KINGDOM OF SAUDI ARABIA
Ministry of Education
University of Tabuk
Faculty of Science
Department of Food Science and Nutrition
Bachelor of Science in Sustainable Food Systems

المملكة العربية السعودية
وزارة التعليـــــم
جـامـعـة تـبـوك
كلية العلوم
قسم علوم الغذاء والتغذية
برنامج النظم الغذائية المستدامة

Bachelor of Science in Sustainable Food Systems Program

Quality Assurance Management Guide

Version 1.0.0

Approved by: Council of Food Science and Nutrition department, Faculty of Science, University of Tabuk, for the academic year 1446

Committee Approval

Committee	Quality Committee
Reference No.	
Date	

Council Approval

Council	Department Council
Reference No.	
Date	

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Declaration:

The Sustainable Food Systems Program at the University of Tabuk declares its commitment to maintaining the highest standards and its attention to quality assurance. We aspire to offer an extraordinary program that not only meets, but also exceeds, our stakeholders' requirements and expectations. We are continually developing and adapting to changing needs, and we will put in place and maintain comprehensive quality assurance methods to monitor and assess the efficacy and efficiency of our program. Regular evaluations, assessments, and audits will be done to verify that our program continuously exceeds stated criteria.

Definitions:

Quality: A measure of how well an object, product, service, or process meets or exceeds established standards, requirements, or expectations.

Academic quality: Refers to the standard of excellence in educational institutions and programs. It encompasses various aspects of the learning experience, curriculum, teaching methods, faculty, resources, and student outcomes.

Quality assurance: A systematic and ongoing process that institutions and organizations implement to ensure and enhance the quality, effectiveness, and standards of education and related services provided to students.

Academic standards: Refer to a set of criteria and benchmarks that define the expected level of knowledge, skills, and competencies that students should attain in a specific field or discipline within the context of higher education.

Quality system: Refers to a comprehensive framework and a set of documented policies, procedures, processes, and resources that a program implements to ensure and manage the quality of its academic programs, teaching, research, and related activities.

Policies: Formal statements or guidelines that define an organization's principles, rules, and procedures. They serve as a framework for decision-making, governing various aspects of an organization's operations, behaviour, and interactions.

Procedures: These are step-by-step instructions or guidelines that outline the specific actions and processes required to carry out a particular task or achieve a specific outcome within an organization.

Tasks and Activates: Tasks are typically specific, well-defined, and focused actions that can be completed within a relatively shorter timeframe. Activity typically refers to a broader, more encompassing unit of work. It

	represents a more extensive, complex set of actions or operations performed to achieve a specific objective or goal.
Forms:	Refer to structured documents or templates used to collect, record, and organize information in a standardized format.
Records:	Refer to any documented information, data, or evidence created, received, maintained, and used by an individual, organization, or system as evidence of activities.
Course:	A structured educational program or unit of study offered by an academic institution.
Determinants:	Determinants refer to the factors or influences that shape the development of some program component.
Instructor:	A teacher or educator who is responsible for facilitating learning and guiding students in their educational journey.
Course coordinator:	Also known as a course manager, an individual who oversees the planning, development, and overall management of a specific course or a group of related courses within an educational institution.
Program Committees:	Program committees facilitate collaborative decision-making, address specific program-related issues, and ensure representation from relevant stakeholders.
Faculty Members:	Faculty members are responsible for delivering courses, designing curricula, and providing academic guidance to students. They contribute their expertise and knowledge to ensure high-quality teaching and learning within the program.

Abbreviations

To enhance readability and streamline the manual's content, we have included a list of commonly used abbreviations and their corresponding full forms in the following section.

UT	University of Tabuk.
FOS	Faculty of Science.
NCAAA	National Commission for Academic Accreditation and Assessment.
NQF	National Qualification Framework.
CES	Course evaluation surveys.
PES	Program evaluation survey.
SES	Student experience survey.
SSS-AC	Academic staff Satisfaction survey.
SSS-AD	Administrative staff satisfaction survey.
EES	Employer Evaluation survey.
SES	Self-evaluation scales.
SWOT	Strength, weakness, opportunities, and threats analysis.
SSRP	Self-evaluation report for programs.
KPI	Key performance indicators.
CR	Course report.
APR	Annual program report.
CLOs	Course learning outcomes.
PLOs	Program learning outcomes.
HOD	Head of Department.
DQC	Development and quality committee.
FQC	Facilities and equipment committee.
MEWG	Measurement and evaluation working group.
PLOWG	PLOs working group
GAWG	Graduate attributes working group.
OPWG	Operational plan working group.
CLOWG	CLOs working group.
KPIWG	Key performance indicators.

Introduction

Purpose:

This comprehensive manual serves as a guide to ensure the highest standards of quality in our program's activities, procedures, responsibilities, and reporting. By adhering to the guidelines outlined in this manual, we aim to achieve excellence, efficiency, and continuous improvement in all aspects of our program. This manual provides a clear framework for maintaining consistency, accountability, and transparency throughout the program's lifecycle.

The manual encompasses a wide range of essential components related to quality assurance. It outlines the various activities carried out within the program, including planning, implementation, monitoring, and evaluation. Additionally, it provides detailed procedures and protocols to follow to ensure the smooth execution of these activities. Clear roles, responsibilities, and accountabilities are assigned to different stakeholders involved in the program, fostering a collaborative and results-oriented approach. Moreover, the manual establishes comprehensive reporting mechanisms to track progress, identify areas for improvement, and communicate program outcomes to relevant stakeholders.

Scope:

This manual applies to all personnel involved in the Sustainable Food Systems Program, including program managers, staff members, and relevant stakeholders. It encompasses all stages of the program, from planning to evaluation and improvement.

Document Control:

This manual is version-controlled and maintained by the program administration office. Any revisions or updates to the manual will be documented, and the latest version will be made available to all relevant personnel.

The development and quality management goals:

The quality assurance management system has the following main goals:

- Ensure good practices for quality assurance processes.
- Ensure continuous improvement of the Sustainable Food Systems Program.
- Ensure high-quality outcomes.

Quality System

The Sustainable Food Systems Program implements a comprehensive and robust quality system to ensure excellence in every aspect of the program. Our quality system encompasses the development of clear Program Learning Outcomes (PLOs), Course Learning Outcomes (CLOs), and Graduate Attributes that guide our curriculum design and delivery. We employ a variety of assessment methods to comprehensively evaluate student progress and provide timely feedback for improvement. Additionally, our quality system includes a rigorous program evaluation process that allows us to continuously assess the effectiveness of our program, make data-informed decisions, and implement enhancements to meet the evolving needs of our students and industry demands.

Sustainable Food Systems Program Overview:

The Department of Food Science and Nutrition was established under the decision of the Board of Higher Education in the academic year 1444/ 1445 to address the growing demand for qualified specialists in food production and quality control in the local community.
The Sustainable Food Systems program is designed under the umbrella of the Food Science and Nutrition Department to provide students with comprehensive knowledge and skills in various aspects of food systems, from production of raw material, different processing technology, food safety and management to quality assurance and innovation in food products. It requires the successful completion of 135 credit hours, including a capstone project in the final year. Through a combination of theoretical coursework and hands-on practical experiences, students gain a deep understanding of food systems. They are prepared for careers in research, agriculture, food production, food quality control and more.

Reasons for Establishing the Program:

The establishment of the Bachelor of Science in Sustainable Food Systems program at the Department of Food Science and Nutrition in Tabuk Region was driven by the pressing need to meet the demands of the local community, development projects, businesses, and industrial organizations for skilled professionals in the field of food systems. Qualify students with the knowledge and skills needed to contribute to creating a food economy that integrates sustainable economic development, land management, food security, environmental protection, Biodiversity and climate change resiliency with community health and well-being and fostering interdisciplinary collaboration. Reinforcement of the Faculty of Science at the University of Tabuk's role in meeting the labour market needs and aligning the outputs with the Saudi SDGs, consistent with Saudi Vision 2030 and development projects and enhancing international cooperation in research and educational initiatives. Contribute to solving local food systems' challenges and creating a more sustainable food future through specialized applied research and community services and fostering global partnerships. Reinforce local food systems and seek to achieve food self-sufficiency, all the way to contribute to global food security while

promoting resilience against food market volatility. The program's mission encompasses education, research, and community service, aligning with the mission of the faculty and the University of Tabuk while emphasizing the program's unique identity.

The Statement of Mission of the Department of Food Science and Nutrition is as follows:

To prepare qualified graduates in food science and nutrition who demonstrate the knowledge, skills, and professional values required to promote food security, improve human health, and contribute to scientific innovation through excellence in education, applied research, and community engagement, with a commitment to sustainability and public health.

Learning outcomes of the Sustainable Food Systems Program are specified clearly in the program specification using the National Qualification Framework (NQF), which provides three learning domains: Knowledge – Skills – and Values.

Program Vision

Excellence in the science and research of sustainable food systems and food security. to meet society's needs and sustainable development requirements.

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Program Mission:

Qualifying human cadres in the fields of food security and sustainable food systems, through quality in education, scientific research, and community service, in a manner that meets the needs of the present without compromising the ability of future generations to meet their own needs emphasizing technological innovation and public policy, in alignment with the Saudi Vision goals 2030 and development projects in the region.

Program Goals:

1. Qualify students with the knowledge and skills needed to contribute to creating a food economy that integrates sustainable economic development, land management, food security, environmental protection, Biodiversity and climate change resiliency with community health and well-being and fostering interdisciplinary collaboration.
2. Reinforcement of the Faculty of Science at the University of Tabuk's role in meeting the labour market needs and aligning the outputs with the Saudi SDGs, consistent with Saudi Vision 2030 and development projects and enhancing international cooperation in research and educational initiatives.
3. Contribute to solving local food systems' challenges and creating a more sustainable food future through specialized applied research and community services and fostering global partnerships.

4. Reinforce local food systems and seek to achieve food self-sufficiency, all the way to contribute to global food security while promoting resilience against food market volatility.

Program LOs

Knowledge and understanding	
K1	Describe food systems' main aspects, and the related basic and applied interdisciplinary sciences.
K2	Explain the fundamentals and concepts of management and quality control systems, food health and safety practices, and sustainable food waste recycling.
K3	Recognize the environmental foundations for the sustainable use of natural resources in food production and processing.
K4	Describe the principles of sustainable food systems and food security, including the regulatory, technical, and marketing issues at local and global levels.
Skills	
S1	Apply cognitive, research and practical skills in sustainable food systems sciences to achieve a sustainable food system and security.
S2	Develop alternative solutions in food production, natural resource utilization and food waste recycling that contribute to saving energy, reducing pollution, and achieving environmental sustainability.
S3	Use scientific techniques to interpret scientific data and address food security challenges.
S4	Communicate effectively, orally and in writing, particularly concerning critical evaluation of scientific issues related to sustainable food systems.
Values, Autonomy, and Responsibility	
V1	Evaluate the role of sustainable food systems and food security in promoting justice for future generations, focusing on food production's environmental, economic, and social aspects.
V2	Demonstrate social responsibility by organizing activities and programs supporting environmental sustainability and limiting food waste.

Sustainable Food Systems Program – Graduate Attributes

1. Demonstrate a comprehensive understanding of the components, dynamics, and interdependencies of sustainable food systems at local and global levels.
2. Apply principles of sustainability, nutrition, environmental science, and economics to design and evaluate food systems that promote food security and public health.
3. Assess the environmental, social, and economic impacts of food production, distribution, consumption, and waste management practices.
4. Utilize scientific research methods to investigate challenges in food systems and propose evidence-based, innovative, and context-appropriate solutions.
5. Employ modern tools, digital technologies, and data analysis to support decision-making in sustainable food system planning and management.
6. Work effectively in interdisciplinary and multicultural teams, demonstrating leadership, ethical responsibility, and commitment to social and environmental justice.
7. Communicate complex food systems issues clearly and persuasively to diverse audiences through oral, written, and visual formats.
8. Engage in lifelong learning and continuous professional development to adapt to evolving global food system challenges and contribute to sustainable development goals.

The organizational structure of the Sustainable Food Systems Program:

Objective

- Ensure compatibility between the department's tasks and activities and the university's tasks and activities.
- Ensure that all members of the department are involved in the management and implementation of work and decision-making.

Execution Responsibility: Head of the Department

Reference

- Organizational structure of the university
- Requirements of the National Centre for Academic Evaluation and Accreditation
- Guide to the governance structure of Tabuk University
- Tabuk University organizational structure guide for the colleges
- Tabuk University College and Dean's Office Duties and Responsibilities Documents

Procedures

1. Prepare a detailed list of academic and administrative activities in the department.
2. Determine the organizational relationships of these activities with various departments and units of the college at different levels.
3. Establish a network that allows for consistency with the organizational structure of the university, ensuring alignment in information sharing, plan implementation, and decision-making without overlap or duplication.
4. Distribute tasks, responsibilities, assignments, and implementation mechanisms.
5. Determine the follow-up mechanism through the departmental council.
6. Create maps with job descriptions.

Outcomes

- Minutes of the approvals of the organizational structure.
- Maps with job descriptions.

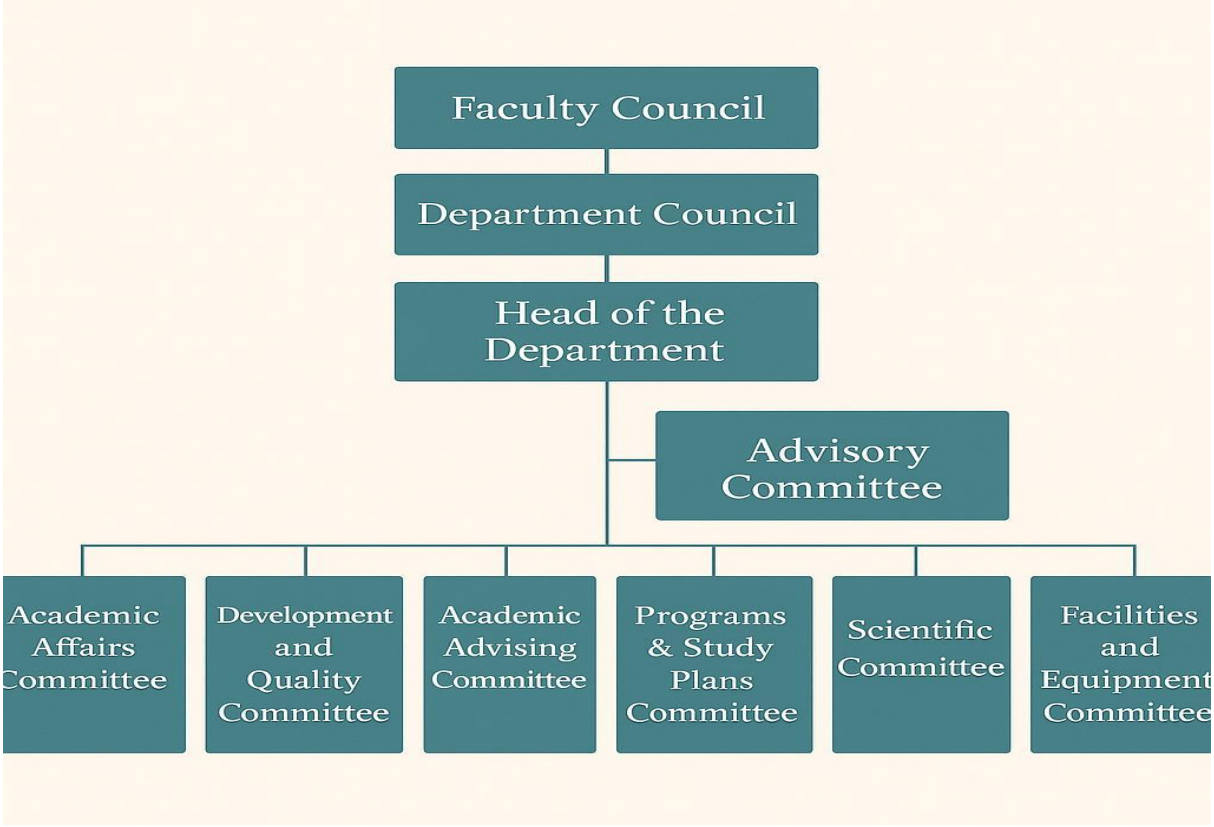

Figure 1 The Sustainable Food Systems Program Organizational Chart

Department Council Overview

Objective: Examine and discuss all departmental tasks and work, make recommendations and decisions, and enforce appropriate policies.

Chairman of the Council: Head of the Department

Council Members: All faculty members of the department

Secretary of the Council: Assigned faculty member

Responsibilities and Tasks

1- Curriculum and Academic Materials:
Propose study plans, curricula, textbooks, and references to the department Council.

2- Faculty Appointment and Promotion:
Recommend the appointment and promotion of faculty members, lecturers, and teaching assistants.

3- Research and Publication:
Study scientific research projects, encourage research activities, and assist in publishing completed research.

4- Academic Activities:
Distribute lectures, exercises, and training to faculty members and teaching assistants.

5- Postgraduate Programs:
Propose plans for postgraduate programs and admission criteria.

6- Teaching Authority:
Teach courses within the specialization after approval by the University Council.

7- Committee Formation:
Form permanent and temporary committees to fulfil the department's needs.

8- Decision-Making and Oversight:
Consider subjects referred by the dean, the college council, or the college deputies.

Reference

Task guide for leadership positions in colleges and supporting deanships at Tabuk University

Council Input and Referrals

The Department Council receives input from various committees and information referred to them by the Head of the Department, the Dean, the College Council, or College Vice-Deans. This input may come in the form of minutes or letters.

Council outputs

Minutes of the meetings are submitted to the college's dean or the college council.

Duties, Responsibilities, and Powers of Department Employees

Department Management - Head of the Department

Description: The head of the department is a distinguished faculty member with scientific and administrative competencies. They are appointed by the Rector of the University, upon the proposal of the Dean of the Faculty, for a two-year term, with the possibility of reappointment.
Main Objective: Oversee the academic, financial, and administrative affairs of the department and enforce the rules and regulations of the University Council and related decisions.
Overall Objectives

1. Fulfilment of the mission and objectives of the department.
2. Realize the objectives and policies of the university.
3. Chair the Departmental Council and oversee the organization and its affairs.
4. Communicate minutes of Council meetings to the Dean and ensure the application and implementation of Council decisions and recommendations.
5. Oversee the implementation of the decisions of the University Council concerning the department.
6. Oversee the operational plan of the department and follow up on its implementation.
7. Oversee the work of the departmental committees and monitor the implementation of their work.
8. Work on meeting the academic, research, and administrative needs of the department.
9. Oversee the preparation of the academic plan for the department and the implementation of academic changes following the capacity of the electronic registration portal.
10. Monitor the progress of the educational process within the department, implement curricula, and work on their further development.
11. Work on the academic development of the department and research.
12. Monitor compliance with quality requirements and academic accreditation in relation to the department.
13. Represent the department in activities and meetings related to the department within and outside the university within the scope of authority.
14. Coordinate the Department's partnership relations with relevant authorities within and outside the University within the limits of delegated authority.
15. Submit reports to the Dean on the progress of work in the department and on any academic or behavioural problems or breaches of job duties by any member of the department and follow up on the implementation of the Dean's instructions in this regard.
16. Prepare and submit to the Dean a comprehensive annual report on the development of the academic, research, and administrative performance of the Department.

17. Carry out any other tasks assigned by the Dean within the scope of their mandate.

Authorities and Capacities

1. Allocation of academic load among faculty members.
2. Assignment of academic advisors.
3. Assignment of a faculty member to serve as a course coordinator for each course taught in the degree program.
4. Approval of course grades.
5. It is recommended that other faculty members be involved in grading final exam questions or assigning others to assist with grading.
6. Preparation of performance reports for faculty members.
7. Recommendation for faculty members' participation in continuing education courses within and outside the university.
8. Assignment of a faculty member who is not teaching the course to prepare final examination questions for the course, if necessary.

Documentation

Reports, correspondence letters, data.

Department Management - Council Secretary

Description: The council secretary is a distinguished faculty member with scientific and administrative competencies. The Rector of the University appoints them upon the proposal of the Dean of the Faculty, the Vice-Dean of the Faculty, and the Head of the Department. The assignment is for a two-year term and may be renewed.

Main Objective:

Organize and document the work of the Departmental Council and be responsible for enforcing the Council system.

Overall Objectives

1. Preparation of the Council's agenda.
2. Coordinate with committees involved with the Council agenda to gather necessary documents and records.
3. Prepare and send invitations to the members of the Council and take necessary measures to hold the meetings.
4. Edit minutes and submit them for voting in the Council system, along with all documentation.

Authorities and Capacities

Vote

Documentation

Correspondences, minutes of meetings.

Department Management - Department Secretariat

Description: A college administration employee assigned by the department head to perform secretarial work for the department head.
Primary Objective: Performing department secretarial work.
Overall Objectives:

1. Coordinate and track preparation for meetings of departmental councils and committees and ensure readiness of facilities at designated meeting locations.
2. Print meeting schedules and write and document meeting minutes.
3. Archive minutes of councils and committees on paper and electronically.
4. Ensure all minutes, letters, and correspondence related to council and committee minutes are printed, reviewed, and forwarded to the appropriate college and university offices.

Authorities and Capacities
None
Documentation:
Correspondence, inventory, and related reports.

