



INTECH-313 QUALITY CONTROL AND ASSURANCE

UNIVERSITY VISION

A leading University in advancing scholarly innovation, multi-cultural convergence, and responsive public service in a borderless Region.

UNIVERSITY MISSION

The University shall primarily provide advanced instruction and professional training in science and technology, agriculture, fisheries, education and other related fields of study. It shall also undertake research and extension services, and provide progressive leadership in its areas of specialization.

UNIVERSITY STRATEGIC GOALS

- a. Deliver quality service to stakeholders to address current and future needs in instruction, research, extension, and production
- b. Observe strict implementation of the laws as well as the policies and regulations of the University
- c. Acquire with urgency state-of-the-art resources for its service areas
- d. Bolster the relationship of the University with its local and international customers and partners
- e. Leverage the qualifications and competences in personnel action and staffing
- f. Evaluate the efficiency and responsiveness of the University systems and processes

INSTITUTIONAL OUTCOMES (IO)

- a. Enhance competency development, commitment, professionalism, unity and true spirit of service for public accountability, transparency and delivery of quality services
- b. Provide relevant programs and professional trainings that will respond to the development needs of the region
- c. Strengthen local and international collaborations and partnerships for borderless programs
- d. Develop a research culture among faculty and students
- e. Develop and promote environmentally-sound and market-driven knowledge and technologies at par with international standards
- f. Promote research-based information and technologies for sustainable development
- g. Enhance resource generation and mobilization to sustain financial viability of the university

PROGRAM OUTCOMES (PO) COMMON TO ALL PROGRAMS AND ITS RELATIONSHIPS TO INSTITUTIONAL OUTCOMES

A graduate of Sultan Kudarat State University can:	INSTITUTIONAL OUTCOMES (IO)						
	a	b	c	d	e	f	g
a. discuss the current developments and advancements in the specific field of practice;	✓	✓				✓	
b. demonstrate independently the 21 st century competencies and skills;	✓	✓		✓		✓	
c. work collaboratively in multi-disciplinary and multi-cultural groups;	✓		✓	✓	✓		
d. exhibit professional, social and ethical accountability;	✓	✓	✓	✓	✓		
e. preserve Filipino historical and cultural heritage;	✓	✓	✓	✓	✓		
f. generate new knowledge through data-driven research and development projects; and				✓	✓	✓	✓

Participate actively in the national, regional and local development plans.	✓	✓	✓	✓	✓	✓	✓
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COURSE CODE INTECH-313
COURSE TITLE Quality Control and Assurance
PREREQUISITE None
CREDITS 3 units

5 COURSE DESCRIPTION

This course provides an overview of the concepts and applications of Quality Control (QC) and Quality Assurance (QA), focusing on their use in construction, manufacturing, and service sectors. It discusses quality standards, inspection techniques, statistical tools, and the importance of QA systems in meeting customer and industry requirements. Learners will examine how quality influences productivity, costs, and competitiveness, while also studying the development of quality management and the principles of Total Quality Management (TQM). The course is designed to develop the students' ability to plan, apply, and assess quality systems that promote continuous improvement and organizational excellence.

6 COURSE LEARNING OUTCOMES (CLO) AND ITS RELATIONSHIPS TO PROGRAM OUTCOMES

Course Learning Outcomes (CLO)	Program Outcomes						
	a	b	c	d	e	f	g
At the end of the course, a student can:							
a. Explain the fundamental principles of quality control (QC) and quality assurance (QA) and their importance in construction, manufacturing, and service industries.	✓	✓	✓	✓	✓	✓	
b. Differentiate between quality standards, inspection methods, and statistical tools used in monitoring and evaluating quality.	✓	✓	✓	✓	✓	✓	✓
c. Analyze the relationship between quality, productivity, cost efficiency, and organizational competitiveness.	✓	✓	✓	✓	✓	✓	✓
d. Apply appropriate QA/QC tools and techniques to assess compliance with customer and industry requirements.	✓	✓	✓	✓	✓	✓	✓
e. Evaluate the role of quality management systems (QMS) and Total Quality Management (TQM) in continuous improvement.	✓	✓	✓	✓	✓	✓	✓
f. Demonstrate ethical responsibility and professional practice in implementing quality systems.	✓	✓	✓	✓	✓	✓	✓

