ITT Technical Institute

PM3325

Project Quality Management

Onsite Course

SYLLABUS

Credit hours: 4.5

Contact/Instructional hours: 45 (45 Theory Hours)

Prerequisite(s) and/or Corequisite(s):

Prerequisites: MA3110 Statistics or equivalent, PM3225 Project Management Tools and Techniques or equivalent

Course Description:

This course provides an applied review of quality principles related to projects. Topics include problem solving tools, such as flow charts, checklists, cause and effect diagrams, and audit techniques to assess compliance with company-documented processes

PM3325

Project Quality Management

ONSITE

SYLLABUS

Credit hours: 4.5

Contact/Instructional hours: 45 Theory

Prerequisites: MA3110 Statistics or equivalent

PM3225 Project Management Tools and Techniques or equivalent

Where Does This Course Belong?

Project Quality Management is a required course to earn a bachelor's degree in the Project Management and Administration program.

Bachelor's Degree in Project Management and Administration

The program exposes students to a variety of fundamental skills utilized in entry-level project management and administrative positions. Students will be exposed to a variety of skills relating to planning, organizing, implementing, leading, and controlling the work for a project to meet the goals and objectives of the organization. The program explores various areas of the Project Management Body of Knowledge (PMBOK®), considered to be the industry standard by the Project Management Institute (PMI®).

IT Option

The program helps students understand how to apply principles of information technology, computer systems management, and business operations to the planning, management, and evaluation of information technology in organizations.

Construction Option

The program exposes students to a variety of techniques utilized to manage, coordinate, and supervise the construction process from concept development through project completion on timely and economic bases.

This program covers the following core areas:

1. Quality management theory
2. Quality planning
3. Quality assurance
4. Quality control

The following diagram demonstrates how this course fits in the program:

Course Summary

Course Description

This course provides an applied review of quality principles related to projects. Topics include problem solving tools, such as flow charts, checklists, cause and effect diagrams, and audit techniques to assess compliance with company-documented processes.

Major Instructional Areas

1. Quality management theory
2. Quality planning
3. Quality assurance
4. Quality control

Detailed Topical Outline

1.0. Total Quality Management (TQM) Theory
- 1.1. Total Quality Approach to Quality Management
- 1.2. Quality and Global Competitiveness
- 1.3. Strategic Management: Planning and Execution for Competitive Advantage

2.0. Creating a Quality Culture
- 2.1. Quality Culture: Changing Hearts, Minds, and Attitudes
- 2.2. Education and Training
- 2.3. Overcoming Politics, Negativity, and Conflict in the Workplace

3.0. Define the Project and Process Customers
- 3.1. Customer Satisfaction, Retention, and Loyalty

4.0. Total Quality and ISO 9000
- 4.1. ISO 9000 and Total Quality: The Relationship

5.0. Tools for Total Quality
- 5.1. Overview of Total Quality Tools

6.0. Statistical Process Control

6.1. Optimizing and Controlling Processes through Statistical Process Control

7.0. Quality Assurance and Control
7.1. Partnering and Strategic Alliances
7.2. Continual Improvement Methods with Six Sigma, Lean, and Lean Six Sigma

8.0. Benchmarking
8.1. Benchmarking and Its Role in the Project Life Cycle

9.0. Designing the Quality Plan
9.1. Quality Function Deployment

10.0. Implementing the Quality Plan
10.1. Implementing Total Quality Management

Course Objectives

1. Define and compare internal and external customers of any quality project or process.
2. Compare and contrast total quality management with ISO 9000.
3. Apply basic tools for improving the effectiveness of work processes including flow charting, cause-and-effect diagrams, and the use of root cause analysis methods.
4. Create charts and graphs to explain a statistical analysis of a selected project.
5. Develop a quality management plan including quality metrics, a quality checklist, and a process improvement plan.
6. Apply quality audit techniques to identify quality management system nonconformities and to apply problem-solving techniques for corrective actions.
7. Delineate the total quality management processes within each phase of the product and project cycle.

