Quality Management System Manual for the Bachelor of Information Technology

2024

قسم تقنية المعلومات
كلية الحاسب

Qassim University
جامعة القصيم

Preface:

The Deanship of Development and Quality at Qassim University has adopted, as part of its supporting tasks, the facilitation of quality assurance procedures and processes derived from the Institutional Quality Guide and Quality Management System (QMS). This system was developed according to structured and clear mechanisms that outline the standards and practices of quality assurance.

In alignment with this framework and recognizing that quality is a shared and integrative responsibility, the Bachelor of Information Technology Program—offered by the College of Computer at Qassim University—presents its Program Quality Management System Manual (PQMS). This manual serves as a concise and comprehensive reference to ensure the achievement of the program's mission and objectives. It acts as a road map for quality management across all program operations, guiding faculty members in understanding their roles, tasks, and responsibilities, and facilitating the effective implementation of the quality cycle's stages.

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1. INTRODUCTION

Quality assurance is an integrated system of interconnected elements designed to implement and uphold various standards, providing a modern administrative framework for enhancing the performance of academic programs. This framework emphasizes the continuous development of student competencies, ensuring that graduates are well-prepared to seamlessly integrate into the workforce. It equips students with the adaptability to thrive in both academic and professional environments, ultimately achieving satisfaction among stakeholders across public and private sectors.

The evaluation and enhancement of program quality are grounded in internationally and locally recognized best practices and standards. These standards are consolidated into a comprehensive Quality Manual, which outlines the policies, regulations, systems, procedures, and operational guidelines for the program. Regular application, refinement, and measurement of these standards ensure the continuous improvement of educational quality, leading to high-performing graduates and impactful academic research that meet stakeholder expectations.

This manual serves as a definitive guide to the standards and procedures for quality assurance and development within the Bachelor of Information Technology Program at the College of Computer, Qassim University. It provides a clear framework for documenting required evidence, defining the roles and responsibilities of the program and its committees. The manual is fully aligned with the standards of the Education and Training Evaluation Commission (ETEC) and incorporates supplementary templates and models provided by the Deanship of Development and Quality at Qassim University.

By adhering to this robust quality assurance system, the Bachelor of Information Technology Program ensures that its operations are consistently effective, its graduates are highly skilled and competitive, and its academic contributions are impactful and aligned with national and international benchmarks.

2. QUALITY FRAMEWORK

The quality assurance framework for the Bachelor of Information Technology Program at the College of Computer, Qassim University, is built upon the institutional standards established by the university via The Deanship of Development and Quality. These standards are in alignment with the quality criteria set by the National Center for Academic Accreditation and Evaluation (NCAAA). This alignment serves two key purposes: first, the comprehensiveness of these standards, which encompass all components of colleges within the university; and second, their relevance to the local context of higher education in the Kingdom of Saudi Arabia.

Furthermore, the quality framework for the program integrates the standards and objectives defined by the Qassim University and the College of Computer. These standards guide the implementation of the college's approved quality system, ensuring that various activities and operations within the program are aligned with institutional goals and practices. This comprehensive approach ensures consistency, relevance, and adherence to both local and national quality benchmarks.

3. Objectives of the Quality Assurance System

1. Ensure clarity and transparency at the program level.
2. Provide clear and accurate information to stakeholders about the program's objectives.
3. Promote a culture of quality within the program through meetings, events, printed materials, and electronic communications.
4. Continuously develop the program to align with labor market and societal needs, adhering to national and international quality standards.
5. Update the program content, including courses and textbooks, to align with technological and scientific advancements.
6. Improve student learning outcomes to meet targeted quality indicators.
7. Strengthen the role of scientific research to serve academic, economic, and social realities.

8. Monitor the extent to which students benefit from support services and academic advising based on performance indicators and targets.
9. Continuously improve and ensure the quality of all program activities and operations.
10. Prepare the program for achieving national accreditation by the National Center for Academic Accreditation and Evaluation (NCAAA).
11. Regularly update the program's information database and upload files and reports to facilitate continuous monitoring of program performance.
12. Enhance the activities of committees related to quality assurance within the program to improve performance in accordance with the standards established by the NCAAA.

4. The Program Strategic Plan

4.1. University's Mission

Providing educational, professional, research, and consultancy services that support sustainable national development and enhance self-sufficiency. This is achieved within an inspiring, well-regulated environment that promotes innovation, technology, and partnerships.

4.2. College's Mission

Providing exceptional educational, scientific, and professional services based on the latest advancements in the field of computing. The program aims to prepare highly qualified scientific and technical professionals equipped to work and compete in various computing fields and pursue advanced studies. It also contributes to sustainable development through a dynamic, inspiring environment that fosters research, innovation, and national and international collaboration.

4.3. Department's Mission

Providing educational, research, and professional services in information technology to prepare competitive competencies and contribute to strengthening the economy and

sustainable national development; in a renewing environment that inspires and activates research and innovation for community service and partnership.

4.4. PROGRAM MISSION

Providing educational, research and professional services in information technology to prepare competitive competencies and to contribute to the promotion of the economy and sustainable national development; In a renewed, inspiring and stimulating environment for research and innovation, community service and partnership.

4.5. ALIGNMENT OF THE PROGRAM'S MISSION WITH THE UNIVERSITY'S MISSION

University's Mission						
Program Mission	Description	Providing Educational Services	Research and Consultancy Services	Enhanced Sustainable National Development	Inspiring and Regulated Environment	Activating Innovation, Technology, and Partnerships
	Providing Educational Services	✓				
	Providing Research and Professional Services		✓			
	Enhancing Sustainable Development			✓		
	Dynamic and Inspiring Environment				✓	

	Activating Research, Innovation, Technology, and Partnerships					✓

4.6. ALIGNMENT OF THE PROGRAM'S MISSION WITH THE COLLEGE'S MISSION

		College's Mission					
	Description	**Providing Educational Services**	**Providing Research and Professional Services**	**Preparing scientific and technical cadres with high qualifications, equipping them for work and competition.**	**Contributing to Sustainable Development**	**A dynamic, inspiring, and engaging environment.**	**Engaged in research, innovation, and partnership.**
Program Mission	**Providing Educational Services**	✓					
	Providing Research and Professional Services		✓				
	Preparing competitive professionals			✓			
	Contributing to Sustainable Development				✓		
	A dynamic and inspiring environment.					✓	
	Activated for research, innovation, technology, and						✓

	partnership.						

4.7. Alignment of the Program's Mission with the Department's Mission

		Department's Mission					
	Description	Providing educational services	Providing Research and Professional Services	Preparing competitive competencies	Contributing to strengthening the economy and sustainable development	In a renewing environment that inspires and activates research and innovation	For community service and partnership
Program Mission	Providing Educational Services	✓					
	Providing Research and Professional Services		✓				
	Preparing competitive competencies			✓			
	Contributing to the promotion of the economy and sustainable national development				✓		
	In a renewed, inspiring, and stimulating environment for research and innovation					✓	
	For community						✓

	service and partnership						

4.8. PROGRAM GOALS AND ALIGNMENT WITH THE PROGRAM'S MISSION

1. Ensure the quality of education in the program.
2. Raise the merit, competitiveness and professionalism of students.
3. Support and encourage scientific and applied research and innovation to promote sustainable development.
4. Enhancing community service and local partnership with technology companies.

No	Strategic Goal Text	Mission Component Related to the Goal
1	Ensure the quality of education in the program.	Providing educational, research, and professional services in the field of information technology.
2	Raise the merit, competitiveness and professionalism of students.	Preparing competitive professionals and contributing to enhancing the economy and sustainable national development.
3	Support and encourage scientific and applied research and innovation to promote sustainable development.	A dynamic, inspiring environment activated for research and innovation.
4	Enhancing community service and local partnership with technology companies	A dynamic, inspiring environment activated for community service and partnerships.

4.9. GRADUATE ATTRIBUTES

Codes	Attributes	Domain
1.1	A graduate with broad and comprehensive knowledge and understanding in the field of information technology.	Knowledge & Understanding
2.1	A graduate possessing the necessary skills for effective communication (verbal and written), collaboration, and information sharing in the field of information technology.	Skills
2.2	A graduate capable of analyzing and solving problems and presenting creative ideas in the field of information technology.	
2.3	A graduate with scientific and technical skills in the field of information technology.	
3.1	A graduate capable of working in and leading a team,	Values

	making appropriate decisions in the field of information technology.	
3.2	A graduate who demonstrates professional integrity and respects work ethics in the field of information technology.	

4.10. Program Learning Outcomes (PLOs)

Knowledge and Understanding	
K1	Explain information technology theories, abstraction, and mathematical foundations to solve computing problems and describe computing-based solutions.
K2	Identify software development principles and research methodologies to design, evaluate, and improve IT-based solutions, integrating contemporary advancements and security considerations.
Skills	
S1	Communicate effectively in a variety of professional contexts.
S2	Analyze complex problems and apply principles of computing and other information technology disciplines to identify solutions.
S3	Design, implement and evaluate a computing-based solution to meet a specific set of computing requirements in the context of an information technology major.
S4	Possesses the skills to effectively use modern technical and digital applications and information technology to form knowledge and innovative digital solutions to meet different needs in the field of information technology.
Values, Autonomy, and Responsibility	
V1	Work effectively as a team member or leader involved in activities appropriate to the information technology major.
V2	Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

Identify software devel
based solutions, integr

5. Organizational structure of the program quality management system.

The structure of the Bachelor of Information Technology program quality management system is organized into two levels, focusing on both the college-wide and program-specific dimensions.

5.1. COLLEGE LEVEL STRUCTURE AND ORGANIZATION

At the college level, as depicted in Figure 1, the system encompasses several key administrative and operational units and committees to ensure comprehensive quality assurance and management.

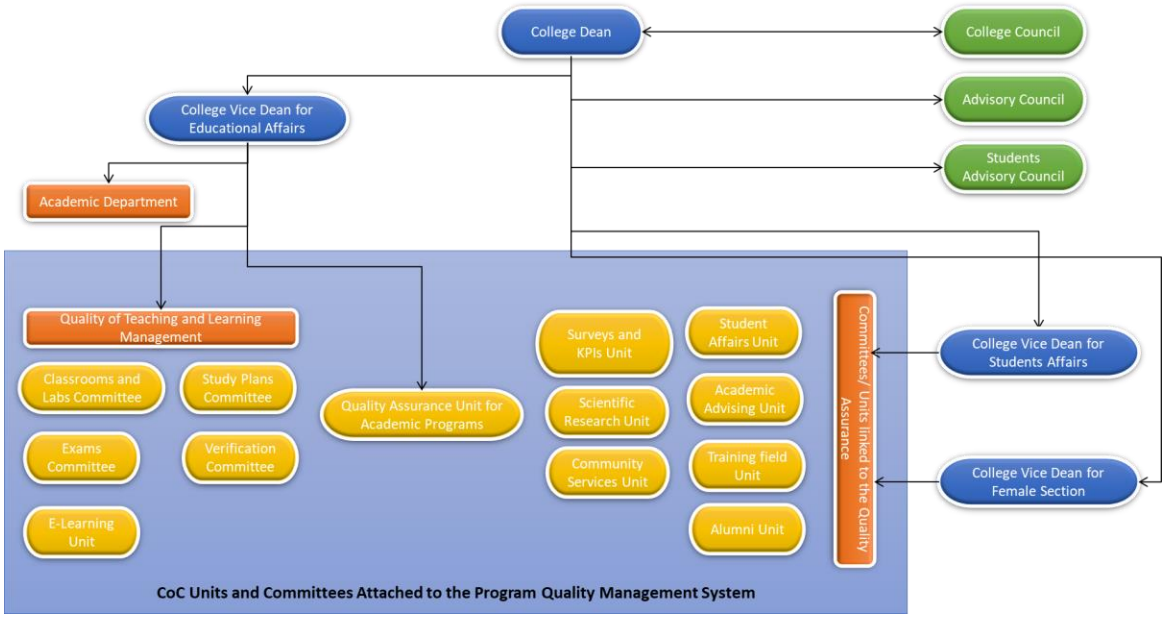

FIGURE 1: ORGANIZATIONAL STRUCTURE OF THE PROGRAM QUALITY MANAGEMENT SYSTEM- COLLEGE LEVEL

At the top, the **College Dean** leads the overall management of quality and academic activities, supported by the **College Vice Dean for Educational Affairs**, the **College Vice Dean for Student Affairs**, and the **College Vice Dean for the Female Section**, each overseeing distinct operational domains to ensure alignment and consistency across male and female sections. The **College Council**, the **Advisory Council**, and the **Student Advisory Council** further provide governance, strategic guidance, and feedback mechanisms to enhance decision-making and stakeholder engagement.

Key committees and units linked directly to quality assurance include the **Quality Assurance Unit for Academic Programs**, responsible for monitoring and improving program quality. This unit works closely with other operational entities like the **Surveys and KPIs Unit**, which gathers data for continuous improvement; the **Academic**

Advising Unit, focusing on student support; and the **Scientific Research Unit**, which fosters research activities aligned with the program's goals. Additional units, such as the **Community Services Unit**, **Training Field Unit**, and **Alumni Unit**, ensure that the program maintains strong ties with the community, industry, and graduates.

The **Quality of Teaching and Learning Management** branch ensures the continuous improvement of educational delivery. It is supported by various committees:

- The **Classrooms and Labs Committee** oversees the infrastructure and technical facilities necessary for effective teaching.
- The **Study Plans Committee** ensures the alignment of course content with program objectives and industry needs.
- The **Verification Committee** reviews and validates academic materials and assessment methods.
- The **Exams Committee** manages the integrity and organization of examinations.
- The **E-Learning Unit** facilitates the integration of digital tools and platforms into the learning process.

Together, these components form a robust quality management framework, ensuring that the Bachelor of Information Technology program adheres to national and international standards while addressing the needs of its diverse stakeholders.

The second level of the Bachelor of Information Technology program Quality Management System is organized at the Department level and is structured to ensure alignment with the College and University quality assurance systems. The organization, as depicted in Figure 2, highlights the roles and responsibilities of various committees and units that contribute to maintaining and enhancing program quality.

5.2. Departmental Structure and Committees:

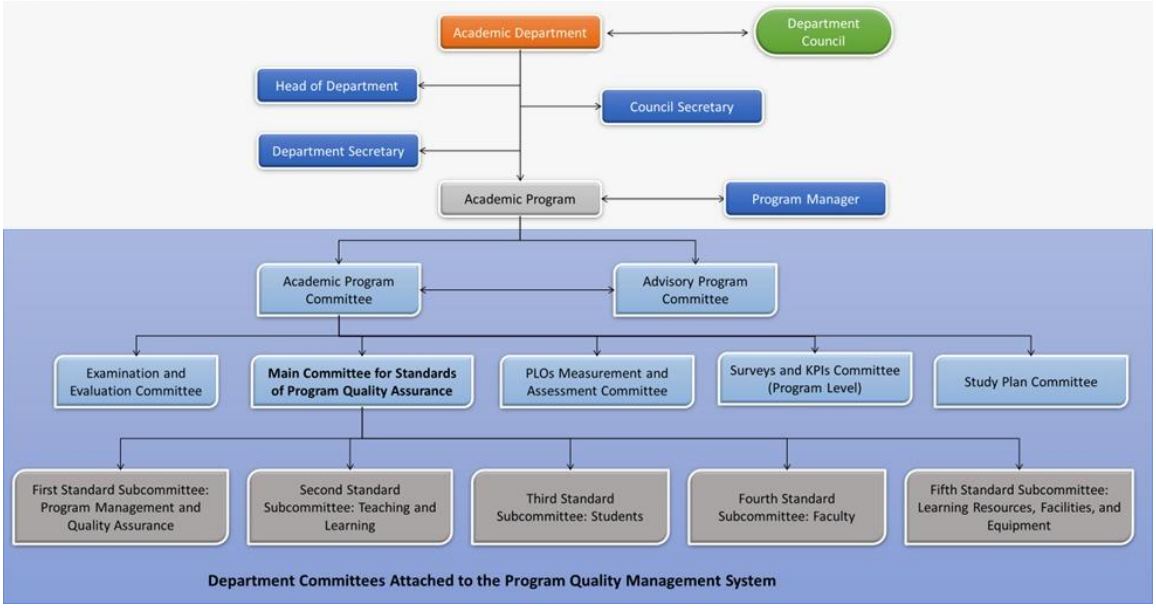

FIGURE 2: ORGANIZATIONAL STRUCTURE OF THE PROGRAM QUALITY MANAGEMENT SYSTEM- DEPARTMENT LEVEL

At the heart of the Departmental Quality Management System is the **Academic Program Committee**, which oversees and manages the academic program to ensure that it adheres to quality standards and aligns with the mission and goals of the program. This committee acts as a central body to coordinate quality-related efforts across the department.

The **Program Advisory Committee** plays a crucial role in guiding the program development process. It involves a selected group of stakeholders, including representatives from the labor market, quality assurance experts, and external program evaluators. This committee provides critical input on labor market requirements and ensures external program evaluations meet international and national standards.

The **PLOs Measurement and Assessment Committee** ensures the effectiveness of the assessment process at both course and program levels. It monitors the alignment of assessments with program learning outcomes (PLOs) and guarantees that evaluation methods accurately reflect student learning and performance.

The **Examination and Evaluation Committee** ensures the validity and reliability of exams and assessments. It reviews and verifies the correctness of exams and undertakes an analysis of student results to identify areas for improvement in the learning and assessment processes.

The **Study Plan Committee** is responsible for the continuous development and enhancement of the Information Technology program's curriculum. Its primary role is to ensure that the study plan remains academically rigorous, industry-relevant, and aligned with national and international accreditation standards while maintaining complementarity with other committees to avoid overlapping responsibilities.

The **Main Committee for Standards of Program Quality Assurance** is tasked with ensuring the correct implementation of quality practices as per the Qassim University Quality Management System (QMS) and the Program QMS manuals. This committee also oversees the academic accreditation process, working through five subcommittees:

1. **Program Management and Quality Assurance Subcommittee**
2. **Teaching and Learning Subcommittee**
3. **Students Subcommittee**
4. **Faculty Subcommittee**
5. **Learning Resources, Facilities, and Equipment Subcommittee**

- Surveys and KPIs Committee:

The **Surveys and KPIs Committee** is a pivotal part of the program-level quality assurance system. It measures the program's performance through approved surveys and key performance indicators (KPIs). This committee is responsible for fulfilling forms required by the Deanship of Development and Quality and maintaining consistency with the College-level unit. Notably, the head of this committee is also a member of the College's Surveys and KPIs Unit to ensure seamless coordination and alignment between the program and College-level practices.

- Integration with College-Level Quality Management:

The structure is designed to foster collaboration between the department and College-level quality assurance units. By ensuring that key committee members also participate in College-level units, the program aligns its quality management efforts with broader institutional goals. This integration guarantees a unified approach to quality assurance, fulfilling the accreditation and performance requirements set by national and international standards.

6. Quality Assurance Methodology

The committees, particularly those attached to Quality Assurance, adopt a Total Quality Management (TQM) approach to ensure the quality of all activities, guaranteeing the achievement of the program's mission and objectives while addressing the satisfaction of all stakeholders. This methodology integrates all program-related committees into the quality monitoring and continuous improvement processes. It is implemented across all activities through the active participation and collaboration of these committees, adhering to specified timelines and well-defined responsibilities to ensure inclusiveness and sustainability in achieving continuous improvements (Figure 1).

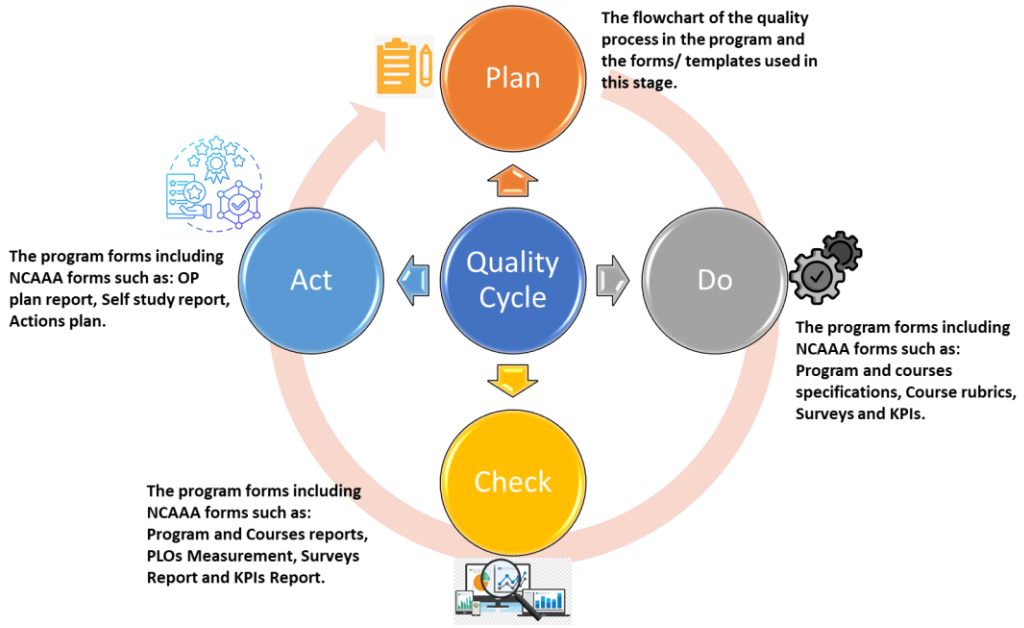

FIGURE 3: QUALITY CYCLE

In the **Planning Phase (Plan)**, the program outlines the essential features of each activity in alignment with its mission and strategic objectives. At this stage, the program establishes various planning forms, including NCAAA forms, to create structured plans such as the PLOs Assessment Plan, Scientific Research Plan, Community Service Plan, Faculty Training Plan, and the Operational Plan with its related KPIs. The involvement of all relevant stakeholders ensures that these plans are comprehensive, effectively aligned with the program's goals, and meet institutional requirements.