Department Employees - Academic Advisor

Job Title: Academic Advisor
Primary Goal: Supporting and assisting the academic affairs and student counseling committee.
Objectives:

1. Assisting the student in their academic activities.
2. Identify the students' interests and suggest programs offered by the department's Academic Affairs and Academic Advising Committee and the college's Academic Advising Department to teach them relevant skills.
3. Recognizing the problems of weak students and providing academic support by nominating them for various programs offered by the Academic Affairs and Academic Advising Committee in the department and the Academic Advising Unit at the college.

Documentation:

- Minutes of meetings.
- Files related to weak, talented, and gifted students.

Department Employees – Laboratory Technician

Job Title: Laboratory Technician
Primary Goal: The incumbent is responsible for developing and ensuring the smooth and successful execution of assigned laboratory courses for several undergraduate courses in consultation with the instructor and/or Faculty member responsible for each course.

Key Accountabilities.

Course Work

- Prepare and provide requisite materials (e.g., solutions, media, reagents, cultures, specimens) for laboratory offerings for assigned courses, including laboratory equipment for the initial and any follow-up laboratory sessions for experiments.
- Clean-up of the laboratory space with the appropriate handling and disposal techniques, includingthe disposal of hazardous materials at the end of each laboratory exercise
- Demonstrate proper and safe operation of equipment, including autoclave, steamer, centrifuge, compound, dissecting and phase microscopes, fume hood, biosafety cabinet, and any other requiredspecialized equipment
- In consultation with Instructors and/or faculty members, troubleshoot and/or update existing experiments.
- Service teaching equipment and maintain records.
- Support Teaching Assistants during lab sessions to troubleshoot technical issues as they arise and/or explain the principles behind experiments.

Administrative Duties

- Source and order laboratory and preparation room maintenance supplies
- In consultation with instructors and faculty member(s) provide recommendations to Associate Chair for equipment to improve pedagogy.
- Prepare and maintain chemical inventory in accordance with UT and legislative requirements.

Safety

- Update posted safety procedures, including hazardous waste disposal etc., so that they are current.
- Maintain equipment certifications and the associated records.
- Prepare and maintain current Standard Operating Procedures (SOPs).
- Maintain first aid kits.
- Maintain safety inspection reports (eye wash station, spill kits, etc.) and report to the Department and Safety Office as required.

Other

- Serve as a technical resource person for faculty, and students in the development of their practical work and projects.
- Serve as a support person in other areas of department operations (laboratory preparation and clean-up for other courses, other department initiatives) as required on an occasional and short-term basis as assigned by the Chair, Associate Chair, or Administrative Officer.

Documentation:

- Documentation of inventory for reagents, samples, chemicals, and other lab materials.
- Records of equipment maintenance, calibration, and repair history.
- Documentation of safety training, including hazardous materials handling, personal protective equipment (PPE) use, and emergency response procedures.
- Documentation of quality control measures, such as instrument calibration, sample verification, and control experiments.

Department Employees - Course Coordinator

Job Title: Course Coordinator.
Main Goal: Supporting and assisting the development and quality committee.
Objectives:

1. Elaboration of the course description.
2. Assist new faculty with documentation processes, course report preparation, and file requirements to document quality work in the course.
3. Monitor the progress of the academic process and faculty engagement in teaching strategies and course evaluation.
4. Preparation of the combined course report.
5. Coordinate meetings with course members to discuss course quality assurance management issues.

Documentation:

- Meeting minutes.
- The combined course reports.
- Attachments of the course quality file.

Regulating and Following Up the Work of Main Committees in the Department

Domain: All work aspects directly affect the department's main tasks, such as implementation, management, and follow-up.
Objective:

- Implementing the department's study and work plans, which are the guarantor of achieving the department's goals and mission.
- Ensuring the participation of a large number of department faculty members, each according to their competence, in the management and execution of the work.
- Carrying out corrective and preventive actions as quickly as necessary to produce quality work.

Implementation Responsibility: Head of the department and chair of the committee.
References Requirements for the National Center for Academic Accreditation and Assessment Quality guide standards.
Policies:

- All program employees agree to implement the study and operational plans approved for the program, as well as the policies, rules, and regulations, without modification.
- If developments require extraordinary action or a change in the implementation of the approved plans for the program, staff or program executive committee heads may present the proposed change and their rationale to program leadership. They may NOT begin implementing the change before receiving approval from authorities at either level, such as the department or college (depending on the level of the proposed change and according to the job description in the approved program/college organizational handbook).

- All program staff and program executive committees are responsible for creating and maintaining files and records documenting the performance of their assigned duties and activities in both paper and electronic formats.
- All documents will be maintained in the department's electronic cloud.

Procedures:

1. The work of the Department's committees is related to the implementation of the various tasks assigned to them by the head of the Department, as well as to the initiatives of the operational plan and the work assigned to them.
2. Each committee receives the initiatives of its work plan, as well as the work assigned to it that is consistent with its assigned tasks.
3. Committees develop a work plan for operational initiatives and all assigned work.
4. Responsibilities and a timeline are distributed for each process in the plan, and the participation of all faculty members in implementing the plan is considered.
5. The committee's business plan is presented to the departmental council for discussion and recommendation for approval and is forwarded to the college council.
6. The plan is communicated to all members of the department and supporting units of the college.
7. Each unit coordinator manages the work plan initiatives assigned to them. The committee chair manages the remaining tasks assigned to them, each according to the approved work plan.
8. The Unit Coordinator meets with the Support Unit at the College level to appropriately coordinate the implementation of operational initiatives. The Committee Chair meets with the relevant college to obtain technical support and assistance to complete assigned tasks according to the established schedule.
9. The committee chair and department head monitor the excellent functioning of processes and procedures through reports every week.
10. An integrated report on the progress of the work plans, especially the operational plan, is submitted monthly to the Department Council.
11. At the end of the academic year, each unit coordinator and committee chair assess the implementation of the action plans by comparing the performance indicator to the target.
12. After the initial self-assessment, the committee develops an improvement plan to address the aspects that need improvement to meet the performance requirements.
13. The strategic planning unit coordinator in the department prepares the final report for the operational plan based on the self-assessment reports of the proposed initiatives and improvement plans with supporting evidence.
14. The Development and Quality Committee reviews the report in its annual form to assess the extent to which the requirements of the performance report are being met and the quality of the supporting documentation.

15. The Departmental Development and Quality Committee reviews the evidence and testimony of accomplishments collected at the level of each initiative by all program committees.
16. The report is presented to the Department Council, and the head of each committee explains the obstacles that may have hindered the implementation process. It discusses the improvement plans developed by their committee.
17. The department council submits the performance report and improvement plans with recommendations to the college council for approval and inclusion in the next year's work plan and forwards them to the appropriate funding agencies.

Outputs: Minutes of Meetings/ completion reports/ improvement plans.

Academic program management system

The academic program management system is based on three processes: **learning and teaching processes**, **research processes**, and **community partnership processes**. These processes are integrated among themselves to form the identity of the program according to the three functions of the university, and the details of these processes are as follows:

Teaching and Learning Processes (Academic Program Management):

The teaching and learning processes are one of the main pillars of the Sustainable Food Systems program, in addition to the processes of research and community service. These processes are based on the program mission: "*Qualifying human cadres in the fields of food security and sustainable food systems, through quality in education, scientific research, and community service, in a manner that meets the needs of the present without compromising the ability of future generations to meet their own needs emphasizing technological innovation and public policy, in alignment with the Saudi Vision goals 2030 and development projects in the region*" which is consistent with University's mission " *To offer a distinguished university education that prepares university graduates with the knowledge, capabilities, and skills needed by the community and developmental projects in the Tabuk region within an exceptional education and administrative environment that promotes innovative research*" Consequently, Sustainable Food Systems Programs at the University of Tabuk strive to produce graduates with competitive specialized skills in food systems fields that contribute to generating and applying knowledge as a catalyst for development.

The Sustainable Food Systems program has directed its attention towards providing outstanding education, both in the quality of the design of the academic program it offers to its undergraduates in determining the characteristics of graduates and the learning outcomes that they should achieve at the end of their educational career when they graduate from the program. To accomplish this, the program has allocated the necessary resources to provide learning resources.

The HOD directly supervises the design and development of academic programs for the undergraduate stage through the Study Plans and Programs Committee in cooperation with the Development and Quality Committee.

Regulations of study and examination for the Sustainable Food Systems program:

The Sustainable Food Systems program must adhere to the study regulations, examination, and rules governing them to ensure the standardization of all procedures.

Quality assurance processes

The educational quality of the Sustainable Food Systems program is the responsibility of food science and nutrition departments, in addition to the role of all faculty members and specialized committees, and based on this concept, the Sustainable Food Systems program is committed to verifying the quality of the teaching and learning process through the following procedures:

- Commitment to standardize course descriptions and program descriptions in the Sustainable Food Systems program of all sections, considering the procedures and mechanisms followed in the procedural guide of the program and study plan at the University of Tabuk.
- The commitment of faculty members in coordination with the course coordinator to teach the approved course description, which is communicated to students at the beginning of the semester with an explanation of its objectives, content, vocabulary, philosophy, teaching strategies used, and various evaluation strategies.
- After completing the course, the faculty member prepares the course report according to the model of the National Centre for Academic Accreditation and Assessment (NCAAA) in coordination with the course coordinator to prepare a unified course report for all sections and approve it by the program coordinator.
- The program coordinator compiles the unified course reports of all sections to prepare the unified annual report for the Sustainable Food Systems program to be approved by the competent councils.
- Submit the unified annual program report and the reports of the unified courses to all sections for review and approval. The university then will present university-wide review reports for all academic programs to the Higher Committee for Academic Accreditation and Quality Assurance.

Procedures for ensuring the quality of the educational process at the Sustainable Food Systems program:

It includes procedures to ensure the quality of the educational process in the Sustainable Food Systems program with the solidarity of all parties related to the program and consists of the following procedures:

- Identify a coordinator for each course to supervise compliance with the course description and the application of teaching, learning, and assessment strategies contained in all sections.
- Review the tests by the course coordinator to ensure the objectivity, comprehensiveness, and understanding of the course content and its relevance to the course's learning outcomes.
- The Sustainable Food Systems program coordinator is the link between the course coordinators and the program management; the program coordinator collects proposals related to the development of courses to the competent committees and councils in the academic program.

Research Processes:

The Sustainable Food Systems program develops an operational plan for research in accordance with the strategic plan of the FOS and UT, **considering the following points:**

- Environmental analysis to determine the status of scientific research and research services in the Sustainable Food Systems program.
- Determining the research objectives according to the results of the environmental analysis of the academic program and the executive plans to achieve those goals.
- Identify priorities for research in Sustainable Food Systems program to keep pace with local and global developments in line with the needs of society and executive plans to achieve those priorities.
- Providing the laboratories and research labs the Sustainable Food Systems program needs.
- Diversification of research partnerships and diversification of sponsors.
- Work to improve the level of research results for faculty members.
- Establishing and updating an electronic database that allows publishing research produced by academic program employees.

Community Service Operations:

The Sustainable Food Systems program develops an operational plan for community service in accordance with the strategic plan of the FOS and UT, **considering the following points:**

- Environmental analysis to determine the current community service status and community participation in the Sustainable Food Systems program.
- Determining the objectives of community service and community participation according to the environmental analysis results of the Sustainable Food Systems program and the executive plans to achieve those goals.
- Work to consolidate the community relationship between the Sustainable Food Systems program and the various community entities.

– Work to encourage the employees of the Sustainable Food Systems program to participate widely in community work to serve the community.

Map for Managing Academic Program Operations

This model is designed to ensure that the assessment methodology is achieved. This methodology ensures that all inputs, processes, and outputs are standardized for the academic program. The following are key characteristics of this map:

Operations	Foundations Concepts	Implementation	Outcomes
Learning and teaching processes	• National Qualifications Framework 2020. • Saudi Standard Classification of Educational Levels and Occupations. • The general framework of the characteristics of graduates at UT • Program and Study Plan Procedural Guide • Program and Study Plan Powers Matrix • University of Tabuk Guide • Institutional Quality Assurance Guide • Procedural Guide for Establishing and Operating Advisory Committees in Colleges and Academic Programs • Procedural guide for benchmarking and independent opinion • Functional Tasks Guide for Colleges and Academic Departments at UT • Centralized Testing Guide at the University of Tabuk • Accreditation requirements from the National Center for Academic Accreditation and Assessment	Obligation to carry out the procedures mentioned in the guides	Consistency of the Sustainable Food Systems program with the requirements of the university
	Program Description	Implementation of the program description (Teaching Methods – Target Outcomes – Assessment Methods)	Annual Report of the Program
	Course Descriptions	Implement course descriptions	Course Reports
	Learning Outcomes Measurement Plan	Implementation of the standardized measurement cycle	Report on measuring all learning outcomes of the program
	Program Advisory Committee	Presentation to the Advisory Committee and implementation of recommendations	Report on the performance and outcomes of the Committee
	KPIs and benchmarking	Data collection and analysis	Key Indicators Measurement and Benchmarking Report

	Relevant surveys	Collecting and analyzing relevant surveys	Related Findings Surveys Report
	Academic Program Operational Plan	Implementing the objectives of the operational plan of the academic program	Periodic performance reports of the program's operational plan
	Formation of committees at the program level and their tasks	Implementation of the tasks of the committees	Report on the performance and outcomes of the committees
	Unified Quality Assurance Guide for the Program	Commitment to implement the procedures set out in the Guide	
Research Processes	Strategic and Executive Plan of the University Strategic and Executive Plan of the College Evidence of research at the university	Building an operational plan for research included in or independent of the program's operational plan	Research Database Reports for Research Production Performance Indicators and Targets
Community Service Operations	Operational Plan for Community Service Operations in the College Strategic and Executive Plan of the College	Building an operational plan for community service that is included in or independent of the program's operational plan	Community Service Database Report achievements according to the plan's performance indicators and targets.

The National Academic Accreditation Framework:

The NCAAA (National Commission for Academic Accreditation and Assessment) in Saudi Arabia is a governmental organization responsible for ensuring the quality of higher education institutions and programs within the country. It was established in 2004 as an independent agency under the supervision of the Ministry of Education. The NCAAA plays a crucial role in promoting and maintaining the quality of higher education in Saudi Arabia. Through its accreditation and quality assurance processes, it aims to improve educational standards. The NCAAA evaluates and assesses the quality and standards of education provided by universities, faculties, and academic programs across various disciplines.

The NCAAA in Saudi Arabia has developed a set of standards for higher education institutions and programs. These standards serve as benchmarks to ensure the quality and effectiveness of education provided by universities, faculties, and academic programs. The NCAAA standards for program quality assurance categorize all activities that take place within the programs in the following five general areas:

Table 1 Academic Accreditation Committee's responsibilities.

Standards	NCAAA Standard	Responsible Committee
(1)	Management of Program Quality Assurance	The Quality Committee
(2)	Teaching and Learning	– Programs and Study Plans Committee – The Quality Committee

(3)	Students	– Academic Affairs Committee – Advising Committee – Scientific Committee
(4)	Teaching Staff	
(5)	Learning Resources	Learning Resources and Facilities Committee
All standards	All standards	– The Head of The Program – All Committee

Close Quality Loop cycle:

Closing the quality loop involves a series of steps to address feedback and improve a program's quality. Here are the steps, along with a detailed explanation of each:

Step 1: Planning

1. **Gather Feedback:** The first step is to gather feedback from stakeholders such as students, faculty members, employers, and other relevant parties. This can be done through surveys, focus groups, interviews, or other means of collecting input.
2. **Analyse Feedback:** Once the feedback is collected, it must be thoroughly analyzed. This involves categorizing and identifying common themes, strengths, weaknesses, and areas for improvement. The goal is to gain a comprehensive understanding of the feedback received.
3. **Identify Improvement Points:** Specific improvement points should be identified based on the analysis. These are the areas that require attention and enhancement within the program. It could be related to curriculum, teaching methods, resources, support services, or any other aspect of the program.
4. **Develop Action Plan:** An action plan should be developed after identifying the improvement points. This plan outlines the steps, strategies, and resources needed to address the identified areas of improvement. It should be specific, measurable, achievable, relevant, and time-bound (SMART) to ensure effective implementation.

Step 2: Implementing

5. **Implement Changes:** The next step is implementing the changes outlined in the action plan. This may involve revising the curriculum, providing additional training or support to faculty members, improving resources or facilities, or enhancing student services. The changes should be implemented systematically and monitored closely.

Step 3: Evaluating

6. **Monitor Progress:** Monitoring the progress and effectiveness of the implemented changes is essential. Regular evaluation and assessment of the improvements help determine whether they achieve the desired outcomes. This can be done through ongoing data collection, student feedback, performance indicators, or other evaluation methods.

Step 4: Review and Refine

7. **Adjust and Refine:** Based on the monitoring and evaluation, adjustments and refinements should be made as necessary. This step involves modifying the implemented changes or strategies to ensure continuous improvement. It requires flexibility and a willingness to adapt based on the program's evolving needs and stakeholders.

By following these steps, the quality loop can be effectively closed, ensuring that feedback is acknowledged, improvements are made, and the program's overall quality is enhanced. This iterative process promotes continuous improvement and allows the program to adapt and meet the changing needs of its stakeholders.

☑ A critical point that must be activated during continuous development processes:

Communication and Engagement: Effective communication and stakeholder engagement throughout the process are essential. Regularly updating students, faculty members, and all relevant parties on the progress made, changes implemented, and outcomes achieved is necessary. This keeps stakeholders informed and involving them in this information enhances their sense of belonging and collaboration.

The Sustainable Food Systems Program employs various assessment methods to evaluate student progress and comprehensively provide timely feedback for improvement. Additionally, the Sustainable Food Systems Program quality system includes a rigorous program evaluation process that allows it to continuously assess its effectiveness, make data-informed decisions, and implement enhancements to meet the evolving needs of the students and the industry demands. The approval of adjustments or modifications of any component in the program must adhere to the authority matrix presented in Table 2.

Table 2 The approval levels of modifications that take place within the University of Tabuk.

Intended curriculum changes	**Final Level of Approval**
Program Level	
Changing the admission requirements, changing the certificate name, or updating the graduation requirements.	University Council

Updating the program's mission, objectives, program title, program duration (total number of years/levels/ hours), updating program learning outcomes, program specification, and study plan, and adding co-requisites or prerequisites.	Programs and Study Plans Committee at UT.
Changes in the ordering of PLOs, program co-requisites or pre-requisites, and course code, updating program KPIs,	Programs and study plan administration at UT.
Updating the facilities and operational plan, dropping pre-requisites.	Faculty Council.
Course Level	
Updating course specification (changing exceeds more than 25% of course specification and can affect learning outcomes)	Programs and Study Plans Committee at UT.
Course code	Programs and study plan administration at UT.
Course teaching strategies, less than 25% change in course specification, reference materials, distribution of topics/weeks, assessment methods, measurement, evaluation grading systems, and changes in course policies and regulations.	Department Council.

The Sustainable Food Systems Program Development and Review Cycles

Curriculum Level review and development:

The curriculum generally details the teaching, learning, and examination materials for all the courses in the program. The curriculum of the Sustainable Food Systems Program is planned and developed according to the University of Tabuk policies and procedures, program mission goals and outcomes, the needs of the students, the needs of the local community, and the academic and professional body's requirements.

The Sustainable Food Systems Program curriculum development process goes through the following four major phases:

Phase 1: Planning

During this curriculum development phase, the program and study plans committee has done research, collected, and analyzed data regarding:

1. Issues and trends of food systems education locally and nationwide. Identifying key issues and trends allows the program and study plan committee to design an appropriate Curriculum responsive to the needs of the students, the local community, and the professional bodies and assess.
2. Resources that can be provided to implement the curriculum.
3. Policies and guidelines from the Faculty, University, and national education and accreditation bodies.

The data sources include exam papers, assignments, lecture notes, textbooks, surveys of students, faculty members, professional bodies, and the local community, as well as surveys of students, faculty members, and the local community. The work done in this phase will inform the curriculum development.

Phase 2: Developing

During this curriculum development phase, the program and study plans committee has reviewed and decided on the following:

1. **Learning Outcomes:** Identify what appropriate learning outcomes students must acquire by the end of the program.
2. **Contents:** Refer to instructional materials and resources needed to facilitate an effective learning experience.
3. **Learning Experience:** Refer to all the activities devised for learners to reinforce learning.
4. **Sequence of learning experience:** How the learning experiences should be organized to ensure the effectiveness of instructions.

Courses made by the program and study plan committee about curriculum goals and outcomes are motivated by the following factors.

1. The subject matter.
2. The National Standard Policies on Education.
3. The needs of the learners.
4. Local Community.

The outcomes of all these efforts are documented in the Sustainable Food Systems Program and course specification. The templates of these specifications are designed and provided by the NCAAA.

The curriculum Flow Chart: The Food Science and Nutrition department offers a wide range of courses in pure and applied food systems fields for Sustainable Food Systems majors. The Program prerequisite flowchart has been designed to assist students and faculty advisors in planning and mapping out their path to graduation (see Figure 2) at the University of Tabuk.

Monitoring the implementation of a curriculum is crucial to ensure that the intended goals and objectives are being achieved and that the curriculum is effectively meeting the needs of the students and stakeholders. By monitoring the implementation of a curriculum, the Sustainable Food Systems Program can identify areas for improvement and make necessary adjustments to ensure the Curriculum's effectiveness and alignment with the desired learning outcomes.

The Sustainable Food Systems program has a course coordinator for every course in the curriculum. The course coordinator oversees the planning, development, and overall management of a specific course, and serves as a central point of contact for faculty, students, and administrators involved in the course and works to create an optimal learning environment that supports student success and achievement of program outcomes.

