

LSC Use Only No: LSC Action-Date: UWUCC USE Only No. UWUCC Action-Date: Senate Action Date:  
~~04-64e~~ 05-4e R-3/21/06  
 App 3-17-05  
 Number change + do Info to Senate change  
 3-29-05  
 App. 4/22/08

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person <b>Ramesh G. Soni</b>	Email Address <b>rgsoni@iup.edu</b>
Proposing Department/Unit <b>Management</b>	Phone

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

**1. Course Proposals (check all that apply)**  
 New Course       Course Prefix Change       Course Deletion  
 Course Revision       Course Number and/or Title Change       Catalog Description Change

**Quality Management—MGMT334**      **MGMT 434 Quality Management**

Current course prefix, number and full title      Proposed course prefix, number and full title, if changing

**2. Additional Course Designations: check if appropriate**  
 This course is also proposed as a Liberal Studies Course.       Other: (e.g., Women's Studies, Pan-African)  
 This course is also proposed as an Honors College Course.

**3. Program Proposals**  
 New Degree Program       Program Title Change       Program Revision  
 New Minor Program       New Track       Other

Current program name      Proposed program name, if changing

**4. Approvals**

		Date
Department Curriculum Committee Chair(s)	<i>Juette Wisniewski</i>	2-28-05
Department Chair(s)	<i>PWB</i>	2-28-05
College Curriculum Committee Chair	<i>[Signature]</i>	2 MAR 05
College Dean	<i>R. Long</i>	3-2-05
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	<i>Gail Sedquist</i>	3/17/05

\* where applicable

MAR - 3 2005

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## JUSTIFICATION

The course MGMT 334 was first approved in 1994, about ten years ago. The current proposal is intended for the following actions:

- Course number change (MGMT 434): An overwhelming majority of students who register for this course tend to be seniors and therefore the course must be appropriately renumbered as a senior course.
- Prerequisite Change: While designing the course ten years ago, we wanted to ensure that the students had an appropriate quantitative preparation and therefore artificially placed MGMT 330 as a prerequisite. However, since then the Eberly College of Business and Information Technology has adopted a junior standing policy; that policy ensures that the students take the required quantitative courses before achieving a junior standing. As a result, a more appropriate course-- MATH 214 (or MATH 216/217)--will now serve as the prerequisite for the course.
- Catalog Description Change (very minor): The last sentence has been modified to include the words “any organization,” rather than just limiting it to manufacturing or services organizations.
- Course Objectives Changes: Course objectives have been rephrased utilizing “action verbs.”
- Dual-level: Since this course is going to be dual listed (MGMT 434/534), a few graduate level course objectives have been added.
- Course Outline Changes: Outline has been modified to reflect how the course has evolved over the last ten years.
- Updated Bibliography: The course bibliography has been updated to include recent research articles and books.

Please note that I have already inquired with the Registrar’s Office and they have confirmed that the course numbers MGMT 434 and 534 are available and they have assigned a CIP number (520201).

# NEW SYLLABUS OF RECORD

## I. Catalog Description

### MGMT 434 Quality Management

3 class hours  
0 lab hours  
3 credits  
(3c-01-3cr)

**Prerequisite:** MATH 214

Emphasizes the philosophy that quality is an organization wide phenomenon that influences every aspect of its operations. An overview of current quality management philosophies and tools and techniques for managing quality in any organization.

