

# Total Quality Management

## A.A. 2024/ 2025

*Prof. Stefania Zanda*  
*II° Semester*

### **COURSE PROGRAM (2025)**

Fundamentals of management: managerial and operational functions

Management and strategy: decision system

The competitive priorities of the modern company

Production management and performance

Total Quality Management: definitions and principles

Quality system: Leadership / Suppliers / Customers

Continual improvement for the Excellence: beyond Kaizen

Process management

BPR, BRI, Six Sigma, DRW process management techniques

The quality control tools

The costs of quality

Quality and Sustainability: definitions and principles

Quality Function Deployment

Quality, Sustainability, Certification: Eco-management

Quality and Standardization, BS and ISO / Standards Environment / Business / Ethics

ISO IEC 27001- 2003 (information security)

ISO 9001-20015 structure, content, new requirements/ amendments 2024

"Future concepts in quality management" - Development of the new ISO 9001-2025

### **AIM OF THE COURSE**

The course aims to transfer skills, based on clear and schematic notions, methodologies, tools and application techniques used concretely in the various sectors of the production field.

Companies require young graduates with specific specialist skills that allow new hires to immediately tackle assigned tasks and solve problems by working individually or in teams, they are increasingly attentive to soft skills such as flexibility, problem solving and creativity. The course is designed to transfer and train students in terms of quality both from the point of view of management and from the point of view of the certification process, through which companies "exhibit" their distinctive abilities and their ability to interpret needs of society. But it is also structured to encourage the development of flexibility in dealing with problems by engaging everyone in a creative effort. Another goal of the course is to develop the ability to analyze problems and support teamwork. The teaching is interactive, developed according to the modern binary approach: learning practices / learning activities and final discussion

The course is structured according to various macro themes to transfer concepts, methodologies, techniques, to increase basic and transversal knowledge with respect to the topic of Quality and the evolution of Quality Management.

The contents are year by year aligned with new company strategies, market changes and customer behavior. Therefore, at the end of the course and the cycle of seminars on certification, the student will have acquired:

- specific language, basic concepts, knowledge and application skills of the practical tools required by companies and consulting firms in the field of production and quality management;
- a methodology for analyzing problems in the various production processes, to design, produce and supply products and services with a view to continuous improvement towards excellence.
- the ability to systematize the approach to critical issues and problems in business processes
- the techniques for analyzing and solving the main problems in terms of quality management in production and service companies.
- fundamentals of ethics and responsibility for business management
- HR management systems and the leadership style to build a Quality Management System.
- main pillars of Quality Standardization (Bodies, Coordinating Organizations, evolution of the Standards landscape), and of Certification, in particular of the standard relating to the ISO 9000 family management system, ISO 9001
- Compliance.

## EDUCATIONAL OBJECTIVES

We present the objectives of the course according to the setting of the five Dublin descriptors:

### 1) Knowledge and understanding upon completion of the course

At the end of the course, the student will have acquired the following skills:

- the terminology and underlying principles relating to them as foundations of business management
- definitions and concepts relating to Quality and Sustainability Management and to economic, environmental and social ethics, for business management.
- terminology, tools and management techniques relating to production management and quality in companies.
- understanding and classification of quality costs.
- understanding of the dynamics and techniques for managing processes
- BS, ISO international standards.
- certification process to support sustainable management and knowledge of national and international reference bodies.

- systems integration principle.
- acquire the skills to conceive and guide business management, management towards eco-efficiency, sustainability, ethics by pursuing excellence.
- orient students to responsible management and the need to give a moral foundation to governance, and in general to the production activity.
- knowledge of the ISO 9001 standard for systems management
- knowledge of Compliance Actions

## 2) Ability to apply knowledge and level of understanding

Regarding the various macro issues addressed in the Course:

- customer satisfaction for the production of goods and services
- management and techniques of production by processes
- construction and management of a Quality Management System
- quality management tools and indicators
- leadership and management of human resources for the quality of processes
- quality standardization and certification
- sustainability and responsible management

exercises, oral debates in the classroom and tests are scheduled, so that it is possible to progressively evaluate the level of understanding of the various topics and make students able to apply the concepts learned.

## 3) Critical judgment skills - 4) Ability to communicate what has been learned.

With regard to descriptors 3 and 4, analytical reports are provided starting from selected scientific papers, on specific topics, research on different topics to be carried out in teams following which students will have to present the work done, independently establishing the rules and roles in the team and the methods of presentation, expressing critical judgment and formulating individual or collective observations. The goal is to encourage the development of critical judgment, the autonomous organization of work, the ability to interact in team work, the improvement of problem solving and communication skills.