The **Implementation Phase (Do)** focuses on executing all the activities planned in the previous phase. This includes the preparation and implementation of Program and Course Specifications, distributing surveys to stakeholders such as students, faculty, alumni, and employers, and carrying out all established plans with the cooperation of relevant program committees. This phase ensures the systematic execution of plans, fostering active engagement from all parties involved.

In the **Review Phase (Check)**, the program undertakes a detailed evaluation of all activities. This involves the documentation, collection, and analysis of data to measure outcomes against the defined goals, performance indicators, and periodic review tools.

During this phase, all review forms, including NCAAA forms, are completed. These forms include Program and Course Reports, Survey Reports, KPI Reports, and PLO Measurement Reports. The findings are compiled into comprehensive reports that identify strengths, areas for improvement, and actionable recommendations.

The **Improvement Phase (Act)** ensures that the recommendations from the review phase are implemented effectively, thereby closing the quality loop and achieving continuous development. At this stage, all necessary improvement forms, including NCAAA forms, are completed. These include the Operational Plan Report, Self-Study Report (SSR), and Action Plan for the next cycle. This phase ensures that the program's activities remain aligned with its mission, meet stakeholders' expectations, and maintain adherence to national and international quality standards.

6.1. SURVEYS AND KPIS COMMITTEE (PROGRAM LEVEL) QUALITY CYCLE

The Surveys and KPIs Committee at the program level operates within a structured quality cycle to ensure systematic evaluation and continuous improvement. The quality cycle begins with the **Plan Phase**, developed in coordination with the Quality Assurance Unit at the college level. During this phase, the committee creates its executive plan, aligning it with the unit's objectives and adhering to the unified guidelines and main surveys set forth by the Deanship of Quality and Development. These surveys and key performance indicators (KPIs), standardized across the university, form the foundation for data collection and analysis, detailed in Section 9.

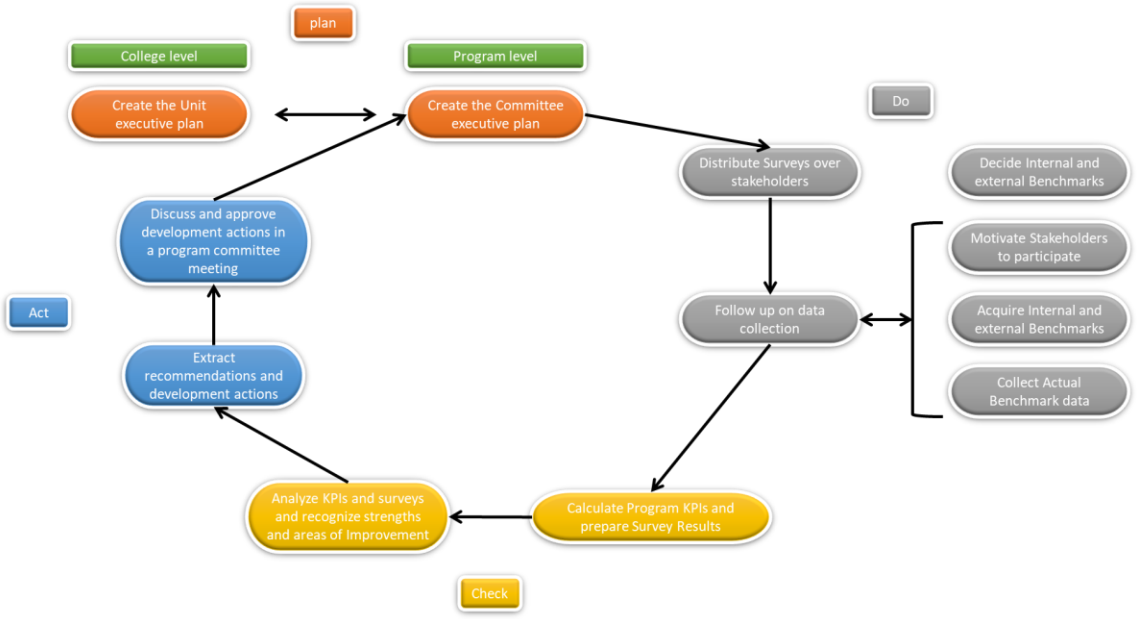

FIGURE 4: SURVEYS AND KPIS COMMITTEE QUALITY CYCLE

The **Do Phase** focuses on the implementation of planned activities, including distributing surveys to stakeholders, defining internal and external benchmarks, motivating stakeholder participation, and collecting actual benchmark data. The committee ensures effective follow-up on data collection to guarantee comprehensive participation and high-quality data.

In the **Check Phase**, the committee calculates the program KPIs and compiles survey results, analyzing these to identify strengths and areas for improvement. This thorough analysis serves as a basis for decision-making.

Finally, in the **Act Phase**, the committee extracts actionable recommendations and proposes development initiatives. These are discussed and approved during program committee meetings to ensure alignment with program goals and objectives. The cycle is iterative and promotes continuous improvement, ensuring the program maintains its quality standards while addressing stakeholder needs.

6.2. PLOS MEASUREMENT AND ASSESSMENT COMMITTEE QUALITY CYCLE

The **PLOs Measurement and Assessment Committee** operates through a structured quality cycle aimed at ensuring the effective evaluation and continuous improvement of Program Learning Outcomes (PLOs). The cycle begins with the **Plan Phase**, where the committee develops or updates the outcomes assessment plan in alignment with the program's objectives and benchmarks. This phase involves selecting courses, deciding on assessment levels and targets, and determining the methodologies for both direct and indirect assessments.

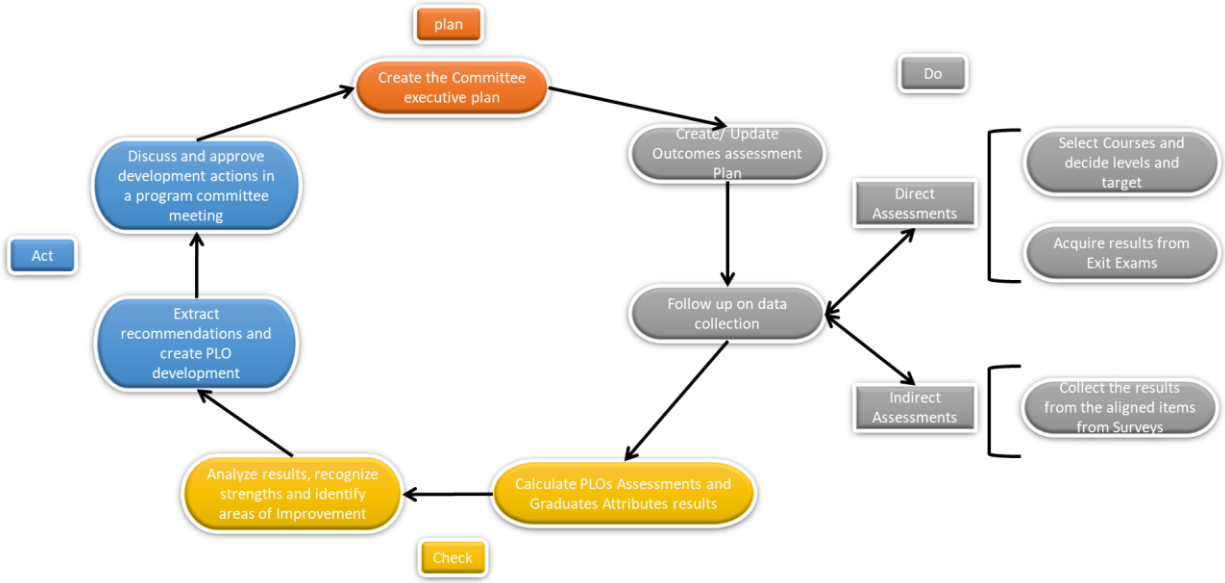

FIGURE 5: PLOS MEASUREMENT AND ASSESSMENT COMMITTEE QUALITY CYCLE

In the **Do Phase**, the committee implements the assessment plan by conducting direct assessments through course evaluations, acquiring results from exit exams, and collecting aligned survey data for indirect assessments. These activities ensure a comprehensive collection of data to evaluate PLO attainment.

The **Check Phase** focuses on analyzing the results of these assessments. The committee calculates the overall PLO achievement and evaluates graduates' attributes based on the collected data. This analysis identifies the program's strengths and highlights areas needing improvement.

Finally, during the **Act Phase**, the committee extracts actionable recommendations and formulates PLO development plans. These recommendations are discussed and approved during program committee meetings to ensure their alignment with the program's strategic goals. This iterative cycle ensures the sustainability of quality improvements and the achievement of program outcomes.

6.3. MAIN COMMITTEE FOR STANDARDS OF PROGRAM QUALITY ASSURANCE QUALITY CYCLE

The **Main Committee for Standards of Program Quality Assurance** operates through a structured quality cycle to ensure adherence to the program's quality management system and its alignment with institutional and accreditation standards.

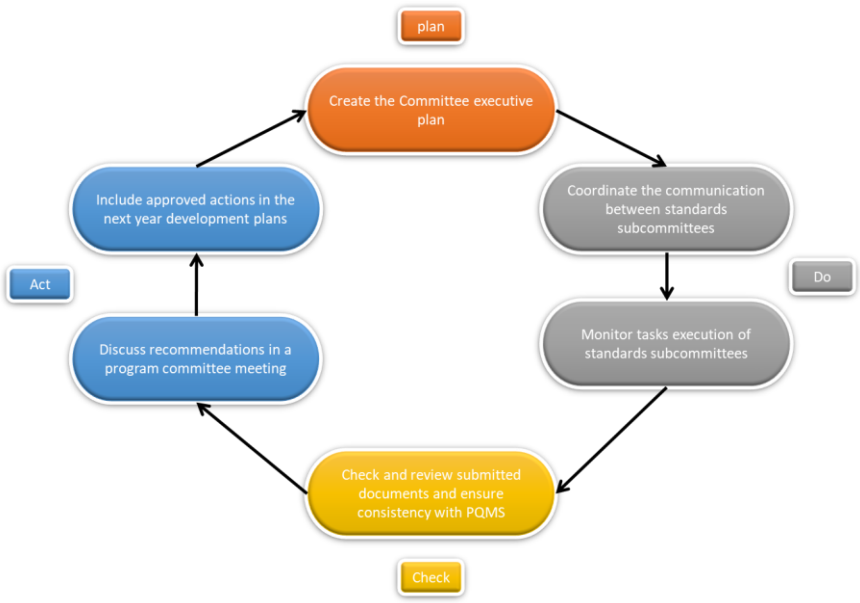

FIGURE 6: MAIN COMMITTEE FOR STANDARDS OF PROGRAM QUALITY ASSURANCE QUALITY CYCLE

1. **Plan Phase**:
    - The committee begins its annual cycle by formulating an **executive plan**. This plan outlines the objectives and tasks for the academic year, ensuring they align with the program's goals and accreditation requirements.

- This plan serves as a roadmap for coordinating actions among the committee and its subcommittees, ensuring consistency and focus on key quality benchmarks.

2. **Do Phase**:
   - **Coordination**: The committee facilitates communication and collaboration between its various subcommittees, ensuring all teams work towards shared quality goals.
   - **Monitoring**: Regular oversight is conducted to ensure the effective execution of tasks assigned to the subcommittees, ensuring alignment with the established standards and objectives.
3. **Check Phase**:
   - The committee performs a thorough review of all submitted documents and outputs from the subcommittees.
   - During this phase, the committee ensures that all documentation is consistent with the **Program Quality Management System (PQMS)** guidelines and adheres to institutional and national accreditation standards.
4. **Act Phase**:
   - The committee discusses the findings and recommendations from the review phase in program committee meetings, fostering collective decision-making.
   - Approved recommendations and identified areas for improvement are integrated into the **next year's development plans**, ensuring continuous enhancement and alignment with quality standards.

6.4. PROGRAM ADVISORY COMMITTEE QUALITY CYCLE

The **Program Advisory Committee** plays a vital role in supporting the development and continuous improvement of the academic program by engaging key stakeholders and ensuring alignment with labor market demands and accreditation standards. The committee's quality cycle, as illustrated in the diagram, follows a structured process that ensures the program remains relevant and effective.

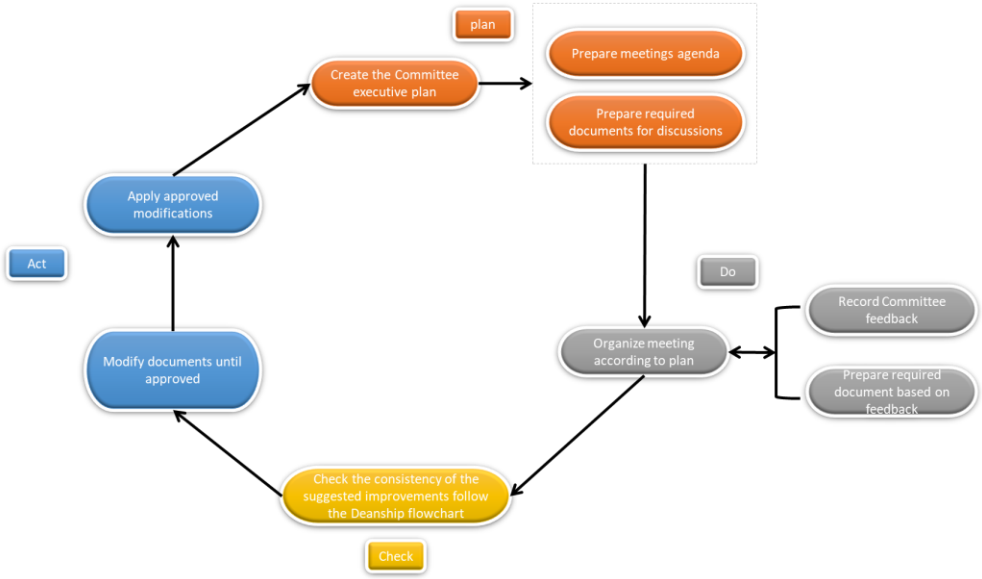

FIGURE 7: PROGRAM ADVISORY COMMITTEE QUALITY CYCLE

1. **Plan Phase**:
    - The cycle begins with the creation of the **Committee Executive Plan**, which outlines the goals, agenda, and strategies for the academic year.
    - The committee prepares for meetings by developing the **meeting agenda** and collecting **required documents** to facilitate productive and focused discussions.
2. **Do Phase**:
    - The committee organizes its meetings according to the plan, fostering collaboration among stakeholders and committee members.

- During these meetings, **committee feedback is recorded**, and any necessary **documents are prepared** based on the discussions and stakeholder inputs.

3. **Check Phase**:
   - The committee reviews and evaluates the proposed recommendations and improvements to ensure they align with institutional goals, labor market requirements, and accreditation standards.
   - The recommendations are checked for **consistency with the Deanship's flowchart** and institutional quality assurance frameworks to guarantee compliance and effectiveness.
4. **Act Phase**:
   - **Modifications** are applied to the program documents or processes based on the committee's feedback, ensuring all improvements meet the required standards.
   - Approved modifications are incorporated into the program, with updates included in the **next year's development plans** to maintain the program's alignment with institutional and stakeholder goals.

6.5. EXAMINATION AND EVALUATION COMMITTEE QUALITY CYCLE

The **Examination and Evaluation Committee Quality Cycle** ensures the integrity, validity, and continuous improvement of the assessment process within the academic program. This cycle is designed to monitor and enhance the effectiveness of examinations and related evaluation mechanisms, as illustrated in the diagram:

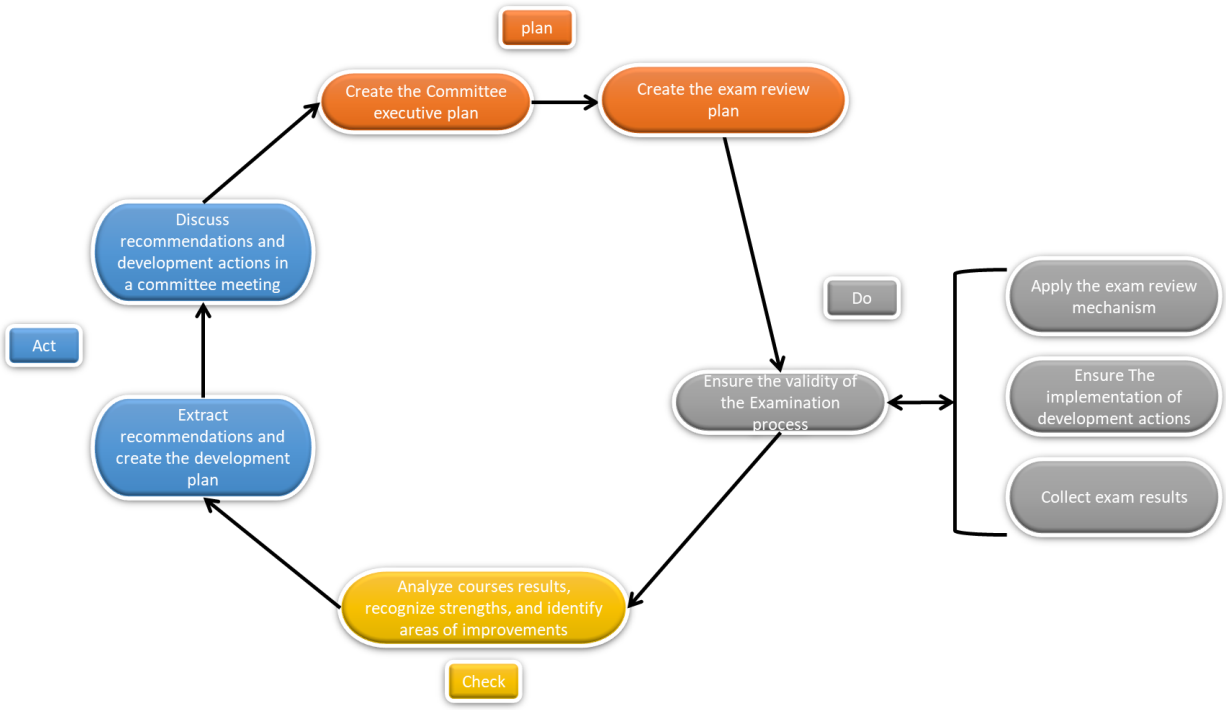

FIGURE 8: EXAMINATION AND EVALUATION COMMITTEE QUALITY CYCLE

1. **Plan Phase**
   - **Create the Committee Executive Plan**:

     The committee begins by formulating its executive plan, which outlines objectives, timelines, and responsibilities for managing examinations and evaluations.
   - **Develop the Exam Review Plan**:

     A detailed plan for reviewing exams is created to ensure that all assessment tools align with the intended learning outcomes and maintain academic rigor.
2. **Do Phase**
   - **Apply the Exam Review Mechanism**:

     The committee implements predefined mechanisms to evaluate the quality and validity of the exams and ensure they meet the required standards.

- **Ensure the Validity of the Examination Process**:

  The validity of the entire examination process is assessed to ensure that it aligns with the program's quality standards and objectives.

- **Ensure the Implementation of Development Actions**:

  Any development actions identified in previous cycles are implemented as part of continuous improvement efforts.

- **Collect Exam Results**:

  The committee gathers and consolidates exam results for further analysis.

3. **Check Phase**
   - **Analyze Course Results**:

     The collected exam results are thoroughly analyzed to identify strengths, weaknesses, and areas for improvement.

   - **Recognize Strengths and Identify Areas for Improvements**:

     The analysis helps the committee recognize well-performing areas and identify specific aspects that require development to enhance the assessment process.

