

**NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY
BUS 208 - QUALITY AND PRODUCTIVITY MANAGEMENT (3 CR.)**

Course Description

Focuses on the key quality improvement concepts regarding products and services, customers and suppliers, and systems and processes that make quality a part of the work life of an organization. Emphasizes the role of teams, including team meeting skills and techniques, and a variety of quality improvement tools, such as flowcharts, run charts, Pareto diagrams, cause and effect diagrams, evaluation matrices, and implementation roadmaps. Lecture 3 hours per week.

General Course Purpose

This is a one semester course. The purpose of the course is to familiarize the student with the basic elements of total quality management and an introduction to directing and controlling operations - the activities in which people carry out the actual transformation of resources into products and services. The goal of the course is for the student to gain an understanding of the essentials of effective quality management, which begins and ends with the customer. The student should attain an applicable understanding of fundamental quality problems and alternatives available for dealing with these problems.

Entry Level Competencies

Recommended prior courses are BUS 200 - "Principles of Management" and BUS 220 - "Applied Business Statistics" or their equivalent.

Course Objectives

Upon completion of the course, the student will be able to:

- identify the activities involved in quality management and the roles of the customer, the processor and the suppliers
- understand why quality is important and the consequences of poor quality and how to assess quality, including the relationship between cost and quality
- know the application of basic probability concepts to statistical quality control, including use of the normal probability distribution
- familiarize him/herself with statistical process control, including how control charts are used to monitor a process, and the concepts that underlie their use
- identify the activities involved in Total Quality Management (TQM) and its impact on product/service design, conformance and customer satisfaction
- describe and use various quality tools
- familiarize him/herself with the concepts involved in capacity planning, facilities layout, work systems design, and location planning

Major Topics To Be Included

- A. Basic concepts and evolution of quality management
- B. The relationship of quality and productivity
- C. Basic probability concepts and the use of statistical tools
- D. Statistical process control
- E. Flow chart process
- F. Acceptance sampling
- G. Product/service design process
- H. Reliability

- I. Operations strategy and capacity planning
- J. Facilities layout
- K. Design of work systems
- L. Location planning and analysis

Extra Topics (optional)

- A. Forecasting
- B. Decision making process
- C. Linear programming
- D. Computer-based quality information system
- E. Specifications and inspection planning
- F. Quality audits
- G. Operations tour