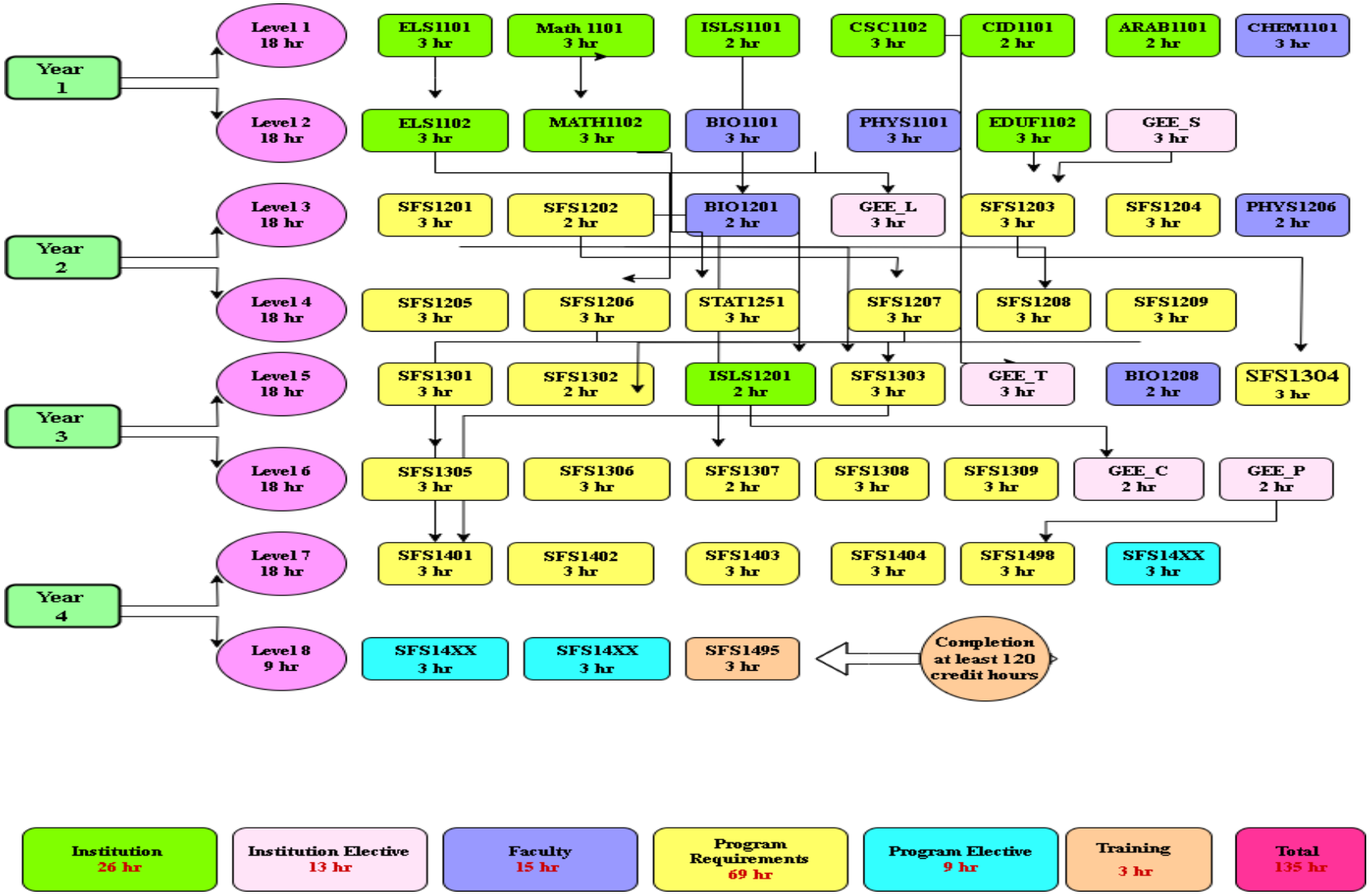

Figure 2 The curriculum flowchart of the Sustainable Food Systems Program

Phase 3: Implementation and Monitoring:

This stage starts after the final approval by the higher authority.

The primary role of the course coordinators is to ensure the smooth functioning and effective delivery of the course they are responsible for. The responsibilities of a course coordinator include:

1. Collaborating with faculty and subject matter experts to develop and update the course curriculum.
2. Coordinating the scheduling and sequencing of courses, determining the course offerings for each term or semester, and ensuring the availability of necessary resources, such as classrooms, equipment, and instructional materials.
3. Working with instructors to develop instructional ma
4. tertials, resources, and assessments that support the course objectives and enhance student learning experiences.
5. Supporting and coordinating the efforts of instructors teaching the course(s), guiding instructional strategies, assessment methods, and classroom management, facilitating communication and collaboration among instructors, and ensuring consistency in course delivery.
6. Monitoring and evaluating the quality and effectiveness of the course(s) through various means, such as collecting and analyzing student feedback, conducting course evaluations, and assessing student performance and outcomes.
7. Prepare a comprehensive combined course report that addresses the key aspects of the course and communicates the progress, achievements, and challenges related to the course, as well as action plans for continual improvements to all stakeholders.

Phase 4: Evaluation and Reporting

The course coordinators report to the programs and study plans committee, as well as the quality assurance committee.

At the end of each term, a departmental meeting is held to discuss issues related to the course delivery, which includes, teaching strategies, students' results, Learning outcomes, action plans for improvement, as well as feedback from students and stakeholders. Figure 3 shows the time plan for preparing course reports and approval of improvement plans, while Figure 4 shows the course report preparation cycle.

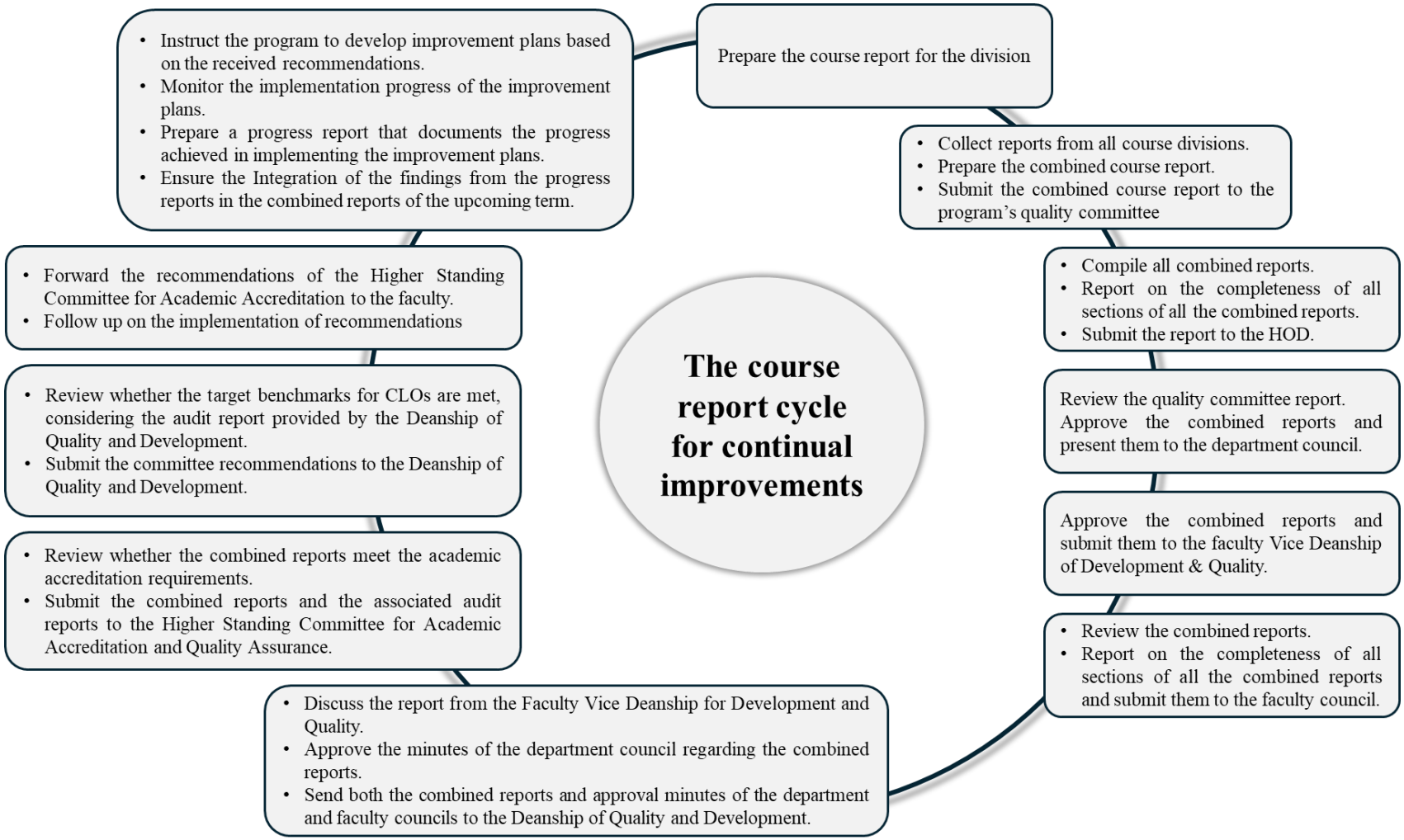

Figure 3 The course report cycle for continual improvements.

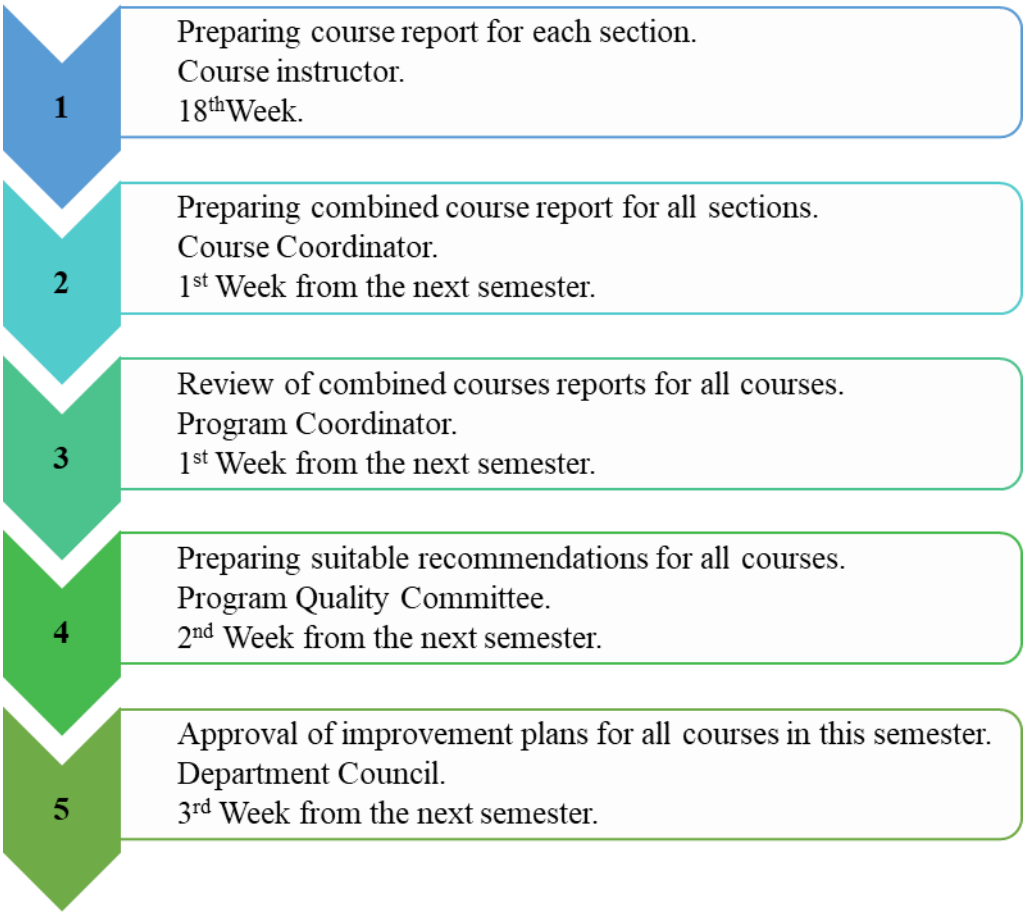

Figure 4 The course report preparation process.

Based on the findings presented in course reports and feedback from students and stakeholders, action plans are developed to make necessary adjustments to the curriculum implementation, including modifying teaching strategies, revising learning materials, or adapting assessment methods as needed. The approval and implementation of any modifications are conducted using the university templates, forms, policies, and procedures, as well as the authority matrix for approval of changes, as shown in Table 2

Program Level review:

The annual program review is one of the mechanisms adopted by the Sustainable Food Systems program to ensure that the program is continually progressing toward quality and meeting the highest standards of academic excellence. The Sustainable Food Systems program goes through two review cycles: an annual review cycle and a five-year review cycle. Figure 5 shows the program assessment process cycle.

Figure 5 The program assessment process cycle.

The Annual Review Cycle:

The annual program review starts by collecting data using the standard university templates and forms of course reports, student, graduate, faculty member, admin staff surveys, and professional body surveys. The annual program report documents data analysis, action plans, and performance indicators. At the end of the academic year, the HOD sends the program report to the vice dean of development and quality, who ensures that the report is well-written and meets all quality standards recommended by the University of Tabuk and the NCAAA. The Sustainable Food Systems program is responsible for implementing the proposed improvement plans for quality improvements. The whole review process is presented in Figure 6. Tables 2 and 3 show the quality assurance activities and time frame at the program level

Minor Program Modifications:

Minor modifications are essential for continual improvement. Minor modifications include name changes, contact and address, exam procedures, and timing. The HOD manages minor modifications with the Program and Study Plans Committee. Once a minor modification has been approved, it will be publicized via the department website to all stakeholders.

Major Program Modification:

Major changes include significant changes to admission or program requirements, courses and curriculum, admission requirements, learning outcomes, and/or delivery mode. Proposals for significant program changes should justify the rationale behind any proposed modification. All major modifications require a recommendation for approval by the University Curriculum Committee. To ensure alignment with the university and the NQF policies, the department program and study plans committee uses the templates, documents, instructions, and guidelines regarding program modifications, which are available on the University Curricula Committee website.

Program Closure:

To make an informative decision about a program closure, data about assessing program demand, financial impacts, student enrollment trends, industry trends, and student outcomes should be collected and analyzed. Reasons for closing a program include:

1. Low enrolment
2. Lack of faculty resources
3. Changing higher education landscape
4. Make room for new opportunities
5. Shifting students' interests
6. Changing external contexts

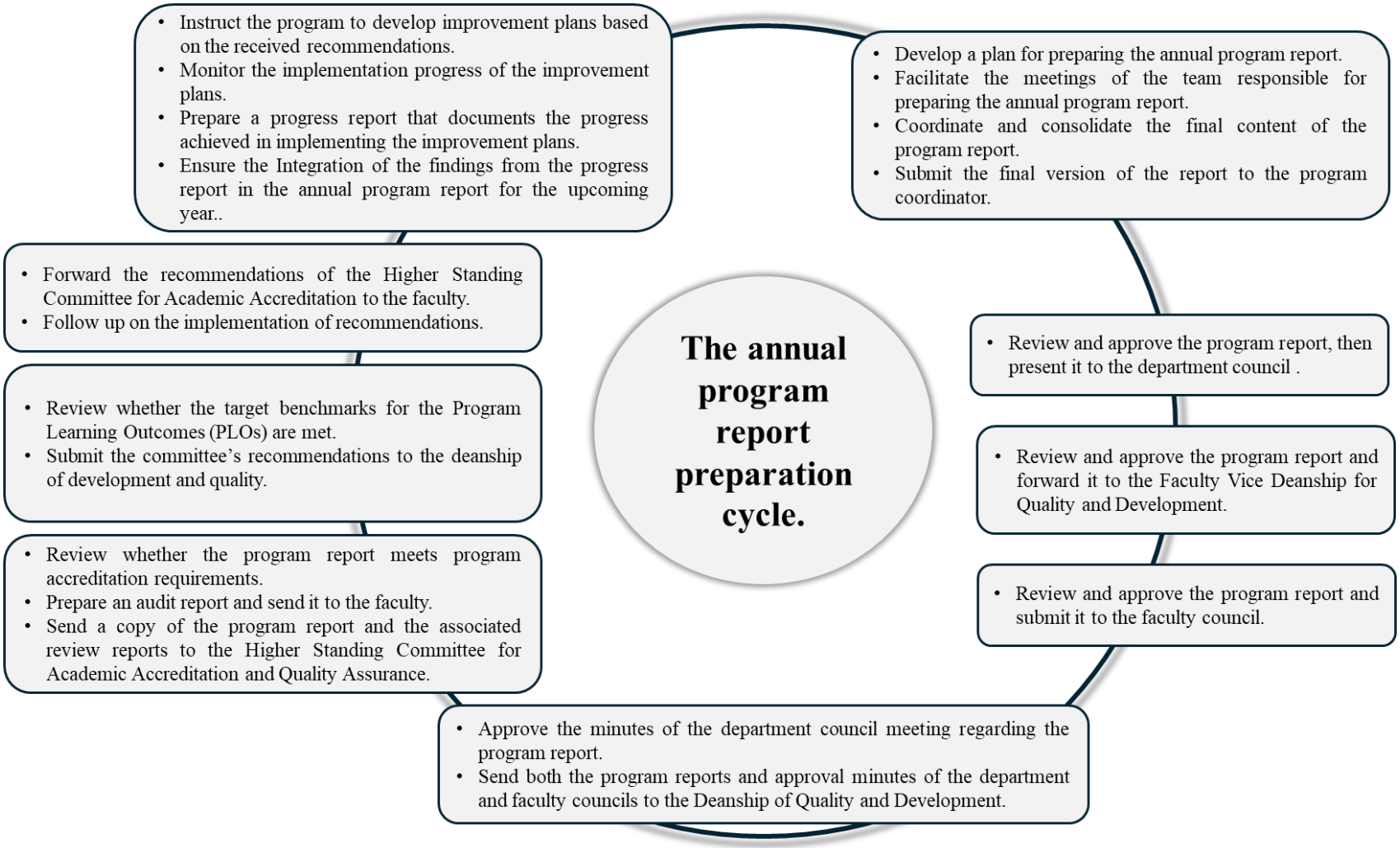

Figure 6 The annual program report preparation cycle.

Proposals for program closure should clearly articulate the reasons for closing the program using the memo template provided by the University Curriculum Committee. Also, a timeline plan for action must be in place to take care of all the expected consequences and guarantee good synchronization with the university system (Table 4). The Ministry of Higher Education is the final approval agency for any program closure. Table 5 presents the program evaluation matrix, and Table 6 shows the roles of faculty members and students in planning, quality assurance, and decision-making.

Table 3 The quality assurance procedures at the course and program levels.

Activity	End of term	Annually	Responsibility
Course evaluation survey	✓		Course coordinators
Course Report (CR)	✓		Course instructors + Course coordinators
Course file submission	✓		Course coordinators
Students experience survey		✓	MEWG
Program evaluation survey		✓	MEWG
Faculty Members Satisfaction Survey		✓	MEWG
Employers' evaluation survey		✓	HOD+MEWG
Academic advising survey		✓	Academic advising committee
Operational plan report		✓	OPWG
Program KPI report		✓	KPIWG
Annual program report (APR)		✓	APRWG
Annual program report revision		✓	Deanship of Development and quality
Approval of the APR and CR		✓	FOS council
Action plan preparation & distribution		✓	DQC
Action plan execution & assessment		✓	DQC

Table 4 Time frame of program evaluation

Activity name	Start of Semester	End of Semester	Annually	Bi-annual	Every 5 Years
Program Level Activities					
Program specification review					✓
Course evaluation surveys		✓			
Course report preparation		✓			
Course recommendation reporting		✓			
Course file preparation and submission		✓			
Employer evaluation survey			✓		
Alumni evaluation survey			✓		
Program SWOT analysis preparation and reporting					✓
Program KPI report preparation and analysis			✓		

Annual program report preparation			✓		
Annual program report revision			✓		
Recommendations and conclusion			✓		
Program self-study report development					✓
Course report		✓			
Course recommendations report	✓				
Course file		✓			
Student evaluation surveys		✓			
External program assessment				✓	

Table 5 Program Evaluation Matrix

Activity	Responsibility	Annually	Responsibility
Effectiveness of teaching and assessment methods	HOD, faculty, students, alumni, employers	Exam results, CR, and CES Post-term meeting HOD-students meeting Interviewers Peer review PLOs assessment APR HOD-students meeting PES AES SSS-AC EES Meeting and interviews SES	End of each term Annually Mid of the program
Learning outcomes	HOD, faculty, students, alumni, employers	CR CES Post-term meeting course coordinators-students meeting APR PES AES EES SSS-AC SES	End of each term Annually Mid of the program
Effectiveness of leadership	HOD, Faculty members, Admin staff	Staff performance evaluation forms. HOD, Faculty members, evaluation surveys. SSS-AC SSS-AD	Annually
Overall quality of the program	Students, graduates, Faculty members, HOD, Admin staff, Employers, Advisory committee, independent reviewers	CRAPR Operational plan report KPIs report PLOs report Stakeholders' surveys report Focused group Discussion Advisory committee meetings	Annually
Partnerships	HOD, Faculty members,	CR APR	Annually

	Students, Advisory Committee	Operational plan Stakeholders' surveys Advisory committee meetings	

Table 6 Role of faculty members and students in planning, quality assurance, and decision making.