4. **Act Phase**
   - **Discuss Recommendations and Development Actions in a Committee Meeting**:

     Based on the analysis, the committee discusses potential recommendations and development actions in their scheduled meetings.

   - **Extract Recommendations and Create the Development Plan**:

     Recommendations are formalized, and a detailed development plan is created to implement the necessary improvements in the next cycle.

6.6. ACADEMIC PROGRAM COMMITTEE QUALITY CYCLE

The **Academic Program Committee Quality Cycle** ensures the proper implementation, evaluation, and continuous development of the program's operational and academic activities. The following steps outline the quality cycle based on the diagram:

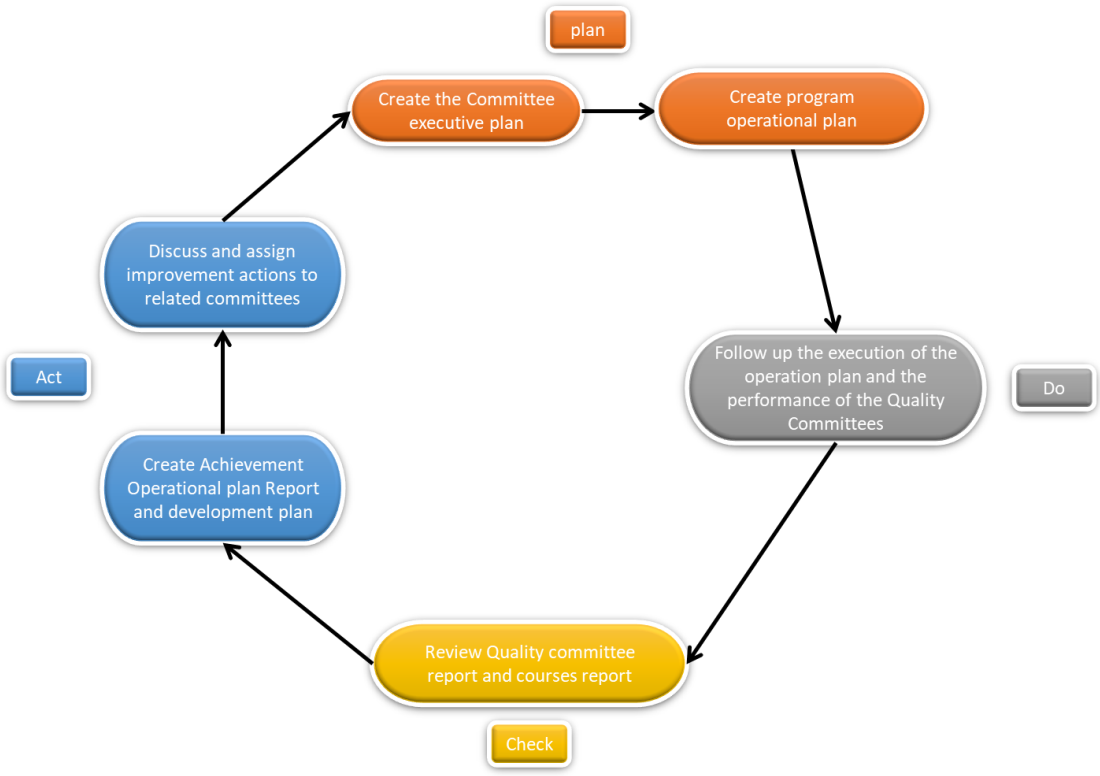

FIGURE 9: ACADEMIC PROGRAM COMMITTEE QUALITY CYCLE

1. **Plan Phase**
    - **Create the Committee Executive Plan**:

      The committee formulates its operational strategy, defining objectives, responsibilities, and timelines to guide its activities throughout the academic year.
    - **Create the Program Operational Plan**:

      The operational plan for the program is developed to align with the strategic goals and address specific tasks for all program-related activities, ensuring collaboration with other quality committees.

2. **Do Phase**

   - **Follow Up the Execution of the Operational Plan and the Performance of the Quality Committees**:

     The committee oversees the implementation of the operational plan to ensure all scheduled activities and tasks are executed effectively.

     The performance of various quality committees within the program is monitored to ensure adherence to established plans and objectives.

3. **Check Phase**

   - **Review Quality Committee Report and Course Report:** The committee evaluates data from the Quality Committee report and course reports. The analysis focuses on identifying strengths and recognizing areas requiring improvement in both academic and operational domains.

4. **Act Phase**

   - **Discuss and Assign Improvement Actions to Related Committees**:

     The committee convenes to discuss the analysis results and assigns specific development actions to relevant committees for implementation.

   - **Create Achievement Operational Plan Report and Development Plan**:

     Based on the findings and recommendations, the committee compiles an achievement report detailing the progress and prepares a development plan to address identified areas of improvement.

6.7. STUDY PLAN COMMITTEE'S QUALITY CYCLE

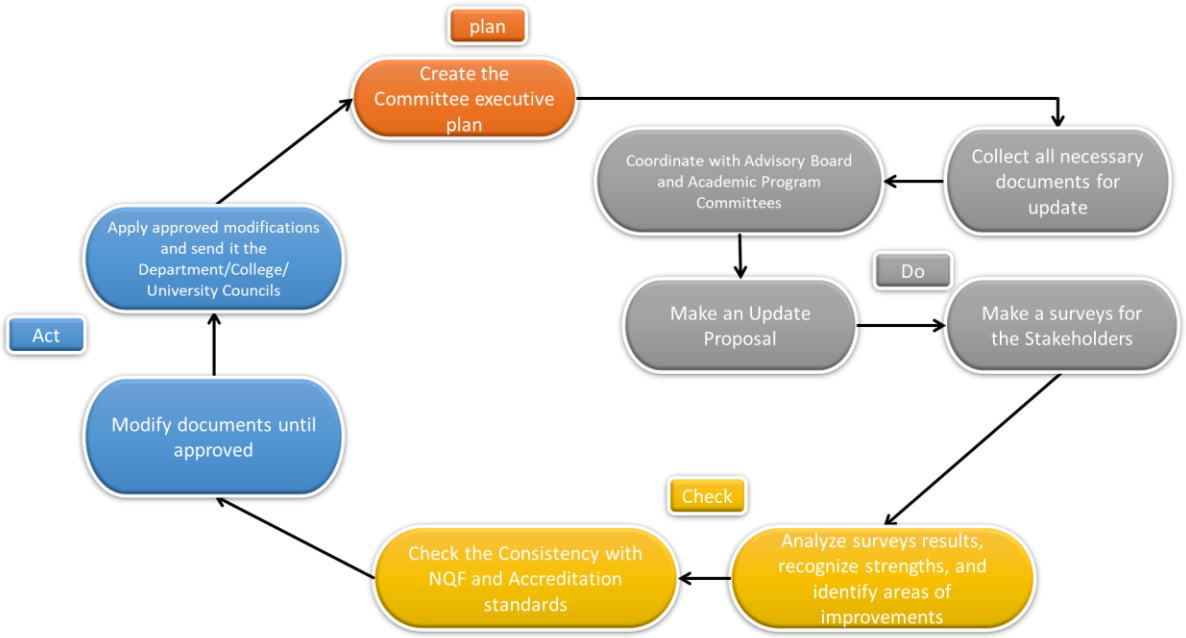

FIGURE 10: STUDY PLAN COMMITTEE QUALITY CYCLE

The **Study Plan Quality Cycle** illustrated in Figure 10 follows the Plan-Do-Check-Act (PDCA) framework, ensuring the continuous development and improvement of the Information Technology program's curriculum. This structured process guarantees that the study plan remains aligned with academic standards, accreditation requirements, and industry needs while maintaining stakeholder engagement and data-driven decision-making.

1. Planning Phase (Plan)

- The Study Plan Committee develops an executive plan that outlines the process for curriculum review and updates.
- This plan is designed to ensure alignment with NCAAA, ABET, and NQF requirements while maintaining the program's academic rigor.

2. Implementation Phase (Do)

- The committee coordinates with Advisory Board and Academic Program Committees to integrate expert recommendations.

- Essential documents and data related to the current study plan, course descriptions, learning outcomes, and program accreditation reports are collected.
- Surveys are conducted to gather feedback from students, faculty, alumni, and employers to ensure the study plan meets stakeholder expectations and market demands.
- Based on the collected data, an update proposal is formulated to enhance the study plan structure.

3. Evaluation Phase (Check)

- The collected survey results are analyzed to identify strengths, weaknesses, and improvement opportunities in the study plan.
- The proposed updates are reviewed to ensure consistency with:
    - National Qualification Framework (NQF)
    - Accreditation Standards (NCAAA, ABET)
    - Learning Outcomes (CLOs & PLOs)
    - Industry trends and technological advancements

4. Implementation & Continuous Improvement Phase (Act)

- The committee applies approved modifications and submits them to Department, College, and University Councils for final approval.
- If further revisions are required, the study plan documents are modified iteratively until they meet the necessary standards.
- Once approved, the new study plan is implemented, ensuring smooth adaptation to the updated curriculum.

6.8. THE SUPPORTING COMMITTEE'S QUALITY CYCLE

In addition to the **11** committees and subcommittees dedicated to Quality Assurance, the IT Program includes **18** Supporting Committees and Coordinators. These committees and coordinators are integral to the program's operations and are aligned with the units and committees of the College. Below is the list of Supporting Committees and Coordinators:

1. **Committees:**
    a. Scientific Committee
    b. Scientific Research Committee
    c. Academic Advising Committee
    d. Summer Training Committee
    e. Graduation Projects Committee
    f. Alumni Committee
    g. Members Development and Achievements Committee
    h. Higher Education Committee
    i. Readiness Assessment Committee
2. **Coordinators:**
    a. Community Service Coordinator
    b. E-Content Coordinator
    c. Scholarship Coordinator
    d. Student Affairs Coordinator
    e. Equivalency Coordinator
    f. Educational Affairs Coordinator
    g. Academic Scheduling Coordinator
    h. Labs and Technical Support Coordinator:
    i. Events and Activities Coordinator:

All the supporting committees follow the same Quality Cycle, as illustrated in the provided diagram (Figure 10). This cycle adopts a Plan-Do-Check-Act (PDCA) framework to ensure systematic evaluation and continuous improvement.

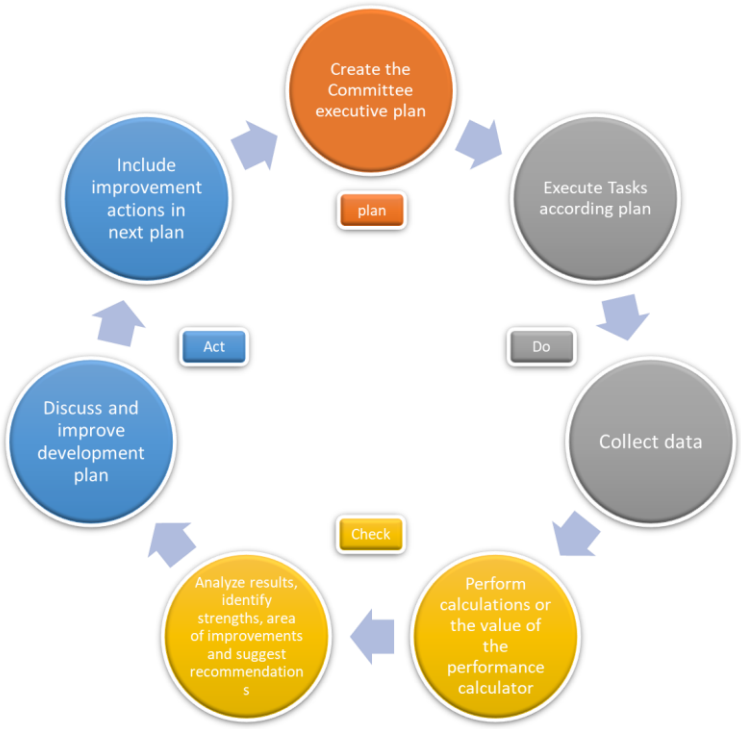

FIGURE 20: THE SUPPORTING COMMITTEE'S QUALITY CYCLE

Below is a description of each phase of the cycle:

1. **Plan: Create the Committee Executive Plan**
    - The process begins with creating an executive plan that outlines the objectives, tasks, and responsibilities of the committee. This plan serves as the foundation for implementing actions to achieve quality goals.
2. **Do: Execute Tasks According to Plan**
    - In this phase, the tasks outlined in the executive plan are carried out. The committee focuses on ensuring the effective implementation of the planned actions.
3. **Do: Collect Data**
    - Data is gathered during the execution phase to measure performance and outcomes. This includes monitoring results and tracking progress to provide a basis for evaluation.

4. **Check: Perform Calculations or Use the Performance Calculator**
    - The collected data is analyzed to calculate performance metrics or evaluate results using predefined tools or criteria, such as performance calculators.
5. **Check: Analyze Results, Identify Strengths, Areas for Improvement, and Suggest Recommendations**
    - The analysis phase involves reviewing the results to identify strengths, pinpoint areas requiring improvement, and propose actionable recommendations to enhance quality.
6. **Act: Discuss and Improve Development Plan**
    - The committee discusses the findings and recommendations, refining the development plan based on the analysis. This ensures that improvements are incorporated effectively.
7. **Act: Include Improvement Actions in the Next Plan**
    - Finally, improvement actions are integrated into the next iteration of the committee's plan, ensuring the cycle continues and fosters continuous quality enhancement.

7. THE IT PROGRAM UPDATE PROCEDURES AND PERIODIC REVIEW CYCLES

7.1. PROGRAM UPDATE PROCEDURES

Before delving into the update process applied in the Information Technology program, it is important to note that the process rigorously adheres to the deanship flowchart outlined in the university's Study Plan Establishment Guide, as depicted in Figure 12.

Qassim University grants sufficient permissions to college councils, departments, and program administrations to implement changes in study plans, provided these changes do

not alter the Program Learning Outcomes (PLOs) or affect the overall curriculum structure. For instance:

- **Course Specification Modifications:** Adjustments to course specifications can be proposed and approved at the department level by department councils and study plan committees within the program.
- **Program Specification Modifications:** Changes to program specifications that do not affect PLOs or involve the addition or removal of courses can be made and approved by college councils and college study plan committees.
- **Major Program Modifications:** Any changes to program specifications that involve reformulating PLOs, adding or removing multiple courses, or other significant curriculum alterations must receive approval from the Standing Committee of Study Plans and, ultimately, the Qassim University Council.

The following graph (Figure 12) illustrates the acceptable levels of study plan changes, the approval hierarchy, and the associated terms of reference.

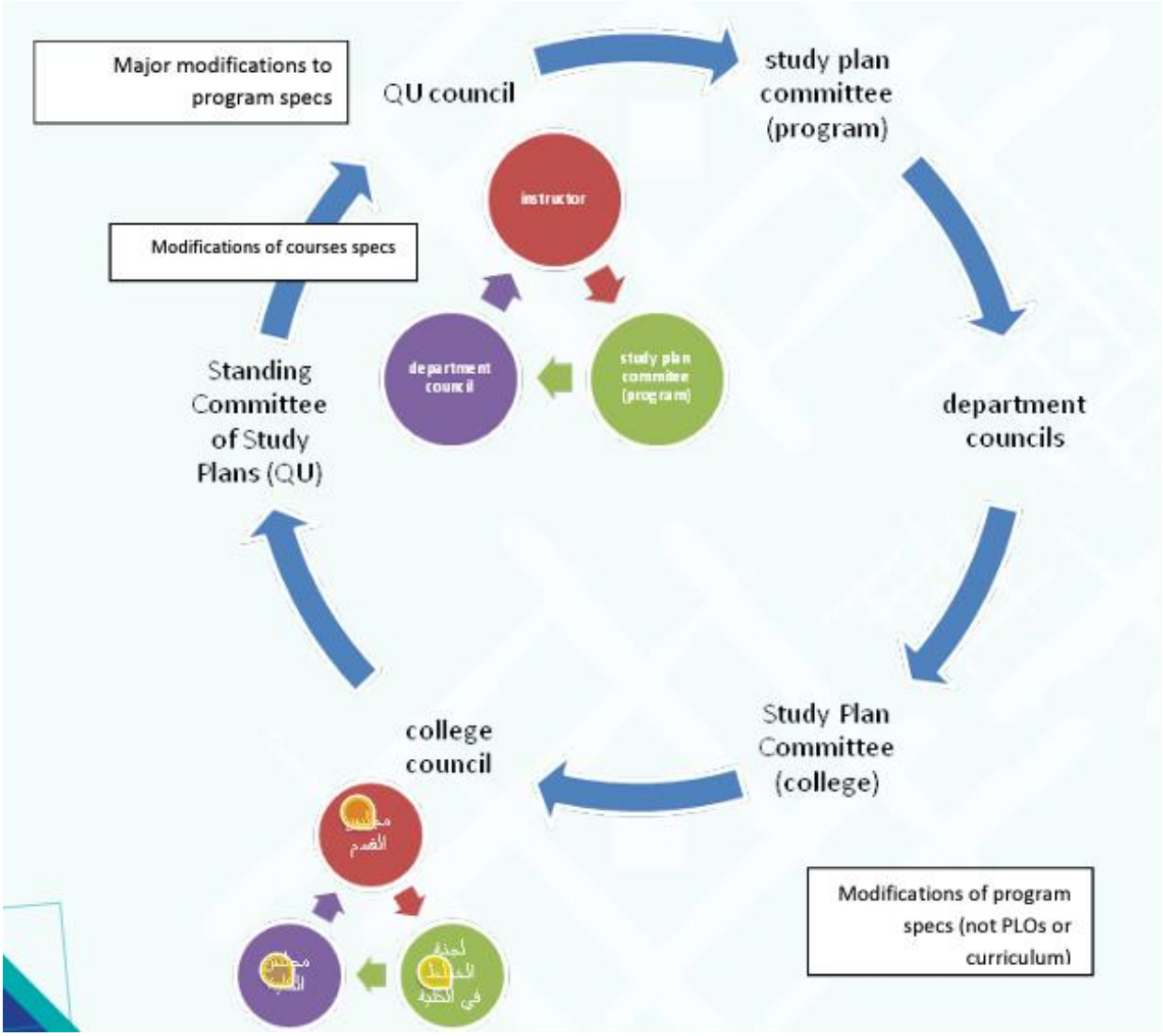

FIGURE 12: THE DDQ FLOWCHART IN SUPPORTING ACADEMIC PROGRAMS QUOTED FROM THE QU QMS GUIDE

At the department level, the Study Plan Committee has been restructured into two coordinated committees: The **Academic Program Committee** and the **Advisory Program Committee**. This restructuring aims to enhance the effectiveness of academic planning and decision-making by fostering specialized focus and collaboration between the two committees. In Figure 13, we present the flowchart adopted by the Information Technology program to manage updates. This flowchart illustrates all interactions and

recommended review processes, ensuring a systematic and collaborative approach to implementing changes.

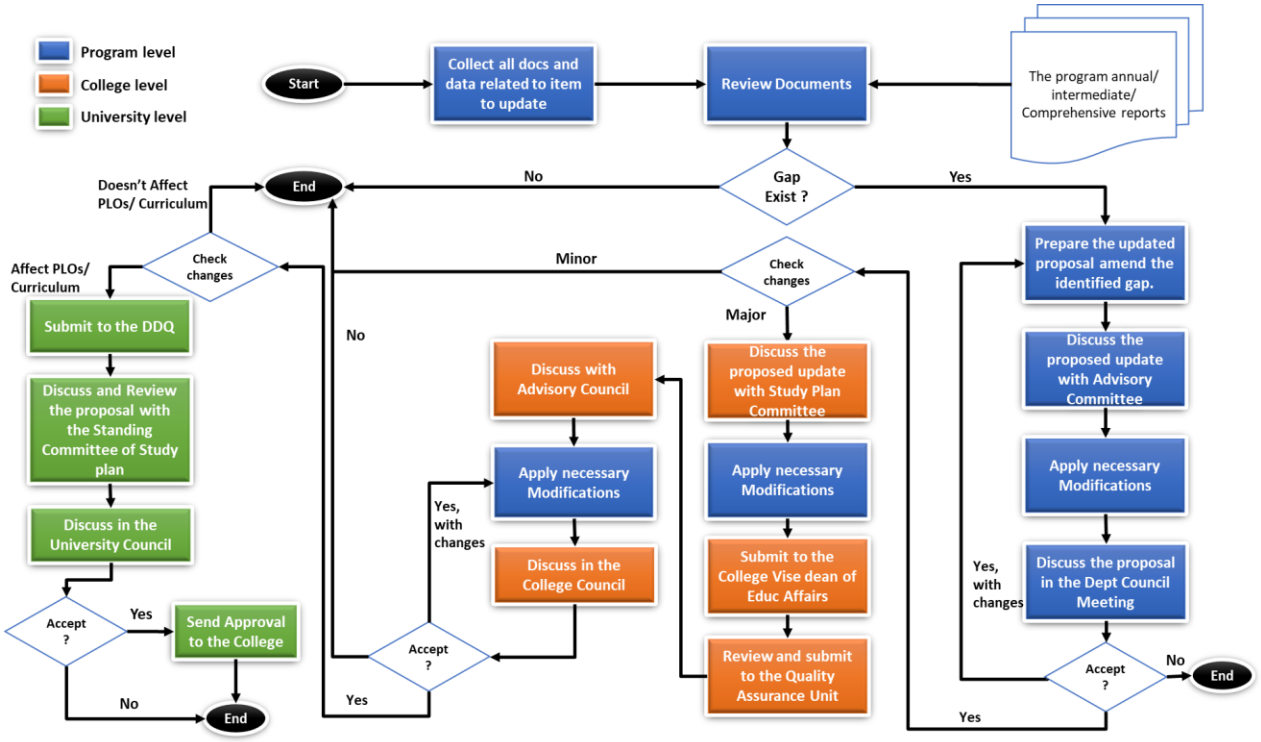

FIGURE 13: IT PROGRAM UPDATE PROCESS FLOWCHART

7.2. PROGRAM PERIODIC REVIEW CYCLES

The university outlines two periodic review cycles in the QU QMS Guide [Link], each with a defined timeline—one conducted annually and the other every five years. These structured review cycles ensure a systematic and comprehensive evaluation of the program, facilitating continuous quality enhancement and alignment with academic and industry standards.