Learning Materials and References

Required Resources

Textbook Package	New to This Course	Carried over from Previous Course(s)	Required for Subsequent Course(s)
Goetsch, D. L., & Davis, S. B. (2012). *Quality management*	■		■

Textbook Package	New to This Course	Carried over from Previous Course(s)	Required for Subsequent Course(s)
for organizational excellence: introduction to total quality. (7th ed.). Upper Saddle River, NJ: Pearson Education Inc.			
Project Management Institute. (2013). *A guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition* (5th ed.). Newton Square, PA: Project Management Institute.		■	

Recommended Resources

Books

- Evans, J. R., & Lindsay, W. M. (2007). *Managing for quality and performance excellence*. (7th ed.). Mason, OH: South-Western College Pub.
- Ireland, L. R. (2007). *Quality management for projects and programs*. Newton Square, PA: Project Management Institute.

Professional Journals

- Total Quality Management and Business Excellence
  http://www.tandf.co.uk/journals/titles/14783363.asp
  Designed to encourage interest in all matters relating to total quality management and intended to appeal to both academics and professionals. Published by Routledge.

- Journal for Quality & Participation
  http://asq.org/pub/jqp/
  Articles, review articles, and commentary on education and practice of quality, leadership, and employee involvement for business, government, and education. Published by the American Society for Quality, Inc.

- Total Quality Management
  http://www.tandfonline.com/loi/ctqm19
  An international periodical that aims to encourage thought and research in all areas of total quality management and to provide a forum for discussion and distribution of research results.

Professional Associations

- Project Management Institute: http://www.pmi.org/

ITT Tech Virtual Library (accessed via Student Portal)
Books24x7

- Barkley, B. T., & Saylor, J. H. (2001). *Customer-driven project management*. New York, NY: McGraw-Hill Professional.
- Kloppenborg, T. J., & Petrick, J. A. (2002). *Managing project quality*. Tysons Corner, VA: Management Concepts.
- Rose, K. H. (2005). *Project quality management: Why, what and how*. Fort Lauderdale, FL: J. Ross Publishing.

Ebrary

- Bhote, K. R. (2001). *Power of ultimate six sigma: Keki Bhote's proven system for moving beyond quality excellence to total business excellence*. New York, NY: AMACOM.
- Franceschini, F., & Galetto, M. (2006). *Benchmarking in total quality management*. Bingley, UK: Emerald Group Publishing Ltd.
- Lal, H. (2008). *Organizational excellence through total quality management*. New Delhi, India: New Age International Pvt Ltd Publishers.

NOTE: All links are subject to change without prior notice.

Information Search

Use the following keywords to search for additional online resources that may be used for supporting your work on the course assignments:

- Quality management plan
- Quality culture
- Project quality
- Customer quality
- Total quality management (TQM)
- ISO 9000
- Six Sigma
- Quality assurance
- Quality control

Course Plan

Suggested Learning Approach

In this course, you will be studying individually and within a group of your peers. As you work on the course deliverables, you are encouraged to share ideas with your peers and your instructor, work collaboratively on projects and team assignments, raise critical questions, and provide constructive feedback.

Use the following advice to receive maximum learning benefits from your participation in this course:

DO	DON'T
▪ Do take a proactive learning approach. ▪ Do share your thoughts on critical issues and potential problem solutions. ▪ Do plan your course work in advance. ▪ Do explore a variety of learning resources in addition to the textbook. ▪ Do offer relevant examples from your experience. ▪ Do make an effort to understand different points of view. ▪ Do connect concepts explored in this course to real-life professional situations and your own experiences.	▪ Don't assume there is only one correct answer to a question. ▪ Don't be afraid to share your perspective on the issues analyzed in the course. ▪ Don't be negative about the points of view that are different from yours. ▪ Don't underestimate the impact of collaboration on your learning. ▪ Don't limit your course experience to reading the textbook. ▪ Don't postpone your work on the course deliverables—work on small assignment components every day.

Course Outline

***Unit 1:* TOTAL QUALITY MANAGEMENT (TQM) THEORY**

Unit Duration:
1 week
Outside Prep Time:
8 hrs.