Activity	Teaching staff	Employee	Responsibility
Planning	Involved in the formulation of the program mission, Goals, graduate attributes, preparing program specifications, preparation of course specifications. Head and members in the department council and committees. Participate in measuring CLOs and PLOs.	Members of the advisory committee. Participate in SWOT analysis (Strategic and operational planning) Provide feedback and proposals for improvements.	Members in the following committees: Program and study plan committee. Academic Affairs Committee. Academic advisory committee. Quality committee Scientific Committee Facilities and equipment committee.
Quality assurance	Feedback through meetings and academic staff satisfaction surveys. Members of the quality committee.	Admin staff and technicians' satisfaction survey. Members of the accreditation committees.	Participate in the evaluation of the quality of courses and the program. Participate in developing the improvement plans through various surveys (CES, PES, AES) Academic advising survey. Program Mission and Goals Survey. Preparation of the SES
Decision making	HOD, Department council members, Committees, course coordinators, Participate in developing the improvement plans (CR, APR, operational plan, KPIs report) Participate in reviewing and improving the study plan.	Members of the program committees. Participate in the SWOT analysis. Provide proposals for improvements.	Participate in decision-making through: Advisory committee. Academic advisory committee. Developing the annual community services and students' activities plans. Make suggestions regarding priorities of improvements.

Every five years, the Sustainable Food Systems Program conducts a comprehensive review and deliberation, possibly leading to major or minor program modifications.

The Five-Year Periodic Evaluation

The Sustainable Food Systems program follows procedures to manage quality assurance according to a schedule. It starts from planning to implementation, measuring performance,

and evaluating the results achieved, which leads to periodic and regular reviews and improvements.

The program of Sustainable Food Systems follows practical steps to conduct the annual course to ensure its quality according to a specific time frame and procedures. As well as developing plans that achieve the mission and objectives of the program, implementing operations according to the matrix of powers, and evaluating performance using data and various activities that lead to the review and development of annual improvement plans to achieve the mission and objectives of the program.

The program conducts a comprehensive periodic assessment every five years after the completion of the program cycle and reports on the overall level of quality, identifying strengths and weaknesses. Plans for improvement and follow-up on their implementation. This assessment includes all aspects of the Sustainable Food Systems program, including the study plan, program learning outcomes, academic policies and procedures based on changes, and stakeholder proposals.

The program conducts continuous quality audits and control based on the results of stakeholder surveys, operational plan reports, and Advisory Committee recommendations and follows the updated forms of the National Qualifications Framework (NCAAA) while adhering to the authority matrix approved by the University. In parallel with updating the university strategic plan every five years, the program revises its mission and goals to ensure consistency with the faculty and university mission and goals and updates its operational strategy. To maintain the quality of the Bachelor of Sustainable Food Systems program, a self-evaluation of the program must be conducted every five years to ensure that it complies with the recertification requirements. The self-evaluation process involves stepping back from the ongoing process and reviewing all areas of the program based on current developments over a specified period. The Agency for Quality and Development organizes four committees (Figure 7 and Table 7) headed and managed.

Higher Committee for Academic Accreditation

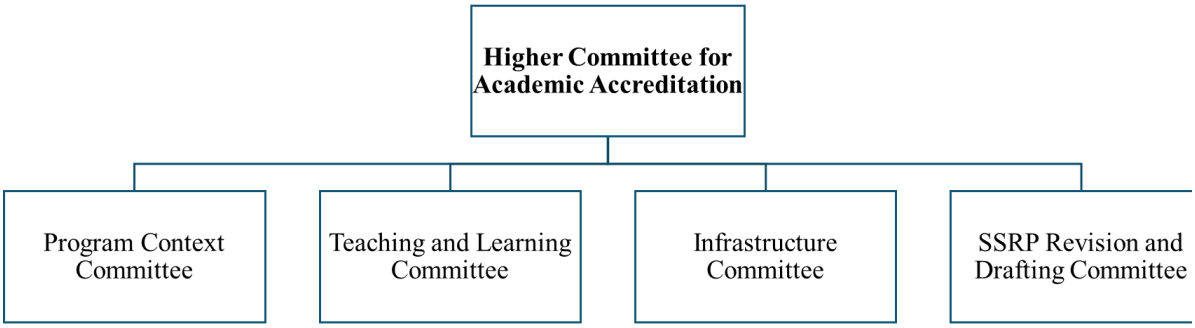

Figure 7 Academic Accreditation Committees

The four committees are responsible for evaluating the accreditation of best practices and quality assurance in the five program accreditation standards developed by the National Commission on Academic Accreditation and Evaluation (NCAAA) to prepare the SSRP.

Table 7 Academic Accreditation Committee's responsibilities.

	NCAAA Standard	Responsible Committee
Standard 1	Management of Program Quality Assurance	The Program Context Committee
Standard 2	Teaching and Learning	Programs and Study Plans Committee
Standard 3	Students	Academic Supervision Committee
Standard 4	Teaching Staff	
Standard 5	Learning Resources	Learning resources and facilities committee
All standards	All standards	SSRP Revision and Drafting Committee

The Program Context Committee

1. Ensuring that the program's mission and goals are consistent with the mission and goals of the faculty and university.
2. Review the beneficiaries' awareness of the program's mission and goals and the program's mechanisms, regulations, and administrative flowchart structures.
3. Monitoring the progress towards achieving program goals.
4. Reviewing the different quality processes in the program.
5. Measurement of KPIs related to the standards and formulation of the improvement plan and follow up the implementation of the improvement plan.
6. Prepare the necessary evidence and documents to prove the excellent practice.
7. Preparing the self-evaluation report for standards 1 & 2.
8. Participating in preparing the program self-study report.

Teaching and Learning Committee

1. Prepare the necessary evidence and documents to prove the good practice as stipulated.
2. Measurement of KPIs related to the formulation of the improvement plan and following on the implementation.
3. Following up on the teaching and assessment processes, students' achievement, and graduate employability.

4. Following up on the preparation, submission, and revision of the Academic Advising Committee Report
5. Following up on implementing new faculty members' preparation programs.
6. Following up on the preparation of the faculty member training plan and training report.
7. Check the update of the teaching staff database and follow up on updating the teaching staff CVs.
8. Following up on preparing and approving the annual community services plan and submitting the annual report in coordination with the community working group.
9. Measure KPIs related to the standard and formulation of the improvement plan and follow up on the implementation of the improvement plan.
10. Prepare the necessary evidence and documents to prove the good practices.
11. Preparing the self-evaluation report.
12. Participating in preparing the program self-study report.

Infrastructure Committee

1. Following up on providing the appropriate learning resources according to the national/international standards and submitting reports to faculty administration.
2. Following up on providing appropriate facilities and equipment resources according to national/international standards and submitting reports to faculty administration.
3. Following up on compliance with safety and security precautions in the faculty facilities.
4. Measurement of KPIs related to the standard and formulation of the improvement plan and follow up the implementation of the improvement plan.
5. Prepare the necessary evidence and documents to prove the excellent practice stipulated in the standard guide.
6. Preparing the self-evaluation report.
7. Participating in preparing the program self-study report.

SSRP Revision and Drafting Committee:

1. Collection of all five standards and their evidence from the other committees.
2. Revision of SSRP and successive iteration of all standards.
3. Drafting and finalizing the SSRP.

Key Performance Indicators and Benchmarking

They are specific forms of evidence the faculty uses to provide proof and measure quality performance. The KPIs are among the essential tools for assessing the quality of academic programs according to the criteria and rules of the NCAAA. They are among the most

prominent practices contributing to decision-making and follow-up processes and continuous development and improvement.

The NCAAA has identified 17 KPIs at the program level, aligning with the evolving program accreditation standards. These indicators are the minimum to be periodically measured, and the academic program can use additional performance indicators if it believes they are necessary to ensure the program's quality. One program KPI is added to the 17 KPIs of the NCAAA as it is believed to add valid information for assessing and evaluating the performance of the Sustainable Food Systems program.

1- Levels of Each KPI

It is expected that the program measures the KPIs with benchmarking using the appropriate tools, such as (Surveys, Statistical data, etc.) according to the nature and objective of each indicator, as well as determining the following levels for each indicator:

Actual performance

Refers to the finding determined when the KPI is measured or calculated. It represents the actual reality of the present situation. A finding benchmark is also an internal benchmark.

1.1 Targeted performance level:
Refers to the anticipated performance level or desired outcome for a KPI. A target benchmark is also an internal benchmark.

1.2 Internal reference (Internal benchmark):
Refer to benchmarks based on information from inside the program or institution. Internal benchmarks include target or finding benchmark data results from previous years.

1.3 External reference (External benchmark)
Refer to benchmarks from similar programs that are outside the institution, as well as other institutions (national or international).

1.4 New target performance level
This refers to establishing a new or desired performance level or goal for the KPIs based on the outcome of the KPI analysis.

KPI Analysis:
Refers to comparing and contrasting the benchmarks to determine strengths and recommendations for improvement.

2- Selection of KPIs based on:

1. The 11 NCAAA Program KPIs
2. Sustainable Food Systems Program KPIs.

A report is prepared annually describing and analyzing the results of each indicator with precise and objective identification of strengths and aspects that need improvement. For each KPI, an acceptable target level is set based on the program's strategic goals and the comparative data of the internal and external benchmarking. For each KPI, the following values are measured:

Target KPI: This is determined according to the KPIs measurements of the internal and external benchmarking. Hence, it is the new target KPI of the former academic year.

Actual KPI: This is the actual performance level for the current year.

New target KPI: This is determined by considering the actual benchmark.

- For the achieved target KPI level, a holding of the new targeted level is kept for an additional year to establish and maintain good practice before setting an increment of the new target KPI.
- A 5% growth rate is considered acceptable improvement of the practice when setting a new target KPI level.
- If the target is not achieved, the previous target will be held as a new target for the year after, investigating the reasons and delineating a plan for improvement to reach the targeted performance.
- The target of the KPI is determined based on the faculty strategic plan and internal and external benchmarking.

3- Sources of data:

- The Sustainable Food Systems program operational plan reports.
- Reports on stakeholder surveys
- Program evaluation survey (PES).
- Courses' evaluation surveys (CES).
- Student experience survey (SES).
- Academic staff Satisfaction survey (SSS-AC)
- Administrative staff satisfaction survey (SSS-AD).
- Employer Evaluation survey (EES).
- Stakeholder satisfaction with learning resources report.
- Official students' records are obtained for the university's secured internal system (e-register).
- Sustainable Food Systems program records from the vice deanship for postgraduate and research.
- Scopus and web of science databases.

4- Data analysis methodology:

All data analysis is performed using an automated Excel sheet developed by the Sustainable Food Systems program.

The outcome of all KPIs values is presented as a percentage to calculate the final performance

of the Sustainable Food Systems program indicators for the academic year of interest. Rates of growth (increment) or decline (decrement) are calculated in the comparative and trending analysis of the current performance with internal and external benchmarking. Figure 8 shows the KPIs assessment cycle.

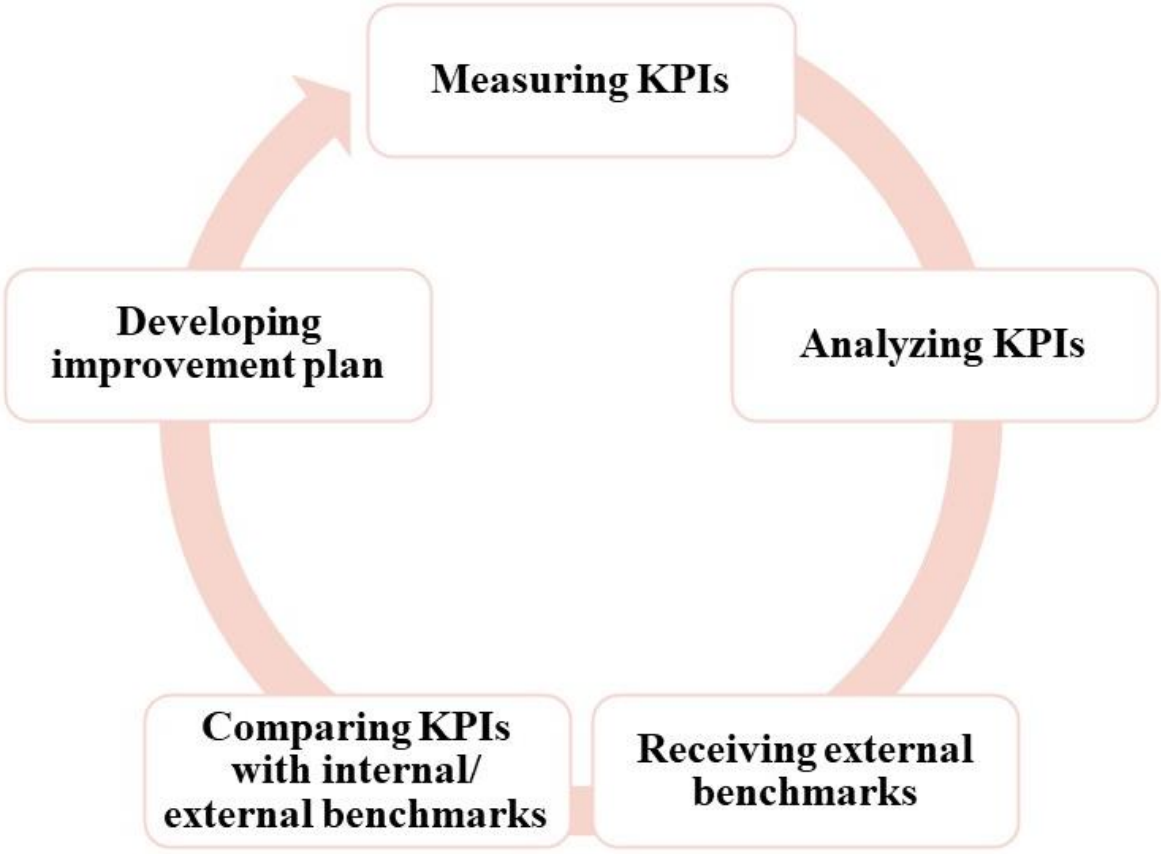

Figure 8 KPIs annual assessment cycle

Table 8 NCAAA & Program KPIs, Objectives, Polarity, and Method of Measuring Indicators and the Target.

Code	Indicator	Goal	Time for measurement	Data Measurement Provider	Measurement Responsibility	Measurement Tools
KPI-P-01	Students' Evaluation of quality of learning experience in the program	Measuring the educational quality of the program	Every academic year	Head of MEWG	Head of MEWG	Survey
KPI-P-02	Students' evaluation of the quality of the courses	Measuring the educational quality of the program	Every academic semester	Course coordinator	Head of MEWG	Survey
KPI-P-03	Completion rate	Measuring the educational quality of the program	Every academic year	Head of the Academic Affairs Committee	Head of MEWG	Reports
KPI-P-04	First-year students' retention rate	Measuring the educational quality of the program	Every academic year	Head of the Academic Affairs Committee	Head of MEWG	Reports
KPI-P05	Students' performance in the professional and/or national examination	Measuring the educational quality of the program	NA	NA	NA	NA
KPI-P-06	Graduates' employability and enrolment in postgraduate programs	Measuring the quality of graduates' characteristics, and the extent of employers' satisfaction, and the labor market's need for them	Every academic year	Alumni coordinator	Head of MEWG	Survey
KPI-P-07	Employers' evaluation of the program graduate Proficiency	Measuring the quality of graduates' characteristics and employers' satisfaction with them	Every academic year	Alumni coordinator	MEWG	Survey
KPI-P-08	The ratio of students to teaching staff	Measuring the quality of education elements	Every academic year	Head of Academic Affairs Committee	MEWG	Reports
KPI-P-09	Percentage of publications of faculty members	Measuring the quality of the axis of scientific research	Every academic year	Head of Scientific Committee	Head of Scientific Committee	Reports
KPI-P-10	Rate of published research per faculty member	Measuring the quality of the axis of scientific research	Every academic year	Head of Scientific Committee	Head of Scientific Committee	Reports
KPI-P-11	Citations rate in refereed journals per faculty member	Measuring the quality of the axis of scientific research	Every academic year	Head of Scientific Committee	Head of Scientific Committee	Reports

Benchmarking and Improvement Cycle

Benchmarking the Sustainable Food Systems program offers numerous benefits and ensures continuous improvement and quality enhancement. Firstly, benchmarking allows for systematically comparing the program's performance, practices, and outcomes against established standards, best practices, or similar programs in other institutions. This process provides valuable insights into areas of strength and areas that require improvement, paving the way for informed decision-making and targeted interventions.

Benchmarking also fosters collaboration and knowledge sharing among institutions. Through benchmarking initiatives, Sustainable Food Systems programs can engage in meaningful dialogue, exchange ideas, and learn from one another's successes and challenges. This collaborative approach encourages sharing best practices, resources, and expertise, ultimately benefiting faculty and students.

Another significant benefit of benchmarking is its role in enhancing program outcomes and student learning experiences. By identifying areas where the Sustainable Food Systems program may fall short, benchmarking enables targeted interventions to improve teaching methodologies, assessment practices, and student support systems. It facilitates evidence-based decision-making, leading to program enhancements that directly impact student success, retention rates, and overall satisfaction.

Furthermore, benchmarking the Sustainable Food Systems program contributes to institutional accountability and quality assurance. It provides a clear framework for setting performance targets, monitoring progress, and demonstrating the program's effectiveness to internal and external stakeholders. This transparency and accountability foster confidence in the program and assure students, faculty, parents, and employers that the Sustainable Food Systems program meets and exceeds industry and academic standards.

Stakeholders Surveys

Stakeholder surveys are crucial in assessing and improving the Sustainable Food Systems program by gathering valuable feedback and insights from various stakeholders. Stakeholder

surveys offer numerous benefits and are essential to the Sustainable Food Systems program. These include:

1. **Comprehensive Feedback:** Surveys allow stakeholders, such as students, faculty, staff, and other relevant parties, to provide their perspectives, experiences, and opinions on the Sustainable Food Systems program. This comprehensive feedback helps institutions understand the strengths and weaknesses of the program from multiple viewpoints.
2. **Program Evaluation**: Stakeholder surveys serve as a tool for program evaluation by collecting quantitative and qualitative data. Institutions can use this data to assess the effectiveness of the Sustainable Food Systems program, measure progress toward goals, and identify areas for improvement.
3. **Continuous Improvement**: The feedback gathered from stakeholders through surveys helps identify areas that require improvement. Institutions can use this information to make data-informed decisions and continuously implement changes to enhance the Sustainable Food Systems program.
4. **Stakeholder Engagement**: Conducting surveys demonstrates an institution's commitment to stakeholder engagement. It shows that the institution values the opinions and experiences of stakeholders and actively seeks their input and involvement in shaping the Sustainable Food Systems program.
5. **Enhanced Satisfaction**: Surveys enable institutions to gauge stakeholder satisfaction levels with the Sustainable Food Systems program. By addressing concerns and making improvements based on feedback, institutions can enhance stakeholder satisfaction and create a positive educational environment.
6. **Strategic Decision-making**: The data obtained from stakeholder surveys can inform strategic decision-making processes. Institutions can use this data to allocate resources effectively, prioritize areas of improvement, and make informed decisions that align with stakeholder needs and expectations.
7. **Accreditation and Recognition**: Stakeholder surveys provide evidence of stakeholder engagement, program assessment, and continuous improvement efforts. This can be valuable for accreditation and external recognition, showcasing the institution's commitment to delivering a high-quality Sustainable Food Systems program.

The basics of survey design:

Several general principles should be followed if stakeholder surveys are to be as helpful as possible:

1. It must be clear to respondents that all survey responses are anonymous.
2. Formulate questions to revolve around objectives

3. Some open-ended questions should be included to let respondents comment on additional concerns.
4. Distribute in similar ways and at similar times, and comparisons are made between comparable institutions.
5. The validity of responses depends on having a reasonable response rate. Usually, at least 50% is essential.
6. Actions taken in response to stakeholders' feedback are available on the department website to encourage participation.

The surveys used by the Sustainable Food Systems program:

Course Evaluation Survey:

a. A course evaluation survey is distributed at the end of each course. It is recommended that this survey be distributed in each course once each year.
b. The survey does not directly assess the quality of teaching by individual instructors. However, evaluating the course is seen as a reasonable measure of the quality of teaching in a way that minimizes personal issues that could inhibit student responses.
c. The survey asks questions about several aspects of each course. The final question is intended to provide a summary question that might be used as a general quality indicator.

Student Experience Survey:

a. This survey is intended to be a general survey distributed to all students' mid-way through their program.
b. The survey deals with the students' lives at the institution, including significant elements of the program in which they are enrolled and several general items relating to services and facilities.

Program Evaluation Survey:

a. This survey is conducted annually. It is intended for use when students have finished their program and are about to graduate. It is recommended that it be distributed shortly before the final year classes are finished so that their opinion of the total program can be assessed.
b. The questions include several items about the program and some that deal with their life as students at the institution. As for the other surveys, the final question is a summary item that might be used as a general quality indicator.

Alumni Evaluation Survey:

a. A survey of alumni is conducted annually. The target alumni are those graduates from the last year and one year earlier.
b. This instrument captures quantitative rankings about their experience in the program and PLOs, post-graduate program enrolment, and employability.