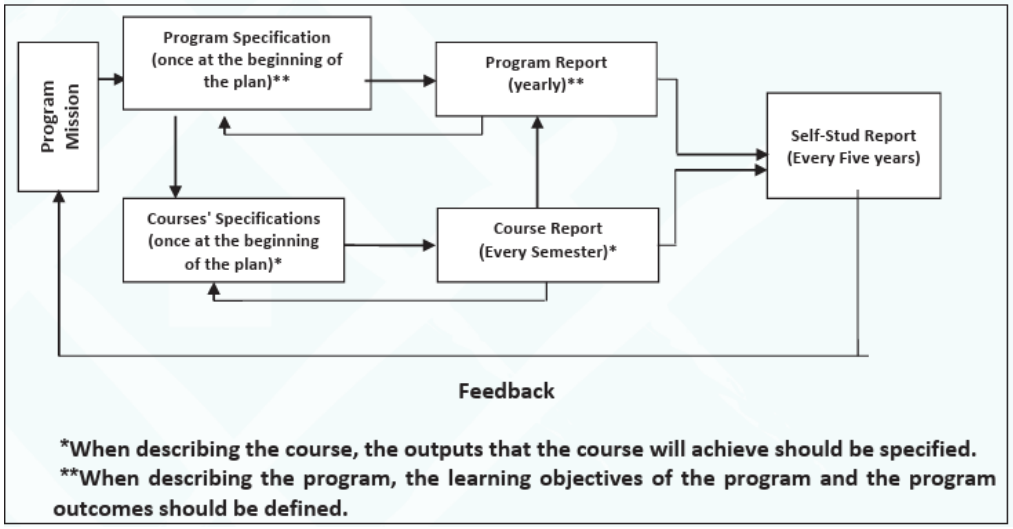

FIGURE 14: PROGRAM REVIEW CYCLES QUTOED FROM QU QMS GUIDE

Table 1 outlines the frequency of each review cycle, while **Figure 14** illustrates the relationship and interdependence between these cycles. **Table 2** provides a detailed breakdown of the elements reviewed in the annual, and comprehensive evaluation cycles.

The review cycles follow a hierarchical approach:

- **Annual Review Cycle:** Focuses on specific, high-priority elements that require frequent assessment.
- **Comprehensive Review Cycle (Five-Year Cycle):** Includes all elements from the annual cycles, alongside broader aspects of the program to ensure a holistic evaluation.

In essence, all items reviewed in the annual review cycle are included in the comprehensive review cycle as illustrated in **Figure 14**. This layered approach ensures thorough and continuous program improvement.

TABLE 1: IT PROGRAM PERIODIC REVIEW CYCLE

Program review cycle	Triggered	Based on
Annual Cycle	Every year	Program development plan
Comprehensive Cycle	Five years	SSR Report

TABLE 2: THE ITEMS REVIEWED IN THE ANNUAL AND COMPREHENSIVE PROGRAM EVALUATION CYCLES

The IT program annual review Cycle	The IT program Comprehensive review cycle
Program educational needs	The Program Mission
Program enrolment capacity	The Program Goals
Program disclosed information	The Program Graduate Attributes
Formation of quality committees	Review Alignments matrices: 1. Mission alignment matrices 2. Goals alignment matrices 3. GA alignment matrix
Program operational plan Internal and external benchmarks	Program Key Performance Indicators (KPIs)
IT program consistency with NQF IT program consistency with ETEC specialized standards IT program consistency with international academic standards. Consistency with NCAAA forms	The Study Plan: 1- Program total credit hours 2- The levels of courses 3- Career opportunities. 4- Course credit hours and contact hours. 5- Exit points. 6- Elective courses 7- Courses pre-requisites
1- Course content 2- Course practical tools 3- Course references 4- Course teaching and learning strategies 5- Course assessment methods 6- Course assessment calendar 7- Course disclosed information	
The Course Learning Outcomes (CLOs)	The Program Learning Outcomes (PLOs)
Review Alignments matrices: - CLO/PLO Matrix	Review Alignments matrices: 1. PG/PLO Alignment

	2. PLO/GA Alignment 3. Program/Courses Matrix
The CLOs Performance Indicator Rubrics	The PLOs Performance Indicator Rubrics
Course study Plan	PLOs Assessment Plan and targets
Course specifications Course matrix	Program specifications
Internship training sites	Internship training policies and regulations
Alignment of professional certificates	Partnerships Competencies and Professional skills for the next five years
Activated services and systems provided to the IT program's stockholders	
The faculty member and employee annual job charters	Tasks and authorities of faculty members, employees and technical staff.
Learning resources and facilities	New Laboratories

7.3. Program Update Policy and Procedure

In this section, a comprehensive guide is provided for updating courses and programs. The overarching process has been previously outlined in Section 7.1. Here, we will delve into the details of both major and minor updates at the course and program levels. Figure 15 illustrates the structured relationship between these updates, ranging from minor course modifications to the approval of an entirely new program. This structured approach ensures that all updates align with institutional policies, accreditation requirements, and evolving academic and industry standards.

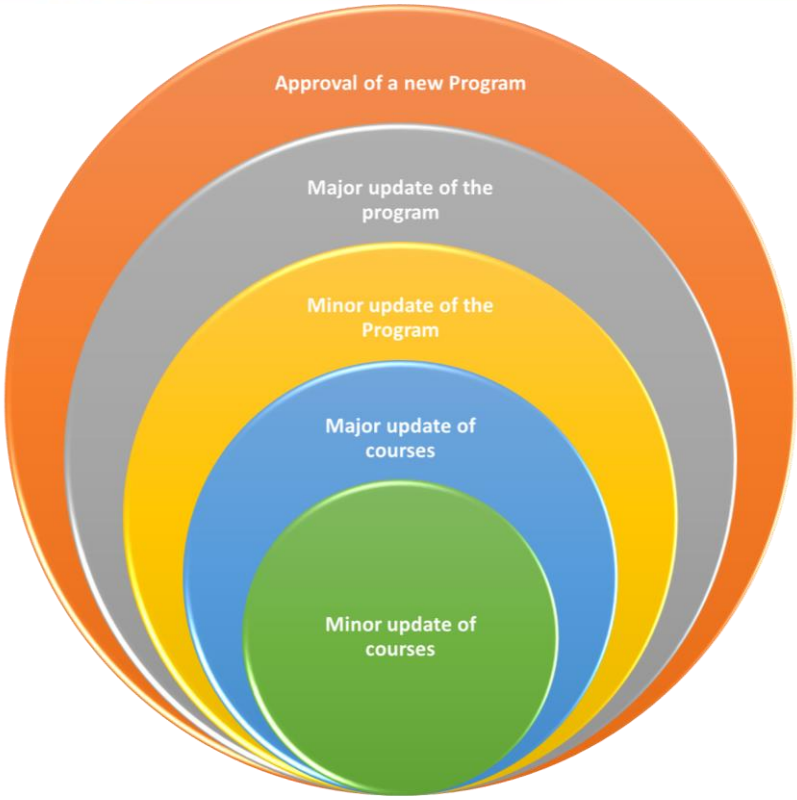

FIGURE 15: MAJOR AND MINOR UPDATES AT THE COURSE AND PROGRAM LEVELS

7.3.1. MINOR UPDATE OF COURSES

A minor update may be initiated following an annual program review or upon request from a course coordinator based on identified areas for improvement. Table 3 outlines the specific items classified as minor updates, along with the responsible entities, approval process, timeline, and required documentation.

TABLE 3: MINOR COURSE UPDATE ITEMS AND APPROVAL PROCESS

Items	Responsible	Required document	Approval process	Timeline
Less than 20% of the course content **Course practical tools** **Course references**	Course coordinator	- Benchmarking comparison - Course report with, CLOs assessment results and improvement plan. - Student Course evaluation survey	▪ Study plan Committee ▪ Advisory Board Committee. ▪ Department Council	3 weeks
Course teaching and learning strategies **Course assessment methods**		- New course specification using the latest NCAAA format - Course coordination meeting minute	1. PLOs mesurment and evaluation committee 2. Academic program	4 weeks

Course assessment calendar			committee 3. Advisory Board Committee. 4. Department Council	

7.3.2. MAJOR UPDATE OF COURSES

A major update to a course requires comprehensive modifications to its course specifications to ensure alignment with academic standards, industry advancements, and institutional goals. Table 4 provides a detailed classification of items considered as major updates, along with the responsible entities, approval process, timeline, and required documentation necessary for implementation.

TABLE 4: MAJOR COURSE UPDATE ITEMS AND APPROVAL PROCESS

Items	Responsible	Required document		Approval process	Timeline
More than 20% of the course content	Course coordinator	- Benchmarking comparison - Course report with, CLOs assessment results and improuvement plan. - Student Course evaluation survey - New course specification using the latest NCAAA format - Course coordination meeting minute	- Allignement with ETEC specialized standards SKU topics (if applicable) with the latest NCAAA format.	1. Study plan Committee 2. Advisory Board Committee. 3. Department Council 4. Study plan committee (College level) 5. Advisory Council 6. College Council	6 weeks
Modify the contact hours	Study plan Committee		- Committee meeting minute	1. Advisory Board Committee. 2. Department Council 3. Study plan committee (College level) 4. Advisory Council 5. College Council	
Modify the CLOs	Course coordinator		- Allignment with ETEC specialized standards, SKU outcomes (if	1. PLOs mesurment and	

			applicable) with the latest NCAAA format.	evaluation committee 2. Academic program committee 3. Advisory Board Committee. 4. Department Council 5. Quality Assurance Unit (College level) 6. Advisory Council 7. College Council	
CLOs-PLOs Mappring Matrix					

7.3.3. MINOR UPDATE OF THE PROGRAM

The minor update of the program is required after an annual/comprehensive review cycle. Table 5 describes the items considered as minor updates, along with the responsible entities, required documentation necessary for implementation, approval process, and timeline.

TABLE 5: MINOR PROGRAM UPDATE ITEMS AND APPROVAL PROCESS

Items		Responsible	Required document		Approval process	Timeline
Update courses levels		Study plan committe	- Benchmarking comparison - Annual Program report with the improuvement development plan - Stakeholders surveys and evaluation - Updated curriculum - Updated Program specification	- Course specification documents with the latest NCAAA format	1. Advisory Board Committee. 2. Department Council 3. Study plan committee (College level) 4. Advisory Council 5. College Council	8 weeks
Update courses requirments						
Add elective courses						
Career opportunities		Academic Program Committee		Allignement of PLOS with JOBs outcomes	1. Advisory Board Committee. 2. Department	
IT program	Without			IT program		

consistency with NQF	updating credit hours or PLOs		document with the latest NCAAA format - Committee meeting minute	consistency with NQF document following the latest NCAAA format.	3. Council 3. Quality Assurance Unit (College level) 4. Advisory Council College Council	
IT program consistency with ETEC specialized standards	Without updating PLOs			IT program consistency with ETEC specialized standards document following the latest NCAAA format		
IT program consistency with international academic standards.				IT program allignement matrix with international academic standards		

7.3.4. MAJOR UPDATE OF THE PROGRAM

A major program update is primarily initiated following a comprehensive review or as a required improvement action based on findings from an annual review. This type of update involves significant modifications to the program specifications and/or curriculum to enhance alignment with academic standards, industry demands, and institutional objectives. Table 6 outlines the key items that constitute a major program update, along with their implications for the program structure and learning outcomes.

TABLE 6: MAJOR PROGRAM UPDATE ITEMS AND APPROVAL PROCESS

Items	Responsible	Required document		Approval process	Timeline
The Program Mission	Academic Program Committee	- University and college strategic plan - DDQ forms - Bench-marking comparison - Self study report with the improuvement development plan - Stakeholders surveys and	Mission alignment matrix with the University, College, and Department missions.	1. Advisory Board Committee. 2. Department Council 3. Quality Assurance Unit (College level) 4. Advisory Council College Council 5. DDQ reviewr 6. DDQ- standing committee 7. QU council	One year
The Program			Goals		

Goals		evaluation - Updated Program specification document with the latest NCAAA format - Committee meeting minute	alignment matrix with the University, College, and Department goals.		
The Program Graduate Attributes			Graduate attributes alignment matrix with the University, graduate attributes.		
Program Key Performance Indicators (KPIs)	Surveys and KPIs committee		- New Key Performance Indicator assessment plan	1. Academic Program Committee 2. Advisory Board Committee. 3. Department Council 4. Quality Assurance Unit (College level) 5. Advisory Council College Council 6. DDQ reviewr 7. DDQ- standing committee	
Program total credit hours: **1. Adding new course** **2. Updating the courses credit hours**	Study plan committee		- Courses specification documents with the latest NCAAA format. IT program consistency with NQF document following the latest NCAAA format. - IT program consistency with ETEC specialized standards document following	1. Academic Program Committee 2. Advisory Board Committee. 3. Department Council 4. Study plan committee (College level) 5. Quality Assurance Unit (College level) 6. Advisory Council College Council 7. DDQ reviewr 8. DDQ- standing committees 9. College council.	

			the latest NCAAA format		
PLOs Update	PLOs assessment and measurement committee + Study plan committee		- PLO allignement matrix with University PLOs - PLOs alignment matrix with GA. - All Courses specification documents with the latest NCAAA format. IT program consistency with NQF document following the latest NCAAA format. - IT program consistency with ETEC specialized standards document following the latest NCAAA format. - updated PLO assessment plan		

7.3.5. NEW PROGRAM APPROVAL

The process for creating a new academic program or revising an existing curriculum is comprehensively outlined in the DDQ Quality Management System (QMS). This framework ensures that the development process aligns with institutional objectives,

accreditation requirements, and industry demands. The strategic planning, benchmarking studies, and approval procedures are clearly defined within the QMS to maintain academic excellence and relevance. Each step, from initial proposal to final approval, follows a structured approach to guarantee that the program meets both national and international educational standards. For further details, refer to [link]. Table 7 describes the process for approval a new program/study plan:

TABLE 7: ESTABLISHING OR DEVELOPING A PROGRAM PROCESS

Steps	Documents		Responsible	Approval process	Timeline
1	Establishing or Developing a Program [form]	Bench-marking comparison - Self study report with the improvement development plan - Stakeholders surveys and evaluation	Study plan committee	1. Academic Program Committee 2. Advisory Board Committee. 3. Department Council 4. Quality Assurance Unit (College level) 5. Advisory Council College Council 6. DDQ reviewr 7. DDQ-standing committee	4 months
2	Program specification with the latest NCAAA format	- All cources specification	- PLO allignement matrix with University PLOs - PLOs alignment matrix with GA. - All Courses specification documents with the latest NCAAA format. IT program	1. Academic Program Committee 2. Advisory Board Committee. 3. Department Council 4. Quality Assurance Unit (College level) 5. Advisory Council	6 months

			consistency with NQF document following the latest NCAAA format. - IT program consistency with ETEC specialized standards document following the latest NCAAA format.	College Council 6. DDQ reviewr 7. DDQ-standing committee 8. QU council	

8. Program Learning Outcomes Assessment Process

The **Program Learning Outcomes (PLOs) Assessment Process** incorporates a structured approach to evaluate the extent to which students achieve the intended outcomes of the Information Technology program. Central to this process is the use of well-defined rubrics that provide a standardized framework for assessing performance across key knowledge, skills, and values outcomes. These rubrics outline clear criteria and performance levels, ranging from "Excellent" to "Needs Improvement," ensuring consistency, transparency, and objectivity in evaluation. By aligning with specific Course Learning Outcomes (CLOs) and leveraging a variety of assessment methods, the rubrics serve as a critical tool for measuring and monitoring the program's effectiveness, identifying areas for enhancement, and fostering continuous quality improvement.

8.1. PLOs Rubrics

8.1.1. Knowledge and Understanding (K1-K2)

PLO: K1 Explain information technology theories, abstraction, and mathematical foundations to solve computing problems and describe computing-based solutions.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)

Understanding of Theories	Demonstrates comprehensive understanding of theories with clear and accurate explanations.	Demonstrates good understanding of theories with minor gaps.	Demonstrates basic understanding with noticeable gaps.	Demonstrates little or no understanding with major misconceptions.
Application of Software Development Fundamentals	Applies software development fundamentals effectively and appropriately to solve problems.	Applies fundamentals adequately with minor errors or limitations.	Applies fundamentals with limited effectiveness, showing gaps in execution.	Struggles to apply fundamentals or provides incorrect solutions.
Ability to Describe Computing-Based Solutions	Provides clear, precise, and well-structured descriptions of computing-based solutions, supported by relevant theories.	Provides clear and structured descriptions of computing-based solutions, with minor gaps in theory support.	Provides descriptions of computing-based solutions, but lacks clarity, precision, or sufficient theory support.	Struggles to describe computing-based solutions, with unclear or incomplete explanations.

PLO: K2 Identify software development principles and research methodologies to design, evaluate, and improve IT-based solutions, integrating contemporary advancements and security considerations.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Use of Research Methods	Skillfully applies appropriate research methods to evaluate,	Applies research methods effectively, with occasional	Applies research methods in a basic way, with gaps in evaluation or	Rarely or incorrectly applies research methods, with little evidence

	analyze, and synthesize information for computing solutions.	limitations in evaluation or synthesis.	integration of information.	of evaluation or synthesis.
Awareness of Contemporary Developments	Demonstrates excellent understanding of contemporary developments and integrates them effectively into solutions.	Demonstrates good understanding of contemporary developments, integrating them moderately into solutions.	Demonstrates limited awareness of contemporary developments, with minor attempts at integration.	Shows little to no awareness of contemporary developments, with no attempts to integrate them.

8.1.2. SKILLS (S1-S4)

PLO-S1: Communicate effectively in a variety of professional contexts.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Clarity and Organization	Ideas are communicated clearly and logically with excellent structure in both oral and written forms.	Ideas are communicated clearly with good structure, with minor lapses in organization.	Ideas are communicated with limited clarity and inconsistent organization.	Communication is unclear and disorganized in both oral and written forms.
Use of Professional Terminology	Consistently and accurately uses appropriate professional terminology in oral and written	Uses terminology correctly with minor errors in oral or written communication.	Occasionally uses professional terminology inaccurately or inconsistently.	Rarely uses appropriate terminology, with frequent inaccuracies.

	communication.			
Demonstration and Explanation	Demonstrates concepts effectively through oral presentations and written explanations with depth and precision.	Demonstrates concepts adequately with minor gaps in depth or precision.	Demonstrates concepts with limited effectiveness, lacking clarity or depth.	Fails to effectively demonstrate or explain concepts in oral or written formats.
Engagement and Presentation	Delivers presentations confidently, engaging the audience with clear articulation and professional demeanor.	Delivers presentations adequately, with occasional lapses in engagement or confidence.	Delivers presentations with limited confidence or audience engagement.	Struggles to deliver presentations confidently, failing to engage the audience.
Adaptability to Context	Adapts communication style seamlessly to suit various professional contexts and audiences.	Adapts communication style adequately to most contexts and audiences.	Shows limited adaptability in communication style to different contexts.	Fails to adapt communication style to professional contexts or audiences.

