

Quality Assurance Manual for the Bachelor of Information Technology (IT) Program

Quality & Academic Accreditation Committee
College of Computing and Informatics



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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INTRODUCTION

Quality assurance is considered the cornerstone of institutions that pursue continuous development, professional competitiveness, alignment to contemporary requirements, as well as leadership aspiration. The Saudi Electronic University (SEU) works diligently to assure quality in all its operations. In fact, it strives to embed the quality culture into all University personnel with the intent of having quality assurance practices reflected in all day-to-day educational and administrative operations. As a culmination of the University's quality assurance efforts, that started since its inception, comes this Quality Assurance Guide, which is developed to complement these efforts through documenting and developing the existing practices to be in line with the prevailing bylaws, regulations and academic accreditation requirements. This Guide was developed taking into consideration international standards, particularly the principles of the Quality Assurance Agency for Higher Education (QAA) in the United Kingdom, as well as the requirements of The National Center for Academic Accreditation and Evaluation (NCCA). Moreover, the Guide was developed to ensure ease of use through a concise, easy to follow guide covering the most important elements of the practice, while referring to appendices containing detailed policies and procedures.

This Guide is divided into two major units. The first is concerned with the academic side and the second with the administrative side. In addition, this guide has a multi-section appendix providing detailed information about what has been presented briefly in the main document.

TERMINOLOGY

Quality Assurance Guide

is a set of the necessary processes and regulations that are used to achieve the effective performance of the university in accordance with the application of policies and procedures that ensure the quality of all standards of The National Center for Academic Accreditation and Evaluation.

Study plan

is the collection of courses that the student must pass in order to obtain a scientific degree in his/her major.

Course

is the work unit accredited with certain academic results and course description, in addition to the evaluation plan.

Program

is a pattern of academic courses that lead to an academic qualification.

Academic Accreditation

A process conducted in accordance with arbitration and review mechanisms and that is administered by specialized authorities, to ensure the quality of education received by students in higher education institutions that wish to ensure compliance with quality standards.

Institutional Accreditation

It is concerned with evaluating the quality of work at the educational institution in terms of resources, procedures, and outputs according to specific criteria determined by local or international academic accreditation authorities.

