

**MHSA 7700 – Quality Management Methods in Health Care
Fall 2006**

When: TBA

Where: TBA

Instructor: Michael R. Goler, MD, MBA, FACHE, CPE, CMPE

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Office Hours: Other dates/times by appointment only

Office hours may deviate somewhat from week to week due to unforeseen circumstances. Setting up an appointment with me is the best way to ensure that I'll be available to meet with you on specific days/times.

Course Description

As per the AASU graduate catalogue (2006-2007), the purpose of this course is to provide the student with an overview of the theory, principles, and techniques of quality management (QM) within contemporary health services organizations. Quality assurance and quality/process improvement approaches to QM are considered. Qualitative and quantitative methods that support organizational QM are also discussed. Additional topics will include, but not be limited to, health outcomes assessment and improvement strategies, cultural change strategies, statistical process control techniques, HSO accreditation issues related to QA/QI activities, etc.

Course Objectives

Upon completion of this course, it is anticipated that the student will be able to demonstrate significant understanding of the following concepts:

- (1) The history of and the rationale for the development of the quality management discipline within the health services industry.
- (2) The structural framework and terminology typically associated with the two primary applications of quality management within health care organizations – quality assurance and quality improvement.

Course Objectives (continued)

- (3) The philosophical/theoretical framework leading to the development of contemporary applications in quality management methods in health services organizations including Deming, Crosby, Juran, Donabedian, etc.
- (4) Quantitative (statistical and non-statistical) applications of contemporary quality management including the basics of statistical quality/process control, managerial/clinical epidemiology, etc.
- (5) The most common applications/approaches to quality management in contemporary health services organizations, including a basic knowledge of various models of TQM/CQI employed in a variety of settings.
- (6) The application of quality management principles to a selected area of health services organizational operations (administrative, clinical) for the purpose of maintaining/ensuring appropriate quality of performance.

Course Textbook

Lighter, D.E. and Fair, D.C. Principles and Methods of Quality Management in Health Care, 2nd Edition. Jones and Bartlett Publishers. (2004)

Course Materials/Supplemental Readings

Course materials, including lecture materials and supplemental readings, will be made available to students during the week of class when each is covered as per the course schedule. All course materials will be made available to students via e-mail and/or other web-accessible medium. At a minimum, each student should have reliable internet access, a functioning e-mail account capable of accepting and storing potentially large-sized files on a temporary basis, and the use of Adobe Acrobat Reader to download and print out supplemental readings.

Course Evaluation and Grading

The grading scale to evaluate student performance will be similar to that used by other courses: 90-100 (A), 80-89 (B), 70-79 (C), 65-70 (D), <65 (F). Any deviations from this standard scheme will be a result of the distribution of class scores on the various course assignments as well as the final course grade. Each student's grade in the course will be based on the following criteria (with the relative weight for each):

1.	Course Examination	--	25%
2.	Quality Management Proposal	--	25%
3.	Quality Management Team Project	--	25%
4.	Homework Assignments (4-5 graded)	--	20%
5.	Team Member Evaluation	--	5%

Course outline (subject to change)

Lighter/Fair

Ch#

<u>Week 1:</u>	Introduction to course/total quality management (TQM)	Ch. 1, 11
(8/16-8/20)	History/rationale of TQM development in health care The environment of TQM in health care	

Supplemental readings for Week 1:

Coye, M.J. "No Toyotas in Health Care: Why Medical Care Has Not Evolved to Meet Patients' Needs." Health Affairs. Vol. 20, No. 6. pp. 44-56.

Casalino, L.P. "Markets and Medicine: Barriers to Creating a 'Business Case' for Quality." Perspectives in Biology and Medicine. Vol. 46, No. 1. pp. 38-51.