PLO-S2: Analyze complex problems and apply principles of computing and other information technology disciplines to identify solutions.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Problem Identification	Accurately identifies and	Identifies the main aspects of the	Identifies some aspects of the	Struggles to identify the

	articulates all key aspects of the problem, including implicit elements.	problem with minor gaps or oversights.	problem but misses key details or complexities.	problem accurately, missing critical elements.
Analysis and Decomposition	Breaks the problem into manageable components with a clear and logical approach, highlighting interdependencies.	Breaks the problem into components adequately, with minor gaps in clarity or logic.	Breaks the problem into components superficially, with limited logical structure.	Struggles to decompose the problem effectively or provide a logical approach.
Application of Principles	Skillfully applies principles of computing and information technology disciplines to analyze the problem and generate effective insights.	Applies principles effectively, with occasional errors or limited insights.	Applies principles with noticeable gaps or inaccuracies, generating basic insights.	Fails to apply principles accurately, leading to minimal or incorrect insights.
Innovation and Creativity	Proposes innovative, effective, and well-reasoned solutions tailored to the problem's context and constraints.	Proposes adequate solutions with minor limitations in creativity or relevance.	Proposes basic solutions, with limited innovation or relevance to the problem.	Struggles to propose appropriate or innovative solutions for the problem.
Justification of Solutions	Provides thorough and compelling justifications for	Provides adequate justifications, with minor gaps in	Provides limited justifications for solutions, lacking	Fails to justify solutions effectively, with

	the proposed solutions, supported by sound reasoning and evidence.	reasoning or evidence.	depth or sufficient evidence.	little to no supporting reasoning.

PLO-S3: Design, implement, and evaluate a computing-based solution to meet specific requirements in the context of a information technology major.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Design Effectiveness	Produces a solution design that fully meets requirements, is innovative, and well-documented.	Produces a solution design that meets most requirements with minor gaps.	Produces a basic design that meets minimum requirements but lacks detail.	Fails to produce an effective or complete design.
Implementation Quality	Implements the solution with precision, functionality, and efficiency, exceeding expectations.	Implements the solution adequately with minor errors or inefficiencies.	Implements the solution with noticeable errors or gaps in functionality.	Struggles to implement a functional solution.
Evaluation and Testing	Thoroughly evaluates and tests the solution, providing actionable insights and detailed feedback.	Adequately evaluates and tests the solution, with minor limitations.	Evaluates the solution superficially, with limited actionable feedback.	Fails to evaluate or test the solution effectively.

PLO-S4: Possess the skills to effectively use modern technical and digital applications to form knowledge and innovative digital solutions for various needs in the field of information technology.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Technical Proficiency	Demonstrates advanced proficiency in modern tools and technologies, using them effectively to solve problems.	Demonstrates good proficiency, with minor gaps in tool usage or technology understanding.	Demonstrates basic proficiency, with frequent errors or limited scope of usage.	Struggles to use modern tools or technologies effectively.
Innovation in Solutions	Develops highly creative and effective digital solutions that address diverse needs.	Develops creative and effective solutions, with minor limitations.	Develops basic solutions, with limited creativity or relevance to needs.	Struggles to develop relevant or creative solutions.
Adaptation to Emerging Tools	Quickly adapts to and incorporates emerging tools and technologies in solution development.	Adapts to new tools and technologies with occasional difficulty.	Shows limited ability to adapt to new tools or technologies.	Fails to adapt to or utilize emerging tools and technologies.

8.1.3. VALUES, AUTONOMY, AND RESPONSIBILITY (V1-V2)

PLO-V1: Work effectively as a team member or leader involved in activities appropriate to the information technology major.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)

Team Collaboration	Consistently collaborates effectively, contributing meaningfully to team goals.	Collaborates effectively with minor lapses in contributions or communication.	Collaborates with limited effectiveness or consistency in contributions.	Struggles to collaborate effectively, with minimal contributions.
Leadership Skills	Demonstrates strong leadership, guiding the team to achieve goals while resolving conflicts.	Demonstrates adequate leadership, with occasional gaps in guiding the team.	Demonstrates basic leadership, contributing minimally to team guidance.	Fails to demonstrate leadership, negatively affecting team outcomes.
Respect and Inclusivity	Promotes a respectful and inclusive environment, valuing diverse perspectives.	Shows respect and inclusivity, with minor lapses in recognizing others' perspectives.	Occasionally shows respect but struggles with inclusivity or diverse perspectives.	Rarely demonstrates respect or inclusivity, negatively affecting team dynamics.

PLO-V2: Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Understanding of Ethics	Demonstrates a deep understanding of legal and ethical principles, consistently applying them to	Demonstrates a good understanding, with minor lapses in application.	Demonstrates basic understanding, with occasional inconsistencies in application.	Shows little to no understanding of legal and ethical principles.

	practice.			
Informed Judgment	Consistently makes informed and ethical decisions, considering all relevant factors.	Makes ethical decisions with minor limitations in judgment.	Makes decisions with limited consideration of ethical implications.	Fails to make informed or ethical decisions, often disregarding key factors.
Accountability	Takes full accountability for actions and decisions, demonstrating integrity in all professional practices.	Takes accountability with minor lapses in acknowledging responsibility.	Takes limited accountability, with frequent deflections or justifications.	Rarely takes accountability, often shifting blame or avoiding responsibility.

8.2. PLOs ASSESSMENT PLAN

The **PLOs Assessment Plan** for the Information Technology program is developed using the standardized template provided by the Deanship of Development and Quality. This plan employs both direct and indirect methods to ensure comprehensive evaluation. The direct assessment is conducted through core courses of the IT program, starting from the first year of specialization (Level 5), final-year project courses, and results from the Exit Exam. The indirect assessment utilizes selected items from Employers and Graduates surveys to provide additional insights into program effectiveness. The PLOs are assessed on an annual basis, with the **PLO Assessment Committee** responsible for selecting specific courses each semester to conduct assessments. This committee collects and evaluates data, implements developments from the previous cycle, and assigns targets and attainment levels for both CLOs and PLOs. These targets are determined based on historical CLO and PLO assessment results, benchmarking with peer programs, and best practices adopted by national and international programs. This iterative process ensures

continuous improvement and alignment with academic and industry standards. This process is described in the PLOs assessment plan.

8.3. PLOs ASSESSMENT MECHANISM

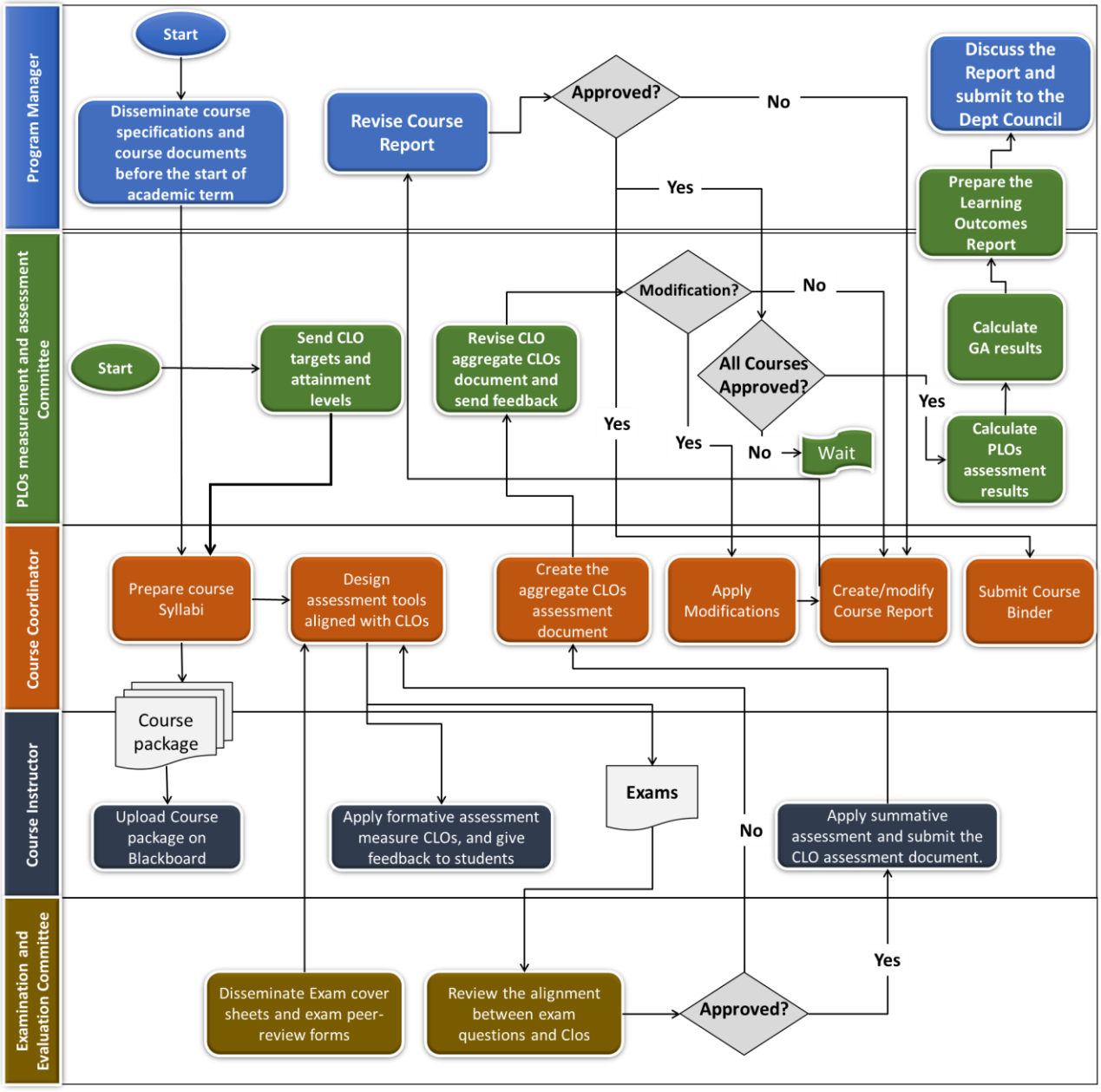

FIGURE 15: THE FLOWCHART OF THE PLOS ASSESSMENT MECHANISM

The Information Technology program implements a robust PLOs assessment mechanism, which inherently incorporates the assessment of CLOs. This integrated approach ensures that the evaluation of course-specific outcomes (CLOs) directly contributes to the measurement of program-level outcomes (PLOs), fostering alignment and coherence across all levels of assessment, as illustrated in Figure 15.

The program employs a dual approach to PLO assessment, utilizing both direct and indirect methods. Direct assessment results for PLOs are derived from aggregated CLO assessment results, ensuring alignment between course-level and program-level outcomes. Indirect assessment, on the other hand, leverages data from aligned items in the Deanship of Development and Quality surveys, such as employer and graduate feedback, to provide additional insights into PLO achievement.

Assessment Mechanism	CLO assessment	Related items from DQD Surveys
Direct/Indirect	**Direct**	**Indirect**
Time base	**Annually**	**Annually**
Where will data be collected?	**Mastery level Core Courses (Starting from level 5)**	**Graduates and Employers evaluation surveys at end of the program.**

Following the assessment process, the **PLO Assessment Committee** compiles a comprehensive **PLOs Assessment Report**, which includes a detailed analysis of the results. This analysis highlights key strengths, identifies areas requiring improvement, and offers actionable recommendations for enhancing program quality and effectiveness. This iterative process ensures continuous alignment with academic standards and stakeholder expectations, fostering a culture of ongoing improvement.

9. Monitoring the Attainment of Program Goals and Measuring the Performance of its Operations

The university has implemented the use of **Key Performance Indicators (KPIs)** and surveys as tools to measure and evaluate the performance of academic programs across various dimensions. These dimensions are strategically aligned with the university's

mission and overarching objectives. The Information Technology program adopts these mechanisms to monitor its progress toward achieving its goals and to evaluate the effectiveness of its operations.

KPIs are utilized to assess the level of achievement of initiatives, projects, and activities outlined in the program's operational plan. This plan is structured to link each activity directly to a specific program goal, ensuring alignment and coherence. Consequently, achieving the targeted performance in activities associated with a particular goal serves as evidence of the attainment of that goal.

Furthermore, updates to program goals may necessitate adjustments to internal program KPIs to maintain alignment. These elements undergo systematic review during the program's intermediate and comprehensive review cycles. The **Program Committee** oversees the update process, ensuring adherence to the procedures outlined in the flowchart depicted in Figure 12. This approach fosters a dynamic and adaptable framework for continuous quality improvement.

Evaluating program performance from multiple perspectives is essential to ensuring its continuous improvement and alignment with stakeholder expectations. The Information Technology program actively encourages its stakeholders, including students, faculty, employers, and alumni, to provide feedback on program-provided services, performance, quality, and competitiveness.

A dedicated Quality Committee is tasked with measuring and analyzing the results of program-specific KPIs and stakeholder surveys. The committee operates within a structured quality cycle, as illustrated in **Figure 4**, and its responsibilities are outlined in the **Organizational and Procedural Guide for Administrative Tasks in the Information Technology Department [Link]**. Detailed information about the activated surveys and applied KPIs for the program can be found in **Sections 9.1 and 2.2**.

9.1. SURVEYS

The surveys consist of electronic questionnaires that include objective quantitative measurements, along with open-ended questions to ensure participants have the opportunity to express their opinions. The Deanship of Development and Quality at Qassim University manages the process of preparing, distributing, and analyzing approved programmatic surveys. Detailed reports for each survey are then sent to the academic program to enhance the validity and impartiality of the results, as outlined in the Guide for Periodic Surveys and Unified KPIs for Academic Programs.

Additionally, the program develops its own specialized surveys to identify the needs of its stakeholders and prepares ad hoc surveys when necessary. Below is a list of the key surveys utilized by the program.

1. **PO_SU_01: Student Evaluation of Program Quality and Services (1)**
2. **PO_SU_02: Student Evaluation of Program Quality and Services (2)**
3. **PO_PRO_01: Faculty Evaluation of Program Quality (1).**
4. **PO_PRO_02: Faculty Evaluation of Program Quality (2).**
5. **PO_EMPO: Employer Evaluation of Program Quality and Graduate Competence.**
6. **PO_GRAD: Graduate Evaluation of Program Quality.**
7. **PO_STAFF: Staff Evaluation of Program Quality and Services.**
8. **PO_INT_STU: International Student Evaluation of Program Quality and Services.**
9. **PO_SPN_STU: Evaluation of Program Services for Students with Special Needs.**
10. **PO_FTR_STU: Field Experience Evaluation (For Students)**
11. **PO_FTR_SUP: Field Experience Evaluation (For Supervisors)**
12. **COC_COM_SERV: A survey to assess community needs and preferences for training courses.**
13. **DEP_ TRAININGS: Faculty Training Needs Assessment within the Program.**
14. **DEP_ TRAININGS_EVA: Faculty Training Evaluation within the Program.**

15. **DEP_RESEARCH: Faculty Research Priorities Assessment.**
16. **PROG_EMPO: Employer Feedback for Program Development.**
17. **PROG_GRAD_EMPLO: Graduate Employment Status Survey.**

9.1.1. Committee Workflow Map for Surveys and Performance Indicator Calculation

Central Surveys by the Deanship of Development and Quality				
Survey Title	**Survey Code/ Semester**	**Committee Responsible for Distributing the Survey**	**Target Group**	**The survey is distributed to stockholders across the different sections: both males and females' sections.**
1. Student Evaluation of Program Quality and Services (1)	**PO_SU_01 Semester 1**	**SURVEYS AND KPIS COMMITTEE**	**Bachelor's Information Technology students from Level 5 to Level 7**	**Courses:** - **CS211 or IT214** - **IT251 or IT271** - **IT221 or IT332 or IT352 or IT215**
2. Student Evaluation of Program Quality and Services (2)	**PO_SU_02 Semester 2**	**SURVEYS AND KPIS COMMITTEE**	**Bachelor's Information Technology students from Level 8 to Level 10**	**Courses:** - **IT315 or IT372 or IT362 or IT351** - **IT473 or IT442** - **IT435 or IT474**
3. Faculty Evaluation of Program Quality (1)	**PO_PRO_01 Semester 1**	**SURVEYS AND KPIS COMMITTEE**	**Faculty Members**	- **Professor** - **Associate Professor** - **Assistant Professor** - **Lecturer** - **Teaching Assistant**
4. Faculty Evaluation of Program Quality (2)	**PO_PRO_02 Semester 2**	**SURVEYS AND KPIS COMMITTEE**		
5. Employer Evaluation of Program Quality and Graduate Competence	**PO_EMPO Semester 2**	**SURVEYS AND KPIS COMMITTEE**	**Employers**	
6. Graduate Evaluation	**PO_GRAD Semester 2**	**SURVEYS AND KPIS**	**Alumni**	**Students who have completed their**

of Program Quality		COMMITTEE		degree and obtained their certificate
7. Staff Evaluation of Program Quality and Services	PO_STAFF Semester 1	SURVEYS AND KPIS COMMITTEE	College Staff	
8. International Student Evaluation of Program Quality and Services	PO_INT_STU Semester 1	SURVEYS AND KPIS COMMITTEE	International Students in the Program (Specialization Students)	Distributed if students are enrolled in the academic year
9. Evaluation of Program Services for Students with Special Needs	PO_SPN_STU Semester 1	SURVEYS AND KPIS COMMITTEE	Students with Special Needs in the Program (Specialization Students)	
10. Field Experience Evaluation (For Students)	PO_FTR_STU Semester 2	Summer Training COMMITTEE	Registered Students in Summer training Course	IT497
11. Field Experience Evaluation (For Supervisor)	PO_FTR_SUP Semester 2	Summer Training COMMITTEE	Industrial Supervisors	Supervisors of Summer Training
Surveys Conducted by the Program / Department / College of Computer				
12. Survey to assess community needs and preferences for training courses	COC_COM_SERV First weeks, Semester 1	Community Services Unit (College Level)	Social Partners: - Institute for Leadership and Capacity Development - Civil Society Organizations	
13. Faculty Training Needs Assessment within the Program	DEP_TRAININGS First weeks, Semester 1	Training and Scholarship Committee (Department)	Faculty Members within the Program: - Professor - Associate Professor - Assistant Professor - Lecturer - Teaching Assistant	
14. Faculty Training Evaluation within the	DEP_TRAININGS_EVA After each Training		- Faculty Members Who Participated in the Training Only	

Program				
15. Faculty Research Priorities Assessment	**DEP_RESEARCH**	**Scientific Research Committee**	**Faculty Members within the Program:** - **Professor** - **Associate Professor** - **Assistant Professor** - **Lecturer** - **Teaching Assistant**	
16. Employer Feedback for Program Development	**PROG_EMPO** **In the beginning of the review cycle (Intermediate/ Comprehensive).**	**Program Advisory Committee (Program)**	**Employers: Public and Private.**	
17. Graduate Employment Status Survey	**PROG_GRAD_EMPLO**	**Graduates Committee (Program)**	**Graduates (Previous Year's Graduates)**	**Graduates will be asked about their employment status, enrollment in higher education programs, and whether they have obtained any professional certifications or passed professional exams.**

9.2. KPIs

The program primarily utilizes the **Key Performance Indicators (KPIs)** proposed by the Education and Training Evaluation Commission (ETEC) for program accreditation, comprising a total of 11 indicators (KPI-P-) to measure the quality of its activities. In addition, the program employs 70 other KPIs, developed under Qassim University's (QU-) quality management system, to evaluate its overall performance, and 6 KPIs related to the Information Technology Program (IT-KPI-). This brings the total number of KPIs used by the program to 87, as outlined in the following table:

TABLE 8: KPIS RELATED TO THE STANDARD 1

No	Code	Key Performance Indicator	Target Value	Measurement Methods	Target Group

1	QU01	Average clarity of the program's mission across all stakeholder groups (on a Likert scale from 1 to 5).	2.5	Average evaluation by beneficiaries of elements related to the indicator in central surveys (Item 1): - PO_SU_01 - PO_PRO_01 - PO_EMPO - PO_GRAD - PO_STAFF	Male/Female/Students/ Faculty/Employers/ Staff/Graduates – Total
2	QU02	Average awareness of the program's mission across all stakeholder groups (on a Likert scale from 1 to 5).	3.7	Average evaluation by beneficiaries of elements related to the indicator in central surveys (Items 2 & 3): - PO_SU_01 - PO_PRO_01 - PO_EMPO - PO_GRAD - PO_STAFF	
3	IT-KPI-01	Percentage of achieved indicators for the program's operational plan goals.	40%	Operational Plan Achievement Report for the Academic Program (Form J-D-4, ‹4.د.جSection 4, Clause G-ج).	
4	QU61	Average clarity of program objectives across all stakeholder groups (on a Likert scale from 1 to 5).	2.5	Average evaluation of the clarity of program objectives across all stakeholder groups (on a Likert scale from 1 to 5): - PO_SU_01 (Item 4) - PO_PRO_01 (Item 4) - PO_EMPO (Item 5) - PO_GRAD (Item 4) - PO_STAFF (Item 5)	Male/Female/Students/ Faculty/Employers/ Staff/Graduates – Total
5	QU03	Average evaluation of program members for the clarity of program committees and councils.	3.4	Average evaluation of program committees and councils in terms of clarity (Items 10 & 11 in PO_PRO_01, Items 8 & 9 in PO_STAFF).	Male/Female/Faculty/Staff – Total
6	QU04	Average evaluation of program members for the leadership and management's suitability, qualifications, and ability to achieve the program's mission and goals.	2.5	Item 21 in Survey: PO_PRO_02	Male/Female/Students – Total
7	QU05	Ratio of students to technicians, including lab operators (total number of students to total number of technicians in both branches of the program).	50%	Academic program records	Male/Female – Total
8	QU06	Average evaluation of program members for the organizational and	2.5	Item 3 in PO_SU_02, Items 1-4 in PO_PRO_02, Item 10 in PO_GRAD,	Male/Female/Students/ Faculty/Staff/Graduates – Total

		academic environment within the program (Likert scale from 1 to 5).		Items 10-13 in PO_STAFF	
9	QU07	Average evaluation of program members for the adequacy and effectiveness of representation, integration, coordination, and collaboration between both branches of the program (Likert scale from 1 to 5).	2.5	Items 13-14 in PO_PRO_02	Male/Female/Faculty – Total
10	QU08	Average evaluation of program members for fairness, justice, and equality in program management across all members (Likert scale from 1 to 5).	2.5	Item 4 in PO_SU_02, Item 5 in PO_PRO_02, Item 11 in PO_GRAD, Item 14 in PO_STAFF	Male/Female/Students/ Faculty/Staff/Graduates – Total
11	QU09	Percentage of achieved training plans for technicians and administrative staff within the program (% of completed training programs for administrative staff × 100).	40%	Training Plan Achievement Report for the academic program (Form J-D-10,10.د.ج Section 3)	Male/Female – Total
12	QU10	Percentage of technicians and administrative staff enrolled in training programs during the year.	50%	Training Plan Achievement Report for the academic program (Form J-D-10,10.د.ج Section 3)	Male/Female – Total
13	QU11	Average satisfaction of beneficiaries with the comprehensiveness and adequacy of information provided by the program (Likert scale: 1 to 5).	2.5	Items (5, 6) in PO_SU_01, Items (6, 7) in Survey: - PO_PRO_01, - PO_EMPO, - PO_GRAD, - PO_STAFF	Male/Female/Students/Faculty/ Employers/Staff/Graduates – Total
14	QU12	Average satisfaction of program members with the program administration's encouragement of developmental initiatives and proposals (Likert scale: 1 to 5).	2.5	Item 5 in PO_SU_02, Items (6, 7) in PO_PRO_02, Item 12 in PO_GRAD, Items (15, 16) in PO_STAFF	Male/Female/Students/Faculty/ Staff/Graduates – Total
15	QU13	Awareness of beneficiaries regarding scientific integrity, intellectual property rights, and ethical practices (Likert scale:	2.5	Item 6 in PO_SU_02, Items (8, 9) in PO_PRO_02, Item 13 in PO_GRAD	Male/Female/Students/ Faculty/Graduates – Total

		1 to 5).			
16	QU14	Awareness of program members about grievance, complaints, and disciplinary mechanisms (Likert scale: 1 to 5).	2.5	Item 7 in PO_SU_02, Items (10, 11) in PO_PRO_02, Item 14 in PO_GRAD	Male/Female/Students/ Faculty/Graduates – Total

TABLE 9: KPIS RELATED TO THE STANDARD 2

No	Code	Key Performance Indicator	Target Value	Measurement Methods	Target Group
17	QU15	Beneficiaries' awareness (students, faculty, employers, etc.) of program graduates' characteristics and learning outcomes (Likert scale from 1 to 5).	3.0	Items 1 & 2: PO_SU_02, Items 8 & 9: PO_PRO_01, Items 8 & 9: PO_EMPO, Items 8 & 9: PO_GRAD	Male/Female/Students/Faculty/ Employers /Graduates – Total
18	KPI-P-05	Students' performance in the professional and/or national examinations	50%	Academic program records: Percentage of students or graduates who successful in the professional and/or national examinations, or their score average and median (if any)	Male/Female – Total
19	KPI-P-06	Graduates' employability and enrolment in postgraduate programs	45%	Academic program records: Percentage of graduates from the program who, within a year of graduation, were: a. employed within 12 months, b. enrolled in postgraduate programs during the first year of their graduation to the total number of graduates in the same year.	Male/Female – Total
20	KPI-P-07	Employers' evaluation of the program graduates' proficiency	3.0	Academic program records: Average of the overall rating of employers for the proficiency of the program graduates on a five-point scale in an annual survey.	Male/Female – Total
21	QU16	Percentage of faculty participation in training programs on teaching strategies and	50%	Training Plan Achievement Report for the academic program (Form J-D-10,10.ج.د	Male/Female – Total

		assessment methods.		Section 3)	
22	QU17	Percentage of faculty participation in training programs on using modern technologies in teaching and student assessment.	50%	Training Plan Achievement Report for the academic program (Form J-D-10,10.جـ Section 3)	Male/Female – Total
23	KPI-P-02	Students' evaluation of the quality of the courses	3.8	Item 34 in PO_SU_01	Male/Female – Total
24	QU18	Average student evaluation of course initiation elements, including providing comprehensive course information, success requirements, and assessment methods at the beginning of the semester (Likert scale from 1 to 5)	3.8	Items 30 & 31 in Survey: PO_SU_01	Male/Female – Total
25	QU19	Average student evaluation of the "timely delivery of assignment and exam grades" across all courses (Likert scale from 1 to 5).	3.8	Items 32 & 33 in Survey: PO_SU_01	Male/Female – Total
26	KPI-P-01	Students' Evaluation of Quality of learning experience in the program	3.7	Items 25 & 26, Items 30-34 in Survey: PO_SU_02	Male/Female – Total
27	IT-KPI-02	Student satisfaction with the services provided.	3.5	Items 7 & 8 and Items 14-18 in Survey: PO_SU_01 Items 9, 10, 13, 14 in Survey: PO_SU_02	Male/Female/ First-Year Students/ Final-Year Students – Total
28	QU62	Number of research publications by program students during the year.	5.0	Academic program records	Male/Female – Total
29	QU63	Percentage of achieved learning outcome targets	60%	Report on the assessment of graduate characteristics and learning outcomes in the academic program (Form J-D-6, 6.جـ, Section 4).	Male/Female – Total
30	QU68	Average evaluation by students and supervisors of the field training program as per the field experience course	2.5	Items 01 & 11 in Surveys: PO_FTR_STU and PO_FTR_SUP	Male/Female/Field Training Students/Field Training Supervisors – Total
31	QU69	Average evaluation by students and supervisors of the field training institutions	2.5	Items 12 & 20 in Surveys: PO_FTR_STU and PO_FTR_SUP	Male/Female/Field Training Students/Field Training Supervisors – Total
32	QU70	Average evaluation by	2.5	Items 21-27 in Survey:	Male/Female/Field Training

		students of field supervisors (Likert scale from 1 to 5).		PO_FTR_STU	Students/Field Training Supervisors – Total

TABLE 10: KPIS RELATED TO THE STANDARD 3

No	Code	Key Performance Indicator	Target Value	Measurement Methods	Target Group
33	QU20	Average student evaluation of the program's fairness in applying admission and registration criteria (Likert scale from 1 to 5).	2.5	Item 9 in Survey: PO_SU_01	Male/Female – Total
34	IT-KPI-03	Average number of students per class.	28	Academic program records: Ratio of the total number of students to the total number of full-time and full-time equivalent teaching staff in the program	Male/Female – Total
35	KPI-P-08	Ratio of students to teaching staff.	22	Academic program records: Ratio of the total number of students to the total number of full-time and full-time equivalent teaching staff in the program	Male/Female – Total
36	QU22	Average student evaluation of the ease of obtaining information about the program before registration (Likert scale from 1 to 5).	3.0	Item 10 in Survey: PO_SU_01	Male/Female – Total
37	QU23	Average student evaluation of orientation programs for new students (Likert scale from 1 to 5).	3.0	Item 11 in Survey: PO_SU_01	Male/Female – Total
38	QU24	Average student evaluation of the program's fairness in applying grievance, complaints, and disciplinary mechanisms (Likert scale from 1 to 5).	3.0	Item 8 in Survey: PO_SU_02	Male/Female – Total
39	KPI-P-03	Completion rate	56%	Academic program records	Male/Female – Total
40	KPI-P-04	First-year students' retention rate	76%	Annual Program Report (according to the National Center for Academic	Male/Female – Total

				Accreditation and Evaluation template, Section B.2)	
41	QU25	Student satisfaction with academic advising services (Likert scale from 1 to 5).	3.6	Items 7 & 8 in Survey: PO_SU_01	Male/Female – Total
42	QU26	Student satisfaction with career advising services (Likert scale from 1 to 5).	3.5	Items 9 & 10 in Survey: PO_SU_02	Male/Female – Total
43	QU27	Student satisfaction with psychological and social counseling services (Likert scale from 1 to 5).	3.5	Items 13 & 14 in Survey: PO_SU_02	Male/Female – Total
44	QU28	Student satisfaction with mechanisms for identifying and supporting gifted, creative, and high-achieving students.	2.5	Items 15 & 16 in Survey: PO_SU_02	Male/Female – Total
45	QU29	Student satisfaction with mechanisms for identifying and supporting struggling students (Likert scale from 1 to 5).	2.8	Items 17 & 18 in Survey: PO_SU_02	Male/Female – Total
46	QU30	Student and graduate satisfaction with professional development activities provided to them (Likert scale).	3.0	Items 11 & 12 in: PO_SU_02, Items 16 & 17 in: PO_GRAD	Male/Female/ Students/Graduates – Total
47	QU31	Percentage of graduates from the year who have records in the graduate database out of the total number of graduates for the year.	60%	Academic program records / Graduate records in the program or college	Male/Female/ Students/Graduates – Total
48	QU32	Graduate response rate to program evaluation surveys.	50%	Periodic Survey Report for the Program (Form J-D-11, ،11.ج.د, Section 2-8-A)	Male/Female – Total
49	QU33	International students' satisfaction with the services and facilities provided to them (Likert scale from 1 to 5).	3.0	Items 1-13 in Survey: PO_INT_STU	Male/Female – Total
50	QU34	Satisfaction of students and faculty members with special needs and disabilities regarding the adequacy and suitability of services, facilities, and equipment provided to them (Likert scale from 1 to 5).	3.0	Items 1-13 in Survey: PO_SPN_STU	Male/Female – Total

51	QU64	Total volunteer hours by students in the program (per year).	35 hours	Academic program records	Male/Female – Total
52	QU65	Average volunteer hours per student (per year).	0.5 hour per Student	Academic program records	Male/Female – Total

TABLE 11: KPIS RELATED TO THE STANDARD 4

No	Code	Key Performance Indicator	Target Value	Measurement Methods	Target Group
53	QU35	Faculty satisfaction with the program's policies and procedures for selection, recruitment, appointment, and contracting (Likert scale from 1 to 5).	3.0	Item 12 in Survey: PO_PRO_01	Male/Female – Total
54	IT-KPI-04	Faculty attrition rate from the program (excluding retirement age or maximum retirement limit reasons).	3.0	Academic program records	Male/Female – Total
55	IT-KPI-05	Percentage distribution of faculty members.	- Teaching Assistant: 22% - Instructor: 1% - Lecturer: 20% - Assistant Professor: 37% - Associate Professor: 13% - Professor: 7%	Academic program records	Male/Female – Total
56	QU36	Percentage of faculty members holding a PhD.	60%	Academic program records	Male/Female – Total
57	QU37	Percentage of faculty members holding professional licenses.	20%	Academic program records	Male/Female – Total
58	QU38	Average years of	5 years	Academic program	Male/Female

		teaching and supervision experience.		records	– Total
59	QU66	Average student evaluation of course instructors (Likert scale from 1 to 5).	3.5	Item 35 in Survey: PO_SU_02	Male/Female – Total
60	QU39	Percentage of faculty participation in orientation programs offered by the university/college/program (Number of participants ÷ total faculty).	80%	Academic program records	Male/Female – Total
61	QU40	Average faculty satisfaction with orientation programs offered by the university/college/program (Likert scale from 1 to 5).	3.5	Items 13 & 14 in Survey: PO_PRO_01	Male/Female – Total
62	QU41	Faculty Participation Rate in Academic Activities = (Number of faculty members participating in conferences, discussion panels, research projects, thesis evaluation, and research evaluation ÷ Total number of faculty members)	50%	Academic program records	Male/Female – Total
63	KPI-P-9	Percentage of publications of faculty members	47%	Academic program records: Percentage of full-time faculty members who published at least one research paper during the year to total faculty members in the program.	Male/Female – Total
64	KPI-P-10	Rate of published research per faculty member	2 (Two per faculty member)	Academic program records: The average number of refereed and/or published research per faculty member during the year (total number of refereed and/or published research to the total number of full-time or equivalent faculty members during the year)	Male/Female – Total
65	KPI-P-11	Citations rate in	2 (Two	Academic program	Male/Female

		refereed journals per faculty member	citations per published paper)	records: The average number of citations in refereed journals from published research per faculty member in the program (total number of citations in refereed journals from published research for full-time or equivalent faculty members to the total research published).	– Total
66	QU42	Number of patents and innovations obtained by faculty members during the year.	1	Academic program records	Male/Female – Total
67	QU43	Number of excellence awards received by faculty members during the year (includes awards for research, teaching, community service, both internal and external).	2	Academic program records	Male/Female – Total
68	QU67	Number of research papers published in indexed journals (SCOPUS or ISI) during the year.	5	Academic program records / Research databases (e.g., Google Scholar, Scopus, ISI)	Male/Female – Total
69	QU44	Percentage of faculty participation in community activities.	48%	Academic program records	Male/Female – Total
70	QU45	Percentage of achieved training plan for faculty (Number of completed training programs ÷ Total planned programs).	60%	Training Plan Achievement Report for the academic program (Form J-D-10,10.ج.د, Section 3)	Male/Female – Total
71	QU46	Percentage of faculty participation in planned training programs (Number of participants ÷ Total faculty members).	62%	Training Plan Achievement Report for the academic program (Form J-D-10,10.ج.د, Section 3)	Male/Female – Total
72	QU47	Average satisfaction of faculty and students with the adequacy and quality of services provided by the program/college/university (Likert scale from 1 to 5).	3.0	Items 12 & 15 in Survey: PO_SU_01 Items 19 & 24 in Survey: PO_SU_02 Items 15 & 31 in Survey: PO_PRO_01	Male/Female/ Students/Faculty – Total
73	QU48	Average faculty satisfaction with the	3.5	Items 15 & 17 in Survey: PO_PRO_02	Male/Female – Total

		mechanisms and procedures for periodic performance evaluation (Likert scale from 1 to 5).			
74	QU49	Average faculty awareness of mechanisms, procedures, and forms for periodic performance evaluation (Likert scale from 1 to 5).	3.5	Items 18 & 19 in Survey: PO_PRO_02	Male/Female – Total

TABLE 12: KPIS RELATED TO THE STANDARD 5

No	Code	Key Performance Indicator	Target Value	Measurement Methods	Target Group
75	QU50	Beneficiaries' satisfaction with the availability of adequate learning resources in program/college libraries or the central library (Likert scale from 1 to 5).	3.3	Items 26 & 27 in Survey: PO_SU_02 Items 32 & 36 in Survey: PO_PRO_01	Male/Female/ Students/Faculty – Total
76	QU51	Beneficiaries' satisfaction with the availability and adequacy of electronic resources, digital databases, and accessibility (Likert scale from 1 to 5).	3.4	Items 28 & 29 in Survey: PO_SU_02 Items 38 & 39 in Survey: PO_PRO_01	Male/Female/ Students/Faculty – Total
77	IT-KPI-06	Beneficiaries' satisfaction with learning resources.	3.5	Items 25, 26, 28 & 29 in Survey: PO_SU_02 Items 32 & 39 in Survey: PO_PRO_01	Male/Female/ Students/Faculty – Total
78	QU52	Average satisfaction of beneficiaries with the technical services provided, in terms of suitability, security, confidentiality, maintenance, and periodic updates (Likert scale from 1 to 5).	3.4	Items 19 & 22 in Survey: PO_SU_02 Items 15 & 20 in Survey: PO_PRO_01	Male/Female/ Students/Faculty – Total
79	QU53	Beneficiaries' satisfaction with the adequacy and quality of technical support provided by various	3.0	Items 23 & 24 in Survey: PO_SU_02 Items 21 & 24 in Survey: PO_PRO_01	Male/Female/ Students/Faculty – Total

		university entities (Likert scale from 1 to 5).			
80	QU54	Beneficiaries' satisfaction (faculty and students) with e-learning systems like Blackboard in terms of adequacy, ease of use, and accessibility (Likert scale from 1 to 5).	3.5	Items 12 & 13 in Survey: PO_SU_01 Items 25 & 27 in Survey: PO_PRO_01	Male/Female/ Students/Faculty – Total
81	QU55	Beneficiaries' satisfaction with the adequacy, quality, maintenance, updates, and accessibility of laboratories and workshops, including availability of guidelines (Likert scale from 1 to 5).	3.5	Items 19 & 23 in Survey: PO_SU_01 Items 26 & 29 in Survey: PO_PRO_02	Male/Female/ Students/Faculty – Total
82	QU56	Beneficiaries' satisfaction with the adequacy and qualifications of technicians and laboratory operators (Likert scale from 1 to 5).	2.8	Item 20 in Survey: PO_SU_01 Items 30 & 31 in Survey: PO_PRO_02	Male/Female/ Students/Faculty – Total
83	QU57	Beneficiaries' satisfaction with the adequacy, capacity, and technical and technological equipment of classrooms (Likert scale from 1 to 5).	3.5	Items 24 & 26 in Survey: PO_SU_01 Items 32 & 34 in Survey: PO_PRO_02	Male/Female/ Students/Faculty – Total
84	QU58	Beneficiaries' satisfaction with the quality and adequacy of facilities and equipment (Likert scale from 1 to 5).	3.5	Items 16 & 29 in Survey: PO_SU_01 Items 20 & 38 in Survey: PO_PRO_02 Items 17 & 26 in Survey: PO_STAFF	Male/Female/ Students/Faculty/Staff – Total
85	QU59	Beneficiaries' satisfaction with the availability of safety and security measures across all program facilities (Likert scale from 1 to 5).	3.0	Item 27 in Survey: PO_SU_01 Items 35 & 36 in Survey: PO_PRO_02 Items 23 & 24 in Survey: PO_STAFF	Male/Female/ Students/Faculty/Staff – Total
86	QU60	Beneficiaries' awareness of risk manuals, evacuation procedures, and handling risks (Likert scale from 1 to 5).	3.0	Items 28 & 29 in Survey: PO_SU_01 Items 37 & 38 in Survey: PO_PRO_02 Items 25 & 26 in Survey: PO_STAFF	Male/Female/ Students/Faculty/Staff – Total
87	QU71	Average satisfaction of faculty and students	3.0	Item 27 in Survey: PO_SU_02 Item 37 in Survey:	Male/Female/ Students/Faculty

		with the accessibility of libraries at suitable and convenient times (Likert scale from 1 to 5).		PO_PRO_01	– Total

10. ENSURING THE QUALITY OF COURSES

10.1. COURSE DEVELOPMENT CYCLE

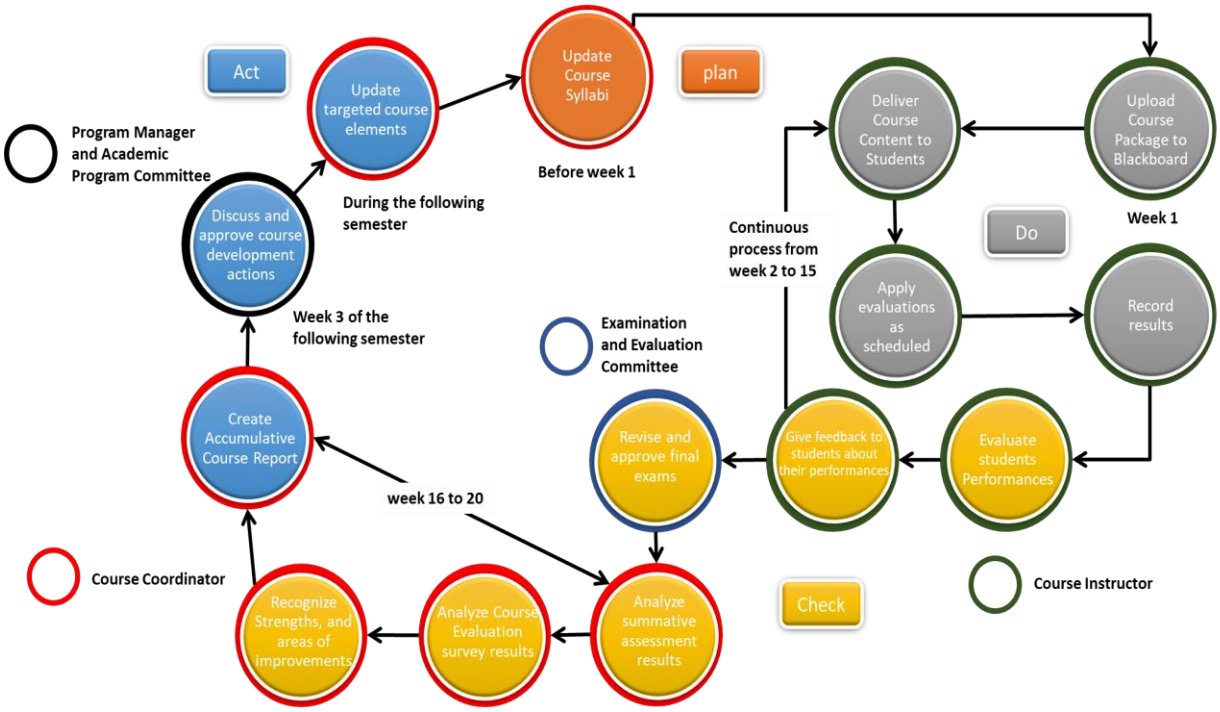

FIGURE 16: COURSE DEVELOPMENT CYCLE

Figure 16 illustrates the development cycle of all courses in the program's study plan, excluding the internship and graduation project (1, 2) courses. Before the start of the first week, instructors are required to upload course materials to the Blackboard platform. During the semester, instructors adhere to the teaching and assessment methods outlined in the course specification form while delivering course content. Evaluations, feedback, and assessments of CLOs are conducted throughout the semester.