7 COURSE CONTENTS

WEEK	CONTENT	INTENDED LEARNING OUTCOMES(ILOs)	TEACHING AND LEARNING ACTIVITIES (TLA)	OUTCOMES-BASED ASSESSMENT (OBA)	CO LEA OUT S (C
1	Course Orientation <i>SKSU VMGO, Classroom Policies, Course Overview, Course Requirements, Grading System</i>	At the end of the week, the pre-service teacher (PST) can: a. discusses the University's VMGO, classroom policies, course overview, requirements and grading system	Discuss the VMGO of the University, the classroom policies, scope of the course, course requirements and grading system		

	The Total Quality Approach to Quality Management: Achieving Organizational Excellence a. What is Quality b. The Total Quality Approach Defined. c. Two views of Quality. d. Key Elements of Total Quality. e. The future of quality management in the twenty first century. f. Quality Certifications.	At the end of the week, the pre-service teacher (PST) can: a. Define and explain the concept of quality in the context of products, services, and processes. b. Describe the principles and philosophy behind the Total Quality approach. c. Differentiate between product-based and user-based views of quality. d. Identify and explain the core elements and principles of Total Quality. e. Analyze emerging trends and challenges in quality management. f. Explain the purpose, process, and benefits of quality certifications.	a. Interactive lecture with real-world examples; brainstorming session on students' perceptions of quality. b. Lecture-discussion using case studies of successful organizations; video presentations. c. Class discussion with comparison charts; group activity analyzing quality from both perspectives. d. Lecture with concept mapping; collaborative group work to link elements to workplace scenarios. e. Seminar-style discussion; reading assignments from recent articles; group forecasting activity. f. Lecture with examples of certification processes; guest speaker from industry.	a. Short written quiz defining quality; group sharing of examples in different industries. b. Reflective essay explaining the Total Quality approach with reference to case study. c. Group presentation comparing the two views using a chosen product/service. d. Concept map submission highlighting key elements and their interrelationships. e. Written analysis predicting future developments and their implications for organizations. f. Assessment through a case analysis of an organization's certification journey.	a,b
3	Quality and Global Competitiveness a. The Relationship between quality and competitiveness. b. Cost of poor quality. c. Factors Inhibiting Competitiveness d. Comparisons Of International Competitors. e. Human Resources and Competitiveness	At the end of the week, the pre-service teacher (PST) can: a. Explain how quality influences global market competitiveness and organizational performance. b. Identify and compute the different components of the cost of poor quality (COPQ). c. Analyze internal and external factors that limit organizational competitiveness. d. Compare quality standards, practices, and performance of competing international organizations. e. Evaluate the role of human capital in achieving quality and competitiveness.	a. Lecture with real-world case studies; class discussion analyzing competitive brands. b. Problem-solving exercises; workshop using sample industry data; group brainstorming. c. Lecture-discussion; SWOT analysis activity in small groups. d. Research assignment; guided class debate on best practices between countries. e. Role-playing activity simulating HR decision-making; case study review.	a. Short essay describing the link between quality and competitiveness in a selected industry. b. Group report analyzing COPQ in a hypothetical scenario. c. Group SWOT analysis report with recommendations for improvement. d. Comparative research paper or presentation showing key differences in quality management practices. e. Written assessment proposing HR strategies to improve competitiveness in a chosen organization.	a,b,c
4	Quality Management, Ethics, and Corporate Social Responsibilities a. Definition and overview of ethics. b. Trust and total quality. c. Values and total quality. d. Integrity and total quality. e. Responsibility and total quality.	At the end of the week, the pre-service teacher (PST) should be able to: a. Define ethics and explain its importance in quality management and corporate social responsibility (CSR). b. Discuss the role of trust in achieving total quality within organizations.	a. Lecture and discussion; reading of ethical case studies. b. Interactive discussion; analysis of trust-building scenarios in teams. c. Group brainstorming of organizational values; mapping activity linking values to quality outcomes.	a. Written quiz on definitions and key concepts. b. Short reflection paper on how trust impacts quality improvement. c. Group presentation showing how specific values contribute to quality goals.	a,b,c