## 5) Ability to continue and deepen the study independently

During the course, open questions relating to some real case studies will be carried out, especially with regard to the standardization and certification of the quality of tests and exercises, to encourage the student's autonomy and develop interest in the subject, motivating to deepen different topics.

This 9-credit Course, prepares the students for a possible career in the field of Quality Management, to become a Quality Consultant or Manager and Production Manager. In addition, the more specialised part relating to quality 'standardisation' and the in-depth study of international standards also invites our undergraduates to pursue specialised careers in the field of Quality, which is why we have included in this part of the programme the involvement of accredited bodies such as Hiddea and Bureau Veritas, important players at national and international level in the field of Quality Certification systems.

The choice of a pathway that also includes the essential topic of Product and Process Quality and TQM also makes it possible to undertake professions that are today very much in demand and specific, such as evaluators, of management and environmental systems, experts in certification for the management of production systems, and in general all professions around social and economic environmental sustainability, but also in the area of occupational safety and compliance.

## CONDUCT OF LESSONS

The course 9 CFU takes place over three consecutive hours twice a week and is divided into lectures, classroom exercises, individual or in study group, business case studies, research and insights to be presented individually or in study group, periodic level verification of learning on different parts of program (2/3) and a final exam.

This year the part of the program relate on certification will be supplemented by case studies that will be exhibited with experts from a certification company. During the System Certification lectures, short tests will be given in order to acquire specific competences on ISO 9001, to facilitate students' learning and not include this technical part in the final exam.

## START OF THE COURSE

**February 19 – h 2 pm to 4 pm.**

Classroom ?

## CLASS SCHEDULE

Tuesday, Wednesday, h 2 pm - 4 pm

Thursday h 12 am to 2 pm

**Classroom ?**

## STUDENT OFFICE/Consulting

**February – June ( semester II )**

- Tuesday - after class
- Thursday 2 - 4 pm – ( by fixed appointment )

June – July : Tuesday – Thursday 11-13.

The students office will take place in the studio on the 2nd floor - *last room on the right side* - of the building “EX MERCEOLOGIA” by appointment .

## EXAMS all Sessions: 2024/2025

Fall Session 2024 : September 11

ONLY For attending students : May 29 /June 3 (pre application exam )

Winter Session 2025 : January 22 and February 18

Summer Session 2025 : June 11 and July 11

Extraordinary Session 2025 : April 22

Winter session 2026 : January 20 (2026) , February 19 (2026)

## HOW THE EXAMINATION IS CONDUCTED

### For attending students:

From this year, the following are planned:

- 1) 1- intermediate written test, with open-ended questions (exam tests)
- 2) a critical report on a scientific paper with final presentation (evaluation: insufficient 0/30 - fair 18/30- good 26/30- very good 28/30 - excellent 30/30)
- 3) For the part related to standardization/certification , short test and individual research work on assigned themes. For Erasmus students the exams can also be supported in English, French, Spanish. The dates for the intermediate tests are set in the classroom and each one covers different parts of the course. **The final grade is the result of the average of the three test/part- exam.**

The final exam is only oral for those attending who have passed the intermediate tests, it will take place as others test only **in presence.**

The grade of the final exam is the result of the assessments of the intermediate tests and the final assessment of the oral exam. For foreign and/or Erasmus students it can also be held in English, French, Spanish.

### For non-attending students:

There will be an oral exam lasting 40 minute with open questions, covering the entire program.

**For foreign and/or Erasmus students, it can also be held in English, French, Spanish.**

What do you have to study to take the final exam?

**For attending students** (it is necessary to have attended 80% of the lectures), **the slides** and 3 chapters of the book : 1-S. Zanda , *Buiding an Efficient Management and Leadership Practices*, (Springer, 2018.) that will be indicated during the course, are sufficient to prepare the exam.

**For non-attending students:**

- 1-S. Zanda , *Buiding an Efficient Management and Leadership Practices*, Springer, 2018.
  - 2- Jens J. Dahlaggaard, Kai Kristensen and Gopal K.Kanji, *Fundamentals of Total Quality management*, 2002
  - 3-Masaaki Imai, *GEMBA Kaizen: A Commonsense, Low-Cost Approach to Management*, 2nd edition, McGraw-Hill, 2012.
  - 2- John S. Oakland, *Total Quality Management and Operational Excellence*, 4th edition, Routledge, 2014.
  - 3- Barrie G. Dale, J. J. Plunkett, *Quality Costing*, 3rd edition, Routledge, 1999.
- and
- 4- J.M.Juran, - *Juran's Quality Control Handbook*, 4th edition, Frank M. Gryna (Editor), 1988.

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