



## Bachelor's courses School of Business and Economics

VU University Amsterdam - Student- & Onderwijszaken - Exchange programme Vrije Universiteit - 2018-2019



# Managing and Improving Quality

<b>Course code</b>	E_IBK3_MIQ ()
<b>Period</b>	Period 5
<b>Credits</b>	6.0
<b>Language of tuition</b>	English
<b>Faculty</b>	School of Business and Economics
<b>Coordinator</b>	dr. Y. Ghiami
<b>Examinator</b>	dr. Y. Ghiami
<b>Teaching method(s)</b>	Lecture, Seminar, Instruction course
<b>Level</b>	300

## Course objective

Managing and improving quality is a critical activity in any modern business organization. Quality is directly linked to productivity, competitiveness, customer satisfaction, business growth, elimination of waste and other non-value added activities, and overall business success. Cycle time and throughput is just as important in a hospital emergency room as it is in a semiconductor factory. Defects and errors don't occur just in factories, they occur in transactional and service business such as banks, insurance companies, and hospitals. Even your local and national governments have a keen interest in improving service quality in operations such handling tax forms and information requests, issuing driving licenses and international passports etc . Quality management has therefore become a well-known management philosophy, which has been adopted in many disciplines.

Contemporary organizations form networks with other businesses and organizations with which they have direct or indirect commercial relationships. These so-called supply chain networks aim at the integration of the integration of systems of customers, suppliers, technology and people to best meet customer demand. Successful quality management has the same ambition and scope. Quality management and improvement therefore represents an essential skill for supply chain managers. At the same time, the supply chain offers a unifying theme to apply the integration of systems of customers, suppliers, technology and people in quality management.

This course aims to equip students with practical quality management and improvement techniques using tools that are grounded in research.

Students learn how to describe and analyse quality problems (learning objective "academic and research skills") in order to understand the role of quality

management in organizations (learning objective "bridging theory and practice") Students

will be able to identify and select appropriate quality measurement and management techniques to study, quantify and improve a quality problem (learning objective "academic and research skills") and to apply results from

academic research in practical case settings (learning objective "bridging theory and practice") and critically reflect on the research (learning objective "academic and research skills"). Students present their findings

(learning objective "social skills").

## Course content

Quality problems usually are the outcome of uncontrolled or excessive variability in product or service characteristics that are critical to the customer. Statistical tools and other analytical methods play an important role in solving these problems. However, these techniques need to be implemented within a management structure that will ensure success. We focus on both the management structure and the statistical and analytical tools. We focus on the following aspects in the course:

- Management aspects of quality
- Statistical process control
- Acceptance sampling
- Process Design
- Quality Function Deployment
- Design of experiments for improving quality
- Six sigma methodology

We furthermore aim to involve students in the entire process of performing a quality assessment and improvement cycle by studying a real-life case.

### **Form of tuition**

Lectures  
Tutorials

### **Type of assessment**

Written exam – Individual assessment  
(Interim) Assignment(s) – Group assessment

### **Course reading**

To be announced

### **Recommended background knowledge**

For BK:

1.1 Business Processes; 1.1 Business Mathematics; 1.4. Business Statistics; 1.5 Supply Chain Management I; 2.4 Supply Chain Management II

For IBA:

1.1 Business Mathematics; 1.4 Global Supply Chain Management; 1.4. Business Statistics; 1.6 Business Processes; 2.5 SCM in Emerging Economies