Program Accreditation

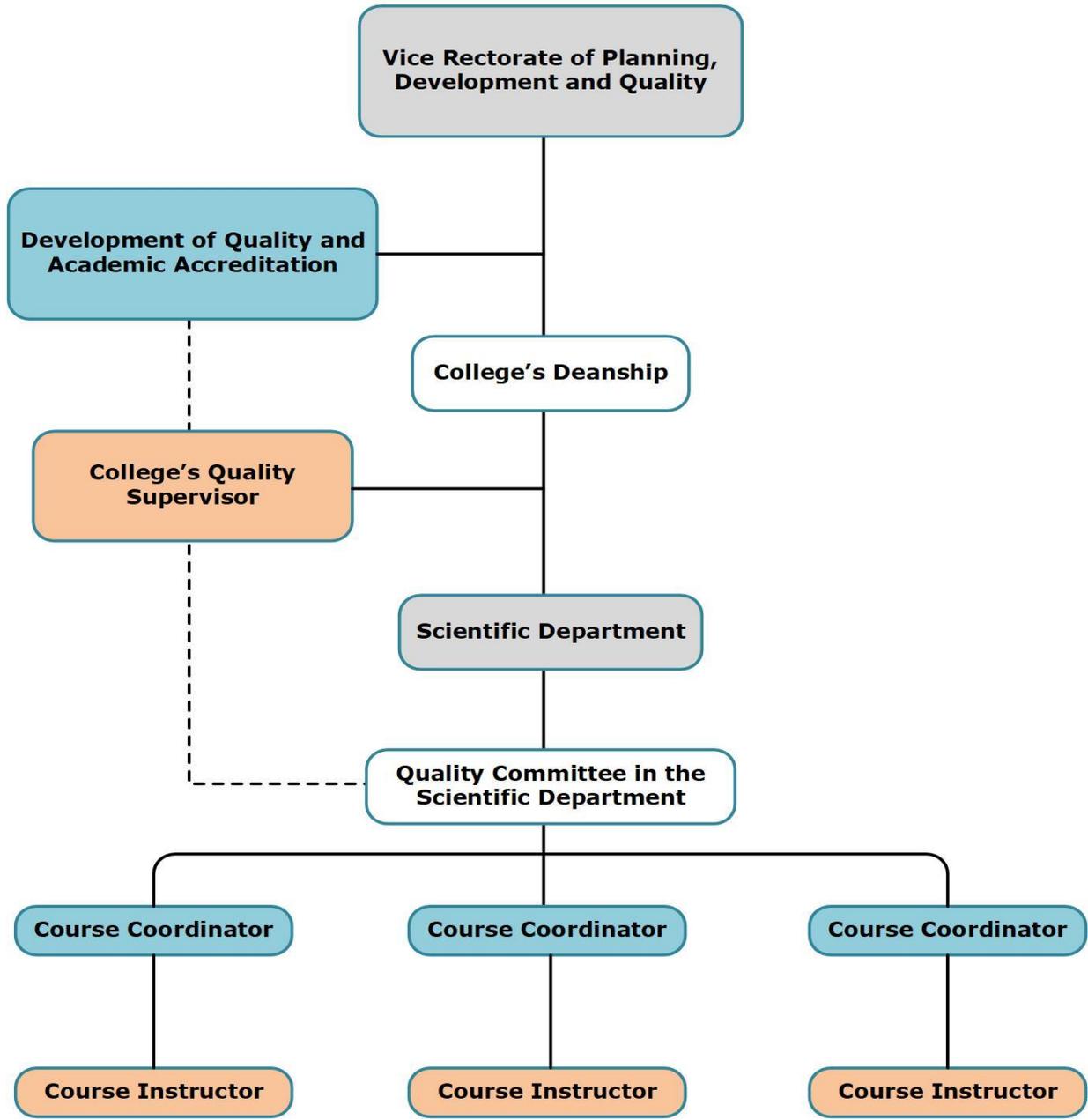
It is concerned with evaluating the quality of a specific educational program for a specific time period, in accordance with the standards of the targeted academic accreditation authority.

Academic Accreditation References

are the bodies that determine the local standards and regulations of university educational practices. The authority accredited by the ministry of education is The National Center for Academic Accreditation and Evaluation.



QUALITY STRUCTURE



THE IMPORTANCE OF BUILDING AND DOCUMENTING THE QUALITY ASSURANCE GUIDE for the IT Program

Effective implementation of the Quality Assurance Guide by the IT program will help achieve tangible and incorporeal benefits, such as:

1

Providing tools and plans that, when applied, ensure obtaining clear data on the program's internal strengths and weaknesses.

2

Enable the Program to assess itself clearly, for the system comprises of clear procedures and mechanisms.

3

Helping in continuous improvement by setting goals and means of activating and implementing them. This leads to continuous improvement which is a requirement for the proper functioning and advancement of the program.

4

Reduce errors and the time required to finish a certain task. This is achieved by constant examination of processes and continuous measurement of performance.

5

Trust and satisfaction of stakeholders through continuous measurement of stakeholders' satisfaction (faculty, staff, higher management) which helps identify and address their needs.

6

Optimizes the utilization of available human, physical, and technical resources.

7

Helps achieve a competitive advantage because the system enables the program to solve problems and make decisions that contribute to the development of the program.

Unit 1:

Academic Quality Assurance Guide for IT Program

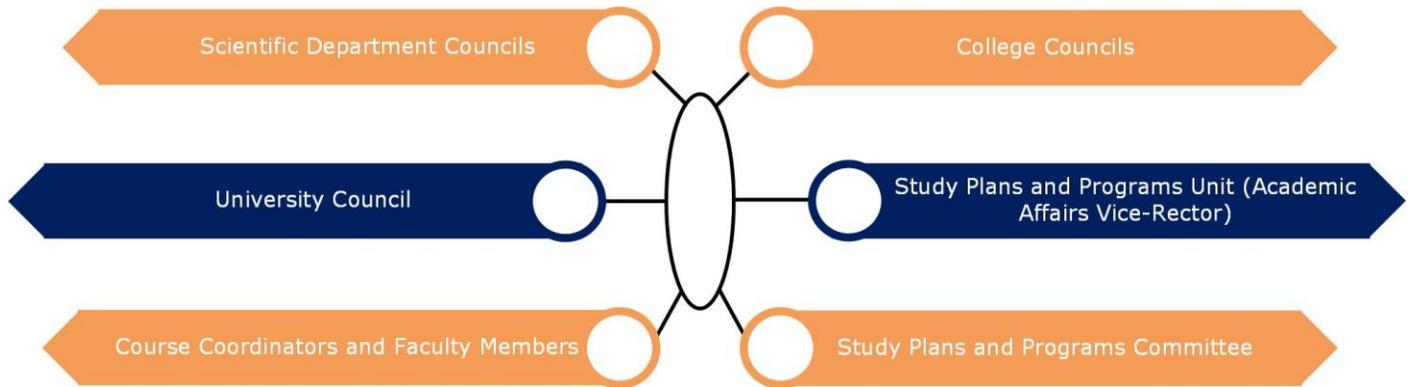
Chapter 1:

Policies and Procedures for Designing and Modifying Academic Programs and Courses

INTRODUCTION

Study plans are considered the tools that define and measure the program's educational outputs and the quality of its graduates. Hence, the IT program has given the preparation of its educational programs and study plans immense consideration to ensure that they are of high standard to meet the requirements of the labor market and academic accreditation. The IT program directs all its academic potential and expertise, at all levels, to produce programs that achieve the program's mission and vision.

The following are the primary contributors to the program's study plans and programs.



To unify and formalize the procedures of study plans preparation and development, the IT program has prepared a guide for Undergraduate Studies that documents the requirements and procedures for study plans preparation and development to effectively respond to ever-changing labor market needs as well as to meet the requirements of academic accreditation that mandates periodic review of programs and study plans to ensure the following:



BASIC PRINCIPLES FOR BUILDING AND DEVELOPMENT PROGRAMS AND STUDY PLANS

When preparing study plans and programs, the following summarized principles should be taken into consideration:

- 1. Adherence to the Kingdom's education policies, development plans, and the 2030 vision.**
- 2. Alignment to the program's vision, mission and goals.**
- 3. Development of students' skills and abilities in relation to self-learning and scientific research while focusing on analysis, participation and interaction.**
- 4. Continuous enhancement of courses and knowledge resources.**
- 5. Embedding teaching and communication technologies in teaching and learning strategies.**
- 6. Using leading analogous educational programs for benchmarking.**
- 7. Involvement of internal stakeholders (colleges and scientific departments) and external stakeholders (labor market).**
- 8. Compliance with relevant local academic accreditation standards (The National Center for Academic Accreditation and Evaluation) as well as international academic accreditation standards.**
- 9. Conform to the program standardized study plans forms.**

Chapter 2:

Monitoring the Quality of Teaching and Learning (Periodic Review)

INTRODUCTION

The IT program at CCI is keen on having high quality educational content, so it has set the necessary standards for maintaining and developing it continuously. It also furthers the efforts to maintain teaching and learning quality through periodic review of its programs and ensuring that the requirements of The National Center for Academic Accreditation and Evaluation are fulfilled. These requirements are the foundation for achieving the main quality requirements and thus, verifying all aspects of the program and ensuring its quality. They include several reports that are necessary for completing the review process, which will be discussed in some detail in this Chapter.

Periodic review of programs and courses is considered a continuous process through which the program and its foundation course are reviewed. The Course Reports and Field Experience Reports are completed at the end of the semester and submitted at the beginning of the following one. Also, a Program Report must be produced at the end of the academic year, that includes the results of students' and faculty members' questionnaires, which are completed at the end of each semester. The reports are reviewed and analyzed by relevant bodies to make necessary improvements.

The program has also developed a Learning Outcome Assessment Plan to monitor the quality of its academic programs and its suitability for the labor market as well as an Exam Moderation Mechanism to ensure the quality of its exams and objectivity of the marking process.