Brennan, T.A. "The Role of Regulation in Quality Improvement". Milbank Quarterly. Vol. 76, No. 4. pp. 709-731 (1998). Available at:

Homework Assignment for Week 1:

Lighter and Fair – Ch. 1 (discussion points 2, 3)

<u>Week 2:</u>	Philosophical/theoretical basis for organizational TQM	N/A
(8/21-8/27)	Models of quality management in health care Structure/process/outcome model FOCUS-PDCA model Six-sigma model	

Supplemental readings for Week 2:

Ghobadian, A. and Speller, S. "Gurus of quality: A framework for comparison." Total Quality Management. Vol. 5 No. 3. pp. 53-69.

Donabedian, A. "The Quality of Care: How Can it be Assessed." Journal of the American Medical Association. Vol. 260, No. 12. pp. 1743-1748.

Crombie, I.K. and Davies, H.T. "Beyond Health Outcomes: The Advantages of Measuring Process." Journal of Evaluation in Clinical Practice. Vol. 4, No. 1. pp. 31-38.

Stoltz, P.K. "FOCUS-PDCA." Today's Management Methods. 1996. pp. 223-244.

Chassin, M.R. "Is Health Care Ready for Six Sigma Quality?" Milbank Quarterly. Vol. 76, No. 4. Available at: <http://www.milbank.org/quarterly/764featchas.html>.

Course outline (subject to change)

Lighter/Fair

Ch#:

Homework Assignment for Week 2:

Select one of the following health services-related quality issues and describe it, graphically and/or in narrative form, identifying all relevant process and/or outcome measures associated with the issue:

- ** Increased incidence of premature, low birth weight infants in the U.S.**
- ** Increased rates of nosocomial (hospital-borne) infections in U.S. hospitals**
- ** Increased rates of caesarean section births among first time mothers**
- ** Inappropriately low utilization rates of annual screening mammography among females above the age of 50**
- ** Increased utilization of marginally appropriate health services as part of end-of-life care in terminally ill patients**

<u>Week 3:</u>	Data/information requirements for QM	Ch. 3
(8/28-9/3)	Sources of data for quality measurement	
	Quality measurement – methodological issues	
	Process measurement issues	
	Outcome measurement issues	

Supplemental readings for Week 3:

Rivers, P.A. and Bae, S. "Aligning Information Systems for Effective Total Quality Management Implementation in Health Care Organizations". Total Quality Management. March 1999. pp. 281-289.

Jollis, J.G. et al. "Discordance of Databases for Claims Payment versus Clinical Information Systems". Annals of Internal Medicine. Vol. 119, No. 8. pp. 844-850.

Iezzoni, L.I. "Assessing Quality Using Administrative Data." Annals of Internal Medicine. Vol. 127, No. 8 (pt. 2). pp. 666-674.

McGlynn, E.A. "Six Challenges for Measuring the Quality of Health Care." Health Affairs. Vol. 16, No. 3. pp. 7-21

Homework assignment for week 3:

Lighter and Fair – Ch. 3 (discussion points 10, 11)

Course outline (subject to change)
Ch#

Lighter/Fair

Homework assignment for week 3 (continued):

Additional discussion questions:

- (1) Compare and contrast process vs. outcome measures of quality, providing examples, and the advantages and disadvantages associated with the use of each in quality management initiatives.**
- (2) It has been noted in the trade as well as the scholarly literature that the lay public, in general, prefers outcome measures for purposes of quality assessment, while health professionals, in general, prefer process measures for the same. What might be some reasons for the preferences of each group?**

<u>Week 4:</u>	Implementation processes for TQM in health care	Ch. 9
(9/4-9/10)	Identification of TQM priorities in health care	
	Organizational factors and TQM	

Supplemental readings for Week 4:

Hilmer, S. and Karney, D. "Towards understanding the foundations of Deming's theory."

Journal of Quality Management. Vol. 2, No. 2. pp.171-189.

Dansky, K.H. and Brannon, D. "Strategic Orientation and TQM: Linking Vision to Action." Journal of Quality Management. Vol. 1, No. 2. pp. 227-242.