Staff Satisfaction Surveys:

The Sustainable Food Systems program uses two surveys to collect feedback from faculty and staff: the Academic Staff Satisfaction Survey and the Administrative Staff Satisfaction Survey.

a. These two surveys are conducted annually to assess the staff satisfaction with the program and services offered.
b. an essential precondition for improving efficiency is continuously measuring employee satisfaction.
c. The results of these surveys are directed primarily at designing processes and activities and defining short-term and long-term measures to improve satisfaction and motivation.

Employers Evaluation Survey:

This survey is conducted on an annual basis aiming to assess the level of satisfaction among employers about the outcomes of the program and also used to assess the PLOs

Academic Advising Satisfaction Survey:

The main objective of Academic Advising is to support students in identifying and attaining their educational, personal, and career objectives. The aim is to foster their growth as independent learners, facilitate exploration of available resources, and maximize their university experience at the University of Tabuk. Academic Advising is an ongoing and consistent process that relies on establishing a solid working relationship between the Advisor (Faculty) and Advisee (Student). This necessitates regular and meaningful interactions between the advisor and advisee. The advisor and the student are responsible for engaging actively in the academic advisement process.

Response Scale:

It is recommended that each item in the surveys be responded to using a five-point scale. The recommended scale is:

1. Strongly agree (**5**).
2. Agree (**4**).
3. Neutral (or undecided) (**3**).
4. Disagree (**2**).

5. Strongly disagree (**1**).

Table 9 Stakeholders' Survey Plan.

Survey	Area of Evaluation	Target group	Distribution Responsibility	Distribution Timing	The Uses of the Survey
1. Course Evaluation Survey	Course quality	Students	Course instructors	End of the course	KPI-P-02 Average student overall rating of course quality on five-point scales -Course Report
2. Student Experience Survey	The student's academic life in the educational institution, including the basic components of the program in which the student is Registered	Students who have passed half of the program's duration	MEWG	Annually	KPI-P-01 Students' Evaluation of Quality of Learning Experience in the Program
3. Program Evaluation Survey	Final-year students' satisfaction with program, services, facilities, and program management	Final-year students of the program	MEWG	Annually	KPI-P-01 Students' evaluation of the quality of learning experiences in the program
4. Alumni Evaluation Survey	Alumni satisfaction with the program	Alumni	MEWG	At least six months after their graduation	KPI-P-01 Students' evaluation of the quality of learning experiences in the program
5. Faculty Satisfaction Survey	Academic staff members' satisfaction with the Program, management, Organization environment, Quality management, educational process, Program mission, PLOs, Facilities and services, Scientific research, Community service	Academic staff members	MEWG	Annually	Measure faculty members' Satisfaction
6. Employers' Evaluation	Employers' satisfaction with program outcomes	Employers	MEWG	It is submitted to the employers one year after the student's graduation	KPI-P-07 Employers' assessment of the competency of program graduates
7. Academic Advising Satisfaction Survey	Students' satisfaction with the academic advising service and academic Advisor	All Students	Academic advising coordinator	Annually	Students' satisfaction with academic advising

Quality Procedures

Quality Procedures

Developing a component within a program requires a systematic approach to ensure its effectiveness and alignment with program goals. This chapter presents the general frameworks followed by the Sustainable Food Science program to develop its core components.

Mission and Goals Development

The mission and goals of the Sustainable Food Science program were developed to motivate the efforts of the students, faculty members, and all stakeholders and provide them with a clear direction for the future state of the program.

The mission statements and goals provide a view of why the Sustainable Food Science program exists and where it wants to be, and they create a target for the operational planning of the program. In developing its mission and goals, the Sustainable Food Science program followed a systematic procedure that ensured consideration of critical factors and stakeholders' inputs. The Sustainable Food Science program's mission and goals are widely circulated among internal and external stakeholders to provide them with a clear direction for the future state of the program. The mission and goals are periodically reviewed, allowing them to evolve in response to changing needs and advancements in food systems. In the following, the details of the development procedure are presented.

Determinants The factors shape the articulation of the program's mission and goals.	**Alignment with the UT's mission:** ● Align the program's mission and goals with the UT's overall vision, mission, and values. ● Consider the UT's strategic priorities, objectives, and core principles. ● Ensure that the program's mission and goals contribute to the UT's broader goals and strategic plans. **Compliance with the Accreditation Standards:** ● Compliance with the requirements and standards set by the NQF ensures program quality, standards, and recognition. **Needs Assessment and Analysis:** ● Identify and analyze the specific needs, problems, or challenges the program seeks to address. **Target Population:** ● Define the target population or beneficiaries of the program. ● Consider their characteristics, demographics, socio-economic status, and specific needs or concerns. ● Tailor the program's mission and goals to address the target population's identified needs effectively. **Stakeholder Input and Engagement:**

	● Engage relevant stakeholders throughout the program planning process. ● Seek input, feedback, and perspectives from stakeholders, including program staff, beneficiaries, community members, partners, and experts. **External Factors and Context:** ● Assess the external factors and contextual influences that may impact the program. ● Consider political, economic, social, technological, and environmental factors that shape the program's operating environment. ● Adapt the program mission and goals to respond to the opportunities and challenges the external context presents. **Resources:** ● Consider the availability and allocation of resources to support the program's implementation. ● Assess the financial, human, material, and technical resources required to achieve the program goals. ● Align the program mission and goals with the resource capacity. **Legal and Ethical Considerations:** ● Comply with applicable laws, regulations, and ethical and Islamic standards in shaping the program's mission and goals. **Research and Evidence:** ● Review existing research, studies, and evidence related to the program's focus area. ● Incorporate relevant findings and lessons learned from research and evidence into the program's mission and goals. **Collaboration and Partnerships:** ● Identify potential partners and collaborators who can contribute to the program's mission and goals. ● Consider partnerships with community organizations, government agencies, non-profit organizations, academic institutions, and private sector entities. **Evaluation and Learning:** ● Plan for ongoing monitoring, evaluation, and learning throughout the program's lifecycle. ● Incorporate evaluation findings, lessons learned, and stakeholder feedback to refine and adjust the program mission and goals. ● Continuously assess the program's effectiveness, impact, and relevance to ensure continuous improvement.
Specifications Guidelines for developing clear and well-articulated mission and goals statements.	**Clarity and Conciseness:** ● Ensure the mission and goals are clearly articulated, concise, and easily understandable. ● Use simple language to avoid ambiguity or confusion. **Specificity and Measurability:** ● Make the mission and goals specific and measurable to provide clear direction and enable adequate progress tracking. ● Clearly define each goal's expected outcomes, targets, or metrics. **Alignment with UT's Values and Vision:**

	● Ensure that the program's mission and goals align with the UT's overall values, vision, and strategic direction. **Relevance and Significance:** ● Ensure that the mission and goals are relevant to the program's purpose, target population, and the identified needs or problems. **Achievability and Realism:** ● Set achievable mission and goals within the program's scope, available resources, and timeframe. **Time-bound:** ● Define a specific timeframe or deadline for achieving the goals to provide a sense of urgency and focus. ● Break down long-term goals into shorter-term objectives or milestones to track progress effectively. **Stakeholder Involvement:** ● Involve relevant stakeholders, such as program staff, beneficiaries, partners, and funders, in articulating the mission and goals. ● Seek input and feedback from stakeholders to ensure that their perspectives and needs are considered. **Inspiring and Motivating:** ● Craft a mission statement and goals that inspire and motivate program stakeholders by conveying a sense of purpose, impact, and value. ● Use language that evokes enthusiasm, commitment, and a shared sense of responsibility. **Flexibility and Adaptability:** ● Allow flexibility and adaptability in the mission and goals to accommodate changes in the program's context, emerging opportunities, or evolving needs. ● Ensure that the goals can be revised or adjusted if required while maintaining alignment with the program's overall purpose.
Responsibilities	The mission and goals working group.
Development and Approval team	Head of the Programs and Study Plans Committee.
Procedure	1. **Establish Mission and Goals Development working group:** a. The Programs and Study Plans Committee forms a working group comprising faculty members, program coordinators, administrators, and other stakeholders responsible for developing and approving the mission and goals. b. The working group will oversee the entire process and ensure collaboration and representation from different perspectives. **2. Conduct internal and external Analysis:** a. Conduct SWOT Analysis: Conduct a thorough analysis of the internal strengths, weaknesses, opportunities, and threats (SWOT) of the academic program. b. Conduct Market Analysis: Analyze the market relevant to the program. Identify trends, emerging needs, and potential opportunities. Assess the competitive landscape and benchmark against similar programs to identify unique selling propositions and differentiation factors.

	c. Conduct Stakeholder Analysis: The mission and goals working group conducts a workshop with stakeholders (Students, Alumni, Employers, Faculty members, and administrative staff) to understand their needs, expectations, and aspirations related to the program and to gather their inputs and insights. 3. **Draft Mission Statement:** Based on the information gathered and analysis conducted, the mission and goals working group drafts a preliminary mission statement and program goals. The mission and goals ensure alignment with UT's mission and strategic priorities. Also, the mission statement should capture the program's unique contributions and aspirations. 4. **Seek Feedback and Revision:** The mission and goals working group shares the draft mission statement and goals with stakeholders, seeking their feedback, suggestions, and revisions. 5. **Refine and Finalize:** Based on the feedback on the mission and goals, the working group revised and refined the mission statement to ensure it accurately represents the program's identity, purpose, and values. Ensure that the mission complies with the specifications outlined previously. 6. **Develop Program Goals:** a. After finalizing the mission statement, the mission and goals working group identifies the specific goals that the Sustainable Food Science program intends to achieve in alignment with its mission. a. Ensure the goals are measurable, achievable, relevant, and time-bound (SMART). b. Consider the Sustainable Food Science program's unique strengths, student needs, and evolving industry expectations. 7. **Seek Feedback and Revision:** The mission and goals working group shares the draft program goals with faculty, staff, and other relevant stakeholders for feedback and suggestions to refine the program goals. 8. **Refine and Finalize Program Goals:** Based on the feedback received, the mission and goals working group revise and refine the program goals to ensure they align with the program's mission, address student needs, and reflect current trends in the relevant field. Ensure that the goals are SMART. The mission and goals working group submits the finalized mission and goals to the HOD. 9. **Approval from Relevant Authorities:** The HOD presents the finalized mission statement and goals to the departmental council for approval. After the departmental council approval, the mission statement and goals go through the approval process shown in Table 2. At any stage of approval, suggestions for further refinement of the mission and goals are carried out by the mission and goals working group. 10. **Communicate Approved Mission and Goals:** The mission and goals working group share the approved mission statement and program goals with all relevant stakeholders, including faculty, students, staff, and external accrediting bodies. Ensure that everyone involved in the program knows the approved mission and goals and their significance for program direction and decision-making.
Notes	The Program Mission and Goals are revised every five years.
Outputs	1. Meeting minutes with Stakeholders (Advisory committee meeting, Faculty members meeting, administrative staff meeting). 2. Feedback reports. 3. SWOT analysis (Internal and external Analysis report). 4. Approval of mission and goals from the relevant authorities.

Appendices	1. The UT strategic plan governance guide. 2. UT strategic plan. 3. FOS strategic plan. 4. Matrix of Authority of study plans and academic programs.

Operational Plan Development

The Sustainable Food Science program operational plan defines the targets that must be achieved for the program to execute its mission and goals. The plan uses performance indicators to gauge the success of the Sustainable Food Science program in achieving its goals.

Determinants The factors shape the development of the program's operational plan.	**Program Goals and Objectives:** ● **Clearly defined goals:** Establish clear and specific program goals that articulate the desired outcomes and impact. ● **Measurable objectives:** Develop measurable objectives that outline the specific targets to be achieved within the program's timeframe. **Stakeholder Engagement and Collaboration:** ● **Stakeholder identification:** Identify and engage relevant stakeholders, including program staff, students, and employers. ● **Collaboration and input:** Foster collaboration among stakeholders to ensure diverse perspectives and expertise are considered in developing the operational plan. ● **Stakeholder roles and responsibilities:** Define the roles and responsibilities of each stakeholder in implementing and supporting the program. **Resource Assessment and Allocation:** ● **Resource identification:** Identify the necessary resources, including funding, personnel, facilities, equipment, and technology, required to implement the program. ● **Resource availability:** Assess the availability and accessibility of resources, considering potential limitations or constraints. ● **Resource allocation:** Allocate resources effectively, considering the priorities, needs, and feasibility of different program components and activities. **Program Activities and Timeline:** ● **Activity planning:** Determine the activities and tasks required to achieve the program goals and objectives. ● **Activity sequencing:** Establish a logical sequence and order of activities, ensuring dependencies and prerequisites are considered. ● **Timeline development:** Develop a realistic timeline that outlines each activity's start and end dates, milestones, and key deliverables. **Monitoring and Evaluation Framework:** ● **Performance indicators:** Define relevant and measurable indicators to track progress, monitor program implementation, and assess outcomes. ● **Data collection and analysis:** Determine the methods, tools, and frequency of data collection to monitor program activities and evaluate their effectiveness.

	● **Evaluation criteria:** Establish evaluation criteria and standards to assess the success and impact of the program. **Communication and Reporting:** ● **Communication plan:** Develop a communication plan that outlines how information will be shared among stakeholders, both internally and externally. ● **Reporting mechanisms:** Establish reporting formats and channels to provide regular updates on program progress, achievements, challenges, and lessons learned. ● **Stakeholder engagement in communication:** Engage stakeholders in the communication and reporting, ensuring transparency and accountability. **Continuous Improvement and Adaptation:** **Learning and feedback loops:** Incorporate mechanisms for capturing feedback, lessons learned, and insights from program implementation to inform ongoing improvements. **Flexibility and adaptability:** Build flexibility into the operational plan to accommodate changing circumstances, emerging needs, and evolving program priorities. **Iterative planning:** Continuously review and update the operational plan based on feedback, evaluation results, and the dynamic nature of the program.
Specifications These specifications help ensure the operational plan is comprehensive, actionable, and aligned with the program's goals and objectives.	1. **Program Analysis and Planning:** ● **Conduct a needs assessment:** Identify the target population and assess the needs and requirements that the program aims to address. ● **Review existing data and research:** Gather and analyze relevant data and reports. ● **Define program goals and objectives:** Clearly articulate the desired outcomes and impact the program aims to achieve. ● **Conduct a SWOT analysis:** Assess the program's strengths, weaknesses, opportunities, and threats to inform the planning process. ● **Establish program priorities:** Determine the critical focus areas and order of importance for program activities. 2. **Stakeholder Engagement and Collaboration.** 3. **Resource Assessment and Allocation.** 4. **Activity Planning and Sequencing.** 5. **Performance Monitoring and Evaluation:** 6. **Communication and Reporting.** 7. **Continuous Improvement and Adaptation.**
Responsibilities	The Programs and Study Plans Committee.
Development and Approval team	Head of the Programs and Study Plans Committee.
Procedure	**Establish operational working group (OPWG):** The HOD and the Programs and Study Plans Committee identify the operational plan working group (OPWG). The OPWG is responsible for overseeing the entire process of developing and approving the operational plan, ensuring collaboration and representation from different perspectives, and monitoring the program's progress in achieving its target goals.

Review Program Data and Assessment Results: The OPWG conducts a comprehensive review of the program data, including:

- Program Mission and Goals.
- Faculty Strategic Plan.
- Improvement Priorities identified in previous Operational Plan Progress Reports.
- Improvement Plans associated with improvement priorities from various committees within the department.
- Improvement Plans and Improvement Priorities are mentioned in the Annual Report and Course Reports.
- Improvement Priorities derived from Performance Indicators Reports and Benchmarking.
- Opinion Surveys Reports.
- Alumni Characteristics and Learning Outcomes Reports.
- Improvement Priorities are mentioned in the Self-Evaluation Standards and Self-Study Report.

Identify Areas for Improvement: Based on the review of program data and assessment results, the OPWG analyses the data to identify areas that require improvement and potential areas for growth. This could include curriculum enhancements, faculty development, student support services, assessment practices, or other relevant aspects.

Set Improvement Objectives and Strategies:

a. What do we want to achieve? The OPWG establishes clear and measurable improvement objectives for each identified area and ensures the objectives align with the program's goals.
b. How will we achieve our objectives? The OPWG determines the strategies and approaches to address each improvement objective.

Share the Improvement Objectives and Strategies: The OPWG communicates the improvement objectives and strategies to the relevant committees.

Define Action Steps and Timelines: Each committee is responsible for:

a. Breaking down each improvement strategy into actionable steps or tasks.
b. Define specific timelines for implementing each action step to ensure progress and accountability.
c. Assign responsibilities to individuals or teams for each action step or task to ensure accountability and effective implementation.
d. Ensure that the allocated resources align with the identified objectives and strategies.
e. Identify performance indicators and targets.

Draft the operational plan: The OPWG combines improvement plans from all committees in the operational plan format.

Seek Feedback and Revision: To ensure that the Operational plan is comprehensive, actionable, and aligned with the program's objectives, the HOD presents the Operational plan to the department council, seeking their input and feedback to ensure their support.

Refine and Finalize: Based on the feedback from faculty members, the OPWG revised and refined the operational plan. The HOD submits the revised operational plan to the vice dean for development and quality for final review. Any suggestion from the vice dean for development and quality will be discussed and carried out by the OPWG.

	Obtain Approval from Relevant Authorities: The final draft of the operational plan will be submitted to the faculty council for approval. **Communicate Approved Operational Plan:** Communicating the approved operational plan helps ensure that stakeholders are well-informed, aligned, and actively involved in implementing the program's operational plan. **Implement Action Plans:** The committees Initiate the action plans according to the defined timelines and responsibilities. **Monitor Progress:** The OPWG Continuously monitors the progress of the operational plan against the established timelines and KPIs to track the implementation of the action plans and hence provide a systematic way to measure the program goals. **Evaluate Results:** The OPWG assesses the results and outcomes of the implemented action plans and compares the actual results against the established targets or benchmarks. This analysis helps assess whether the program is on track to achieve its goals and identifies areas that require improvement or further attention. **Report on the Outcomes:** The OPWG regularly reports on the progress made toward achieving the target objectives to the strategic plan coordinator at the faculty level and, from there, to the relevant higher authority at UT. At the end of the academic year, the OPWG prepares a comprehensive report on the achievements of the Operational plan. **Seek Feedback:** The operational plan report will then be discussed with the department council. Based on the feedback, strategies, action plans, and resource allocation may be modified to address any identified issue or make necessary improvements for the succeeding year's improvement cycle. **Final Approval of the Achievement Report:** The final operational plan report will be submitted to the vice dean of development and quality and then to the department and faculty councils for final approval.
Reports	Action plans of committees. Operational plan. Reports on the progress of in executing the action plans. Meeting mites on (OPC, Advisory committee, Departmental council, Faculty council, Committees)
Appendices	1. The UT strategic plan governance guide. 2. UT strategic plan. 3. FOS strategic plan. 4. Tasks and duties of councils and committees.

Measuring the Program's Goals

Measuring program goals allows for evaluating program effectiveness and provides valuable feedback for continuous improvement. Data and evidence gathered during the measurement process are crucial to support decision-making, where data-driven decision-making ensures that program improvements are based on objective information rather than assumptions. Also, measuring program goals helps identify areas where students may need additional support or where curriculum adjustments may be necessary.

The Sustainable Food Science program regularly monitors and evaluates progress toward the goals. Use KPIs to assess whether the desired outcomes are being achieved. Based on the assessment results and benchmarks, take the necessary actions to enhance the performance.