The course coordinator ensures a consistent pace across all sections of the course and monitors instructors' performance during teaching activities. Periodic coordination meetings are mandatory to follow up on the entire process. Both the course coordinator and instructors collaborate to develop course evaluation tools, following the framework set by the examination committee. The committee is responsible for revising and approving the final exam before submission to the examination conduct committee.

Instructors analyze course evaluation surveys, student grades, and CLO assessment results to formulate a development plan. They are also required to write individual course reports and submit them to the course coordinator. The coordinator identifies anomalies in course delivery, assessment results, or evaluation feedback and provides explanations for these anomalies. Furthermore, the coordinator is responsible for compiling an aggregated course report that covers all sections and includes a proposed development plan for the course. Detailed responsibilities of course coordinators and instructors are outlined in the Program Handbook for Faculty Members [**LINK**].

10.1.1. Quality of Teaching and Assessments

To ensure the quality of teaching, the program implements a comprehensive evaluation process. An **automated course evaluation survey** is distributed to all students enrolled in the program via the **MyQU Student Personal page**. Students can provide their feedback regarding course quality, and the results are made available to faculty members at the end of the semester. This feedback is used for continuous improvement of teaching and learning.

The program also follows a systematic approach to assess the effectiveness of student assessments and ensure alignment with course learning outcomes (CLOs). The mechanisms include:

- **Exam Verification by the Examination Committee:**

The committee ensures that CLOs and exam questions are correctly aligned. It reviews the final exams for compliance with the course articulation matrix and ensures that the exam format adheres to the regulations of the university, college, and program. The committee also verifies the appropriate distribution of grades.

- **CLO Assessment Review:**

  Faculty members submit the CLO assessment report to the assessment committee, which reviews the CLO assessment results, evaluates the appropriateness of coursework, and final exam evaluation methods. Feedback is provided to the faculty member for any necessary adjustments before the finalized course report is submitted.

- **Program Committee Recommendations:**

  The program committee extracts key findings and recommendations from course reports. These are discussed, approved, and used to develop the course action plan for the following year.

- **Learning Outcomes Feedback:**

  The learning outcomes assessment committee provides feedback to course coordinators regarding the attainment of CLOs, ensuring continuous improvement of teaching strategies and course delivery.

The quality of teaching is also evaluated through a dedicated section of the course evaluation survey focused on learning resources. Ensuring the quality of learning resources directly supports effective teaching and enhances student learning outcomes. **Table 8** lists the assessors and tools used to evaluate teaching effectiveness, student assessments, and the quality of learning resources. It also outlines the methods employed to maintain and improve the quality of courses in the program.

TABLE 13: THE METHODS USED TO ENSURE THE QUALITY OF THE COURSE

Aspect Verified	Assessment Method	Assessment Type	Assessor
Evaluating the	Course Evaluation	Indirect	Student

effectiveness of teaching	Survey		
Evaluating the effectiveness of student assessment	Course evaluation survey	Indirect	Student
	- Course result statistical analysis - Course report	Direct	Course coordinator
	Exam results evaluation report	Direct	Examination and evaluation committee
	Annual Program report	Direct	Program Manager
Evaluating the quality of learning resources	Course Evaluation Survey	Indirect	Student
The extent to which CLOs have been achieved	Course Evaluation Survey	Indirect	Student
	Course report and CLOs Assessment Report	Direct	Course coordinator
	Course Assessment Evaluation Feedback Report	Direct	Learning outcomes assessment committee
	Annual Program report	Direct	Program Manager

10.2. GRADUATION PROJECT DEVELOPMENT CYCLE

Ensuring the quality of Final Year (Graduation) project courses involves a comprehensive mechanism that includes clear guidelines, robust evaluation criteria, continuous supervision, and structured feedback. Here's a step-by-step outline to ensure high quality in such courses:

1. **Learning Outcomes**

- Use specific, measurable learning outcomes for the course that align with the overall objectives of the program. CLO assessment defines the learning outcomes that Graduation Project (GP) courses aim to develop in students (knowledge, skills, and values). This assessment tool informs ongoing improvements to the GP, identifies domains where students may need additional support or resources, and adjusts the course study accordingly.

2. **Selection and Approval of Projects**

- Implement a structured process for supervisors and students to propose project ideas, including a review by a committee to ensure feasibility, relevance, and academic rigor.
- Establish well-defined criteria for project proposal approval.

3. Supervision

- Assign each group of students a qualified faculty supervisor with expertise in the relevant area.
- Schedule regular meetings between students and supervisors to monitor progress, provide guidance, and address any challenges.
- Require students to submit weekly progress reports that detail their activities, findings, and any deviations from the plan.

4. Program Support

- During Phase 1, the program provides structured support through 6 dedicated lectures for GP Phase 1 students. These lectures cover all phases of project development, including written and presentation skills. During the sessions, the templates for project deliverables are presented and explained to students.

5. Assessment and Evaluation

- Apply detailed rubrics for evaluating various aspects of the project, including technical components, teamwork, and presentation skills.
- Use multiple evaluators to assess the final project to ensure fairness and reduce bias.

6. Feedback and Improvement

- The supervisor and committee provide detailed feedback to students on their performance, highlighting strengths and areas for improvement.
- The course coordinator collects feedback from all students and supervisors on the project process and uses it to make improvements for future course plans.

7. Documentation and Resources

- Provide comprehensive guidelines and templates for project proposals, reports, and presentations.
- Ensure students have access to necessary resources, such as labs, software, research materials, and libraries.

For further information, please refer to the **Graduation Project Guide [**LINK**].** Figure 17 shows the graduation project development cycle.

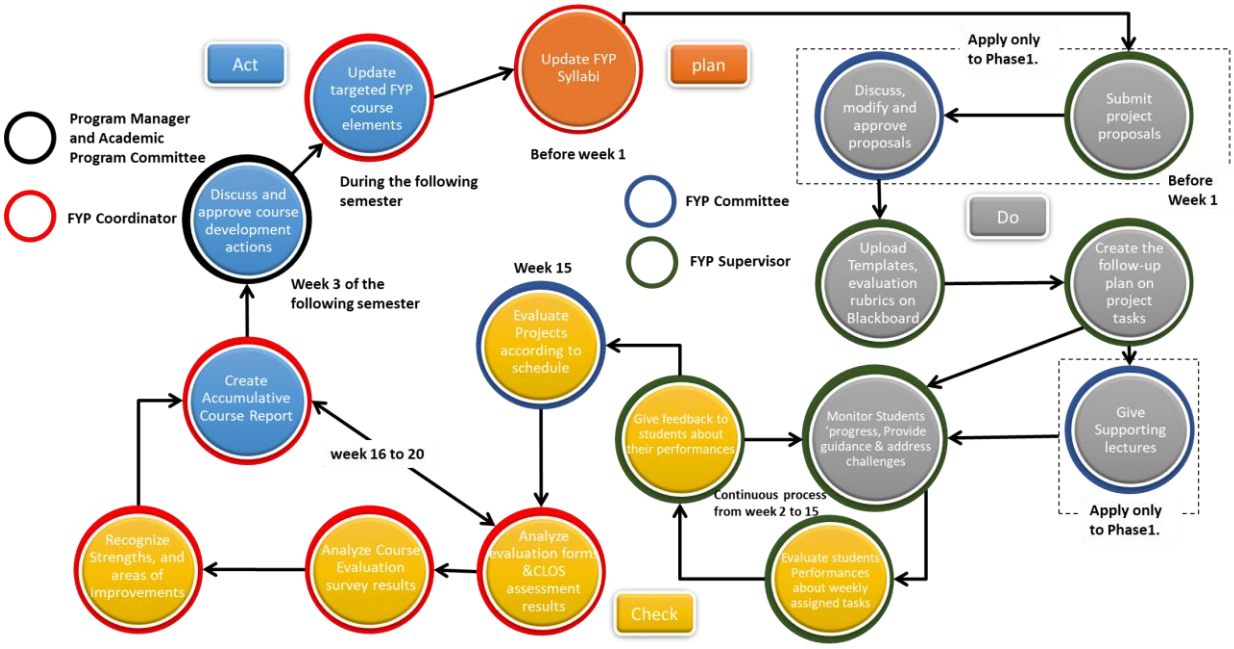

FIGURE 17: GRADUAUTION PROJECTS 1, 2 COURSES DEVELOPMENT CYCLE

10.3. INTERNSHIP COURSE DEVELOPMENT CYCLE

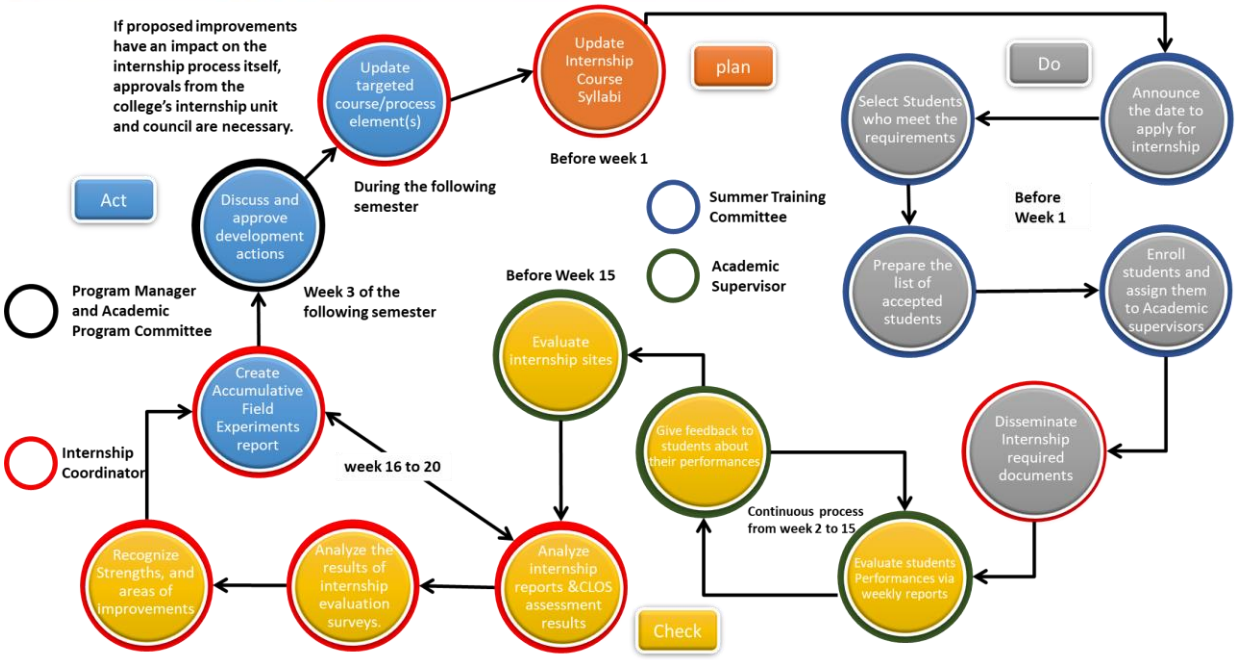

FIGURE 18: INTERNSHIP COURSE DEVELOPMENT CYCLE

The Figure 18 outlines the structured process for managing the IT497 Summer Training (Internship) course, a vital requirement of the Bachelor of Science in Information Technology program. The internship serves as an essential bridge between academic learning and professional application, offering students an opportunity to gain practical experience. The process is designed around the Plan-Do-Check-Act (PDCA) cycle, a proven method for ensuring quality and continuous improvement. Below is a detailed explanation of each phase and its associated steps.

1. **Plan Phase**

The planning phase focuses on preparing the course structure, documents, and procedures to ensure a smooth internship experience for all stakeholders. The following steps are part of this phase:

- Update Targeted Course/Process Elements: This step involves reviewing and revising various components of the internship program, such as objectives, guidelines, and evaluation methods, to ensure alignment with industry trends and academic requirements.

- Update Internship Course Syllabi: The syllabi for the IT497 course are regularly updated to reflect any changes in learning outcomes, assessment criteria, or skill expectations, ensuring relevance and consistency.

These preparatory activities set the foundation for a well-structured internship program, ensuring it aligns with the program's educational objectives and Course Learning Outcomes (CLOs).

2. Do Phase

The execution phase emphasizes the effective implementation of the planned internship activities, beginning well before the official internship period starts.

- Before Week 1: The pre-internship preparation includes several key steps:
  - Announcement of Application Dates: Students are informed about the internship application timeline, ensuring they are aware of the requirements and deadlines.
  - Selection of Eligible Students: Only students who have completed a minimum of **120 credit hours**, as per the program's prerequisites, are eligible for the internship. This ensures that participants possess sufficient foundational knowledge.
  - Preparation of an Accepted Students List: A formal list of students meeting the criteria is prepared to facilitate the enrollment process.
  - Assignment of Academic Supervisors: Each student is assigned a supervisor who provides guidance and monitors progress throughout the internship.
  - Dissemination of Required Documents: Internship-related documents, including guidelines, evaluation forms, and CLO mapping, are distributed to students and their academic supervisors.
- During the Internship:

Students' performance is closely monitored through regular weekly reports, which help track their progress and address any challenges they face. This ensures a structured learning experience during the internship period.

3. **Check Phase**

The evaluation phase focuses on assessing the effectiveness of the internship process, the quality of student performance, and the alignment with the learning outcomes.

- Evaluate Internship Sites: The suitability and quality of the internship locations are reviewed to ensure they provide students with relevant, real-world learning opportunities.
- Provide Feedback to Students: Supervisors give constructive feedback on students' weekly reports and overall performance, helping them improve their professional skills.
- Analyze Reports and Assessment Results: Internship reports and CLO assessments are analyzed to measure students' achievement of learning outcomes. This step is critical for determining whether the program's objectives are being met.
- Analyze Internship Evaluation Surveys: Surveys from students, supervisors, and host organizations are reviewed to gather feedback on the overall effectiveness of the internship program.

This phase ensures that the internship is evaluated comprehensively, identifying strengths and areas requiring improvement.

4. **Act Phase**

The final phase focuses on taking corrective and developmental actions based on the insights gained during the evaluation process.

- Recognize Strengths and Areas of Improvement: Successful practices are acknowledged, and areas where the program can be enhanced are identified.

- Discuss and Approve Development Actions: Faculty and stakeholders collaborate to propose and approve specific changes aimed at improving the internship program.
- Update Targeted Course/Process Elements: Based on feedback and evaluation results, the internship course syllabus and related processes are updated to reflect the necessary improvements.

This phase ensures continuous improvement of the internship program, making it more effective and aligned with both academic and industry requirements.

Figure 18 demonstrates a well-organized process for managing the IT497 Summer training course, emphasizing the integration of planning, execution, evaluation, and improvement. By adhering to this systematic approach, the program ensures that students gain valuable practical experience, meet academic and professional standards, and are well-prepared for future career challenges.

For further information, please refer to the Summer training manual **[Link]**

10.3.1. Effectiveness of Training and Assessment

The use of CLO assessment and feedback from surveys can be valuable tools for measuring the quality of the **IT497 Summer training (Field Training)** course. CLO assessment defines the learning outcomes that the internship course aims to develop in students, focusing on knowledge, skills, and values. This assessment provides actionable insights into areas where students may require additional support or resources and helps adjust the course content to ensure alignment with program objectives. Surveys serve as complementary tools for evaluating the internship program, offering feedback from both students and supervisors to drive data-informed improvements.

In the **Information Technology Program**, two comprehensive surveys are conducted at the end of the internship to evaluate its quality and identify areas for enhancement:

10.3.1.1. Student Evaluation Survey of Internship (PO_FTR_STU)

This survey collects feedback from students on various aspects of their internship experience, focusing on its relevance, effectiveness, and overall quality. The items in this survey are grouped into the following clusters:

Cluster 1: Alignment with Academic Objectives

1. The field training plan aligns with theoretical studies and enhances their practical application.
2. The training contributes effectively to achieving the program's learning outcomes and objectives.

Cluster 2: Skill Development

3. The internship helps in acquiring necessary technical skills and adequately refines graduates' competencies.
4. The training enhances collaborative and teamwork skills.
5. The internship develops the ability to analyze professional situations.
6. Field training provides a good opportunity to refine personality and acquire life skills.
7. The program improves communication and problem-solving skills.

Cluster 3: Training Quality and Seriousness

8. Field training experiences reflect seriousness and a sense of responsibility.
9. The training program content is appropriate for the internship duration.
10. Clear and specific mechanisms are available for evaluating students' work during the internship.
11. Reports and activities related to the internship are assessed fairly and objectively.

Cluster 4: Internship Site Suitability

12. The selected internship organizations are suitable for the program's nature.

13. Internship institutions have the resources necessary to complete training and achieve its objectives.
14. The location of the internship institution is accessible and convenient.
15. Adequate safety measures are available at the training site.
16. The training site provides opportunities for gaining diverse and beneficial experiences.

Cluster 5: Support and Guidance from Training Site

17. Training site staff offer necessary assistance to student trainees.

Cluster 6: Organizational and Process Management

18. Required forms are available to complete the training process effectively.
19. Mechanisms and forms are well-organized to facilitate the internship process.

Cluster 7: Supervisor's Role

20. The supervisor provides a clear overview of the internship institution and its rules before the internship starts.
21. The training supervisor possesses the knowledge and experience needed to assist students during their training.
22. The training supervisor tracks students' progress during the internship.
23. The supervisor provides continuous assistance and advice to trainees.
24. The supervisor conducts group and individual meetings with trainees to review their work and discuss challenges.
25. The supervisor considers students' feedback about the training site and activities and responds to it.
26. Follow-up meetings are held to track the implementation of the training plan and discuss necessary adjustments.

10.3.1.2. Supervisor Evaluation Survey of Internship (PO_FTR_SUP)

This survey gathers feedback from internship supervisors regarding the training's alignment with academic and practical objectives. The items in this survey are similarly grouped into clusters for focused evaluation:

Cluster 1: Alignment with Academic Objectives

1. The field training plan aligns with theoretical studies and enhances their practical application.
2. The training contributes effectively to achieving the program's learning outcomes and objectives.

Cluster 2: Skill Development

3. The internship helps in acquiring necessary technical skills and adequately refines graduates' competencies.
4. The training enhances collaborative and teamwork skills.
5. The internship develops the ability to analyze professional situations.
6. Field training provides a good opportunity to refine personality and acquire life skills.
7. The program improves communication and problem-solving skills.