Upon completion of this unit, students are expected to:

- Define the significance of total quality management.
- Identify and compare major theorists and philosophies of quality improvement and quality management.
- Analyze the importance of quality in the global environment.
- Define the role strategic management plays in total quality management.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
• Goetsch & Davis, Chapters 1-3	Assignments	Unit 1 Assignment 1: TQM Importance Within Project Management	1.36%
	Projects	Project: Part 1—Process Selection, Background, and Customer Analysis (Introduction to Project only)	N/A

Unit 2: CREATING A QUALITY CULTURE

Unit Duration:
1 week
Outside Prep Time:
4 hrs.

Upon completion of this unit, students are expected to:

- Define and compare organizational culture and quality culture.
- Analyze the significance that quality training plays in a quality organization.
- Identify and contrast methods used to overcome politics, negativity, and conflict in the workplace.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
• Goetsch & Davis, Chapters 6, 12, and 13	Discussions	Unit 2 Discussion 1: Overcoming Change Resistance	4%
	Assignments	Unit 2 Assignment 1: Critical Thinking Activities	1.36%
		Unit 2 Assignment 2: Quality Culture Research	1.36%

Unit 3: DEFINE THE PROJECT AND PROCESS CUSTOMERS

Unit Duration: *1 week*
Outside Prep Time: *4 hrs.*

Upon completion of this unit, students are expected to:

- Define and compare internal and external customers of any quality project or process.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
• Goetsch & Davis, Chapter 7	Discussions	Unit 3. Discussion 1: Customer Requirements Analysis	4%
	Assignments	Unit 3. Assignment 1: Critical Thinking and Factual Review	1.36%
		Unit 3. Assignment 2: Customer Research	1.36%

Unit 4: TOTAL QUALITY AND ISO 9000

Unit Duration: *1 week*
Outside Prep Time: *4 hrs.*

Upon completion of this unit, students are expected to:

- Compare and contrast total quality management with ISO 9000.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
	Assignments	Unit 4. Assignment 1: ISO and Total Quality Management (TQM)	1.36%
• Goetsch and Davis, Chapter 14		Unit 4: Assignment 2: ISO or TQM Critical Thinking	1.36%
	Quizzes	Unit 4 Quiz 1	3.33%
	Project	Project Part 1 Due	5%
	Project	Project: Part 2—Sequential Process Steps, Inputs, Outputs Identification (Intro)	N/A

Unit 5: TOOLS FOR TOTAL QUALITY

Unit Duration: *1 week*
Outside Prep Time: *9 hrs.*

Upon completion of this unit, students are expected to:

- Apply basic tools for improving the effectiveness of work processes, including flow charting, cause-and-effect diagrams, and the use of root cause analysis methods.
- Use project management software to create documents related to quality.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
• Goetsch and Davis Chapter, 15	Assignments	Unit 5 Assignment 1: Construct a Flow Chart	1.36%
		Unit 5 Assignment 2: Construct a Pareto Chart	1.36%
		Unit 5: Assignment 3: Construct a Cause and Effect Diagram	1.36%
	Quizzes	Unit 5 Quiz 2	3.33%

Unit 6: STATISTICAL PROCESS CONTROL

Unit Duration: *1 week*
Outside Prep Time: *4 hrs.*

Upon completion of this unit, students are expected to:

- Use charts and graphs to explain a statistical analysis of a selected project.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
• Goetsch & Davis, Chapter 18	Discussions	Unit 6 Discussion 1: X Bar Exercise	4%
		Unit 6 Discussion 2: SPC's Effect on Competitiveness/Japanese Quality Movement	4%
	Assignments	Unit 6 Assignment 1: SPC Review Critical Thinking Activity	1.36%
	Project	Project Part 2 Due	5%
	Project	Project Part 3—Apply Quality Tools (Intro)	N/A

Unit 7: QUALITY ASSURANCE AND CONTROL

Unit Duration: *1 week*
Outside Prep Time: *9 hrs.*

Upon completion of this unit, students are expected to:

- Analyze the complexities that partnerships and alliances bring to quality.
- Apply selected quality management tools and techniques to establish quality assurance and quality control.
- Create a quality assurance implementation plan.
- Practice continual improvement methods.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
• Goetsch & Davis, Chapters 5 and 19	Discussions	Unit 7 Discussion 1: Lean Manufacturing	4%
	Assignments	Unit 7 Assignment 1: Continuous Improvement Assessment	1.36%
		Unit 7 Assignment 2: Lean Six Sigma	1.36%
		Unit 7 Assignment 3: Which Approach Critical Thinking Activity	1.36%
	Quizzes	Unit 7 Quiz 3	3.34%

Unit 8: BENCHMARKING

Unit Duration: *1 week*
Outside Prep Time: *9 hrs.*

Upon completion of this unit, students are expected to:

- Analyze the application aspects of benchmarking and its role in the project life cycle.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
• Goetsch & Davis, Chapter 20	Assignments	Unit 8 Assignment1: Motorola and Xerox Case Studies	1.37%
		Unit 8 Assignment 2: Competitive Crisis Critical Thinking	1.37%
		Unit 8 Assignment 3: Benchmarking Research	1.37%
	Project	Project Part 3 Due	5%
	Project	Project: Part 4: Quality Plan Design (intro)	N/A

Unit 9: DESIGNING THE QUALITY PLAN

Unit Duration: *1 week*
Outside Prep Time: *4 hrs.*

Upon completion of this unit, students are expected to:

- For a given project, develop a quality management plan including quality

metrics, a quality checklist, a process improvement plan, a quality baseline, and a change or adjustment request process.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
• Goetsch & Davis, Chapter 17	Assignments	Unit 9 Assignment 1: Feedback and Input Methods	1.37%
		Unit 9 Assignment 2: Customer Demand vs. Organizational Capability	1.37%
		Unit 9: Assignment 3: Research Assignment	1.37%

Unit 10: IMPLEMENTING THE QUALITY PLAN/APPLICATION TO FINAL PROJECT

Unit Duration: *1 week*
Outside Prep Time: *4 hrs.*

Upon completion of this unit, students are expected to:

- Apply quality audit techniques to identify quality management system nonconformities and to apply problem-solving techniques for corrective actions.
- Delineate the total quality management processes within each phase of the product and project cycle.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
Goetsch & Davis, Chapter 22	Assignments	Unit 10 Assignment 1: McDonnell Douglas TQM Analysis	1.37%
		Unit 10 Assignment 2: EZ Open Infrastructure Analysis	1.37%

Unit 11: COURSE REVIEW, FINAL EXAMINATION, PROJECT PRESENTATION

Unit Duration: *1 week*
Outside Prep Time: *10 hrs.*

Upon completion of this unit, students are expected to:

- Complete a course review.
- Perform a final project presentation.

READING ASSIGNMENT	GRADED ACTIVITIES/DELIVERABLES		
	Grading Category	**Activity/Deliverable Title**	**Grade Allocation** (% of all graded work)
	Project	Project Part 4: Design the Quality Plan (e-Portfolio)	5%
		Project Part 5: Final Project Presentation	10%
	Final Exam	Comprehensive Final Exam	10%

Evaluation and Grading

Evaluation Criteria

The graded assignments will be evaluated using the following weighted categories:

Category	Weight
Discussions	20%
Assignments	30%
Project	30%
Quizzes	10%
Final Exam	10%
TOTAL	**100%**

Grade Conversion

The final grades will be calculated from the percentages earned in the course, as follows:

Grade	Percentage	Credit
A	90–100%	4.0
B+	85–89%	3.5
B	80–84%	3.0
C+	75–79%	2.5
C	70–74%	2.0
D+	65–69%	1.5
D	60–64%	1.0
F	<60%	0.0

Academic Integrity

All students must comply with the policies that regulate all forms of academic dishonesty, or academic misconduct, including plagiarism, self-plagiarism, fabrication, deception, cheating, and sabotage. For more information on the academic honesty policies, refer to the Student Handbook and the Course Catalog.

(End of Syllabus)