Bradley, E.H. et al. "The Role of Senior Management in Quality Improvement Efforts: What are the key Components?" Journal of Healthcare Management. Vol. 48, No. 1, pp. 15-28.

Huq, Z. And Martin, T.N. "Workforce Cultural Factors in TQM/CQI Implementation in Hospitals". Quality Management in Health Care. Winter 2001. pp. 43-57.

Jones, M.L.H. and Filip, S.J. "Implementation and Outcomes of a Balanced Scorecard Model in Women's Services in an Academic Health Care Institution." Quality Management in Health Care. Vol. 8, No. 4. pp. 40-51.

Homework assignment for Week 4:

Lighter and Fair – Ch. 9 (discussion points 3, 5, 7)

Course outline (subject to change)

Lighter/Fair

Ch#:

<u>Week 5:</u> (9/11-9/17)	Implementation process(es) for TQM in health care Team/group-based process(es) in TQM Team-building strategies Dynamics of team-based workgroups in TQM	Ch. 2
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Supplemental readings for Week 5:

James, B.C. "How do you Involve Physicians in TQM?" Journal for Quality and Participation. Summer 2002.

Doran, D.M.I. et al. "Achieving Clinical Improvement: An Interdisciplinary Intervention." Health Care Management Review. Vol. 27, No. 4. pp. 42-56.

Homework assignment for Week 5:

Lighter and Fair – Ch. 2 (discussion points 5, 6)

<u>Week 6:</u> (9/18-9/24)	Implementation process(es) for TQM in health care Process orientation of TQM Methods for clarifying process knowledge Identification of “costs” of poor quality Presumptive identification of root cause(s)	Ch. 3
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Supplemental readings for Week 6:

Fernandes, C.M.B. et al. “Root Cause Analysis of Laboratory Turnaround Times for Patients in the E.D.” Canadian Journal of Emergency Medicine. Vol. 6, No. 2, pp. 116-122.

“An All-Out Attack on Falls.” Nursing Homes Long Term Care Management. Vol. 53, No. 9, pp. 26-35.

Rosenstein, A.H. “Measuring the Benefits of Clinical Decision Support: Return on Investment.” Health Care Management Review. Vol. 24, No. 2, pp. 32-43.

Homework assignment for Week 6:

- 1. Compare and contrast the use of root cause analysis vs. failure mode and effect analysis as a means of clarifying process knowledge in a CQI setting. For what type of quality issue(s) is each type of process clarification technique most suited?**
- 2. Choose one of the two applications (RCA or FMEA) utilized in readings #1 or #2 above for week 6 and summarize each based on the criteria listed for each application in the textbook (FMEA pg. 85; RCA pg. 89).**

Course outline (subject to change)

Lighter/Fair

Ch#

<u>Week 7:</u> (9/25-10/1)	Implementation process(es) for TQM in health care Methods for understanding process variation Methods for analyzing process variation Sources of process variation Introduction to SQC methods	Ch. 4
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Supplemental readings for Week 7:

Durbin, S. "Statistical Process Control." Today's Management Methods. 1996. pp. 89-111.

Jordan, P. et al. "Decreasing Process Variation in the Care of Carotid Endarterectomy Patients." Topics in Health Information Management. Vol. 22, No. 2. pp. 24-34.

Tsikriktsis, N. and Heineke, J. "The Impact of Process Variation on Customer Dissatisfaction: Evidence from the U.S. Domestic Airline Industry." Decision Sciences. Vol. 35, No. 1, pp. 129-141.

Homework assignment for Week 7:

Lighter and Fair – Ch. 4 (discussion points 5, 7, 8, 11)

<u>Week 8:</u>	Introduction to SQC methods (continued)	Ch. 5,
6		
(10/2-10/8)	Control chart applications	
	Run chart applications	

Supplemental readings for Week 8:

Morton, A.P. et al. "The Application of Statistical Process Control Charts to the Detection and Monitoring of Hospital-Acquired Infections." Journal of Quality in Clinical Practice. Vol. 21, No. 4. pp. 112-117.

