

<u>AGB-940</u>	<u>Quality Management System in Agriculture</u>	3(3-0)
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1. **Course Description**

This course provides students the knowledge and technique required to improve product quality and process efficiency by identifying and measuring production process variability, which if not properly addressed, leads to inconsistent product quality, costly wastage, non-standardization and other reliability and productivity issues. The course introduces basic quality management concepts and definitions and builds on the knowledge to explore quality improvement techniques as means to diagnose, reduce, and eliminate causes of variation and to assist in process improvement, production control, production planning and decision making in agriculture.

2. **Educational Objectives**

The course focuses on

- Concepts of Total Quality Management
- Diagnosis of problems in quality improvement process
- Utilize techniques as a means to diagnose, reduce and eliminate causes of variation
- Analysis of data to improve processes, production controls, production planning and decision making

3. **Course Outcomes**

Upon successful completion of this course the students should be able to

- Explain concepts and definition total Quality Management
- Diagnose issues in agricultural production processes.
- Utilize techniques as a means to diagnose, reduce and eliminate causes of variations in agricultural processes
- Analyse data for process improvement, production controls, production planning and decision making

4. **Course Contents**

- Introduction to Quality Management Systems (QMS)
- Quality Management, Ethics and Corporate Social Responsibility
- Implementing Total Quality Management (TQM)

- Components of Quality Management System
 - Quality Policy
 - Quality Objectives
 - Quality Plan
 - Operation Procedure and Work Instructions
 - Forms and Checklists
- Introduction to ISO Standards
 - Guiding Principles of ISO
 - ISO Certifications
- Statistical Process control
- Source Verification/Traceability
- Quality Management Systems for Grain Markets
- Quality Management Systems in Livestock Industry
- HACCP for food industry
- Continual Improvement Methods
 - Six Sigma, Lean and Lean-Six Sigma
- Audit
 - Internal Audit
 - Third Party Audit
- Validation and Verification
- Overcoming Obstacles in QMS Implementation

Recommended Books

- Lean six sigma pocket Toolbook by Micheal L George, John Maxey, David Rowlands, Mark Price,(1st Edition). McGraw Hill Education. 2004
- Quality Management for Organisational Excellence: Introduction to Total Quality by D.L Goetsch and S.B Davis. (8th Edition). Pearson. 2016
- Quality Control in the Agricultural Company by Tim J Bulback, 2017