PERIODIC REVIEW OF PROGRAMS AND COURSES

The Process of preparing and monitoring reports of courses and programs is a periodic process that is performed each semester or each year. These reports are used as key references for making decisions that affect the program as well as to submit with the accreditation requirements. The periodic review is used to conduct periodic self-studies of the program (according to academic accreditation requirements), which contribute to the process of reviewing developments and changes in the program during the previous period. The bodies responsible for following up with developing programs and courses at the University need to verify that:



Figure 1 illustrates the reports and programs workflow cycle, which is a cycle of collecting evidence, reviewing Course and Program Reports, analyzing issues and evidence, and evaluating them in relation to program performance. This is done to help construct the final set of improvements for courses and programs and to verify their achievement of the accreditation requirements.

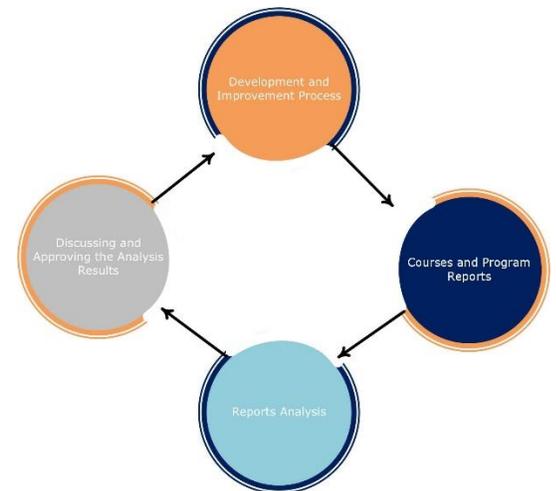


Figure 1: Reports and Programs workflow Cycle

To achieve the accreditation requirements, evidence and feedback are collected and evaluated to make necessary changes to support

outcomes. As such, several reports are completed, analyzed and periodically updated. These reports include students' and faculty members' questionnaires as well as Courses and Programs Reports. The importance of periodic reports is delineated below:

1 Providing statistical data for each course and section

2 Assisting concerned bodies through analyzing reports to understand and respond to main issues

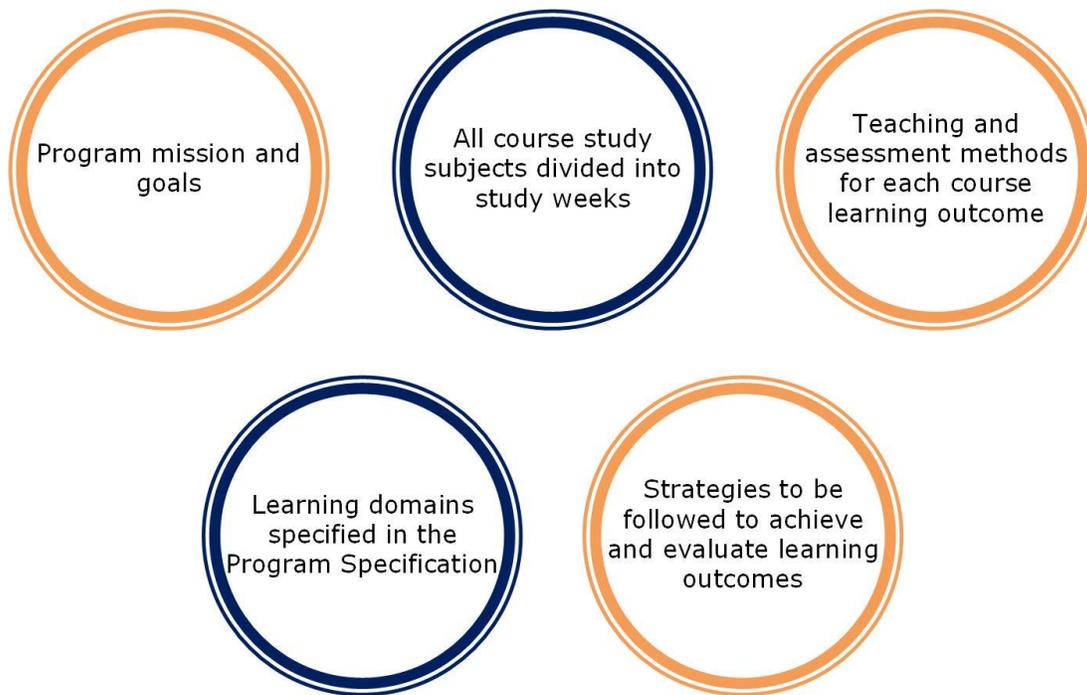
3 Examining appropriateness and effectiveness of learning outcomes in achieving program goals