	<ul style="list-style-type: none"> f. Managers role ethics. g. Organization's role in ethics. h. Models for making ethical decisions. 	<ul style="list-style-type: none"> c. Identify core values that support total quality practices. d. Evaluate the importance of integrity in sustaining quality standards. e. Explain how corporate and personal responsibility influence quality performance. f. Describe how managers set ethical standards and promote quality. g. Analyze how organizations implement ethical policies to ensure quality. h. Apply decision-making models to resolve ethical dilemmas in quality management. 	<ul style="list-style-type: none"> d. Case study analysis of ethical vs. unethical quality practices. e. Role-play simulating responsibility in quality-related decisions. f. Guest lecture by an industry manager; facilitated Q&A session. g. Review of company codes of ethics; group debate on enforcement methods. h. Workshop on ethical decision-making models; problem-solving exercises. 	<ul style="list-style-type: none"> d. Individual written case analysis with recommendations. e. Role-play performance evaluation and peer feedback report. f. Reflection essay summarizing the manager's ethical leadership role. g. Group report evaluating an organization's ethical framework. h. Scenario-based assessment requiring application of an ethical decision-making model. 	
5	<p>Quality Culture: Changing Hearts, Minds, and Attitudes</p> <ul style="list-style-type: none"> a. Understanding what a quality culture is. b. Quality culture versus traditional cultures. c. Activating culture change. d. Changing leaders to activate change. e. Learning what a quality culture looks like. f. Countering resistance to culture change. 	<p>At the end of the week, the pre-service teacher (PST) can:</p> <ul style="list-style-type: none"> a. Define quality culture and explain its role in organizational success. b. Compare and contrast quality culture with traditional organizational cultures. c. Identify strategies to initiate and promote quality culture change. d. Explain how leadership transformation drives quality culture change. e. Recognize characteristics and indicators of a quality culture. f. Analyze sources of resistance and propose strategies to overcome them. 	<ul style="list-style-type: none"> a. Lecture with real-world examples; guided class discussion. b. Comparative analysis activity; group discussions. c. Workshop on change management techniques; brainstorming sessions. d. Guest lecture from a quality-focused leader; leadership role-play activity. e. Visual case study reviews; organizational assessment exercises. f. Simulation of resistance scenarios; class debate on overcoming barriers. 	<ul style="list-style-type: none"> a. Short quiz on the definition and benefits of quality culture. b. Group written comparison chart with examples from actual companies. c. Individual action plan outlining steps to activate quality culture in a case scenario. d. Reflection paper on leadership's role in activating cultural change. e. Checklist-based evaluation of a sample organization's culture. f. Written case analysis recommending solutions to address resistance. 	a,b,c
6	<p>Strategic Management: Planning and Execution for Competitive Advantage</p> <ul style="list-style-type: none"> a. What is strategic management. b. Competitive strategy. c. Core competencies and Competitive advantage. d. Components of Strategic Management 	<p>At the end of the week, the pre-service teacher (PST) can:</p> <ul style="list-style-type: none"> a. Explain the concept, scope, and significance of strategic management in achieving organizational goals. b. Differentiate types of competitive strategies and evaluate their effectiveness in various industries. c. Assess how an organization's core competencies contribute to achieving and sustaining competitive advantage. d. Identify and describe the major components of the strategic management process and their interrelationships. 	<ul style="list-style-type: none"> a. Lecture-discussion using industry examples. b. Group discussion on competitive approaches. c. Group collaboration in identifying competencies. d. Diagramming activity of strategic management stages. 	<ul style="list-style-type: none"> a. Short quiz or reflection paper defining strategic management and explaining its role. b. Group presentation analyzing a company's chosen competitive strategy. c. Written report or case analysis linking core competencies to competitive advantage. d. Individual assignment creating a strategic management framework for a selected company. 	a,