Determinants The factors shape and influence the measurement of the program goals.	**1. Goal Clarity and Specificity:** ● **Clearly defined metrics:** Establish clear and specific metrics or indicators that align with each program goal, allowing for objective measurement. ● **Operational definitions:** Provide operational definitions for each metric, ensuring consistent interpretation and application during the measurement process. ● **Timeframe:** Determine the appropriate timeframe for measuring goal attainment, considering short-term and long-term targets. **Compliance with the Accreditation Standards:** ● **National standards:** Compliance with the NQF standards often involves using specific indicators, assessment methods, and reporting frameworks to ensure a high-quality measurement process and outcomes. **2. Data Collection Methods and Tools:** ● **Quantitative measures:** Identify quantitative data collection methods, such as surveys, assessments, or institutional records, to capture numerical data related to the program goals. ● **Qualitative measures:** Incorporate qualitative data collection methods, such as interviews, focus groups, or reflective essays, to gather in-depth insights and perspectives on goal attainment. ● **Valid and reliable tools:** Select valid and reliable measurement tools or instruments that align with the specific metrics and goals being assessed. **3. Data Analysis and Interpretation:** ● **Data processing:** Develop a systematic process for collecting, organizing, and analyzing data for each program goal. ● **Data interpretation:** Apply appropriate statistical or qualitative analysis techniques to interpret the collected data and derive meaningful insights regarding goal attainment. ● **Benchmarking:** Compare program data against relevant benchmarks or established standards to provide context for interpreting the results. **4. Stakeholder Engagement:** ● **Stakeholder involvement:** Engage relevant stakeholders, such as students, faculty, alumni, and employers, in the measurement process to gather diverse perspectives and ensure the validity and relevance of the data. ● **Communication and feedback:** Establish mechanisms for communicating measurement results to stakeholders and seeking their feedback and input on the findings. ● **Collaborative data analysis:** Foster stakeholder collaboration in analyzing and interpreting the measurement data, facilitating a shared understanding of program goals and their measurement. **5. Continuous Improvement and Action Planning:** ● **Assessment of progress:** Regularly assess and track progress towards program goals to identify areas of success and improvement. ● **Actionable insights:** Use the measurement results to generate actionable insights and recommendations for program improvement or refinement. ● **Action planning:** Develop action plans based on the measurement findings, outlining specific steps to address identified gaps or enhance performance about the program goals. **6. Ethical Considerations:**

	• **Data privacy and confidentiality:** Adhere to ethical standards and regulations regarding data privacy and confidentiality, ensuring that data collected for measurement purposes is handled securely and responsibly. • **Informed consent:** Obtain informed consent from participants involved in data collection, ensuring their understanding of the purpose, procedures, and potential uses of the data. • **Transparent reporting:** Maintain transparency in reporting measurement results, providing clear explanations of the methods, findings, and limitations of the measurement process.
Quantitative Metrics Quantitative metrics provide objective data that can be measured numerically.	**Completion rate:** The proportion of undergraduate students completed the program in minimum time in each cohort. First-year students' retention rate: Percentage of first-year undergraduate students who continue at the program the following year to the total number of first-year students in the same year. Graduates' employability and enrolment in postgraduate programs: Percentage of graduates from the program who, within a year of graduation, were: • Employed within 12 months, • Enrolled in postgraduate programs during the first year of graduation to the total number of graduates in the same year. The ratio of students to teaching staff: The ratio of the total number of students to the total number of full-time and full-time equivalent teaching staff in the program Percentage of publications of faculty members: Percentage of full-time faculty members who published at least one research paper during the year to total faculty members in the program. Rate of published research per faculty member: 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 per year). Citations rate in refereed journals per faculty member: 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).
Qualitative assessment Qualitative assessments provide subjective insights and feedback from various stakeholders.	Students' Evaluation of Quality of learning experience in the Program: Average of the overall rating of final year students of the quality of learning experience in the program, satisfaction with the various services offered by the program (restaurants, transport, sports facilities, academic, vocational, psychological guidance...), student satisfaction with the adequacy and diversity of learning sources (references, periodicals, information databases... etc.) on a five-point scale in an annual survey. Students' evaluation of the quality of the courses: Average of students' overall rating for the quality of courses on a five-point scale in an annual survey. Employers' evaluation of the program graduates' proficiency:

	Average of the overall rating of employers for the proficiency of the program graduates on a five-point scale in an annual survey.
Responsibilities	HOD, OPWG.
Development & Approval	HOD, UT strategic planning unit. Vice dean of development and quality. Faculty council. Advisory committee. Administrative Staff Students, Alumni, and Employers. All committees.
Procedure	**Plan Development:** The OPWG will oversee the entire process of measuring program goals and the development of the program goals measurement plan. The OPWG measures the Sustainable Food Systems Program goals annually through the achievements of the program's operational plan. The Sustainable Food Systems Program's operational plan includes specific KPIs and target benchmarks connected to the program goals. **Monitor Progress:** The OPWG Continuously monitors the progress of the operational plan against the established timelines and KPIs to track the implementation of the action plans and hence provide a systematic way to measure the program goals. **Evaluate Results:** The OPWG assesses the results and outcomes of the implemented action plans and compares the actual results against the established targets or benchmarks. This analysis helps assess whether the program is on track to achieve its goals and identifies areas that require improvement or further attention. **Report on the Outcomes:** The OPWG reports on progress toward achieving the program goals and submits the report to the HOD. **Seek Feedback:** The report will be discussed with the department council. Based on the feedback, strategies, action plans, and resource allocation may be modified to address any identified issue or make necessary improvements for the succeeding year's improvement cycle. **Final Approval of the Achievement Report:** The final report will be submitted to the vice dean of development and quality and then to the department and faculty councils for final approval.
Note	The previous year's actual values are taken as an internal benchmark.
Reports	Report on measurement of program goals and improvement plans. Meeting mites on (OPWG, Departmental council, Faculty council)
Appendices	1. UT 2nd strategic plan. 2. FOS 2nd strategic plan. 3. Department of Food Science and Nutrition Operational Plan. 4. UT benchmarking procedural guide.

Program Study Plan

The Sustainable Food Systems Program has a detailed study plan showing the courses, their classification, their sequence, the number of accredited hours, their pre/co-requisites, the

classification of courses, required, elective, and university/ faculty/ department requirements. The study plan ensures the balance between the general and specialty requirements and between theoretical and skill aspects, and it considers the sequencing and integration of the courses. The program study plan considers the adequate requirements of international practices and similar programs.

Determinants These factors are essential to develop study plans that align with academic requirements, meet industry standards, cater to student needs, and provide a comprehensive and relevant educational experience.	**1. Academic Requirements:** ● **Accreditation and regulatory standards:** Ensuring compliance with accreditation requirements and NQF regulations. ● **Curriculum guidelines:** Adhering to established guidelines or frameworks set by UT. ● **Credit hours and course sequencing:** Adhering to the total credit hours required for the program set by the NQF. ● **Curriculum structure:** Choose a course sequencing that ensures a logical and progressive learning experience. **2. Program Goals and Objectives:** ● Defining the overarching goals and objectives of the program. ● Aligning the study plan with the program's mission and intended learning outcomes. ● Balancing the breadth and depth of knowledge in the chosen field. **3. Industry or Professional Standards:** ● Considering the expectations and requirements of relevant professions. ● Incorporating competencies and skills necessary for successful employment in the field. ● Staying updated with emerging trends and technological advancements in food science fields. **4. Prerequisites and Core Courses:** ● Identifying prerequisite courses or knowledge required for advanced courses. ● Designating core courses that provide foundational knowledge and skills within the discipline. ● Ensuring a logical sequencing of courses to build upon previously acquired knowledge. **5. Electives and Specializations:** ● Offering a range of elective courses that allow students to customize their study plan. ● Providing specialized tracks or concentrations within the program to cater to specific interests or career paths. ● Balancing breadth and depth by offering a variety of elective options. **6. Faculty Expertise and Resources:** ● Leveraging faculty members' expertise and research interests to design and offer relevant courses. ● Considering the availability of faculty resources and ensuring adequate coverage of essential subject areas. ● Facilitating faculty development and keeping them updated with advancements in the field. **7. Student Needs and Feedback:** ● Considering the interests and aspirations of prospective students. ● Gathering feedback from current students regarding their preferences and areas of interest. ● Incorporating mechanisms for student input and ongoing evaluation of the study plan.

	8. Institutional Resources and Constraints: ● Considering the availability of facilities, equipment, and infrastructure necessary for delivering the program. ● Addressing resource constraints, such as faculty availability, budget limitations, or scheduling challenges. ● Balancing the program requirements with the overall institutional capacity. **9. External Stakeholder Input:** ● Incorporating feedback and input from external stakeholders, such as industry professionals, alumni, or advisory boards. ● Engaging employers or professional associations to identify skill gaps and ensure program relevance. ● Building partnerships and collaborations to provide opportunities for internships, practicums, or industry projects. **10. Ongoing Evaluation and Continuous Improvement:** ● Implementing mechanisms for regular evaluation and assessment of the study plan's effectiveness. ● Analysing student performance data and feedback to identify areas for improvement. ● Staying abreast of changes in the field and updating the study plan accordingly.
Responsibilities	HOD. Programs and Study Plans Committee.
Development and Approval team	● Program coordinator. ● Programs and study plans committee ● Advisory Committee ● Academic staff members
Inputs	● Program mission and goals. ● Program and course learning outcomes. ● Benchmark program. ● The national framework for studying qualification.
Procedure	Establish Study Plan Working Group **(SPWG):** The HOD and the Programs and Study Plans Committee identify the Study SPWG. The SPWG oversees developing, modifying, and approving the study plan and ensures collaboration and representation from different perspectives. **1. Needs Assessment and Goal Setting:** The Programs and Study Plans Committee conducts a thorough needs assessment to: ● Identify the purpose of the study plan and the target audience. ● Conduct a needs assessment by analyzing program requirements, industry trends, student interests, and feedback. ● Set clear goals and objectives for the study plan, aligning them with the program's mission and intended learning outcomes. **2. Curriculum Design and Course Selection:** In designing the curriculum and identifying courses, the Programs and Study Plans Committee performs the following:

	1. Review and analyze the program's curriculum guidelines, accreditation requirements, and regulatory standards. 2. Determine the core courses, prerequisites, and elective options based on the program's objectives and the needs of the students. 3. Consider the logical sequencing of courses, ensuring a progressive development of knowledge and skills. 4. Explore opportunities for specialization or concentration areas within the study plan. **Draft the operational plan:** Based on the conducted review and needs assessment, the Programs and Study Plans Committee articulates the first draft of the Study plan. **Share with the department council:** To ensure that the study plan is comprehensive, actionable, and aligned with the program's objectives, the HOD presents the study to the department council, seeking their input and feedback to ensure their support. Based on the feedback from faculty members, the SPWG revised and refined the study plan. **3. Seek Stakeholder Feedback and Revision:** The SPWG shares the revised draft of the study plan with the Advisory Committee and stakeholders, seeking their feedback and suggestions. Based on the feedback from the Advisory committee members, the SPWG revised and refined the study plan for the second time. **4. Seek FOS Feedback and Revision:** The HOD submits the revised draft of the study plan to the FOS's Programs and study plans committee, seeking their feedback and suggestions. Based on the feedback from the FOS's Programs and Study Plans Committee, the SPWG revised and refined the study plan. The final revised draft will be submitted to the FOS council, and their feedback and suggestions will be sought. Based on the feedback from the faculty council, the SPWG revised and refined the study plan. **Seek UT Feedback and Revision:** The final draft of the study plan will then be submitted through UT's Electronic gate to the UT's Deanship of Academic Affairs. The study plan will then go through an internal review by the deanship of academic affairs and an external reviewer. Based on the feedback from the deanship of academic affairs and the external reviewer, the SPWG revised and refined the study plan. **Obtain Approval:** The final draft of the study plan will then be submitted to the deanship of academic affairs for approval. **Communicate Approved Study Plan:** The approved study plan is publicized to all stakeholders and included in the program specification, departmental handbooks, and website.
Reports	● Program study plan. ● Team meeting minutes. ● Department council meeting minutes. ● Faculty council meeting minutes.
Appendices	● National qualification framework. ● University program and plan guide. ● The UT Matrix of authority for study plan development.

Graduate Attributes

Graduate attribute statements typically describe the specific skills, knowledge, and qualities students are expected to possess upon completing their studies. The Sustainable Food Systems program graduate attributes are approved and publicly disclosed, and the program has a

mechanism in place to gather feedback from stakeholders. Their perspectives can provide valuable insights into the program's effectiveness and the attributes it fosters.

Determinants The factors that shape the development of the desired graduate attributes.	**1. Program and Institutional Mission and Goals:** ● **Mission:** Aligning the graduate attributes with the broader mission and vision of the program or institution. ● **Program goals:** Reflecting the specific goals and objectives the program sets to develop well-rounded graduates with the desired attributes. **2. Stakeholder Expectations and Input:** ● **Employer expectations:** Considering the needs and expectations of employers and industry stakeholders to ensure that the graduate attributes align with the job market demands. ● **Alumni feedback:** Gathering feedback from program graduates to understand the strengths and areas for improvement in developing graduate attributes. ● **Professional organizations**: Aligning the graduate attributes with the expectations and requirements set by relevant professional bodies. **3. Educational Standards and Guidelines:** ● **National standards:** Adhering to educational standards or guidelines established by NQF. ● **Professional standards:** Aligning the graduate attributes with professional standards or competency frameworks relevant to the field of study or profession. **4. Societal Perspectives:** ● **Social responsibility:** Including attributes that foster ethical behavior, social awareness, and a commitment to positively impacting society. **5. Discipline-specific Factors:** ● **Field-specific knowledge and skills:** Identifying the specific attributes essential within the discipline or field of study. ● **Critical thinking and problem-solving:** Including attributes that promote analytical thinking, problem-solving abilities, and applying knowledge in practical situations. ● **Research and innovation:** Incorporating attributes that encourage research skills, creativity, and the ability to contribute to new knowledge or innovation in the field. **6. Personal and Professional Development:** ● **Lifelong learning:** Including attributes that promote a commitment to continuous learning, adaptability, and the ability to acquire new knowledge and skills throughout one's career. ● **Communication and collaboration:** Incorporating attributes that foster effective communication, teamwork, and the ability to work collaboratively with others. ● **Leadership and management:** Including attributes that develop leadership skills, strategic thinking, and the ability to manage projects or teams. **7. Assessment and Evaluation:** ● **Assessment methods:** Considering the appropriate assessment methods and strategies to measure graduate attributes' development effectively.

	• **Alignment with assessment criteria:** Ensuring that the graduate attributes align with the assessment criteria and rubrics used to evaluate student performance. • **Feedback and improvement:** Incorporating opportunities for feedback and continuous improvement of the graduate attributes based on assessment results and stakeholder feedback.
Specifications Guidelines for articulating graduate attributes that are clear and effective.	**1. Clarity and Specificity:** • **Clear language:** Use clear and concise language to articulate graduate attributes, avoiding ambiguity. • **Specificity:** Clearly define each attribute and provide a clear description of what it entails, including the knowledge, skills, or qualities that encompass the attribute. • **Action-oriented:** Use action verbs to describe observable behaviors or actions demonstrating the attribute. **2. Comprehensive Coverage:** • **Holistic approach:** Ensure that the graduate attributes cover various areas, including academic knowledge, technical skills, personal qualities, and professional competencies. • **Core attributes:** Identify the essential attributes that all graduates should possess, regardless of their specialization or field of study. • **Disciplinary-specific attributes:** Include attributes specific to the discipline or field of study, reflecting that area's unique requirements and expectations. **3. Measurability and Assessment:** • **Measurable outcomes:** Ensure that the attributes are observable, measurable, and assessable, allowing for the evaluation of student attainment. • **Assessment methods:** Consider appropriate assessment methods and strategies that align with each attribute, providing opportunities for students to demonstrate their development.
Responsibilities	HOD, Programs and Study Plans Committee.
Development & Approval	HOD, Programs and Study Plans Committee. Faculty members. Program council. Faculty Council Advisory committee. Administrative staff. Stakeholders. Vice deanship of development and quality DQC.
Procedure	**Establish Graduates Attributes working group (GAWG):** The HOD and the Programs and Study Plans Committee identify the study plan working group (GAWG). The GAWG oversees the entire process of developing, modifying, and approving the

	graduate attributes, and ensuring collaboration and representation from different perspectives. **Collect Data:** The GAWG reviews the following: • The program mission, goals, and PLOs • The UT graduate attributes. • The previous graduate attributes. • The NQF requirements for the relevant level. • The UT manual for programs and study plans. • Benchmark national and international programs. • The new development in food sciences and its applications. **Draft the Graduates' Attributes:** Based on the data collected in the previous step, the DQC formulates the Sustainable Food Systems Program's first draft of the graduate attributes. **Share with the department council:** To ensure that the graduate attributes align with their expectations and requirements for graduates, the HOD presents the graduates' attributes at the department council, seeking their input and feedback to ensure their support. Based on the feedback from faculty members, the GAWG revised and refined the graduates' attributes. **5. Seek Stakeholder Feedback and Revision:** The HOD shares the revised draft of the graduates' attributes with the Advisory Committee and stakeholders, seeking their feedback and suggestions. Based on the feedback from the Advisory committee members and stakeholders, the GAWG revised and refined the study plan. **Obtain Approval:** The final draft of the study plan will then be submitted to the department council and the FOS council for approval. **Communicate Approved Study Plan:** The approved graduate attributes are publicized to all stakeholders and included in the program specification, departmental handbooks, and website.
Reports	Approved Sustainable Food Systems Program graduate attributes. Feedback reports from stakeholders. Meeting minutes and reports of the GAWG. Meeting mites on (Advisory committee, Departmental council, Faculty council)
Appendices	1. The NQF requirements. 2. The UT guide for programs and study plans. 3. The UT authority matrix for programs and study plan approval.

Program Learning Outcomes

Program learning outcomes statements are broad statements that describe the knowledge, skills, and abilities that students are expected to acquire upon completion of a program of study. These statements provide an overview of the overarching goals and outcomes of the program.

Determinants	**1. Program Mission and Goals:**

The factors that influence the development and formulation of the Program learning outcomes.	• **Mission statement:** Aligning the program learning outcomes with the overall mission and purpose of the program. • **Program goals:** Reflecting the specific goals and objectives set by the program, which may include knowledge acquisition, skill development, or professional competencies. 2. **Professional Standards and Accreditation:** • **Accreditation requirements:** Ensuring that the program learning outcomes meet the standards and requirements set by accrediting bodies or regulatory agencies. • **Professional standards:** Aligning the learning outcomes with the standards and competencies established by relevant professional organizations or industry stakeholders. 3. **Stakeholder Input and Expectations:** • **Employer expectations:** Considering the needs and expectations of employers and industry stakeholders to ensure that the program learning outcomes align with the demands of the job market. • **Alumni feedback:** Gathering feedback from program graduates to understand the strengths and areas for improvement in the program's learning outcomes. • **Student input:** Incorporating student perspectives and input to address their needs, interests, and career aspirations. 4. **Discipline-specific Factors:** • **Body of knowledge:** Reflecting the essential knowledge base and core concepts of the discipline or field of study. • **Skills and competencies:** Identifying the specific skills and competencies that students should develop throughout the program, such as critical thinking, problem-solving abilities, or research skills. • **Ethical considerations:** Incorporating ethical principles and considerations relevant to the discipline or field. 5. **Educational Trends and Best Practices:** • **Educational research and evidence:** Considering current research and evidence-based practices in teaching and learning to shape the program learning outcomes. • **Pedagogical approaches:** Incorporating effective pedagogical approaches and instructional strategies that align with the program's goals and learning outcomes. 6. **Program Context and Resources:** • **Program structure and sequencing:** Ensuring that the learning outcomes are sequenced and structured in a logical progression throughout the program, building upon foundational knowledge and skills. • **Faculty expertise:** Considering the expertise and qualifications of faculty members to ensure that the learning outcomes are achievable and aligned with their areas of expertise. • **Available resources:** Taking into account the resources, facilities, and technologies available to support the achievement of the program learning outcomes. 7. **Continuous Improvement and Evaluation:** • **Assessment and evaluation considerations:** Establishing an ongoing assessment and evaluation process to monitor and measure student achievement of the learning outcomes. • **Feedback and program review:** Incorporating feedback from faculty, students, and external stakeholders to continuously review and improve the program learning outcomes.

	● **Alignment with program assessment:** Ensuring that the learning outcomes align with the assessment methods, criteria, and rubrics used to evaluate student performance.
Specifications: The guidelines for crafting clear, concise, and measurable Program learning outcomes.	**1. Clarity and Specificity:** ● **Clear language:** Use clear and concise language to articulate program learning outcomes, avoiding ambiguous or vague terms. ● **Specificity:** Ensure that each learning outcome is specific and measurable, describing the intended knowledge, skills, or competencies that students should acquire by the end of the program. ● **Action verbs:** Use action verbs to describe observable and measurable behaviours or actions that students should be able to demonstrate. **2. Cognitive Levels:** ● **Cognitive levels:** Consider the cognitive levels set by the NQF, to ensure a balanced and progressive set of learning outcomes that encompass a range of cognitive skills. ● **Higher-order thinking:** Include learning outcomes that require higher-order thinking skills, such as critical thinking, analysis, synthesis, and evaluation. **3. Measurability:** ● **Measurable outcomes:** Ensure that the learning outcomes are observable and measurable, allowing for assessment and evaluation of student achievement.
Responsibilities	HOD, the program learning outcomes working group (PLOWG).
Development & Approval	HOD, the program learning outcomes working group (PLOWG). Advisory committee.
Inputs	Sustainable Food Systems Program Mission, goals, and graduate attributes. UT graduate attributes. National qualification framework standards.
Procedure	**Establish Program Learning Outcomes Working Group (PLOWG):** The HOD together with the Programs and Study Plans Committee identifies the program learning outcomes working group (PLOWG). The PLOWG is responsible for overseeing the entire process of developing, modifying, and approving the PLOs, and ensuring collaboration and representation from different perspectives. **Collect Data:** The PLOWG reviews the following: ● The program's mission, and goals. ● The previous PLOs. ● The NQF requirements for the relevant level. ● Benchmark national and international programs. ● The UT manual for programs and study plans. ● The new development in food sciences and its applications. **Conduct Needs Assessment:** The Programs and Study Plans Committee conducts a thorough needs assessment to: ● Identify the knowledge, skills, and competencies required for success in the program's field or discipline ● Review industry trends, professional standards, labour market demands, and peer programs.

	Draft the PLOs: Based on the conducted review and needs assessment, the Programs and Study Plans Committee articulates the first draft of the PLOs that are aligned with the learning activities, teaching strategies, and assessment methods. **Share with the department council:** To ensure that the PLOs align with the program mission, goals, the NNQF requirements as well as stakeholders' expectations, the HOD presents the graduates' attributes at the department council seeking their input and feedback to ensure their support. Based on the feedback from faculty members the PLOWG revise and refine the PLOs. **Seek Stakeholder Feedback and Revision:** The HOD shares the revised draft of the PLOs with the advisory committee and stakeholders, seeking their feedback and suggestions. Based on the feedback from the advisory committee members and stakeholders the PLOWG revise and refine the PLOs. **Seek FOS Feedback and Revision:** The HOD submits the revised draft of the PLOs to the FOS's Programs and Study Plans Committee, seeking their feedback and suggestions. Based on the feedback from the FOS's Programs and study plans committee the SPWG revise and refine the PLOs. The revised draft will then be submitted to the FOS council, seeking their feedback and suggestions. Based on the feedback from the faculty council the PLOWG revise and refine the PLOs. **Seek UT Feedback and Revision:** The revised draft of the study plan will then be submitted through UT's electronic gate to the UT's deanship of academic affairs. The study plan will then go through an internal review by the deanship of academic affairs as well as an external review. Based on the feedback from the deanship of academic affairs and the external reviewer the PLOWG revise and refine the PLOs. **Obtain Approval:** The final draft of the PLOs will then be submitted to the deanship of academic affairs for approval. **Communicate Approved PLOs:** The approved PLOs are publicized to all stakeholders and included in the program specification as well as the departmental handbooks and website.
Reports	Approved Sustainable Food Systems Program PLOs. Meeting minutes and reports of the Programs and study plans committee. Feedback reports from stakeholders. Meeting mites on (Advisory committee, Departmental council, Faculty council)
Appendices	1. The Sustainable Food Systems Program mission, goals, and study plan. 2. The NQF requirements. 3. The UT authority matrix for programs and study plans approval.