4 Recommending changes to improve learning experience or courses content

5 Providing basic data and evidence for the accreditation evaluation team during their visit to the institution

PERIODIC COURSE REVIEW

The Course Specification plays a major role in the process of the periodic course review. It elucidates all the points needed to deliver the course and facilitates the process of its development. The Course Specification works as the foundation upon which the Course Report is prepared in accordance with the forms adopted by the National Center for Assessment and Academic Accreditation. The Course Specification includes:



Course coordinators distribute the Course Specification to faculty members teaching the course at the beginning of each semester to verify that all faculty members of the course follow the planned method of teaching and evaluation strategies, have a clear idea about the Course Specification and its role in supporting the program, and are fully aware of the carefully drafted learning outcomes including their associated strategies. At the end of each semester, each faculty member completes a Course Report for each course (for all sections) where he/she briefly lists the most important remarks and suggestions as

well as students' results. The course coordinator then collects all remarks and suggestions and submits them to the Scientific Department Council at the college, as a compiled Integrated Course Report, to make recommendations regarding the required changes. The following is an example that explains the course development and modification cycle through Course Reports:

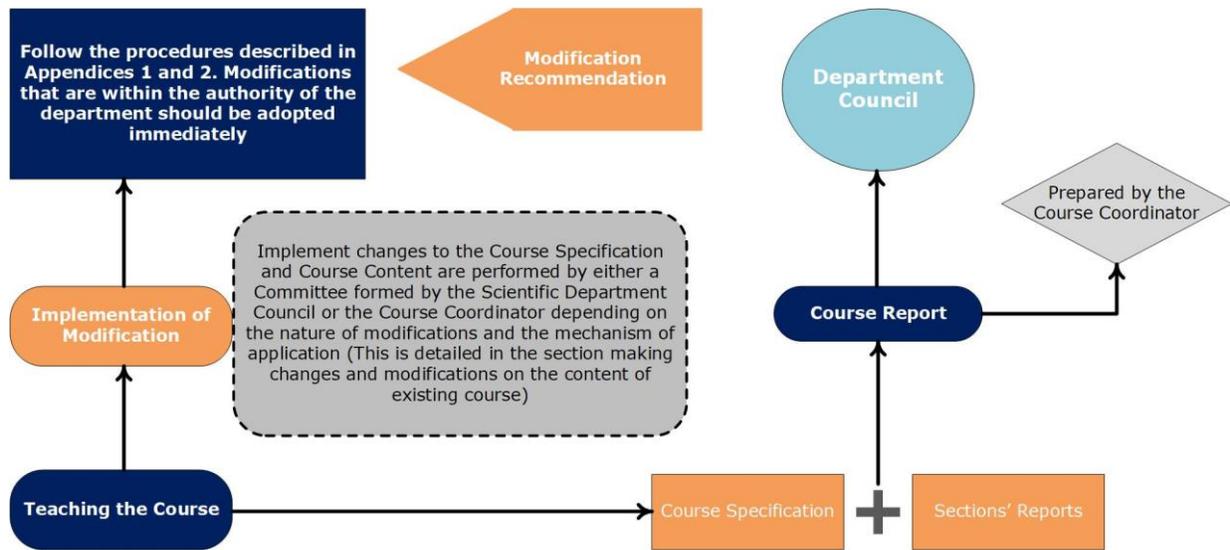


Figure 2: Course Development and Modification Cycle through Course Reports

PERIODIC PROGRAM REVIEW

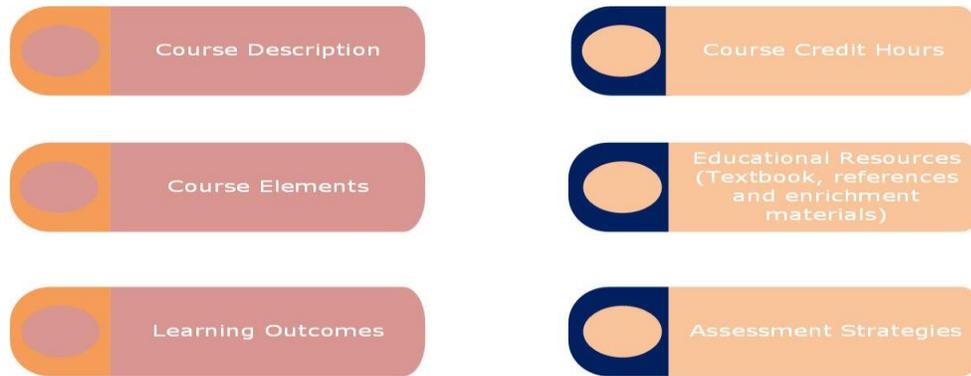
The Program Specification plays a major role in the process of the periodic review, for it elucidates many details such as the skills and knowledge to be acquired by the student. This Program Specification is used as the basis for completing the Annual Program Report, which is prepared in accordance with the forms adopted by the National Center for Assessment and Academic Accreditation. It also helps characterize non-specialized learning outcomes such as communication skills and information technology.

