



UNIVERSIDAD
esan

Course Syllabus Quality Management and Customer Service

August – December 2021

Term IX

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I. General Course Information

Subject:	Quality Management and Customer Service		
Pre-requisite:	Applied Statistics (Estadística Aplicada)	Code:	10310
Precedent:	None	Semester:	2021-2
Credits:	4	Term:	IX
Weekly Hours:	5 hours	Course type:	Remote-synchronous
Type Career(s)	Obligatory Industrial and Commercial Engineering	Course Coordinator:	Augusto Choy P. achoy@esan.edu.pe

II. Summary

The course is an introduction to the principles of quality, including the practical application of quality assurance, quality control and quality management techniques, issues and methods. In it, the concept of quality is defined and the use of various methods such as Quality Assurance (QA), Quality Control (QC), Continuous Quality Improvement (CQI), Total Quality Management (TQM), Lean Production (LP), Just In Time (JIT), and Six Sigma (6σ) will be applied. It will stress the importance of quality at the design and planning stages as well as the basic understanding of the leadership and workplace culture required for the production of quality goods and services.

III. Course Objectives

Apply the fundamental concepts of Quality and Total Quality Management (TQM), their techniques, philosophies and strategies as they are practiced in the workplace today.

We will follow these subjects:

- Introduction to Quality Assurance (QA), Quality Control (QC), Continuous Quality Improvement (CQI), Total Quality Management (TQM) and their relation to customer driven design and customer service. - Students will be able to identify a range of quality contexts and the role of the customer in the quality cycle from the subject analyzed at this point.
- Introduction to some of the most applied approaches to quality such as Six Sigma / Lean / ISO 9000 / the Baldrige quality program among others. Procedures for the implementation of these frameworks will be introduced, with reference to their application in the workplace. - Students will be able to identify components and their relevance to industry and business contexts.
- Practical use of process control and improvement tools and techniques through their introductory application in laboratory sessions and case studies. - Students will be able to identify variation problems associated with industrial processes and apply the basic concepts and tools of statistical process control and improvement measures.

- Finally, the course will go through an overview of the leadership capabilities that are required for a quality environment to exist. - Student will be able to identify the phases of quality and their management.

IV. Learning Results

At the end of the course, students will be able to:

- Describe and contextualize quality in a given situation
- Identify quality frameworks, their components and techniques in order to apply them in the implementation of quality and their metrics
- Use and interpret methods and tools for process control and improvement
- Identify and describe the management and leadership skills required for quality programs.
- The ability to apply knowledge of mathematics, science, and engineering in the solution of complex engineering problems.
- The ability to create, select and use modern engineering and information technology techniques, skills, resources and tools, including prediction and modeling, with an understanding of their limitations.

V. Methodology

During the progress of the course, Quality Management and Customer Service, sessions will address the presentation and discussion of the theoretical aspects of the topic at hand, with the opportunity to practice and apply the subject matter using case studies and problem-solving exercises.

Students will prepare for class using their notes, case studies and readings assigned for each session. The material will be available prior to class on UEVirtual. Attendance and class participation will be recorded daily as it represents 10% of the PEP grade.

Learning Teams Activities

During the regular sessions, students will work in pairs or small informal groups to analyze cases or issues that we will discuss during the session. Student's participation is expected and included as part of PEP grade.

On the second week, the class will setup formal Learning Teams of 3 to 5 students; these Learning Teams will complete and present a Case Study before the Mid-Term Exam. If a student experiences difficulties working with his/her team, he/she should resolve those issues with his/her teammates, but if, however, that is not possible, please raise those issue with your teacher.

ESAN students work effectively in diverse groups and teams to achieve tasks and goals. They collaborate and function well in team settings performing leader as well as follower roles. They should respect diversity and behave in a tolerant fashion toward colleagues.

VI. Evaluation

The evaluation system is comprehensive and continuous with the objective of promoting learning in the student. The final grade is composed of Continuous Evaluation (PEP) (60%), Mid-Term exam – (EP) (15%) and Final exam – (EF) (25%).