Smolko, J.R. and Greisler, D.S. "Understanding Medical Group Financial and Operational Performance: The Synergistic Effect of..." Journal of Health Care Finance. Vol. 27, No. 3, pp. 64-75.

Bell, R., Krivich, M.J., and Boyd, M.S. "Charting Patient Satisfaction." Marketing Health Services. Vol. 17, No. 2, pp. 22-29.

Homework assignment for Week 8:

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Week 13: The Future of TQM in health care Ch. 12
(11/6-11/12) Quality management topic - TBA
Handout course examination (tentative)

Supplemental readings for Week 13:

Berwick, D.M. "A User's Manual for the IOM's 'Quality Chasm' Report." Health Affairs. Vol. 21, No. 3. pp. 80-90.

Moore, K.D. and Coddington, D.C. "Models of Care That Meet the Standards of 'Crossing the Quality Chasm': a New Health System for the 21st Century." Journal of Ambulatory Care Management. Vol. 25, No. 1. pp. 12-21.

Homework assignment for Week 13:

N/A

Week 14/15: Work on course examination
(11/13-11/26) Complete all outstanding course assignments
Course examination due (tentative 5/1)
Quality management proposals due (tentative 5/1)
Quality management reviews due (tentative 5/1)

Course Examination

The course examination will be of the take-home variety, with students given approximately two (2) weeks to complete the exam. The examination will be comprehensive in scope, drawing upon all of the material covered in the course. It will

be comprised of two parts – (1) an essay portion, where students will be given a number of general, essay-type questions from which they are allowed to choose those they will respond to; (2) a case study, where students will apply learned principles of total quality management/continuous quality improvement/process improvement to a specific case scenario (more details to follow). The rationale for choosing the aforementioned format for the course examination is to prepare students for their written comprehensive examination that they must take and pass to exit this program, which is of a similar format. Students will be expected to synthesize a substantial amount of information into a professionally prepared document in a fairly short period of time. As the object of the examination is assimilation and synthesis and not regurgitation and feedback, students will be expected and allowed to utilize appropriate resources (textbook, notes, journal articles, etc.) in the preparation of their examination. The grading of the course examination is very stringent, and students should strive for completeness, accuracy, clarity, and brevity in their work.

Quality Management Proposal Assignment

Over the past five years, health care organizations have been made to realize that quality is truly at the core of the health care delivery system. While health services organizations have largely talked the talk of quality traditionally, the release of the Institute of Medicine report, “To Err is Human” in 1999 was the ultimate wake-up call. The report posits that between 44,000 – 98,000 people die every year in US hospitals as a result of unintentional medical errors. While there has been much debate about the accuracy of these figures, no one disputes the assertion that errors occur and people are injured or die and that there are almost certainly an even larger number of “near misses.”

In 2001, the Institute of Medicine released their follow-up report, “Crossing the Quality Chasm” that spells out four global recommendations and ten rules that if adopted, would result in a redesign of the health care system where (hopefully) medical errors would be significantly reduced or eliminated. When you read the ten rules (outlined in the article “A User’s Manual for the IOM’s Quality Chasm Report”, distributed to you with the course syllabus), you should immediately be impressed with the difficulty inherent in changing a health care system so as to make the rules part of their regular operations. However, despite the difficulty, this type of change is vital if we are to achieve the goals of the IOM report.

For this assignment, you will be required to select (and have approved by me by the end of the fourth week of the term) one of the ten IOM improvement rules and develop

a quality improvement proposal for the implementation and evaluation of that rule in a health care organization (or strategic service unit) of your choice. Your proposal will need to include the following:

- Specify the rule you will address and the location where the rule will be implemented. The site location can be real or imagined. However, it would be interesting to think of a real organizational application and test your ideas with practicing administrators and clinicians.
- Develop a specific plan/proposal for the application and implementation of your rule. Speak to the types of organizational change that will have to occur. How will you deal with resistance to the proposed change? It might be helpful, for this purpose, to make use of one of the more common TQM/CQI implementation models (e.g. FOCUS-PDCA) as the basis for developing plan specifics.
- Include a series of action items, timeline, and resources required. For those who are familiar with this tool, a PERT chart might be particularly helpful.
- Specify the evaluation tools that will be used. What indicators will you use to determine whether you are achieving the results you expect?