It is important to note that program learning outcomes should be distributed to individual courses, this will in effect lead to clear alignment between the Course Report and the related Course Specification as well as and the Annual Program Report and the related Program Specification. For example, the Program Specification includes program courses distributed to levels and include each course pre-requisites. In addition, teaching and assessment methods for each learning outcome are described in the Program Specification and detailed in the Course Specification. Furthermore, program learning outcomes achievement matrix is included with their distribution to individual courses of the program.

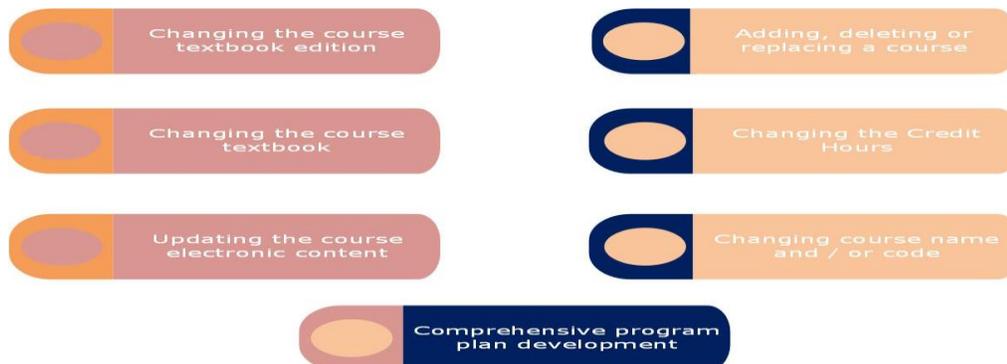
All academic programs include a Program Specification that includes the main characteristics and its expected outcomes. This Program Specification is continuously adhered to, as it constitutes a fundamental element to the contents of the Course Description. Each program also produces an Annual Program Report that serves to help monitor the program's performance as well as to make improvement recommendations. Annual Program Reports are discussed at the Scientific Department Council and relevant improvement recommendations are suggested.

CHANGING AND MODIFYING CONTENTS OF EXISTING PROGRAMS AND COURSES

Periodic review of programs and courses may indicate the need for some changes and/or modifications to develop and improve programs. Program improvements may involve many components, however, fundamental components, such as the course name, code and number, remain unaffected. The following are examples of these components:



The scientific department might realize, through the Course Reports, the need to make some modifications to the entire study plan or part of it. Some of these changes are of a repetitious periodic nature dealing with continuous updates to the course elements while retaining the basics, such as, enrichment materials and relevant data or statistics. These changes are under the authority of the Scientific Department Council.