The Final Grade (PF) is calculated using the following formula:

$$PF = (0,15 \times EP) + (0,60 \times PEP) + (0,25 \times EF)$$

Where:

PF = Final Grade

Promedio Final

EP = Mid-Term Exam Examen Parcial
PEP = Continuous Evaluation Promedio de Evaluación Permanente
EF = Final Exam Examen Final

The Average Permanent Evaluation is calculated based on the student's learning process follow-up: Reading Controls / Quizzes / Cases / Presentations / research work / Class contribution. The weighted average of these marks results in the corresponding score.

The Continuous Evaluation portion is calculated as follows:

AVERAGE PERMANENT EVALUATION (PEP) 60%		
Type of Evaluation	Description	Weight %
Class contribution	Involvement in discussions	15
Attendance	Attending class with video	5
Moodle Quizzes	Six quizzes (2% each, 1 is cancelled)	10
Theory Quizzes	Three Theory Quizzes (4 marks each)	12
Tests	Three tests (10 marks each)	30
Learning Team Case Study	Presented case report (before EP)	10
Individual project	A written individual project using quality tools with presentation (before EF)	18

VII. Programmed Content

WEEK	CONTENTS	ACTIVITIES / EVALUATION
<p>LEARNING UNIT I: INTRODUCTION TO QUALITY AND CUSTOMER SERVICE</p> <p>LEARNING OUTCOME:</p> <ul style="list-style-type: none"> Describe and contextualize quality in given situations. The ability to apply knowledge of mathematics, science, and engineering in the solution of complex engineering problems. The ability to create, select and use modern engineering and information technology techniques, skills, resources and tools, including prediction and modeling, with an understanding of their limitations. 		
<p>1° Aug, 23rd – 29th</p>	<p>1. INTRODUCTION</p> <ol style="list-style-type: none"> Course Introduction Introduction to Quality Quality Control, Quality Assurance and Quality Improvement Total Quality Management (TQM) <p>Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 1 & 2</p>	<p>Presentation: Course Methodology</p> <p>Guideline - review for Final Research Work</p> <p>Guideline - Review for UESAN written work presentation (APA Standards)</p> <p>Guideline - Effective Presentations</p> <p>MiniCases:</p> <ul style="list-style-type: none"> Skilled Care Pharmacy Eurocamp Travel
<p>2° Aug 30th Sep 05th</p>	<p>2. HISTORY OF QUALITY</p> <ol style="list-style-type: none"> Quality Gurus and their Philosophies Cost of Quality Quality and Customers <ol style="list-style-type: none"> Customer Service Customer driven design <p>Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 3 & 5</p>	<p>Presentations:</p> <ul style="list-style-type: none"> Quality Gurus Cost of Quality <p>MiniCases:</p> <ul style="list-style-type: none"> Ritz Carlton Lean in St James <p>Class Exercises:</p> <ul style="list-style-type: none"> Cost of Quality QFD <p>Assignment: Team Project due on week 7, last class</p> <p>Reading Control N°1 Evans/Lindsay. Managing for Quality.. , 8th Ed. Pages. 003 -138 and 189 - 227</p>

WEEK	CONTENTS	ACTIVITIES / EVALUATION
LEARNING UNIT II: APPLYING QUALITY LEARNING OUTCOME: <ul style="list-style-type: none"> • Describe and contextualize quality in given situations. • Identify quality frameworks, their components and techniques for the measurement and implementation of quality. • The ability to apply knowledge of mathematics, science, and engineering in the solution of complex engineering problems. • The ability to create, select and use modern engineering and information technology techniques, skills, resources and tools, including prediction and modeling, with an understanding of their limitations. 		
3° Sep 06th – 12th	3. QUALITY FRAMEWORKS <ol style="list-style-type: none"> 1. Introduction to the Quality Frameworks 2. Baldrige criteria 3. ISO 9001 standards 4. Lean / JIT 5. Six Sigma 	Presentations: <ul style="list-style-type: none"> - Quality Frameworks MiniCases: <ul style="list-style-type: none"> - ISO 9000 in Sears - Lean in St James - Quality at Xerox Test 1: LU I Reading Control N°2 Evans/Lindsay. Managing for Quality... , 8 th Ed. Pages. 089 - 138, 153 – 178 and 189 - 227
	Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8 th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 4	
4° Sep 13th – 19th	4. QUALITY IN ACTION <ol style="list-style-type: none"> 1. Process management 2. Quality in manufacturing: <ol style="list-style-type: none"> i. SMED ii. Poka Yoke iii. Applying JIT / Lean 	Presentations: <ul style="list-style-type: none"> - Process management - Quality in manufacturing MiniCases: <ul style="list-style-type: none"> - JIT in LÓreal - Lexus North America - Boys and Boden - Santa Cruz Guitar Co Theory Quiz 1: <ul style="list-style-type: none"> - Research Article 1
	Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8 th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 7	
5° Sep 20th – 26th	5. THE SEVEN QUALITY TOOLS	Presentations: <ul style="list-style-type: none"> - The 7 Quality Tools MiniCases: <ul style="list-style-type: none"> - PDCA and applying Quality Tools Reading Control N°3 Evans/Lindsay. Managing for Quality.. , 8 th Ed. Pages. 153 -178 and 305 - 342