	Partnership and Strategic Alliances a. Partnering or strategic alliances b. Innovative and partnerships c. Internal partnering. d. Partnering with suppliers e. Partnering with potential competitors f. Global partnering g. Education and business partnerships	At the end of the week, the pre-service teacher (PST) can: a. Explain the concept, objectives, and benefits of forming strategic alliances in various industries. b. Evaluate how innovation can be fostered through strategic partnerships. c. Discuss methods for fostering collaboration within organizations to achieve shared goals. d. Analyze the benefits and challenges of building long-term supplier relationships. e. Assess strategic reasons for collaborating with competitors while maintaining market competitiveness. f. Examine strategies for forming and maintaining international alliances considering cultural and legal differences. g. Describe how partnerships between educational institutions and businesses create mutual value.	a. Lecture-discussion with real-world company examples. b. Lecture-discussion on innovative alliance. c. Group activity on internal communication and collaboration strategies. d. Lecture on partnering supplies. e. Group activity on Potential competitors. f. Lecture-discussion on Global Partnering. g. Group activity about education and business partnerships	a. Short quiz or written summary on key elements of strategic alliances. b. Group presentation proposing an innovative partnership idea. c. Reflection paper on the role of internal partnerships in organizational success. d. Written analysis of a successful supplier partnership case. e. Position paper on whether partnering with competitors benefits the industry. f. Report on a selected global alliance highlighting challenges and success factors. g. Proposal for an education-business partnership plan.	a,b,c
8	Effective Communication a. Factors Inhibiting Competitiveness b. Defining Communication c. Understanding communication as a process d. Recognizing inhibitors of communication e. Establishing a conducive communication climate f. Communicating by listening g. Understanding communication factors h. Communicating corrective feedback i. Improving communication j. Personality and communication	At the end of the week, the pre-service teacher (PST) can: a. Explain how poor communication can hinder organizational competitiveness. b. Define communication and its essential elements in organizational contexts. c. Illustrate the stages of the communication process and their interrelationships. d. Identify common barriers to effective communication and propose solutions. e. Discuss strategies for creating an environment that promotes open and clear communication. f. Demonstrate active listening skills in various communication situations. g. Analyze factors (cultural, social, organizational) that influence communication effectiveness.	a. Lecture with industry case examples; group discussion. b. Interactive lecture; concept mapping activity. c. Process diagramming workshop. d. Brainstorming session; small group activity on barrier identification. e. Role-playing scenarios; collaborative policy drafting. f. Listening exercises; paired conversation activities. g. Class discussion about understanding communication factors. h. Role-playing feedback delivery; video analysis. i. Workshop on communication improvement plans; group brainstorming. j. Personality assessment activity; group	a. Short written analysis of a case where communication affected competitiveness. b. Quiz on communication definitions and components. c. Diagram submission with explanation of each stage. d. Group report on identified barriers and strategies to overcome them. e. Written proposal for improving communication climate in a workplace. f. Observation checklist during listening skill demonstration. g. Essay discussing communication factors in a given workplace scenario. h. Performance-based assessment in simulated feedback sessions.	a,b,c

		<ul style="list-style-type: none"> h. Apply techniques for giving constructive feedback without causing defensiveness. i. Develop strategies for continuous improvement in workplace communication. j. Explain how personality traits affect communication styles and outcomes. 	sharing.	<ul style="list-style-type: none"> i. Submission of a personal or team communication improvement plan. j. Reflection paper linking personality assessment results to communication style. 	
9		MIDTERM EXAM			
10	Construction Quality Management <ul style="list-style-type: none"> a. Introduction to quality management b. The Relationship of Quality with Productivity, Costs, Cycle Time and Value. c. Quality Management d. Terminology e. Quality Evolution f. Pioneers of the total quality movement g. Quality control and quality assurance h. Total quality management 	<p>At the end of the week, the pre-service teacher (PST) can:</p> <ul style="list-style-type: none"> a. Explain the concept, purpose, and importance of quality management in construction projects. b. Analyze how quality directly affects productivity, costs, project duration, and overall value. c. Apply quality management principles in planning, monitoring, and improving construction processes. d. Identify, define, and appropriately use construction quality management terms. e. Describe the historical development and trends of quality management in construction. f. Recognize the contributions of pioneers. g. Differentiate between QC and QA, and demonstrate their practical applications in construction. h. Evaluate TQM principles and propose strategies for applying TQM in construction projects. 	<ul style="list-style-type: none"> a. Interactive lecture, class discussion, and real-world case examples. b. Group discussions, problem-solving with project scenarios. c. Workshop on drafting quality plans; role-play as project managers. d. Vocabulary drill; peer teaching and collaborative glossary building. e. Timeline creation activity; multimedia lecture on quality history. f. Lecture on the contributions of pioneers. g. Lecture on preparing QC/QA documents. h. Lecture on TQM implementation. 	<ul style="list-style-type: none"> a. Short quiz on the role of quality in construction. b. Short quiz on the quality with project outcomes. c. Presentation of construction quality management plan. d. Terminology quiz and oral recitation. e. Group presentation of a timeline or infographic on quality evolution. f. Short reports or comparative presentations of quality pioneers' philosophies. g. Submission of a sample QC/QA plan, checklist, or inspection form. h. Group proposal outlining TQM strategies for a specific construction scenario. 	a,b,i
11	Measuring project and corporate performance <ul style="list-style-type: none"> a. Typical example of a stakeholder map. b. Process of commitment. c. The seven stages of implementing KPIs. d. Process model. 	<p>At the end of the week, the pre-service teacher (PST) can:</p> <ul style="list-style-type: none"> a. Identify key project and corporate stakeholders and construct a stakeholder map that shows their roles, influence, and relationships. b. Explain the stages of building commitment among stakeholders and apply strategies to strengthen engagement in projects. c. Outline and apply the seven stages of KPI 	<ul style="list-style-type: none"> a. Interactive lecture; group brainstorming; workshop on stakeholder mapping using sample case studies. b. Role-playing exercise (stakeholder negotiations). c. Collaborative activity creating KPIs for a sample project. d. Lecture with visual models; group analysis of sample process models; simulation activity. 	<ul style="list-style-type: none"> a. Submission of a stakeholder map for a chosen project; peer evaluation of group outputs. b. Reflection paper on effective stakeholder engagement; situational exam questions. c. Group report with KPI framework; presentation of KPI implementation plan. 	a,

