support services.
8. Describe a quality Management plan.

Unit II. Measuring Health Care Performance

1. Discuss the measurements of performance, to include constructing measures, measurement categories, and scope of measurement activities.
2. Discuss developing measures.
3. Select a process to be evaluated, to include the following: accreditation/regulatory requirements, topics of national importance, strategic quality goals, and customer needs/expectations.
4. Identify how to determine what you want to know.
5. Translate what you want to know into performance measures.
6. Establish performance goals, and include: regulations and accreditation standards, organizational quality goals, guideline recommendations, and performance in other organizations.

Unit III. Managing Measurement Data

1. Describe data collection strategies, to include the following: locating data, utilizing automated/non-automated data sources, capturing data, and identifying responsible individuals
2. Determine frequency/population size, and planning data collection.

Unit IV. Assessing Health Care Performance

1. Define performance assessment.
2. Discuss how to organize and present data, utilizing tabular reports and graphic representations.
3. Describe how to evaluate measurement results, to include trend analysis and trend analysis tools.
4. Explain statistical process control, to include: constructing control chart elements/control chart and the interpretation of results.
5. Describe comparing performance.

Unit V. Improvement Projects

1. Define performance improvement.
2. Identify improvement models, to include: plan-do-check, rapid cycle improvement, Six Sigma, and lean improvement.
3. Discuss performance in other organizations.
4. Identify Steps common to all improvement models.
5. Develop a Gantt Chart
6. Create a storyboard.
7. Create a project improvement team, to include: the selection of team members and clarification objectives/focus.
8. Describe team dynamics, including forming, storming, norming, performing, managing team stages.

Unit VI. Improvement Tools and Techniques

1. Identify performance improvement tools.
2. Describe quantitative tools, such as the Pareto Chart and the Scatter Diagram.
3. Describe qualitative tools, such as brainstorming, cause and effect diagram, affinity diagram, prioritization tools, flowcharts, workflow diagrams, and force field analysis.
4. Discuss the selection of improvement tools.

5. Identify performance improvement techniques.
5. Describe human factors principles, to include simplifying the process, standardizing, reducing reliance on memory, improving information access.
6. Discuss constraints and forcing functions.
7. Describe how to design for errors.
8. Explain adjusting the environment.

Unit VII. Managing Risk and Patient Safety

1. Discuss managing risk of harm and liability.
2. Describe the historical overview.
3. Explain Patient Safety Improvement, to include: measurement (incident reporting/trigger tools), assessment, and improvement (root cause/failure mode and effects analysis).
4. Discuss risk management activities, to include: risk identification, risk evaluation, and risk control.

Unit VIII. Resource Management

1. Describe the management of health care resources.
2. Define utilization management (UR).
3. Identify the steps of utilization review, to include: listing utilization review guidelines, UR in the acute setting, and health plan UR process.
4. Define case management.
5. Describe the case management process.
6. Identify care management tools.
7. Discuss IT and case management.
8. Define disease management.
9. Describe outcomes management.
10. Explain pay-for-performance.

Unit IX. Ensuring Individual Competence

1. Define competent individuals.
2. Identify medical staff competency evaluations.
3. Explain the approval process of new medical staff applicants, to include: privileges evaluation, and credentialing recommendations, privilege requests, qualifications verification, and competence.
4. Discuss medical staff reappointment.
5. Explain a professional practice evaluation, to include ongoing and focused reviews.
6. Identify the competency evaluation system support structure.
7. Describe credentialing in managed care organizations (new applicants, reappointment, professional practice evaluation).
8. Explain a staff competency evaluation (pre-employment assessment, orientation, and performance appraisal).

Unit X. Basic Research Principles

1. Explain the different types of research.
2. Describe the difference between quantitative and qualitative research.
3. Differentiate among research designs: exploratory, historical, descriptive, casual, correlational, evaluation, and experimental.
4. Describe the steps in the research process.
5. Explain exploratory and conclusive research design methods.
6. Describe the various data-collection techniques.
7. Differentiate among the following types of samples: probability and nonprobability, simple random, stratified, cluster, judgment, quota, and convenience.
8. Define Institutional Review Board (IRB) and understand its role in research.
9. Define hypothesis.
10. Define reliability and validity.
11. Differentiate between primary and secondary research.
12. Describe the Institutional Review Board in healthcare facilities conducting research.
13. Understand the various data interpretation issues and the importance of verification of data.
14. Apply ethical guidelines in the use of statistics.