## II. Course Objectives:

Upon successful completion of this course, the students will:

1. Understand the definitions & dimensions of quality and the measurement of costs of quality in different organizations.
2. Understand the quality philosophies of experts such as Deming, Juran, Crosby, Feigenbaum, Taguchi, and Ishikawa.
3. Comprehend traditional and modern tools of quality as well as the principles of benchmarking, kaizen and quality function deployment.
4. Comprehend the importance of adhering to International Quality Standards (e.g., ISO 9000, CE mark, FDA's Quality System Requirements, QS 9000, etc.) and using the criteria for prestigious Quality Awards (e.g., Malcolm Baldrige National Quality Award, Deming Award, etc.).
5. Discern the importance of synergy and coordination among an organization's suppliers, employees, managers, and customers for successful TQM implementation.
6. Possess deeper understanding of the fundamentals of quality management to design a quality management system for an organization (graduate students)
7. Coordinate with technical experts and consultants to implement quality management systems in an organization (graduate students)

### III. Course Outline

Topic	Contact Hours
Course Overview	
Introduction to Total Quality Management	
History related to Quality Management	
Definition(s) and dimensions of Quality	3
Quality Measurement--Costs of Quality	3
The Challenge of Change and the World Quest for Quality, Productivity, and Competitiveness	3
Quality Philosophies and Techniques of experts: Deming, Juran, Crosby, Feigenbaum, Taguchi, Ishikawa.	3
Customer Focus and Quality Function Deployment	3
Benchmarking	
Organizational issues related to Quality Management-- Leadership, Communication, Teamwork, Decision Making, Training, etc.	3
<b>Review &amp; Test # 1</b>	3
Tools of Quality--Traditional and Modern	3
Continuous Improvement--Philosophies and Practices	3
Statistical Process Control	
Attribute and variable quality control charts and their use for monitoring processes; process capability, Motorola's 6-sigma	6
Design Issues (Manufacturing & Service Design); Process Design; Concurrent Engineering.	3
ISO 9000 Certification--Elements, Importance, and Process	
Malcolm Baldrige National Quality Award—Criteria/Significance	
Other Quality Systems and Awards--FDA's Quality System Requirement, CE Mark of EC Countries, Deming Prize, etc.	3
<b>Project Presentations</b>	3
<b>Test # 2 (Final)</b>	2
Total contact hours = 42+2	44

### IV. Evaluation Methods

Types of Activities	Evaluation Criteria and Weights
Exams (2 exams—20% each): Each exam will comprise of multiple choice questions, numerical problems and questions requiring brief answers. Graduate Students will have a few open ended questions as well as more challenging applied numerical problems.	40%

<p><b>Term Paper:</b> Each team (2-3) of students will select a relevant topic (discussed in detail in class). The paper must synthesize the class discussions, current research, and industry practices in that specific topic. The objective of the research paper is for the team of students to obtain in-depth knowledge in their selected topic. In addition, the presentation by each team will disseminate their findings to the entire class. The paper must emphasize cross-functional aspects as well as one or more of the following issues—global, political, ethical, legal, environmental, and social. The length of the paper must be around 10-12 double-spaced pages excluding the abstract, tables, figures, appendices and bibliography.</p> <p>Research requirement: Each paper must cite at least eight relevant journal/magazine articles from at least three different journals.</p>	<p>Evaluation Criteria: Professionalism, organization and clarity of presentation; quality of the literature review, its synthesis, and subsequent original contribution (for graduate students) will be weighed heavily. Importance will be given to the paper's emphasis on cross-functional aspects. 20%</p>
<p>Journal Article Summary (Graduate) Trade Journal/Magazine Article Summary (Undergraduate)</p>	<p>Understanding of main issues and research method used 5%</p>
<p>Quality Improvement projects: Each student will work on two 'simple' quality improvement projects, related to one manufactured product and one service. Students can pick a product and a service of their choice and propose improvement(s) in them.</p>	<p>How easily can the idea be implemented (economically/ technically feasible and not be just a wish) 10%</p>
<p>Other Assignments (About five homework assignments including cases, problems, etc.; may require SPC software and/or spreadsheet)</p>	<p>Analysis of issues, Quality, accuracy, and timeliness 20%</p>
<p>Classroom participation (Attendance, in-class graded activities, quality of participation)</p>	<p>5%</p>
<p><b>TOTAL</b></p>	<p><b>100%</b></p>

**V. Example Grading Scale.**

**Grade Distribution:**  $\geq 90\%$ —A; 80-89.99%—B; 70-79.99%—C; 60-69.99%—D;  $\leq 60\%$ —F

**Grade Distribution:**  $\geq 90\%$ —A; 80-89.99%—B; 70-79.99%—C;  $\leq 69.9\%$ —F (Graduate Students)

**VI. Undergraduate Course Attendance Policy.** The University expects all students to attend class. The instructor will adhere to the University attendance policy.