		<p>implementation in project or corporate settings.</p> <p>d. Analyze and apply process models for measuring and improving organizational and project performance.</p>		<p>d. Quiz and group activity about process model.</p>	
12	<p>Quality assurance and construction organizations</p> <ul style="list-style-type: none"> a. Generic model for the implementation of certified quality assurance system. b. The EFQM Excellence Model deployment. c. Deming dynamic control loop cycle. d. EFQM Excellence Model deployment. 	<p>At the end of the week, the pre-service teacher (PST) can:</p> <ul style="list-style-type: none"> a. Explain the components of a certified QA system and apply a generic model for its implementation in construction organizations. b. Describe the EFQM Excellence Model and evaluate its relevance to construction organizations. c. Illustrate the Deming Cycle (PDCA) and apply it to continuous improvement in construction processes. d. Critically assess how EFQM Excellence Model principles integrate with construction quality assurance strategies. 	<ul style="list-style-type: none"> a. Lecture-discussion on ISO standards; case study analysis of QA implementation in construction firms; group workshop to design a QA framework. b. Interactive lecture with sample EFQM framework; comparative group discussions on excellence models; review of real-world EFQM-certified companies. c. Visual lecture with process diagrams; class activity simulating PDCA application to a construction problem; small group exercises. d. Debate on strengths and weaknesses of EFQM in construction; collaborative synthesis activity. 	<ul style="list-style-type: none"> a. Group project: design a generic QA model for a hypothetical construction company; short quiz on QA system principles. b. Quiz with analysis questions. c. Practical assessment: students apply PDCA cycle to improve a sample construction process. d. Group presentation of an EFQM-based quality improvement plan; rubric-based evaluation of critical analysis. 	a.
13	<p>Developing organizational Learning</p> <ul style="list-style-type: none"> a. The criteria underpinning the RADAR concept. b. Competitive oriented management core concept. c. Management functional assessment (MFA) incorporating the RADAR concept. 	<p>At the end of the week, the pre-service teacher (PST) can:</p> <ul style="list-style-type: none"> a. Define the RADAR concept and explain the criteria that support its application in organizational learning and performance improvement. b. Analyze how competitive-oriented management principles contribute to organizational learning and sustainability. c. Apply Management Functional Assessment (MFA) with the RADAR framework to evaluate organizational processes and learning strategies. 	<ul style="list-style-type: none"> a. Lecture with visual aids on the RADAR model (Results, Approach, Deployment, Assessment, and Refinement); guided reading of EFQM framework; small group discussion on real-world cases using RADAR. b. Interactive lecture on competitive advantage and management practices; think-pair-share activity; case study review of competitive management practices in leading firms. c. Lecture with application with sample templates; group activity to simulate MFA on a chosen organization; instructor feedback and peer review. 	<ul style="list-style-type: none"> a. Short quiz on RADAR components; case analysis applying RADAR criteria to a construction/industrial scenario. b. Individual essay or reflection on the role of competitive management in driving organizational learning; rubric-based evaluation. c. Group presentation about Management functional assessment. 	a.