PERIODIC SELF-EVALUATION OF THE PROGRAM

Academic programs are subject to periodic self-evaluation according to the nature and duration of the program, when reviewing the study plan is due, the Vice Rector for Academic Affairs may issue a directive based on the recommendation of the Standing Committee for Study Plans and Programs. On the other hand, the pertinent academic entity (scientific department and/ or college) may initiate the periodic review and development process, provided that the Vice Rectorate of Academic Affairs is notified with the need to review and develop the study plan. According to the outcome of these evaluations, developments and updates are proposed, taking into consideration the above-mentioned policies and procedures for designing and modifying academic programs and courses.

Proper course planning procedures and periodic course updates generate reports that contain essential data that provide details on all changes and developments as well as the reasons for such modifications. These reports are the cornerstone of the program's periodic self-evaluation. Since the duration of current University programs is four years, periodic self-evaluation begins at the beginning of the fourth year after initial accreditation, and it must be applied on all programs to be compatible with academic accreditation requirements, and then every five years.

The National Center for Assessment and Academic Accreditation recommends the formulation of a committee that works on planning and monitoring the self-evaluation processes. This committee must be chaired by a senior staff with expertise in quality processes such as heads or coordinators of the programs. It is advised that they should not be involved in the program to ensure an impartial evaluation. The committee members are selected from various departments and programs that may include deans, department heads, and experienced faculty members, as well as, selected members from quality

coordinators in colleges to assist in the structuring, reviewing and development processes. The Center also recommends appointing an independent external member (if possible) and forming workgroups.

The periodic Self-Study Report includes an explanation of all aspects of the program such as current processes, developments during a specific period with the reasons for these developments and the planning of the recommended changes. It also takes into consideration changes in the surrounding environment and faculty members' and students' feedback. The extent to which the program objectives are achieved is also documented with specific account for all the University branches and sections. Self-Study Reports must show the following basic data in detail:



The Self-Study Report should address all sections in a clear and comprehensive manner, with emphasis on describing, analyzing and using evidence and their sources. Thus, it becomes a comprehensive document that reviews quality and indicates best practices and improvement methods for the programs.

Table (1) below indicates the timetable for the most important reports:

Table 1: Timetable of required periodic reports.

Requirement	Required Documents	Submission Time	Responsible Person / Department
Course Report	<ul style="list-style-type: none"> Report analysis and statistical data on the course development. Results of student and faculty members' evaluations. Course Evaluation Questionnaire (NCAAA forms). 	The end of the second week of the following semester in which the course was submitted.	Course coordinator + Department Council + Scientific Department.
Annual Program Report	<ul style="list-style-type: none"> Results of students, faculty members and employment agencies evaluations. Course Reports and Field Experience Reports of the program. Results of improvements applied in previous reports and the development of teaching methods. A comprehensive report to monitor the annual program including the work plan, provide the implementation of the work plan for previous years, and enter the suggested amendments in previous reports. Add a report with all developing suggestions for the Program Specification, and the suggested amendment with explaining their reasons and confirming their accreditation by the committees. Add and attach third-party notes. 	After five weeks from the beginning of the first semester of the year following the report	Program coordinator + Scientific Department Council + Planning and Program Committee
College Performance Report	<ul style="list-style-type: none"> All reports for courses and programs for four years. Summary of the report analysis results and statistical data about the program development during the period. 	Annually	College Council
Self-Study Report	<ul style="list-style-type: none"> Independent review. Standards performance reports. 	Every five years	Quality and Academic Accreditation Committee

Review college performance and approve changes.	<ul style="list-style-type: none">• Results of the college performance reports.• Approval evidence on changes or not, with reasons.	<ul style="list-style-type: none">• Every five years• Annually	Planning and Programs Committee
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LEARNING OUTCOME ASSESSMENT PLAN

The Saudi Electronic University is keen to ensure the integrity of the outputs of its academic programs and to ensure their suitability to the needs of the labor market by activating several tools that enable it to achieve this goal. One of the most important tools is the Learning Outcome Assessment Plan, which aims to assess the extent to which graduates of an academic program achieve the required level (mastery level) in the skills and outcomes that have been set in each program.