Course learning outcomes

Course learning outcome statements provide a clear indication of the knowledge, skills, and abilities that students are expected to acquire or demonstrate by the end of the course. They serve as a guide for instructors and students, setting expectations and providing a framework for learning and assessment.

Determinants:	1. **Alignment with the PLOs and the course objectives**: ● **Accreditation requirements:** Ensure that the CLOs are directly connected and serve the PLOs.

The factors that influence the development and formulation of the CLOs.	• **Mission and vision:** Ensure that the CLOs directly contribute to the attainment of the overall course objectives. 2. **Subject or Discipline-specific Factors:** • **Body of knowledge:** Reflecting the essential knowledge base and core concepts of the subject or discipline. • **Skills and competencies:** Identifying the specific skills and competencies that students should develop in the course, such as analytical skills, problem-solving abilities, or practical application of knowledge. • **Ethical considerations:** Incorporating ethical principles and considerations relevant to the subject or discipline. 3. **Stakeholder Expectations and Input:** • **Industry or professional expectations:** Considering the expectations and requirements of employers, professional organizations, or industry stakeholders to ensure that the learning outcomes align with the needs of the field. • **Alumni feedback:** Gathering feedback from former students or alumni to understand how the course can better prepare students for their future careers or further education. • **Student input:** Incorporating student perspectives and input to ensure that the learning outcomes address their needs, interests, and aspirations. 4. **Educational Standards and Guidelines:** • **National or regional standards:** Adhering to educational standards or guidelines established by government bodies or educational authorities. • **Professional standards:** Aligning the learning outcomes with professional standards or competency frameworks relevant to the subject or discipline. • **Best practices:** Considering established best practices and research-based evidence in teaching and learning when developing the learning outcomes. 5. **Program or Course Context:** • **Prerequisite knowledge and skills:** Considering the prior knowledge and skills that students are expected to have before enrolling in the course. • **Course progression:** Aligning the learning outcomes with the overall progression and structure of the course, building on previous courses, or preparing students for subsequent courses. • **Course modality:** Considering the mode of delivery (e.g., face-to-face, online, hybrid) and any specific considerations related to the course format. 6. **Assessment and Evaluation:** • **Assessment methods:** Considering the appropriate assessment methods and strategies to measure student achievement of the learning outcomes effectively. • **Alignment with assessment criteria:** Ensuring that the learning outcomes align with the assessment criteria and rubrics used to evaluate student performance. • **Feedback and improvement:** Incorporating opportunities for feedback and continuous improvement of the learning outcomes based on assessment results and student feedback.
Specifications: The guidelines for crafting clear,	1. **Cognitive Levels:** • **Cognitive levels:** Consider the cognitive levels set by the NQF to ensure a balanced and progressive set of learning outcomes that encompass a range of cognitive skills.

concise, and measurable CLOs.	● **Higher-order thinking:** Include learning outcomes that require higher-order thinking skills, such as critical thinking, analysis, synthesis, and evaluation. **2. Clarity and Specificity:** ● **Clear language:** Use clear and concise language to articulate course learning outcomes, avoiding ambiguous or vague terms. ● **Specificity:** Ensure that each learning outcome is specific and measurable, describing the intended knowledge, skills, or competencies that students should acquire by the end of the course. ● **Action verbs:** Use action verbs to describe observable and measurable behaviours or actions that students should be able to demonstrate. **3. Measurability and Assessment:** ● **Measurable outcomes:** Ensure that the learning outcomes are observable and measurable, allowing for assessment and evaluation of student achievement. ● **Assessment methods:** Consider the appropriate assessment methods and strategies that align with each learning outcome, providing opportunities for students to demonstrate their attainment of the outcomes.
Responsibilities	HOD, Programs and Study Plans Committee. Course coordinators.
Development & Approval	HOD, Programs and Study Plans Committee. Advisory committee. Faculty members.
Inputs	● Sustainable Food Systems Program mission, goals, graduate attributes, and PLOs. ● Sustainable Food Systems Program study plan. ● National qualification framework standards.
Procedure	**Establish CLOs working group:** The HOD decides on course coordinators and assigns roles and responsibilities regarding the CLOs development. The Programs and Study Plans Committee holds workshops to train faculty members in writing CLOs. **Collect Data and Review:** The course coordinators review the following: ● The program mission, goals, PLOs, and graduate attributes, ● The NQF requirement for the relevant level. ● The curriculum framework. ● The program's target audience, such as students' backgrounds, prior knowledge, and intended career paths. ● Benchmark national and international programs. ● The UT manual for programs and study plans. ● The new development in food system and its applications. **Conduct Needs Assessment:** The course coordinators conduct a thorough needs assessment to identify the knowledge, skills, and competencies required for success in the program's field or discipline, and review industry trends, professional standards, labour market demands, and peer programs. **Draft the CLOs:** Based on the conducted review and needs assessment, the course coordinators articulate the first draft of the CLOs that are aligned with the learning activities, teaching strategies, and assessment methods, and submit them to the Programs and Study Plans Committee.

	Share with the department council: To ensure that the CLOs align with the program mission, goals, the NQF requirements as well as stakeholders' expectations, the HOD presents the CLOs at the department council seeking their input and feedback to ensure their support. Based on the feedback from faculty members the course coordinators revise and refine the CLOs. **Seek Stakeholder Feedback and Revision:** The HOD shares the revised draft of the PLOs with the advisory committee and stakeholders, seeking their feedback and suggestions. Based on the feedback from the advisory committee members and stakeholders the course coordinators revise and refine the CLOs. **Obtain Approval:** The final draft of the CLOs will then be submitted to the department council for approval. **Communicate Approved PLOs:** The approved CLOs are publicized to all stakeholders and included in the course specifications.
Reports	● Approved Sustainable Food Systems Program PLOs. ● Meeting minutes and reports of the Programs and study plans committee. ● Feedback reports from stakeholders. ● Meeting mites on the advisory committee, Departmental council, and Faculty council).
Appendices	● The Sustainable Food Systems Program mission, goals, and study plan. ● The NQF requirements. ● The UT authority matrix for programs and study plans approval.

Students Assessments

Determinants: The factors that influence the quality and effectiveness of student assessments.	**1. Alignment with Learning Objectives and Standards:** ● **Curriculum alignment:** Ensuring that assessments measure the intended learning outcomes outlined in the curriculum. ● **Standard alignment:** Align assessments with external standards or benchmarks relevant to the subject or discipline. ● **Depth and breadth of coverage:** Assessing a wide range of knowledge, skills, and competencies outlined in the curriculum. **2. Validity and Reliability:** ● **Content validity:** Ensuring that the assessment measures what it intends to measure. ● **Construct validity:** Assessing the underlying construct or concept being evaluated. ● **Criterion-related validity:** Establishing a relationship between the assessment and an external criterion. ● **Inter-rater reliability:** Consistency of assessment results when scored by different evaluators. ● **Test-retest reliability:** Consistency of assessment results when administered to the same students at different times. **3. Clarity and Transparency:** ● **Clear assessment instructions:** Provide explicit directions to students on how to complete the assessment. ● **Transparent assessment criteria:** Clearly articulating the standards and expectations for student performance.

	• **Rubrics and scoring guides:** Providing detailed guidelines for evaluating and scoring student work. • **Consistent grading practices:** Ensuring consistent application of assessment criteria across different evaluators. 4. **Fairness and Equity:** • **Bias reduction:** Minimizing potential bias in assessment content, language, and administration. • **Accommodations:** Providing appropriate accommodations for students with disabilities or special needs. • **Cultural sensitivity:** Ensuring assessments are sensitive to diverse cultural backgrounds and experiences. • **Accessibility:** Ensuring that assessments are accessible to all students, including those with physical or sensory disabilities. 5. **Authenticity and Relevance:** • **Authentic tasks:** Designing assessments that reflect real-world applications and contexts. • **Relevance to student experiences:** Ensuring assessments are meaningful and relatable to students' lives and interests. • **Transferability of skills:** Assessing students' ability to apply their knowledge and skills in different contexts. 6. **Ethical Considerations:** • **Privacy and confidentiality:** Protecting students' personal information and ensuring the confidentiality of assessment results. • **Ethical administration:** Conducting assessments in a fair and unbiased manner, adhering to ethical guidelines. 7. **Feedback and Revision:** • **Timely feedback:** Providing prompt feedback to students to support their learning and improvement. • **Constructive feedback:** Offering specific, actionable, and supportive feedback that highlights strengths and areas for improvement. • **Opportunities for revision:** Allowing students to review their work based on feedback and make necessary revisions. • Self-assessment and reflection: Encouraging students to reflect on their performance and assess their own learning.
Specifications: These guidelines provide a framework for creating comprehensive and effective student assessments.	1. **Assessment Task Description:** • **Clear instructions:** Provide detailed and explicit instructions on what students are expected to do for the assessment task. • **Task format:** Specify the format of the assessment task, such as essay, multiple-choice questions, project, presentation, or performance-based task. • **Resource requirements:** Identify any specific resources, materials, or references students may need to complete the task. • **Time constraints:** Specify the time limit or deadline for completing the assessment task. 2. **Assessment Criteria and Rubrics:** • **Criteria for evaluation:** Clearly define the criteria for assessing student performance, such as content knowledge, critical thinking, creativity, or presentation skills. • **Rubrics:** Provide a detailed rubric that breaks down the assessment criteria into specific levels or descriptors, indicating the expectations for each level of performance. 3. **Scoring and Grading Guidelines:**

	• **Scoring system:** Specify the scoring system or scale to be used for evaluating student responses (e.g., 0-100, letter grades, or performance levels). • **Grading standards:** Define the standards for each grade or performance level, including the specific criteria or benchmarks for achieving each level. • **Consistency:** Provide guidelines to ensure consistent scoring and grading across different evaluators or multiple sections of the same assessment. **4. Accommodations and Special Considerations:** • **Accommodations for diverse learners:** Specify any accommodations or modifications that should be provided to students with disabilities or special needs to ensure a fair and equitable assessment. • **Language considerations:** Clarify any language accommodations for students who are English language learners or have language proficiency challenges. • **Special circumstances:** Outline any special circumstances or considerations that may affect the administration or scoring of the assessment (e.g., extended time, alternative format). **5. Ethical Considerations:** • **Academic integrity:** Include guidelines regarding academic honesty, plagiarism, and proper citation practices in the assessment task. • **Confidentiality:** Ensure guidelines for maintaining the confidentiality of student assessments and results. • **Fairness:** Address any potential biases or sources of unfairness in the assessment task or scoring process and provide guidelines to mitigate them.
Responsibilities	Course coordinators. The examinations committee. MEWG.
Procedure	The examinations committee is responsible for: • Develop and review exam policies, procedures, and guidelines to ensure fairness, security, and integrity. • Establish exam rules and regulations, such as guidelines on academic integrity, exam conduct, and use of resources. • Communicate the exam policies and procedures to faculty, and students. • Collaborate with faculty and administrators to develop exam schedules and timelines. • Ensure that exam dates, times, and venues are communicated to students and faculty members. • Coordinate with relevant departments or individuals to arrange necessary resources and facilities for the exams. • Establish procedures and guidelines for accommodating students with special needs or disabilities during exams. • Establish procedures and guidelines for accommodating students with special needs or disabilities during exams. • Monitor the exam venues to maintain a secure and controlled environment, minimizing the risk of cheating or misconduct. • Address any issues or irregularities that may arise during the exam, such as student concerns or technical difficulties. 1. Before the exam, the timetables and exams committee send the exam blueprint to the course coordinators.

	2. Course coordinators hold a meeting with the course instructors to determine the format of the exam, duration, number of questions, weightage, and any specific rules or policies to be followed during the exam and select appropriate exam questions that align with the exam blueprint, course content, and learning objectives as well as level of difficulty, cognitive skills to be assessed. The course coordinators submit the exam questions with the model answers to the MEWG. 3. The MEWG holds meetings with course coordinators, and reviews exams to ensure clarity, accuracy, and alignment with the course content and objectives, adherence to the policy of questions distribution over learning domains, and thea dherence to the blueprint of the exam. Course coordinators share the MEWG feedback with the course instructors. 4. After the primary grader completes grading the exams, a sample of graded exams will be cross-checked by the course coordinator or a faculty member who taught the same course before. The cross-checker verifies the accuracy and consistency of the primary grader's assessments. The primary grader and cross-checker engage in discussion and collaboration to address any discrepancies or disagreements. If necessary, they seek input from the course coordinator or subject matter experts. After discussion and consensus, the primary grader and cross-checker finalize the grades. 5. The finalized students' grades are entered into the e-register system. The HOD revise the entered data for approval. 6. The final results are approved by the vice dean and the grades are released to the students on their UT student's accounts. 7. The student is allowed to submit a formal request for a grading revision to the head of the academic affairs committee. The head of the academic affairs committee assigns a designated independent reviewer, to assess the complaint objectively. If necessary, the designated person consults with the original grader or instructor to discuss the grading decision. 8. The student request and the reviewer report are communicated to the HOD. If the complaint is valid and HOD contacts the primary grader to adjust the grade on the e-register accordingly. If the original grading decision was appropriate, a detailed explanation is provided to the student, addressing their concerns. 9. After the exams, the examinations committee identifies areas for improvement in the exam design, content, or administration, and makes necessary adjustments for future exams or courses. 10. Course coordinators and instructors are responsible for preparing course reports and submitting them together with samples of students' work to the MEWG. 11. The CLOs are measured by the course coordinator using an excel sheet designed by the measurement and evaluation coordinator where each CLOs is aligned with its relevant PLOs and hence the aligned PLOs can be measured accordingly. 12. The MEWG follows up the preparation of course reports and all related evidence of students' work with instructors and course coordinators. 13. Based on the course reports, the MEWG prepares a list of recommendations and action plans for further improvements. 14. The final draft of course reports together with the list of recommendations and action plans for improvements are submitted to the HOD. 15. The HOD presents the final draft of course reports, recommendations, and action plans to the departmental council for discussion and approval. From there the course report follows the cycle presented in Figure 3
Reports	• Samples of students' work. • Course reports. • Exams model answers. • Exam Schedule.

	• Students' attendance of exams sheet. • Course coordinators and instructors' meeting minutes. • MEWG meeting minutes and reports. • Sample of students complains (if any) • Sample of cross-checkers reports. • Department council meeting for course reports and action plans approvals.

Program learning outcomes assessment

Determinants These factors enhance the measurement of program learning outcomes, leading to more accurate and meaningful assessment results.	**1. Curriculum and Instruction:** • Curriculum design and learning objectives • Alignment of learning outcomes with instructional materials • Teaching methods and strategies used to promote learning **2. Assessment and Evaluation:** • Selection of appropriate assessment methods • Development of clear rubrics and scoring criteria • Use of valid and reliable assessment tools • Consistency in assessment practices **3. Faculty and Staff:** • Faculty expertise and training in assessment practices • Collaboration among faculty members for assessment alignment • Support and resources provided for professional development **4. Learning Environment:** • Classroom dynamics and student engagement • Availability of resources and support services • Inclusion of authentic and meaningful learning experiences **5. Student Factors:** • Student motivation and engagement • Prior knowledge and skills • Individual learning styles and abilities **6. Institutional Support:** • Institutional commitment to assessment practices • Allocation of resources for assessment efforts • Policies and guidelines supporting assessment activities • Data collection and analysis systems **7. Data Collection and Analysis:** • Efficient data collection processes • Use of appropriate data management systems • Sound data analysis techniques • Regular feedback loops for improvement **8. Stakeholder Engagement:** • Involvement of various stakeholders (e.g., faculty, students, employers, accrediting bodies) in the measurement process • Incorporation of feedback from stakeholders in assessment practices **9. Continuous Improvement:**

	• Culture of assessment and continuous improvement • Use of assessment results for program enhancement • Regular review and revision of learning outcomes and assessment method
Responsibilities	Course coordinators & instructors. PLOWG.
Procedure	The PLOWG is responsible for the whole process of measuring and reporting on the PLOs. Sustainable Food Systems Program PLOs are measured annually directly by measuring the achievement of the related CLOs in the courses in which mastery level (M) is achieved, as identified in the PLOs-courses mapping matrix. Sustainable Food Systems Program PLOs are measured annually indirectly using stakeholder surveys (Program evaluation survey, Graduates evaluation survey, and Employers evaluation survey). The CLOs are measured by the course coordinator using an Excel sheet designed by the measurement and evaluation coordinator where each CLOs is aligned with its relevant PLOs and hence the aligned PLOs can be measured accordingly. The actual value of PLO measurement is defined as a sum of 40% of the indirect result and 60% of the direct result. PLOs achievement is presented as a percentage in the PLOs annual report. The PLO achievement is benchmarked internally with the previous year's achievement, and the satisfactory performance and improvement is compared to the stated target benchmark for the year before.
Reports	CLO Excel sheet of measurements. PLOs annual report. Stakeholders' surveys and reports.

Professional development

The Sustainable Food Systems Program, in collaboration with the deanship for development and quality, provides the necessary training to the teaching staff on learning and teaching strategies and assessment methods identified in the program and course specifications, along with the effective use of modern and advanced technology, and their use is monitored.

The teaching staff and employees of the program have the appropriate orientation, technical training, and support for the effective use of resources and means of learning.

Teaching staff participate in professional and academic development programs in accordance with a plan that meets their needs and contributes to the development of their performance.

The program management is committed to developing and improving the professional skills and capabilities of the supportive technical and administrative staff to keep up with modern developments.

Determinants: These factors are essential for improving faculty member's professional growth.	**1. Pedagogical Skills and Teaching Strategies:** ● Mastery of effective teaching methods and instructional strategies. ● Familiarity with diverse pedagogical approaches and learning theories. ● Ability to engage students, promote active learning, and foster critical thinking. ● Competence in creating and delivering engaging and well-structured lessons. **2. Subject Matter Expertise:** ● Depth of knowledge and expertise in their respective disciplines. ● Awareness of current research and developments in their fields. ● Ability to convey complex concepts and theories in a clear and understandable manner. ● Proficiency in staying updated with advancements and emerging trends in their subject areas. **3. Technology Integration:** ● Proficiency in using educational technology tools and platforms. ● Familiarity with digital resources and online learning environments. ● Ability to integrate technology effectively into teaching and learning activities. ● Competence in leveraging technology for assessment, communication, and collaboration. **4. Assessment and Evaluation:** ● Understanding of various assessment methods and strategies. ● Knowledge of designing valid and reliable assessments. ● Ability to analyse and interpret assessment data to inform instruction. ● Competence in providing constructive feedback to students and using assessment for continuous improvement. **5. Inclusive Teaching and Diversity:** ● Recognition of diversity and inclusivity in the classroom. ● Knowledge of strategies to create an inclusive learning environment. ● Ability to address the diverse needs of students, including those with disabilities or from different cultural backgrounds. ● Competence in fostering a supportive and respectful classroom climate. **6. Professional Development and Scholarship:** ● Commitment to ongoing professional development and growth. ● Engagement in scholarly activities like research, publications, and conference presentations. ● Aptitude for integrating research and evidence-based practices into teaching. ● Proficiency in staying informed about the latest developments and best practices in higher education. **7. Communication and Interpersonal Skills:** ● Effective communication skills, both verbal and written. ● Ability to engage and connect with students, colleagues, and other stakeholders. ● Competence in facilitating discussions, promoting active participation, and managing classroom dynamics. ● Proficiency in providing feedback and constructive criticism to students. **8. Collaboration and Teamwork:** ● Ability to collaborate effectively with colleagues and engage in team-based projects. ● Aptitude for interdisciplinary collaboration and integration of multiple perspectives. ● Competence in collaborating with other faculty members and staff to enhance teaching and learning experiences. ● Proficiency in fostering a positive and supportive learning community.

	9. Institutional Policies and Requirements: ● Understanding of institutional policies, procedures, and teaching and professional development guidelines. ● Awareness of accreditation requirements and standards. ● Compliance with institutional expectations and standards for teaching quality. ● Proficiency in aligning teaching practices with institutional goals and objectives.
Responsibilities	Course coordinators & instructors. Scientific.
Procedure	1. The head of the department reviews all the training needs of the committee members according to the tasks assigned to them contained in the improvement plans and limits them to the training needs report. 2. A survey is distributed to faculty members for needs assessment. 3. The department raises its training needs to the vice dean, who in turn submits them to the deanship of development and quality, which is authorized to provide training programs to develop skills after the training programs are officially announced by the dean of development and quality at the university the program coordinator directs and urges all its members to attend when the training programs are opened to all special members who need performance improvement. 4. If the places are specified, the program will nominate members according to their tasks or needs to improve performance.
Reports	A letter to the deanship for development and quality with various training needs of the faculty staff members.
Appendices	Controls and standards of training at the University of Tabuk.