	Quality Management system for health and safety in construction <ul style="list-style-type: none"> a. Demings dynamic control loop cycle. b. Key components of the OHSMS, according to IOSH. c. Key components of successful health and safety identified by the HSE. d. Key components of OHSMS, according to the international labor Office. e. Framework illustrating the effects and outcomes of workplace health promotion. f. Timeline of occupational health and safety management standards. g. Process for developing an OHSMS. 	At the end of the week, the pre-service teacher (PST) can: <ul style="list-style-type: none"> a. Explain Deming's PDCA (Plan-Do-Check-Act) cycle and its application in construction health and safety management. b. Identify and describe the essential elements of an OHSMS as outlined by IOSH. c. Compare HSE-identified health and safety success factors with IOSH guidelines. d. Differentiate the ILO's OHSMS framework from other international standards. e. Evaluate how workplace health promotion initiatives impact organizational safety culture and worker well-being. f. Trace the historical development of OHSMS and explain its evolution over time. g. Design a step-by-step process for creating and implementing an OHSMS in a construction setting. 	<ul style="list-style-type: none"> a. Lecture with diagrams of the PDCA cycle; group activity applying PDCA to a construction site scenario. b. Guided reading of IOSH standards; class discussion; concept mapping activity. c. Comparative lecture; group debate on effectiveness; analysis of real-world accident prevention cases. d. Lecture and small group discussions. e. Health promotion programs and role-playing activity, multimedia presentation. f. Timeline-building activity (students create visual timelines). g. Workshop-style session; simulation exercise on designing an OHSMS plan; instructor and peer feedback. 	<ul style="list-style-type: none"> a. Quiz on PDCA steps; case study analysis applying PDCA to a health and safety issue. b. Written assignment identifying and explaining IOSH OHSMS components. c. Group presentation comparing IOSH and HSE frameworks. d. Quiz among IOSH, HSE, and ILO models. e. Essay analyzing the effects of a workplace health program; rubric-based assessment. f. Student-created infographic or timeline submission assessed with rubric. g. Develop and present an OHSMS plan for a hypothetical construction project. 	a,b,i
15	Team Building and Team Work <ul style="list-style-type: none"> a. Overview of team building and teamwork. b. Building teams and making them work c. Four Step approach to team building d. Character traits and teamwork e. Handling conflict in teams f. Structural inhibitors of teamwork g. Recognizing teamwork and team players h. Leading multicultural teams 	At the end of the week, the pre-service teacher (PST) can: <ul style="list-style-type: none"> a. Explain the importance of teamwork and its role in organizational success. b. Demonstrate strategies for forming effective teams and ensuring functionality. c. Apply the four-step approach (forming, storming, norming, performing) to practical scenarios. d. Identify essential character traits that promote effective teamwork. e. Propose solutions for managing and resolving conflicts within a team setting. f. Analyze organizational and structural barriers that prevent effective teamwork. g. Recognize and evaluate behaviors of effective team players. h. Develop leadership strategies for managing diverse and multicultural teams. 	<ul style="list-style-type: none"> a. Interactive lecture; brainstorming on benefits of teamwork; video presentation. b. Lecture about successful/failed teams; group activity forming mock teams. c. Role-playing activity of each team stage; guided discussion. d. Self-assessment exercises; class discussion on leadership vs. followership traits. e. Conflict-resolution role-play; small-group problem-solving exercises. f. Lecture with real-world examples; group brainstorming on inhibitors. g. Peer evaluation exercises; group discussion on traits of strong team players. h. Lecture with cross-cultural management examples; simulation activity. 	<ul style="list-style-type: none"> a. Short quiz; reflection paper on why teamwork matters. b. Group presentation proposing strategies to strengthen a team. c. Written analysis of team development stages in a real or simulated case. d. Individual reflection paper linking personal traits to teamwork effectiveness. e. Group reporting on resolving a given team conflict scenario. f. Short essay identifying inhibitors and proposing mitigation strategies. g. Group presentation about teamwork and team players. h. Action plan for leading a multicultural team in a workplace scenario. 	a,b