Unit XI. Current Trends

Describe current trends in areas discussed in this course through oral and written reporting.

For All Above Units

1. Adhere to the Health Occupations Division Criteria for Course Pursuit. (See attached)
2. Adhere to the Health Occupations Division Scholastic Dishonesty Policy. (See attached)

IV. Evaluation

A. Pre-assessment

The instructor will review and discuss the course prerequisites on the first day of class. Due to specialized admission requirements for the HIMA Program, all students should have the necessary prerequisites prior to enrollment.

B. Post-assessment

A unit exam will be administered at the completion of each unit in this course. Quizzes over lecture/lab material and/or assigned reading are at the discretion of the instructor.

Unit activities/assignments will assigned by the instructor to further enhance students' understanding of the course objectives.

A comprehensive final examination will be administered for this course.

The instructor will maintain a continuous record of each student's progress. Students not performing at a C level or better in the course will be referred for tutoring and/or counseling.

Students are encouraged to seek direction and help for those areas in which they experience difficulty. The course instructor may assign remedial or tutorial work designed to enhance student proficiency.

Students not adhering to the Health Occupations Criteria for course pursuit may be administratively withdrawn from this course. (See attached

V. Disability Statement (Americans with Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.

VII. Title IX and Sex Discrimination

Title 9 (20 U.S.C. 1681 & 34 C.F.R. Part 106) states the following "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance." The Violence Against Women Act (VAWA) prohibits stalking, date violence, sexual violence, and domestic violence for all students, employees and visitors (male and

female). If you have any concerns related to discrimination, harassment, or assault (of any type) you can contact the Assistant to the Vice President for Student and Enrollment Services at 915-831-2655. Employees can call the Manager of Employee Relations at 915-831-6458. Reports of sexual assault/violence may also be reported to EPCC Police at 915-831-2200.

HEALTH OCCUPATIONS DIVISION CRITERIA FOR COURSE PURSUIT

In order to establish guidelines for determining when a student has ceased to pursue the course objectives, the Health Occupations Division has set the following applicable standards.

1. The student must adhere to the attendance requirement of course HITT 2443. In order to pursue the course, the student must attend a minimum of 71 hours of instruction. (Meets a total of 80 hours).

2. The student will not be able to make up theory hours. The student will be able to make up lab hours at the discretion of the instructor.

3. Tardiness will be defined as being fifteen (15) minutes or more late to laboratory sessions and fifteen (15) minutes or more late to theory sessions. Students will be allowed two (2) events of tardiness, after which the tardiness will be considered an absence.

4. If required by instructor/coordinator, student also must follow the standards established in the El Paso Community College Health Occupations Programs Students Handbook for Allied Health Students and/or program addendum. The student is bound by standards in the El Paso Community College Health Occupations Programs Student Handbook for Allied Health Students.

5. Where the student continues to pursue the course objectives but is receiving failing grades, he/she will remain eligible to complete the course, except in instances where unsafe practice occurs.

6. The student must appear for examinations, presentations, or other required class activities and submit required papers, projects, and/or reports as identified in the course syllabus/calendar.

Failure of the student to follow the above will indicate that the student is no longer pursuing the objectives of the course and will result in faculty initiated withdrawal.

EL PASO COMMUNITY COLLEGE
HEALTH OCCUPATIONS DIVISION
SCHOLASTIC DISHONESTY

Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by Board policies. Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism, and collusion. "Cheating on a test" shall include:

1. Copying from another student's paper.

2. Using test materials not authorized by the person administering the test.

3. Unauthorized collaborating with or seeking aid from another student.

4. Knowingly using, buying, selling, stealing, or soliciting, in whole or in part, the contents of a test.

5. The unauthorized transportation or removal, in whole or in part, of the contents of the test.

6. Substituting for another student, or permitting another student to substitute for one's self, to take a test.

7. Bribing another person to obtain a test or information about a test.

8. "Collusion" shall be defined as the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements.

9. Any student involved in scholastic dishonesty as identified above, or in the Student Handbook, may, at the discretion of the faculty,

    a. Have the test or paper graded zero (0).
    b. Be removed from the class.
    c. Be recommended for administrative dismissal from the course or program.

The stringency of this policy is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical responsibility of the health personnel. Evidence of unethical behavior, such as cheating, precludes the instructional faculty's ability to declare prospective graduates to be reliable and ethical.