Course Report

The Sustainable Food Systems Program ensures the quality of teaching through:

- Verify the effectiveness of the teaching strategies used to achieve the CLOs and take the necessary measures according to the established procedures.
- Identifying the administrative difficulties the academic staff faced during the course.
- Standing on the results and estimates of students, studying the variation in the distribution of grades between the different divisions and the factors that affected them, and identifying priorities for improvement.
- Verifying the extent to which the quality loop is closed at the level of the course by following up on the percentage of completion of the proposed improvement plan for the previous year
- Develop an improvement plan appropriate to the recommendations reached by the end of preparing the course report

The academic staff member should:

- Adhere to what is stated in the course specification.
- Follow the course improvement plan.
- Be committed to measuring the extent to which the CLOs are achieved, according to the blueprint and matrix prepared by the department.

Determinants These factors ensure that course reports become valuable tools for evaluating, improving, and ensuring the effectiveness of educational courses.	**Ensuring Accuracy and Objectivity:** Considering these factors, the course report can be prepared in an accurate, objective, and fair manner. **Enhancing Quality Assurance:** By evaluating various aspects such as course content, teaching methods, assessments, and student feedback, the report highlights areas of strength and identifies areas that need improvement. This feedback is crucial for course instructors and administrators to make informed decisions about instructional strategies, curriculum development, and resource allocation. **Informing Curriculum Development:** By providing feedback on the alignment of learning outcomes with instructional strategies, and helping in the refinement and enhancement of the curriculum. This information is vital for ensuring that the course remains up to date, meets the needs of the learners, and aligns with industry standards or academic requirements. **Guiding Instructional Design:** The course reports inform instructional designers and educators about the effectiveness of their teaching approaches and help in identifying areas where modifications or enhancements may be needed. **Promoting Continuous Improvement:** The identification of strengths and weaknesses enables instructors and administrators to implement targeted interventions, refine teaching practices, and allocate resources more effectively. **Enhancing Student Engagement and Satisfaction:** The course reports identify areas where students may need additional support, clarity, or engagement. This information can be used to enhance student engagement, satisfaction, and overall learning outcomes. **Meeting Accreditation and Evaluation Requirements:** The course reports can provide evidence of compliance with quality assurance measures, accreditation guidelines, and institutional policies. This is particularly important for educational institutions seeking accreditation or undergoing periodic evaluations.
Responsibilities	• HOD. • DQC. • Course coordinators and instructors.
Development and Approval team	• DQC. • Course coordinators and instructors.
Inputs	• Course specification • course reports of the previous year • Students' list (e-register) • CLOs blueprint and measurement report. • Students' results. • Grade distribution. • Course meeting minutes. • Peer-Peer review reports • Sample of teaching methods
Procedure	1. The instructors measure CLOs in their sections (using the provided Excel sheet). 2. The instructors complete all the NCAAA course report sections, including an analysis of grade distribution, a report on the previous year, and an improvement plan. 3. The course coordinator holds a meeting with the instructors to discuss the student's results and the extent to which the CLOs are achieved, the students' and staff's feedback, and the appropriate improvement plan for the proposed recommendations.

	4. The course coordinator collects the course report for all the sections and prepares a single combined report. The combined reports are submitted to the DQC. 5. The DQC reviews the reports and communicates their insight and feedback to the course coordinators. 6. Based on the DQC feedback, the course coordinators carry out the proposed adjustments and submit the finalized combined report to the DQC. The DQC submits the combined reports to the HOD. 7. The HOD presents the combined reports to the departmental council for approval. The approved reports are then submitted to the faculty council for approval. 8. The faculty council discusses and approves the collective report in addition to the department's post-course meeting minutes. 9. The approved collective report and the course reports are submitted to the deanship of development and quality, and from there, the course report follows the approval cycle shown in Figure 4.
Reports	● Program study plan. ● Course coordinators' minutes. ● DQC meeting minutes. ● Department council meeting minutes. ● Faculty council meeting minutes.
Appendices	● National qualification framework. ● University program and plan guide. ● The UT Matrix of Authority for study plan development.

Program Specification

Determinants These factors ensure a systematic and well-structured development process for the Program Specification.	**1. Planning and Analysis:** ● Identify the need for a new program or the revision of an existing program. ● Conduct a thorough analysis of the target audience, industry demands, and stakeholder expectations. ● Define the program specification development process's scope, goals, and objectives. ● Establish a project team or committee responsible for overseeing the development process. **2. Research and Benchmarking:** ● Gather information on similar programs offered by other institutions or organizations. ● Conduct industry research to identify emerging trends, best practices, and skill requirements. ● Review relevant accreditation standards, regulatory guidelines, and educational frameworks. **3. Stakeholder Engagement:** ● Engage with key stakeholders, including faculty members, industry professionals, students, and employers. ● Seek input and feedback on program goals, learning outcomes, curriculum design, and assessment methods. ● Incorporate stakeholder perspectives to ensure relevance, alignment, and buy-in. **4. Program Design and Development:** ● Define the program structure, including the components, courses, and credit distribution.

	● Develop a curriculum framework that outlines the sequencing and progression of courses. ● Clearly articulate the program's learning outcomes and competencies. ● Design course descriptions, including learning activities, instructional methods, and assessment strategies. **5. Iterative Review and Feedback:** ● Share the draft program specification with the project team, stakeholders, and subject matter experts for review. ● Gather feedback and suggestions for improvement. ● Revise and refine the program specification based on the feedback received. ● Conduct multiple iterations of review and revision to enhance the quality of the program specification. **6. Alignment and Compliance:** ● Ensure the program specification aligns with the institutional mission and strategic goals. ● Verify compliance with NQF standards and peer program benchmarks. **7. Approval and Documentation:** ● Submit the finalized program specification for internal revision and approval processes. ● Follow the institution's guidelines and procedures for program approval and documentation. ● Prepare the necessary documentation using the institution's provided forms. **8. Implementation and Communication:** ● Communicate the approved program specification to relevant stakeholders, including faculty, staff, and students. ● Provide training or orientation sessions to faculty members and staff involved in program delivery. ● Ensure the program specification is effectively integrated into the institution's systems, processes, and communication channels. **9. Evaluation and Continuous Improvement:** ● Establish a plan for ongoing program evaluation and continuous improvement. ● Monitor the program's effectiveness in achieving its goals and objectives. ● Collect and analyze data on student performance, feedback, and program outcomes. ● Use evaluation results to inform future revisions and enhancements to the program specification.
Responsibilities	HOD Programs and Study Plans Committee
Inputs	● Mission and objectives of the program ● The program study plan shows the courses, their classification, their sequence, credit hours, pre/corequisites, the classification (required, elective), (university, faculty, department)

	• Course specifications and a detailed plan for each course that includes the general description of the course, the language of instruction, objectives, teaching strategies, assessment methods, and learning resources • Internal and external changes. • Reports of Stakeholders' surveys, APRs, and course reports. • Reference comparison. • Matrix linking course learning outcomes with PLOs. • Procedural guide for studying programs and plans.
Procedure	1. The programs and study plan committee prepares the specific documents as inputs for these procedures. 2. The head of the programs and study plans committee determines the members of the work team (the committee members, and the team is approved by the HOD. 3. Considering all procedure inputs, the assigned team completes the program specification form using the NCAAA format. 4. The programs and study plan committee presents and discusses Program Specifications in the faculty council. 5. The assigned team adjusts the suggestions proposed by the council. 6. The HOD presents the revised Program specification to the Advisory Committee. 7. The assigned team adjusts the suggestions proposed by the Advisory Committee. 8. The program specification is submitted and approved by the faculty council and raised to the UT standing committee of programs and study plans for final review and approval. 9. If there are suggestions for further refinement, the UT standing committee of programs and study plans communicate them to the HOD, who forwards them to the assigned team. 10. The assigned team makes the required adjustments, and the Program specification is submitted to the faculty council for approval. The faculty council re-submits the Program specification to the UT standing committee of programs and study plans for final approval and installation in the admission and registration system. 11. After the final approval by the UT standing committee of programs and study plans, the Program specification is widely publicized and shared with all relevant stakeholders.
Reports	• Approved program specification • Meeting minutes of the Programs and Study Plans committee • Meeting minutes of the Advisory Committee. • Meeting minutes of the faculty council
Appendices	• National qualification framework. • NCAAA Form for Program Specification • University program and plan guide. • The UT Matrix of Authority for study plan development.

Monitoring Quality of Teaching

As the university acquires an appropriate space on Google Drive for each faculty member, in addition to providing all information security conditions, the program offers the coordinators a link specified for his/her course file to upload all required evidence that ensures the quality of teaching and assessments.

Electronic storage is a quality work in the program since it is an easy and practical way to save and archive the quality work in the program regularly. It facilitates all program members' access to all documents related to quality files. It also helps to monitor the extent of academic staff members' commitment to the quality requirements of the course and:

- Ensure consistent results.
- Prevent errors and reduce costs.
- Ensure processes are identified and controlled.

Table 10 shows the plan followed by the Sustainable Food Systems Program in preparing and documenting the course file.

Procedures:

1. The coordinator uploads all the course file requirements to the department's drive.
2. Electronic storage is available for all teaching staff members in the department to view and benefit from.
3. Each academic staff member shall raise the requirements according to the distribution of tasks by the coordinator.
4. The development and quality committee prepares a report on meeting the requirements and submits it to the course coordinator to complete the necessary.

Table 10 The course file preparation and documentation plan.

NO	Requirements	The Content	Notes	Timing of submitting content for Documentation	Responsibility
1	**Curriculum Vitae (CV)**	Updated CV	It is updated periodically, uploaded to the teaching staff member's website, and handed over to the course coordinator to put in the teaching staff file on Google Drive.	The first week of the semester	Instructors
2	**Course specification**	Approved course specification according to the NCAAA form	The specification is reviewed periodically according to the improvement plans of the preceding term's course report and after approval by the department council	The first week of the semester	Course Coordinator
3	**Timetable**	Filled out according to the university form	The timetable is sent to the staff and students and uploaded to the system.	The first week of the semester	Academic affairs committee
Documenting the Students' Results					
1	Reveal the results of the course signed by the program coordinator	The transcript is an official document that is downloaded from the academic system portal after monitoring, reviewing, and approving grades	It must contain the signature of the program coordinator	At the end of the semester	HOD
2	Statistical Analysis of Results	The form contains statistical equations and graphs that help analyze test results.		At the end of the semester	Course coordinators
Documenting Student Assessment Activities and Methods					
3	Samples of students' tests for each section were selected according to performance (highest,	Corrected samples of students' exams for each section distributed according to performance (highest, average, and lowest score)	Selected according to performance, highest, medium, and lowest score	After the release of exam results to the students	Instructors

	average and lowest score)				
Documenting the Evaluation of the Quality of the Course					
4	Course evaluation survey.	Students' feedback about the course delivery and their suggestions for improvements.	Include the opinions of the students, instructors, and program leaders in the course report.	At the end of the course.	Instructors
Course reports					
5	Course Report	Course overview, course syllabus, learning resources, teaching strategies and assessments, students' performance and feedback, and improvement recommendations.		With the start of the course and finalized by the end of the course	Instructors + Course Coordinators
Close the loop of quality reports.					
1	Course improvement recommendation	recommendations for improvements.		End of the course	Instructors + Course Coordinators
2	Achievement of course improvement plans report	Assembling, of course, improvement plans included		End of the semester	MEWG

Annual program Report

The Annual Program Report is a comprehensive document that provides a detailed overview of the academic program's performance and progress over a year. It is a valuable tool for program evaluation, accountability, and planning. The report includes information on student enrolment, curriculum updates, faculty contributions, assessment results, student outcomes, program strengths, and challenges. It highlights achievements, identifies areas for improvement, and outlines strategies for enhancing the program's quality and effectiveness. The Annual Program Report is crucial in informing decision-making processes, facilitating accreditation reviews, and fostering continuous improvement in the academic program.

Determinants These factors ensure a comprehensive overview of the program's performance.	**Program Performance:** 1. **Student Achievement:** Assess students' academic performance, learning outcomes, and success rates in the program. 2. **Program Effectiveness:** Evaluate the effectiveness of the curriculum, instructional methods, and assessment strategies employed in the program. **Stakeholder Engagement:** 1. **Student and Alumni Feedback:** Gather feedback from students and alumni regarding their satisfaction with the program, curriculum, faculty, and support services. 2. **Faculty and Staff and Employers Involvement:** Assess faculty, employers, and staff engagement, professional development opportunities, and their feedback on program improvements. **Facilities and Infrastructure:** Evaluate the adequacy and suitability of facilities, equipment, and technology to support the program's needs. **Continuous Improvement:** Assessment and Evaluation: Examine the assessment methods used to measure student learning outcomes, program effectiveness, and the evaluation processes employed. **Program Review and Benchmarking:** Compare the program's performance against internal and external benchmarks, industry standards, and best practices. **Action Plans and Implementation:** Outline the action plans derived from the program's assessment and evaluation and track the progress in implementing those plans.
Inputs	● Program specifications. ● Courses reports. ● Measurement of PLOs. ● Stakeholders' surveys. ● KPIs performance indicators.
Responsibility	HOD. APR Working Group (APRWG)
Inputs	● Program specifications. ● Courses reports. ● Measurement of PLOs. ● Stakeholders' surveys. ● KPIs performance indicators.

	● Operational plan report.
Procedures	**Establish APR working group:** The HOD decides on the APR working group and assigns roles and responsibilities. The APR working group is responsible for gathering relevant information, writing and reviewing the draft report, checking for accuracy, coherence, and clarity of information, and ensuring that the report reflects an objective evaluation of the program's effectiveness. **Data Collection and Review:** The APR working group gathers all relevant program data and reports from all the committees and reviews the program assessment reports. **Draft the APR:** Based on the gathered information and the conducted review, the APR working group will articulate the first draft of the APR. **Share with the department council:** To ensure that the APR reflects an objective evaluation of the program's effectiveness, the HOD presents the APR to the department council seeking their input feedback, and approval. **Review and Refine:** Based on the feedback from faculty members, the APR working group revised and refined the APR. **Obtain FOS Approval:** The HOD submits the revised APR to the faculty council seeking their approval. **Obtain UT Approval:** The HOD submits the revised APR to the faculty council, seeking their approval. The approved APR will then be forwarded to the Deanship of Development and Quality. The Deanship of Development and Quality revises the APR. It ensures its Fulfillment of the requirement of program accreditation and submits it to the higher standing committee of academic accreditation and quality assurance for final approval. **Communicate Approved APR:** The approved APR is publicized to relevant stakeholders.
Appendices	● NCAAA program report template. ● The UT Matrix of Authority for study plan development.

The Five-Year Periodic Evaluation

The program conducts a periodic, comprehensive evaluation every five years. It prepares reports about the overall level of quality, with the identification of points of strength and weakness, plans for improvement, and follow-up to its implementation.

Purpose	By analyzing the outcomes assessment and stakeholder feedback and engagement, the Sustainable Food Systems Program can comprehensively understand the program's effectiveness, identify areas for enhancement, and make data-driven decisions to improve the program's quality and relevance over the next five-year period.
Responsibility	HOD. DQC and AAC.
Inputs	● Program mission and goals. ● National trends according to the requirements of sustainable development in the kingdom. ● Statistical reports on students' results. ● Annual program report and course reports. ● The results of implementing the operational plan for the program at the end of each academic year and measuring the extent of deviation from its objectives.

	● Stakeholders' surveys. ● Academic expert reviewer.
Procedures	1. The vice dean of development and quality forms four committees headed and directed by the "Higher Committee for Academic Accreditation" and develops a proposal for an action plan with the approval of the faculty council. 2. The work plan contains all the procedures and requirements for preparing comprehensive evaluation reports (environmental analysis report, self-evaluation scale, and self-study report). Responsibilities, timelines for implementation, and required resources are also specified. 3. Academic Accreditation Committees (AAC) are formed to implement the plan with the participation of faculty members and according to their academic and administrative experiences and preferences. 4. The work plan proposal is discussed, the procedures are approved, and the organizational structure of the committees is discussed within the vice deanship of development and quality. 5. The formed committees meet periodically to determine the assigned tasks. 6. Each committee submits a periodic achievement report to the "Higher Committee for Academic Accreditation," containing the progress in achievement, difficulties, and obstacles. 7. The "Higher Committee for Academic Accreditation" is responsible for following up on the proper implementation of the work plan approved by the faculty council, coordinating meetings, providing the needs of the various committees, and overcoming obstacles. 8. The "Higher Committee for Academic Accreditation" compiles and arranges the final report of the various comprehensive evaluation reports of the program, which stands on the priorities for improvement. 9. The report is presented for independent opinion in accordance with the policies and procedures of the university, which sets out strengths and aspects of improvement. 10. The independent opinion is discussed within the academic accreditation committees, and recommendations are discussed to respond to or reject them with appropriate justifications. 11. Recommendations and improvement plans are presented to the faculty council for discussion to take their views. 12. The plans are adjusted in light of the comments received. 13. The plans are submitted to the faculty council for approval. 14. The improvement plans are included in the operational plan for the program and linked to the objectives
Records	● Approved evaluation reports and minutes for the faculty council. ● Committee meeting minutes, approved improvement plans, and updated operational plan.
Appendices	● NCAAA forms for SSRP. ● UT Procedural guide for programs and study plan development.

Safety, Emergency Evacuation and Maintenance

Determinants These factors ensure a robust	1. **Building Design and Construction:** ● **Structural integrity:** Ensure buildings are constructed with robust materials and techniques to withstand various hazards.

safety, emergency evacuation, and maintenance framework.	• **Adequate exits and evacuation routes:** Design buildings with sufficient exits and marked evacuation routes, ensuring that occupants can quickly and safely evacuate in an emergency. • **Emergency lighting and signage:** Install emergency lighting systems and clear signage to guide occupants during evacuations, especially in low-light or smoky conditions. **2. Safety Systems and Equipment:** • **Fire detection and suppression systems:** Install and maintain fire alarms and smoke detectors throughout the building to detect and suppress fires effectively. • **Emergency communication systems:** Implement emergency communication systems to broadcast alerts and instructions to occupants during emergencies. • **Emergency power and backup systems:** Ensure the availability of backup power systems, such as generators or uninterruptible power supplies, to support essential safety systems during power outages or emergencies. • **Security systems:** Install appropriate security systems, including surveillance cameras, access control systems, and alarms, to deter and detect security threats. **3. Safety Policies and Procedures:** • **Emergency response plan:** Develop a comprehensive emergency response plan that outlines procedures for different types of emergencies, including evacuation protocols, communication channels, and roles and responsibilities of personnel. • **Training and drills:** Conduct regular training sessions and evacuation drills to familiarize occupants with emergency procedures, evacuation routes, and the proper use of safety equipment. • **Safety education programs:** Provide educational materials, resources, and training sessions to educate occupants about safety procedures, evacuation routes, and reporting safety concerns. • **Maintenance and inspections:** Establish regular maintenance schedules and inspections for safety systems and equipment to ensure proper functioning and regulation compliance. • **Reporting mechanisms:** Implement a clear and accessible reporting system for safety concerns and incidents, encouraging occupants to promptly report potential hazards or issues.
Responsibility	HOD. Facilities and Equipment's Committee FQC.
	The FQC is responsible for: 1. Engage with authorities at UT for periodic inspections and certifications to ensure that the program's facilities meet the required safety standards and comply with local building codes and regulations. 2. Ensure that buildings and facilities are accessible to individuals with disabilities, including ramps, elevators, handrails, and accessible restrooms. 3. Develop and maintain an emergency response plan that outlines procedures and protocols for various emergencies, such as fires, natural disasters, medical emergencies, or security threats. 4. Clearly mark evacuation routes, exits, and emergency assembly points throughout the facility. Ensure that exits are unobstructed and easily accessible. 5. Communicating emergency alerts and instructions to all occupants of the building. 6. Maintain an updated list of emergency contacts, including local emergency services, security personnel, and relevant program staff members. 7. Establish regular maintenance schedules based on the specific needs of equipment or systems. 8. Maintain detailed records of maintenance activities, including dates, tasks performed, parts replaced, and any issues or observations. 9. Clearly communicate the available channels for reporting maintenance issues, such as a designated maintenance hotline, email address, or online reporting system. 10. Establish a follow-up mechanism to provide feedback and updates to individuals who have reported maintenance issues, informing them of progress and resolution.

	11. Encourage feedback from individuals who have reported maintenance issues to evaluate the maintenance process's effectiveness and identify improvement areas.
Procedures	1. The FQC holds yearly training sessions and drills to educate faculty members on emergency procedures, evacuation routes, and the proper use of emergency equipment. Practice scenarios for different types of emergencies. Also the FQC 2. The MEWG conducts an annual survey among students and faculty on the effectiveness of safety regulations and procedures followed by the Sustainable Food Systems Program, seeking feedback and suggestions for improvements. A feedback report is prepared by the MEWG and submitted to the FQC. 3. The FQC reviews the feedback report and revises the safety regulations and procedures accordingly. 4. The FQC presents its annual report and safety plan for the upcoming year to the Department council for discussion and approval. 5. The FQC communicates any updates in the safety regulations, procedures, or contact numbers to all stakeholders.
Records	● FQC annual safety reports. ● Department council meeting minutes.
Appendices	● NCAAA forms for SSRP. ● UT Procedural guide for programs and study plan development.