	Problem Solving and Decision Making. a. Problem solving for total quality b. Two models for solving and preventing problems. c. Problem solving and decision-making tools d. Employee involvement in problem solving and decision making e. Role of information in decision making. f. Using management information systems g. Creativity in decision making	At the end of the week, the pre-service teacher (PST) can: a. Explain the importance of structured problem solving in achieving total quality. b. Compare and apply two recognized models for problem solving and prevention. c. Identify and use common tools (e.g. flowcharts, decision matrix) d. Assess the importance of engaging employees in collaborative decisions. e. Analyze how accurate and timely information impacts the quality of decisions. f. Demonstrate how MIS supports effective problem solving and decision making. g. Apply creative thinking techniques to generate innovative solutions in decision-making processes.	a. Interactive lecture with case examples; class discussion on real workplace quality issues. b. Group activity applying models to sample problems; role play on prevention strategies. c. Workshop using tools on real/simulated data; hands-on exercises. d. Small group discussions; case study on participative management; brainstorming sessions. e. Lecture and data analysis exercise; group discussions on information reliability. f. Hands-on simulation using MIS examples; demonstration of MIS reports. g. Brainstorming, mind mapping, and role-playing activities.	a. Short quiz and reflection paper on problem solving for quality improvement. b. Group report analyzing a problem using two models with recommendations. c. Submission of tool-based solutions to a case problem d. Peer evaluation of group contributions; short essay on benefits of employee involvement. e. Problem solving evaluation on poor vs. well-informed decisions. f. Assignment: evaluate how MIS assists in solving a specific organizational problem. g. Presentation of innovative solutions to a given case; rubric-based evaluation of creativity.	a,b,c
17	Benchmarking a. Benchmarking defined b. Benchmarking versus reengineering c. Rationale for benchmarking d. Prerequisites to benchmarking e. Role or management in benchmarking f. Benchmarking approach and process g. Perpetual benchmarking h. Benchmarking resources	At the end of the week, the pre-service teacher (PST) can: a. Define benchmarking and explain its significance in quality management and performance improvement. b. Differentiate benchmarking from reengineering and identify their respective applications. c. Justify why organizations engage in benchmarking to achieve competitive advantage. d. Identify the critical prerequisites needed before conducting benchmarking (e.g., resources, leadership support, data). e. Assess how management influences the success of benchmarking initiatives. f. Describe and apply the stages in a benchmarking process (planning, data collection, analysis, implementation, monitoring). g. Explain the concept of continuous/perpetual benchmarking and its role in sustaining improvement.	a. Interactive lecture; class discussion on examples of benchmarking in industries. b. Comparative analysis activity; case study review of organizations applying both methods. c. Group discussion on business scenarios; analysis of company case examples. d. Brainstorming session; instructor-led workshop. e. Lecture with real-world examples; role-playing management decision-making. f. Process mapping activity; simulation exercise on benchmarking steps. g. Interactive discussion; case review of firms with ongoing benchmarking. h. Demonstration of online and library resources; guided research activity.	a. Short quiz and concept map summarizing the definition and purpose. b. Written reflection or table contrasting benchmarking vs. reengineering. c. Group presentation on rationale for benchmarking in a given case. d. Checklist creation by students outlining prerequisites for a hypothetical project. e. Essay evaluating management's role in benchmarking practices. f. Group report and flowchart illustrating the benchmarking process for a sample organization. g. Written assignment explaining how perpetual benchmarking is applied in practice. h. Quiz and group discussion about bench marking.	a,b

h. Identify key resources (tools, databases, networks) that support benchmarking.

FINAL EXAMINATION

Total No. of Hours: 54

8 COURSE REQUIREMENTS AND COURSE POLICIES

Each student is required to:

COURSE REQUIREMENTS

1. submit accomplished assignments, problem sets and a mini-research project;
2. prepare a comprehensive lecture notebook;
3. make a PowerPoint presentation, and a written summary of the assigned report;
4. discuss an assigned topic to report and participate in class discussions; and
5. pass the major exams (midterm and final)

COURSE POLICIES

Attendance: A student will be marked late if he/she enters the class 5 minutes after start of class period. Any student who comes to class 15 minutes after the scheduled time or always late for three consecutive meetings shall be marked absent.