**VII. Required Textbook(s), Supplemental Books and Readings**

Goetsch, D.L and Davis, S.B. *"Introduction to Total Quality," 4<sup>th</sup> Edition*, Prentice Hall, 2003.

Smith, G.M., *"Statistical Quality Control & Quality Improvement," 5<sup>th</sup> Edition*, Prentice

Hall, 2004. (Graduate Student; supplemental reference book)

### **VIII. Special Resource Requirements**

None.

### **IX. BIBLIOGRAPHY**

Berry, L.L., Zeithaml, V.A. and Parasuraman, P., "Quality Counts in Service, Too," *Business Horizons*, 28 (3), 1985, 44-52.

Camp, R.C. *Benchmarking*. Milwaukee: Quality Press, 1989.

Carlzon, J. *Moments of Truth*. New York: Ballinger, 1987.

Covey, S.R. *The 7 Habits of Highly Effective People*. New York: Fireside, 1989.

Crosby, P.B. *Quality is Free*. New York: McGraw-Hill, 1979.

Deming, W.E. *Out of Crisis*. Cambridge, Mass.: MIT Center for Advanced Engineering Study, 1986.

Feigenbaum, A.V. *Total Quality Control*, New York, McGraw-Hill, 1983.

Garvin, D.A. "Competing on the Eight Dimensions of Quality,": *Harvard Business Review* (Nov.-Dec. 1987): 101-109.

Garvin, D.A. *Managing Quality: The Strategic and Competitive Edge*. New York: Free Press/McMillan, 1988.

Ishikawa, K. *Guide to Quality Control*, White Plains, NY: Kraus, 1986.

Juran, J.M. and Gryna, F.M. *Quality Planning and Analysis*, New York: McGraw-Hill, 1980.

Kotler, P. *Marketing Management*, Englewood Cliffs, NJ: Prentice Hall, 1984.

Monden, Y. *Toyota Production System*, Atlanta, Ga: IIE Press, 1993.

Peters, T. *Thriving on Chaos*. New York: Knopf, 1987.

Porter, M. *Competitive Advantage*. New York: Free Press, 1985.

Senge, P. *The Fifth Discipline*. New York: Doubleday, 1990.

Shingo, S. *Modern Approaches to Manufacturing Improvement*. Cambridge, Mass: Productivity Press, 1990.

Sullivan, L.P. "Quality Function Deployment," *Quality Progress*, 19(6), 1986, 39-50.

Zeithaml, V.A., Berry, L.L. and Parasuraman, P. *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. New York: Free Press, 1990.

# OLD SYLLABUS OF RECORD

## I. Catalog Description

### MGMT 334 Quality Management

3 lecture hours  
0 lab hours  
3 credits  
(3c-01-3cr)

**Prerequisite:** MGMT 330

Emphasizes the philosophy that quality is an organization-wide phenomenon that influences every aspect of its operations. An overview of current quality management philosophies, and tools and techniques for managing quality in manufacturing and services.

## II. Course Objectives

1. To make students understand that quality is the key to survival and success in the 1990s and beyond, and that the emphasis on quality has profoundly changed the way we do business. The course is designed to prepare the students to tackle quality issues in an organization.
2. To present and discuss tools and techniques for managing quality, e.g. quality assurance teams, employee involvement teams, SQC and SPC, TQM, etc.
3. To expose students to the teachings of many world-renowned quality experts including Deming, Juran, Taguchi, Ishikawa and Crosby. Case studies of several leading companies' approaches to quality management are discussed.