Cluster 3: Training Quality and Seriousness

8. Field training experiences reflect seriousness and a sense of responsibility.
9. The training program content is appropriate for the internship duration.
10. Clear and specific mechanisms are available for evaluating students' work during the internship.
11. Reports and activities related to the internship are assessed fairly and objectively.

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12. The selected internship organizations are suitable for the program's nature.
13. Internship institutions have the resources necessary to complete training and achieve its objectives.
14. The location of the internship institution is accessible and convenient.
15. Adequate safety measures are available at the training site.
16. The training site provides opportunities for gaining diverse and beneficial experiences.

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17. Training site staff offer necessary assistance to student trainees.

Cluster 6: Organizational and Process Management

18. Required forms are available to complete the training process effectively.
19. Mechanisms and forms are well-organized to facilitate the internship process.

Cluster 8: Opportunities for Diverse Learning Experiences

20. The institution allows trainees to explore different departments to gain diverse experiences.

10.3.1.3. Survey Analysis and Recommendations

Analyzing feedback from both surveys provides a holistic view of the internship experience. The **Student Evaluation Survey (PO_FTR_STU)** offers insights into the students' perspectives, identifying strengths and areas for improvement in the training program. The **Supervisor Evaluation Survey (PO_FTR_SUP)** complements this by offering feedback on program structure, training site suitability, and student performance.

By evaluating these surveys, the internship coordinator can assess the quality of the internship program, its alignment with CLOs, and its contribution to the overall program objectives. Improvement areas are identified, and actionable recommendations are developed to enhance the program's effectiveness. For example:

- Feedback on skill development (Cluster 2) highlights specific technical and professional skills that need strengthening.
- Insights on site suitability (Cluster 4) help determine which training sites to avoid or prioritize.
- Input on supervisor roles (Cluster 7) ensures that academic and site supervisors provide consistent support to trainees.

10.3.1.4. CONTINUOUS IMPROVEMENT

Regularly collecting and analyzing survey feedback ensures the internship course remains relevant, effective, and aligned with academic and industry expectations. This iterative process allows for refining the internship program, improving student outcomes, and enhancing the program's overall quality. For more details, refer to the **Internship Manual**.

10.4. COURSE BINDER

The Information Technology program uses the Course Binder as a quality monitoring tool to ensure compliance with approved quality standards established by the Program Manager and the Assessment Committee. The Course Binder is reviewed to check every aspect of the course, and feedback is provided to address any identified issues. The review process involves examining the following items submitted by the course coordinator.

10.4.1. KEY ACTORS AND RESPONSIBILITIES IN THE PREPARATION OF THE COURSE BINDER

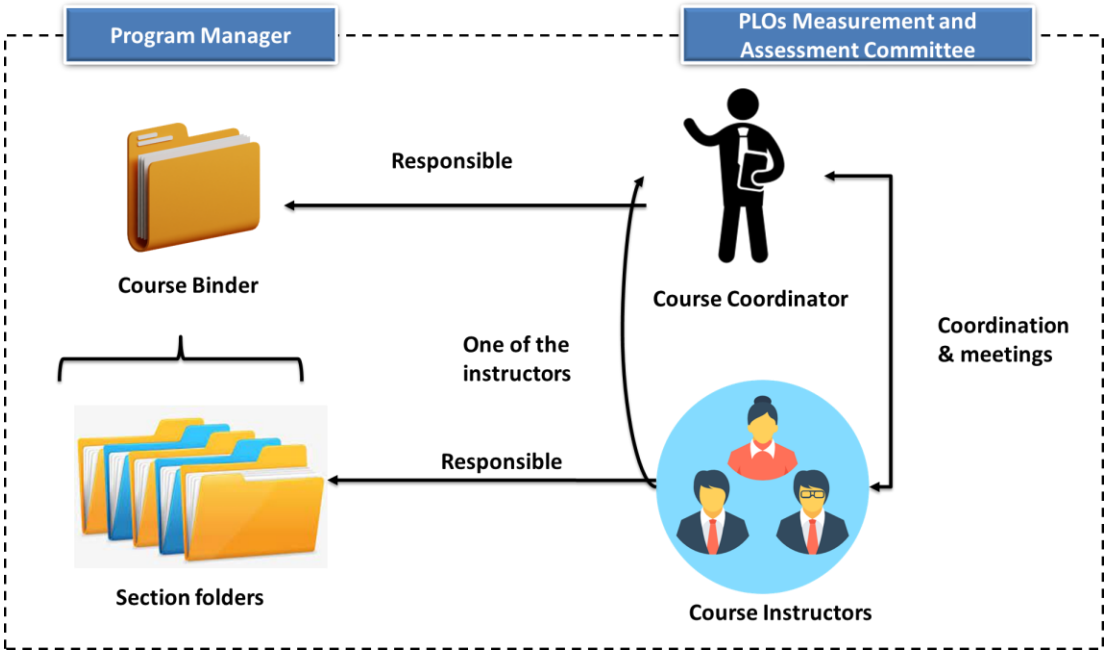

FIGURE 19: KEY ACTORS AND RESPONSIBILITIES IN THE PREPARATION OF THE COURSE BINDER FOR THE INFORMATION TECHNOLOGY PROGRAM

Figure 19 illustrates the key actors and components involved in the preparation of the **Course Binder** for the **Information Technology program**. The diagram outlines the workflow and responsibilities distributed across different stakeholders to ensure the comprehensive assembly of the course binder, which serves as a quality monitoring and improvement tool.

1. **Course Coordinator (Central Actor):**

   The course coordinator plays a vital role in overseeing the preparation and submission of the course binder. They are responsible for collecting all necessary documents, ensuring alignment with program requirements, and organizing the binder according to established guidelines.

2. **Documents and Materials (Folders):**

   The **main Course Binder folder**, labeled with the corresponding course code, is divided into two subfolders:

- **Total Folder:** This folder consolidates overall course-related information, including high-level summaries and aggregated data.
- **Sections Details Subfolders:** These subfolders contain detailed records specific to different sections of the course, such as assessments, student performance, and attendance records.

The contents and purpose of these subfolders will be elaborated on in the next two subsections, providing a comprehensive breakdown of how course data is organized and stored.

3. **PLOs Measurement and Assessment Committee:**

   The committee reviews the contents of the course binder to verify compliance with the program's quality standards. They ensure that assessment practices, student performance data, and course materials meet the expected academic benchmarks. Feedback is provided to the course coordinator for improvements when necessary.

4. **Program Manager:**

   The program manager defines and communicates the quality rules, standards, and expectations that guide the preparation of the course binder. They provide oversight to ensure that all processes align with the Information Technology program's objectives and institutional quality policies. Additionally, the program manager:

   - Conducts workshops for faculty members, particularly new instructors, to explain how to prepare a Course Binder. These workshops also address any new requirements or updates that need to be included in the course binder, ensuring faculty members are well-informed and equipped to meet quality standards.
   - Revises the Aggregated Course Report, which consolidates course-level data such as CLO achievement, student performance trends, and quality

assessment results. Based on their review, the program manager can request modifications or improvements from the course coordinator to address gaps or enhance the course's alignment with program objectives.

10.4.2. TOTAL SUBFOLDER CONTENT

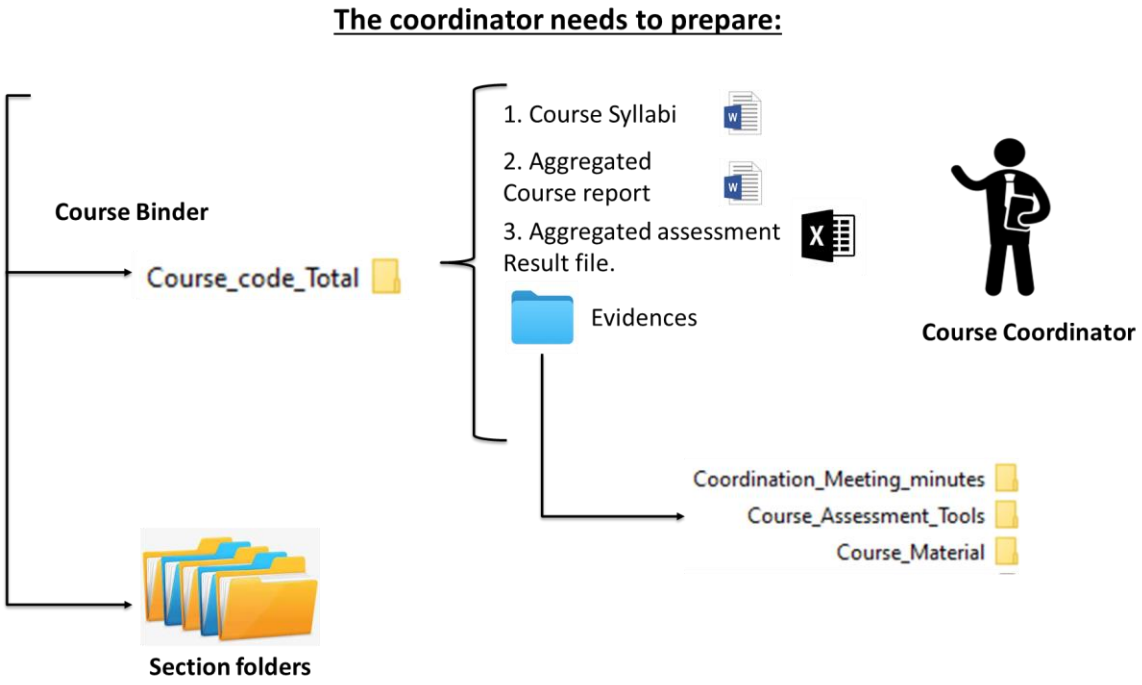

FIGURE 20: TOTAL SUBFOLDER ORGANIZATION

This figure represents the organization of the **Total Subfolder** within the **Course Binder**. The subfolder is the responsibility of the course coordinator, who is required to upload the following key components:

1. **Course Syllabi:**

   The course syllabi must be uploaded at the beginning of the semester. This document, approved by the PLOs Measurement and Assessment Committee, ensures alignment with the program's learning outcomes and assessment strategies. The course coordinator is responsible for ensuring consistency between what was planned in the syllabus and what was actually implemented during the semester. This consistency is verified by the same committee.

2. **Aggregated Course Report:**

   The course coordinator must upload the **Aggregated Course Report**, adhering to the latest version provided by the NCAAA. This report consolidates data and feedback from all course section reports, including necessary improvements and recommendations. The Program Manager reviews and verifies the report's content, discussing its findings with the committee to ensure its validity and usefulness.

3. **Aggregated CLOs Assessment Results:**

   The **Aggregated CLOs Assessment Results** is an Excel file provided by the PLOs Measurement and Assessment Committee. This file includes the assessment measurements for all course sections, enabling the evaluation of students' achievements against the Course Learning Outcomes (CLOs). The coordinator must ensure this document is uploaded for review.

4. **Evidences Subfolder:**

   The **Evidences Subfolder** contains additional documentation critical for ensuring the quality and coordination of the course. This subfolder is further divided into three key sections:

   - **Coordination Meeting Minutes:**

     The course coordinator must upload at least three meeting minutes. These meetings should document discussions and decisions related to course coordination among instructors. The three required meetings typically include:

     - A meeting at the beginning of the course to discuss learning strategies and expectations.
     - A meeting before the midterm exam to discuss progress, challenges, and any adjustments needed.

- A meeting before the final exam to review the semester's progress, identify challenges, and discuss successes and recommendations.

- **Course Assessment Tools:**

  This subfolder contains all unified and common assessment tools used in the course. In the **BSc of Information Technology**, midterm and final exams are unified across both male and female sections. Other unified assessments, such as project descriptions or assignments, should also be uploaded here.

- **Course Material:**

  This subfolder contains all shared course materials, such as lecture slides, lab booklets, and any other instructional resources used during the semester. These materials provide a complete record of the course's delivery and ensure consistency across all sections.

10.4.3. SECTION SUBFOLDER CONTENT

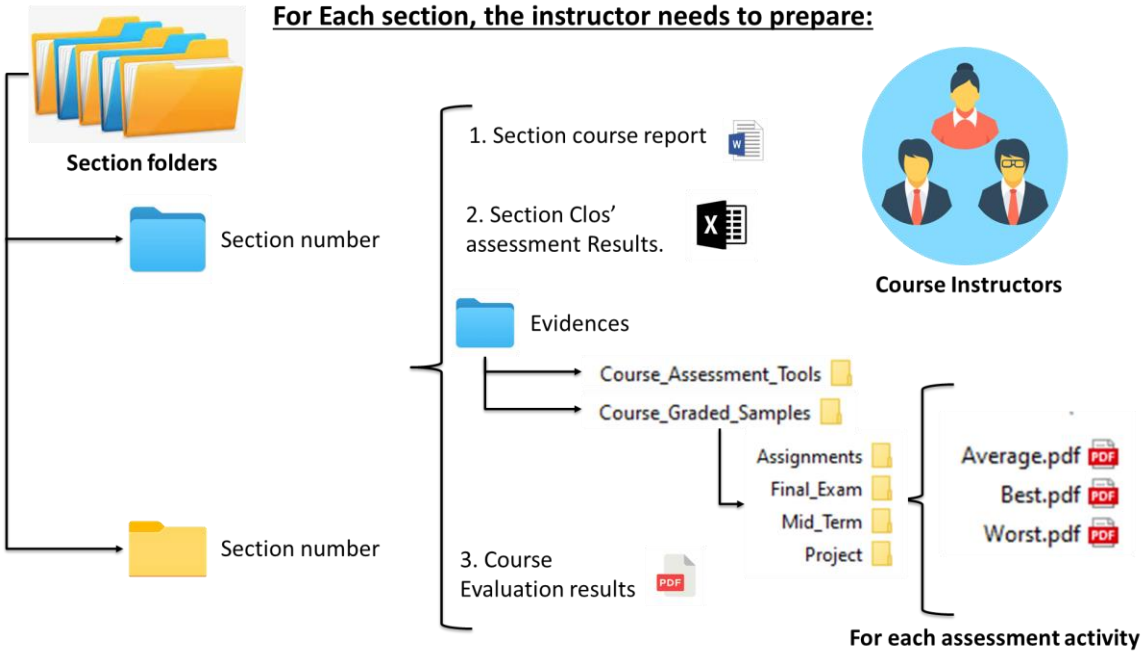

FIGURE 21: SECTION SUBFOLDER ORGANIZATION

Figure 21 represents the **Section Details Subfolder**, which is to be prepared by each course instructor for the specific course section(s) they are responsible for. This subfolder ensures that all section-level details are documented comprehensively and aligned with the course's quality standards. Each instructor must create a separate folder for their section, containing the following components:

1. **Course Section Report:**

   Each instructor must complete and include the **Course Section Report** using the latest version provided by the NCAAA. This report is essential for summarizing the section's outcomes, performance, and challenges. It should include:

   - **Results and Feedback:** A detailed analysis of student performance, including results and any feedback regarding the section.
   - **Improvement Actions:** Specific actions proposed to address issues identified through student results and CLO (Course Learning Outcomes) measurements.
   - **Issues and Missed Content:** If any issues arose during the section or if certain chapters or content were not covered, these must be documented here along with explanations and justifications.

2. **CLOs Measurement File:**

   The **CLOs Measurement File** is an Excel file provided by the course coordinator. This file consolidates the assessment results for all CLOs in the section. Instructors must ensure that:

   - The file is filled accurately with the section-specific CLO results.
   - No changes are made to the **CLO-Assessment Tools Map**, as this has already been finalized by the PLOs Measurement and Assessment Committee and approved by the course coordinator.
   - CLO results are reported precisely as per the established mapping.

3. **Course Evaluation Results:**

   This file contains the results of the student survey evaluating the course. The instructor must download this file directly from the **section homepage** via the Academic Services section on MyQU. It provides insights into students' feedback about the course content, teaching effectiveness, and overall experience, which are crucial for improvement actions.

4. **Evidence Subfolder:**

   The **Evidence Subfolder** is divided into two parts, each addressing different aspects of section-specific evidence:

   - **Non-Unified Assessment Tools:**
     This subfolder is **mandatory** if the section uses any assessment tools that differ from those used in other sections of the course. Only non-unified tools, such as unique assignments, quizzes, or projects, should be uploaded here to ensure they are accounted for.

   - **Course Graded Samples:**

     This subfolder contains graded student work as evidence of the evaluation process. For each assessment tool used (e.g., exams, assignments, or projects), the instructor must provide three samples representing:

     - **The Best Performance:** Work demonstrating the highest achievement.
     - **The Average Performance:** Work reflecting average performance among students.
     - **The Worst Performance:** Work illustrating the lowest achievement level.

     These samples are crucial for documenting grading consistency and assessment fairness across the section.

The **Section Details Subfolder** ensures that each instructor provides a clear and complete record of their section's performance, challenges, and evidence of assessment practices. This structure supports consistency, transparency, and accountability across all sections of the course. It also enables the course coordinator and relevant committees to review and address any section-specific issues, contributing to the continuous improvement of the course.

11. Program Plans and Reports

11.1. Program Operational Plan

Primarily, the **Information Technology program operational plan** focuses on monitoring the attainment of the program's goals. It includes initiatives that are agreed upon by the program committee to enhance program performance and ensure the achievement of its objectives. The program adopts an annual operational plan; however, initiatives spanning longer time periods are also monitored and evaluated annually.

Each initiative consists of one or more projects, with each project broken down into a set of tasks. These tasks are assigned to specific parties, and their execution is monitored through relevant **program KPIs (Key Performance Indicators)**. Additionally, the required resources and the duration for executing each task are identified to ensure efficient implementation.

Based on the program's achievements, analyzed performance, and the operational plan report from the previous academic year, the program committee is responsible for developing the operational plan for the current academic year. The **Information Technology program** utilizes the operational plan template provided by the **DDQ (Deanship of Development and Quality)**. For further reference, the template can be found in **Appendix A**.

11.2. Program Reports

By the end of the academic year, the **program manager** is responsible for preparing the **Operational Plan Report**. This report evaluates the achievement of the operational

objectives based on the related performance indicators, identifying strengths, areas for improvement, and priorities for development. Based on this analysis, a development plan is created to guide future enhancements.

Additionally, the **program manager** collects all the **Program Achievements Reports** using the unified form distributed by the **DDQ**. These reports provide a comprehensive summary of the program's key accomplishments throughout the academic year. The collected reports are discussed during an **Academic Program Committee** meeting, submitted to the **Department Council** for approval, and the key achievements are shared with stakeholders to keep them informed about the program's performance.

At the beginning of the next academic year, after gathering and approving all required data, the program manager prepares the **Annual Program Report** using the official **NCAAA program report form**. This report is presented in an **Academic Program Committee** meeting and subsequently submitted to the **Department Council** for approval.

11.3. PROGRAM DEVELOPMENT PLAN

The **Program Development Plan**, presented in **Section E** of the **Annual Report**, represents a key component of the **Operational Plan** for the new academic year. This plan is developed based on the recommendations discussed and presented in the following reports:

1. **PLOs Assessment Report**: Highlights areas for improvement based on the analysis of Program Learning Outcomes (PLOs).
2. **KPIs Analysis Report**: Provides insights into program performance based on Key Performance Indicators (KPIs).
3. **Surveys Analysis Report**: Summarizes feedback from various stakeholders, including students, faculty, and employers, to identify areas of enhancement.
4. **Operational Plan Report**: Focuses on the non-achieved operational objectives from the previous year.

5. **Quality Committees Reports**: Addresses new challenges, initiatives, and objectives identified by the quality committees.
6. **Supporting Committees Reports**: Includes reports from the **Training Committee**, **Scientific Research Committee**, and **Community Services Committee**, highlighting their contributions and areas for development.

The **Program Development Plan** outlines the proposed development actions, assigns a responsible party for each task, and establishes a timeline for execution. Tasks are distributed according to their nature to the relevant committees, which incorporate these tasks into their respective **Executive Plans**. These execution plans serve as a follow-up tool to monitor progress and ensure the successful implementation of the development actions.

12. APPENDIX A

NCAAA Program Forms		PLOs/GA assessment plan	
CoC Course Syllabi		PLOs/GA assessment report	
Comprehensive Matrix for CLOs assessments		Faculty/ Staff Training plan template	

Bachelor's degree study plan template		Faculty/ Staff Training report template	
Program /Course Update QU Guide.		Surveys Analysis report	
Program Update Form		KPIs Analysis report	
Equivalency courses form		Exit Exam template	
Grade Adjustment Form		Committee executive plan template	
Operational Plan template		Annual Committee executive plan report	
Operational Plan report template		Committee meeting minute template and Follow up template	

13. REFERENCES

[1] Qassim University, Deanship of Development and Quality, Quality System of Academic Programs, [link]

[2] Qassim University, Deanship of Development and Quality, Policy and System of Quality [link]

[3] Princess Nourah University, Quality System of Academic programs [link]


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