Quality Management Proposal Assignment (continued)

The written proposal should be submitted in double-spaced, word-processed format, with a maximum of 20 pages total, excluding any appendices. The format of the final written proposal is flexible, with students encouraged to make use of one of the TQM/CQI implementation models studied as part of the course in developing their proposals. As always, students are allowed (and encouraged) to submit drafts of their proposals prior to final submission for the purpose of receiving instructor feedback/comments. Students should allow a minimum of 3-5 days of lead time to receive such feedback. Students who wait until 3-5 days before final submission to submit draft(s) should not expect to receive any feedback on their work due to time constraints.

Quality Management Review Assignment

Additionally, each student will be required, as part of this assignment, to select a specific type of health services or health-related organization and conduct a formal, systematic review of that (type of) organization's quality management function(s) and

activities. All selected organizations must be approved by the instructor prior to initiating the review, not later than the fourth week of the term.

It is anticipated that the student will avail himself/herself to a number of organizational resources for the purpose of conducting the review, including conducting interview(s) with organizational quality management staff, reviewing (as appropriate and indicated) organizational policies and procedures related to quality management, and/or attending/observing (as appropriate and indicated) various quality management functions (meetings, presentations, etc.) within the organization. Students are encouraged to spend as much time as they feasibly can on-site within the organization so as to avail themselves to these resources.

Upon completion of the information/data collection phase, each student will then be required to prepare a written summary of their findings, not to exceed 20 typed, double-spaced pages (excluding any appendices). The format of the written review is quite flexible, but should be structured logically so as to provide a thorough, yet understandable, description of the quality management function within the selected health services/health-related organization.

Student Performance / Conduct Expectations

At each registration, students must agree to abide by the rules of the Honor Code and the Code of Conduct. The Honor Code and Code of Conduct are printed in the AASU Catalog, Students Illustrated and on the University website. Any student desiring assistance with any matter related to these Codes is invited to seek assistance in the Division of Student Affairs.

Commensurate with their obligations associated with adherence to these defined codes of conduct, all students in this course are expected to:

Student Performance / Conduct Expectations (continued)

1. Exercise honesty in all matters, both academic and personal in nature.
2. Be fair and courteous with others, treat them fairly and with respect, showing sensitivity to cultural, ethnic, and religious diversity and personal dignity.
3. Accept personal responsibility for appropriate behavior as defined by the Codes.

4. Know the offenses under each Code and the penalties for violating them.
5. Understand that they are responsible for knowing and following any additional written or verbal requirements given by the professor, which relate to honor or conduct and which are inherent to the classroom or University functions.
6. Know what plagiarism is, as defined under the Honor Code; recognize that it undermines individual and academic integrity and ensure that it is avoided in both spirit and deed.
7. Understand that the Codes apply at all University activities whether on the main campus or at other locations.
8. Remember that they are representatives of Armstrong Atlantic State University and that they must always conduct themselves in a manner that brings credit upon themselves and the University.

Any student determined to be in violation of one or more of the provisions of these codes will be subject to all proscribed academic and/or disciplinary penalties as outlined in the Code of Student Conduct. Lastly, it should be noted that student ignorance of the specific provisions within the Code of Student Conduct is not an acceptable defense in any such proceedings. Students should thus exercise particular care to refrain from any activity or behavior that has the appearance of constituting a violation of the Code.

Provisions for Students with Disabilities

All students that have a documented disability, whether permanent or temporary, that will impact significantly on their ability to be successful in this course, are encouraged to discuss the disability with me to allow for appropriate assistance through the Office of Disability Services. All inquiries will be strictly confidential.