WEEK	CONTENTS	ACTIVITIES / EVALUATION
6° Sep 27th Oct 03rd	6. QUALITY METHODS <ol style="list-style-type: none"> 1. Lean Thinking <ol style="list-style-type: none"> i. PDCA and A3 problem solving 2. Six Sigma <ol style="list-style-type: none"> i. DMAIC 	Presentations: <ul style="list-style-type: none"> - Lean Thinking - Six Sigma MiniCases: <ul style="list-style-type: none"> -
7° Oct 04th – 10th	7. QUALITY IN SERVICES	Presentations: <ul style="list-style-type: none"> - Quality in Services MiniCases: <ul style="list-style-type: none"> - JIT in restaurants - The State Univ Admission
	8. Mid-term Exam Briefing Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8 th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 02	
8° Oct 11th – 17th	MID-TERM EXAMS	
LEARNING UNIT III: PROOCES CONTROL AND IMPROVEMENT		
LEARNING OUTCOME: <ul style="list-style-type: none"> • Identify quality frameworks, their components and techniques for the measurement and implementation of quality; • Use and interpret methods and tools for process control and improvement • The ability to apply knowledge of mathematics, science, and engineering in the solution of complex engineering problems. • The ability to create, select and use modern engineering and information technology techniques, skills, resources and tools, including prediction and modeling, with an understanding of their limitations. 		
9° Oct 18th – 24th	9. PROCESS CONTROL I <ol style="list-style-type: none"> 1. Statistical Thinking, Accuracy and Precision 2. Process monitoring & data 3. Statistical Process Control (SPC) 	Presentations: Lab Sessions <ul style="list-style-type: none"> - Process Control I MiniCases: <ul style="list-style-type: none"> - JIT in restaurants - The State Univ Admission Reading Control N°4 Evans/Lindsay. Managing for Quality... , 8 th Ed. Pages. 047 – 76
	Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8 th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 10 & 13	
10° Oct 25th – 31st	10. PROCESS CONTROL II <ol style="list-style-type: none"> 1. Statistical Process Control (SPC) 2. Process Capability 	Presentations: Lab Sessions <ul style="list-style-type: none"> - Process Control II - Process Capability Exercises: <ul style="list-style-type: none"> - X-R Charts - p Charts - Process Capability MiniCases: <ul style="list-style-type: none"> - Process Design and Quality Planning Test 2: LU III