## III. Detailed Course Outline

Topics	# of Hours
Introduction to Quality Management	1 & 1/2
Quality as a Competitive Strategy: Achieving Competitive Edge Through Quality	3
The Economics of Quality Control: Prevention, Appraisal, Internal Failure, and External Failure	1 1/2
Planning for Quality Assurance	2
Organizing for Quality	2
Employee Involvement Teams and Quality Assurance	3
Quality and Product Design: Simultaneous Engineering	3
Quality and Process Design: Drive for Continuous Improvement	3

The Quality Experts: The teachings and philosophies of Deming, Juran, Crosby, Ishikawa, etc.	3
Customer Focus: Quality Function Deployment (QFD)	2
Statistical Tools for Quality Control: Pareto Charts, Histograms, Frequency distributions.	2
Statistical Process Control: Attribute and variable quality control charts and their use for monitoring processes.	6
Process Capability Analysis	2
Systems View of Quality: Total Quality Management	2
Awards and Certifications: The Malcolm Baldrige National Quality Award, the Deming Prize, and ISO 9000.	2
Class Presentations	2
Exams	1+1+2 (2 mid-term and a final)

#### IV. Evaluation Methods

Grading Method	Description	Weight
2 Mid-terms and Final	Exams will comprise of one or more of the following: objective type questions, short answers, problems, essay, case analysis, computer test, etc.	50%
Cases, projects, etc.	May include computer projects, case analysis, problem formulation and analysis, etc.	20%
Term Paper & Presentation	The student will be required to complete a term paper (about 15 double-spaced typed pages) based on current readings of journals and business periodicals, business survey, and/or interviews. The student will make a class presentation.	20%
Quizzes, Class Participation, etc.	About 5-10 short quizzes will be given throughout the semester.	10%

Final grade will be determined based on the traditional standard. That is, for an A grade, weighted average must be 90% and above; for B, above 80%; and so on.

#### V. Required Textbook(s), Supplemental Books and Readings:

Evans J.E. and W. M. Lindsay, The Management and Control of Quality, West Publishing Co., 2nd edition, 1993.

Current articles and cases will be available at Kinko's.



**VI. Special Resource Requirements: None**

**VII. Bibliography**

Brocka, B and Brocka, M. S., Quality Management, Business One (Irwin Publishing Co), 1992.

Crosby, P. B., Quality is Free, McGraw-Hill, 1979.

Deming, W. E., Quality, Productivity, and Competitive Position, MIT, Center for Engineering Study, 1982.

Feigenbaum, A. V., Total Quality Control, 3rd ed., McGraw-Hill, 1983.

Freund, R. A., "Definitions and Basic Quality Concepts," Journal of Quality Technology, January, 1985.

Gitlow, H. S. and Gitlow, S. J., The Deming Guide to Quality and Competitive Position, Prentice Hall, 1987.

Ishikawa, K., "Quality and Standardization: Program for Economic Success," Quality Progress, Vol 17 (1), 1984, 16-20.

Juran, J.M. and Gryna, F. M., Jr., Quality Planning and Analysis, 2nd edition, McGraw-Hill, 1980.

Mitra, A., Fundamentals of Quality Control and Improvement, Macmillan Publishing Co., 1993.

Schonberger, R. J., Building a Chain of Customers, The Free Press, New York, 1990.

Schuler, R. S. and Harris, D.L., Managing Quality: The Primer for Middle Managers, Addison-Wesley, 1992.

Stratton, A. D., An Approach to Quality Improvement that Works, ASQC Quality Press, Milwaukee, Wisconsin, 1991.

Wachniak, R., "World Class Quality: An American Response to the Challenge," Quest for Quality: Managing the Total System, M. Sepehri (Ed.), Institute of Industrial Engineers, 1987.