Missed work or exam: Any student who missed to submit a work assignment or to take a test should consult the concerned instructor for immediate compliance

Cheating and Plagiarism: Any student who committed any form of academic dishonesty (e.g., copy-paste plagiarism) shall be given disciplinary action provided in the SKSU Student's Handbook

Use of Technology: Cell phones should be turned off while the session is in progress. Using laptops, notebook PCs, smart phones, and tablets shall be allowed only when needed. A scientific calculator (e.g. Casio fx-991ES) shall be utilized in solving.

9 GRADING SYSTEM AND RUBRICS FOR GRADING

GRADING SYSTEM

Midterm Grade	
Midterm Examination	50%
Attendance/ Class Participation	10%
Quizzes	15%
Project (E-Portfolio/ Lesson Plan)	15%
Assignment/Problem Sets	10%
TOTAL	100%

Final Term Grade	
Final Term Examination	50%
Attendance/Class Participation	10%
Quizzes	15%
Project (E-Portfolio/ Lesson Plan)	15%
Assignment/Problem Sets	10%
TOTAL	100%

FINAL GRADE	
Midterm Grade	50%
Final Term Grade	50%
TOTAL	100%

CRITERIA FOR THE INDIVIDUAL PERFORMANCE

CRITERION	Excellence 4	Good 3	Fair 2	Unsatisfactory 1
Understanding of QC/QA Concepts	<ul style="list-style-type: none"> ▪ Demonstrates comprehensive understanding of QC/QA principles, standards, and tools; clearly explains their applications in industry. 	<ul style="list-style-type: none"> ▪ Shows good understanding of QC/QA concepts with minor gaps in explanation or application. 	<ul style="list-style-type: none"> ▪ Shows partial understanding; explanation is basic and lacks depth. 	<ul style="list-style-type: none"> ▪ Shows little to no understanding; concepts are misunderstood or missing.
Application of Tools and Method	<p>Accurately applies QC/QA techniques (e.g., inspection, statistical tools, TQM practices) to solve problems or case studies.</p>	<ul style="list-style-type: none"> ▪ Applies tools and methods correctly in most cases, with some errors in process or interpretation. 	<ul style="list-style-type: none"> ▪ Applies tools in a limited or inconsistent way; results are incomplete or inaccurate. 	<ul style="list-style-type: none"> ▪ Unable to apply QC/QA tools; major errors or no attempt made.
Critical Thinking and Analysis	<ul style="list-style-type: none"> ▪ Provides insightful analysis linking quality with productivity, cost, and competitiveness; offers innovative solutions. 	<ul style="list-style-type: none"> ▪ Provides reasonable analysis with some connection to quality outcomes; solutions are practical but lack depth. 	<ul style="list-style-type: none"> ▪ Provides limited analysis; connections to quality outcomes are weak or unclear. 	<ul style="list-style-type: none"> ▪ Provides no meaningful analysis; work lacks logic or relevance.
Quality of Work Output	<ul style="list-style-type: none"> ▪ Work is well-organized, accurate, and professional, meeting all requirements with attention to detail. 	<ul style="list-style-type: none"> ▪ Work is organized and mostly accurate, with minor errors or missing details. 	<ul style="list-style-type: none"> ▪ Work is partially complete with noticeable errors and weak organization. 	<ul style="list-style-type: none"> ▪ Work is incomplete, disorganized, and inaccurate.
Individual Initiative and Responsibility	<ul style="list-style-type: none"> ▪ Consistently shows initiative, responsibility, and independence in completing tasks; demonstrates strong commitment to quality. 	<ul style="list-style-type: none"> ▪ Often shows responsibility and independence, with occasional need for guidance. 	<ul style="list-style-type: none"> ▪ Sometimes shows initiative, but relies heavily on guidance and support. 	<ul style="list-style-type: none"> ▪ Shows lack of initiative and responsibility; depends entirely on others.

10 REFERENCES

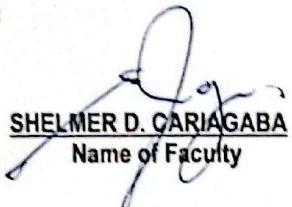
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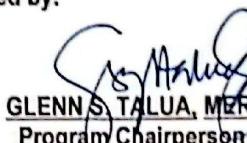
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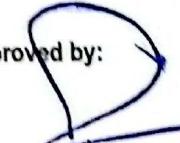
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