WEEK	CONTENTS	ACTIVITIES / EVALUATION
LEARNING UNIT IV: HIGH PERFORMANCE AND QUALITY LEADERSHIP		
LEARNING OUTCOME:		
<ul style="list-style-type: none"> • Describe and contextualize quality in given situations • Identify and describe the management and leadership skills required for quality programs. • The ability to apply knowledge of mathematics, science, and engineering in the solution of complex engineering problems. • The ability to create, select and use modern engineering and information technology techniques, skills, resources and tools, including prediction and modeling, with an understanding of their limitations. 		
11° Nov 01st – 07th	11. PERFORMANCE <ol style="list-style-type: none"> 1. Failure 2. Performance measurement 3. Performance management 	Presentations: <ul style="list-style-type: none"> - Failure - Performance Measurement - Performance Management MiniCases: <ul style="list-style-type: none"> - Monfort College - Service Recovery - Raydale Conference Centre - Wainwright vs Baptist Theory Quiz 2: <ul style="list-style-type: none"> - Research Article 2 Reading Control N°5 Evans/Lindsay. Managing for Quality.. , 8 th Ed. Pages. 479 -521 and 659 - 709
	Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8 th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 08	
12° Nov 08th – 14th	12. THE QUALITY WORKPLACE (JIKODA) <ol style="list-style-type: none"> 1. 5S 2. Respect for people 3. Workforce engagement 	Presentations: <ul style="list-style-type: none"> - Quality Workplace MiniCases: <ul style="list-style-type: none"> - You want us to... - Golden Plaza - Landmark - The MBA Candidate Final Project Advance
	Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8 th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 08	
13° Nov 15th – 21st	13. LEADING QUALITY <ol style="list-style-type: none"> 1. Leadership roles 2. Team leadership 	Presentations: <ul style="list-style-type: none"> - Leading Quality MiniCases: <ul style="list-style-type: none"> - The Power of Leadership - David Kearns Test 3: LU IV
	Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8 th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 06	
14° Nov 22nd – 28th	14. SUSTAINING QUALITY <ol style="list-style-type: none"> 1. The quality journey 2. The culture of quality 	Presentations: <ul style="list-style-type: none"> - Sustaining Quality MiniCases: <ul style="list-style-type: none"> - St Lukes Theory Quiz 3: <ul style="list-style-type: none"> - Research Article 3 Reading Control N°6 Evans/Lindsay. Managing for Quality.. , 8 th Ed. Pages. 245 -289 and 363 - 461
	Evans, J. R. and Lindsay, W. M. (2011) Managing for Quality and Performance Excellence, 8 th Edition. Madison OH: Cengage Learning [TS156 Q3E93 2015] Ch. 09	

WEEK	CONTENTS	ACTIVITIES / EVALUATION
15° Nov 29th Dec 05th	15. COURSE REVIEW 16. EXAM BRIEFING	Final Project Presentation
16° Dec 06th – 12th	FINAL EXAMS	

VIII. Bibliography

Mandatory Readings:

- Evans, J. R. and Lindsay, W. M. (2011) *Managing for Quality and Performance Excellence, 8th Edition*. Mason, OH: Cengage Learning. [TS156 Q3E93 2015]

Other Reading:

- Tague, N. R. (2005), *The Quality Toolbox*. 2nd edition. Milwaukee: ASQ Quality Press.
- Schein, E. H. (2017) *Organizational Culture and Leadership*. 5th edition. Hoboken:Wiley
- Durivage, M. A. (2015), *Practical Engineering, Process, and Reliability Statistics*.
- Okes, D. (2019), *The Core of Problem Solving and Corrective Action*. Milwaukee: ASQ Quality Press.
- Sowers, V. E. (2011). *Essentials of Quality*. London: Wiley.
- Grant, E. L., and R. S. Leavenworth. (1996). *Statistical Quality Control. 7th edition*. New York: McGraw Hill, [TS156 G7 1996]
- Harrington, H. J. (1995). *Total Improvement Management*. New York: McGraw Hill, 1995. [HD31 H345]
- ISO 9001 : 2015 quality management system

- **Other relevant books in ESAN Library:**
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- Lowenthal, Jeffrey N. (2002). *Six sigma project management: a pocket guide*. Milwaukee, WI: ASQ Quality Press. [TS156.8 L69e 2002]
- Melan, E., H., O. (1995) *Process management: a systems approach to total quality*. New York: Productivity Press. [HD62.15 M45]

Research Ethics:

PLEASE NOTE: Internet searches will often take you to non-academic information resources. You may supplement your research with these sources, but keep in mind that the information you find there may not be accurate, since it does not come under a formal oversight or peer-review process.

While you may use and cite non-academic resources such as Wikipedia when working on assignments, you may not rely on them exclusively. The majority of your sources should be peer-reviewed academic journals. Further, remember that you are responsible for the accuracy of any facts you present in your assignments and therefore should confirm the veracity of information you find on non-academic sources through further research.

IX. Lab Support

Lab sessions on weeks 9 and 10 for Statistical Process Control

X Professors

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