The assessment process begins by formulating learning outcomes for each course in the program intended to be assessed and then linking these learning outcomes to the program learning outcomes with determining the level of mastery (introductory, practice, or mastery). In addition, all course assignments and exam questions are linked to the course learning outcomes. Finally, the results are collected and analyzed using the computerized exam system that is used to carry out students' exams. The following is an illustration of the Learning Outcome Assessment Plan:

ROADMAP FOR QUALITY ASSURANCE

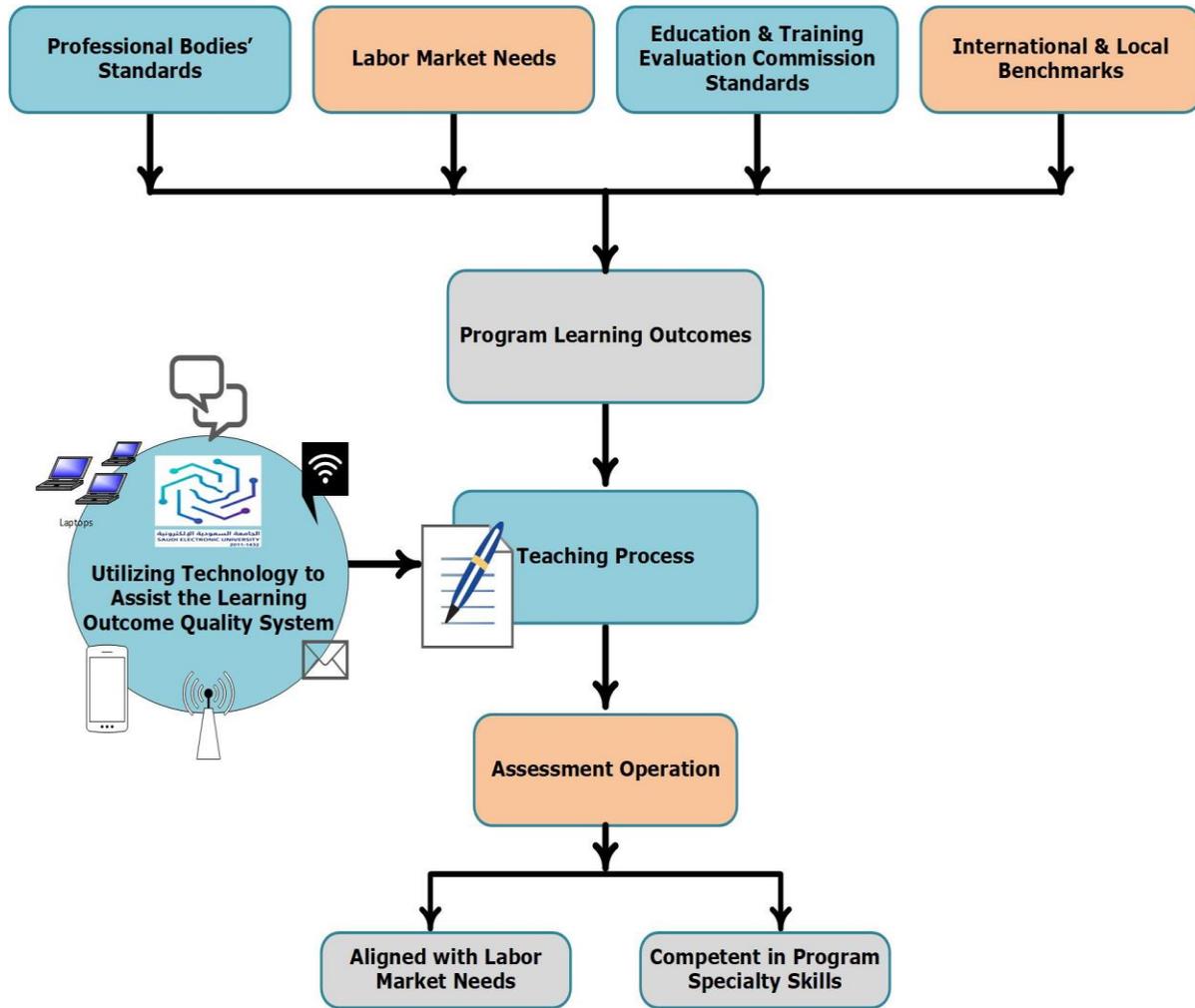


Figure 3: Learning Outcome Assessment Process



Chapter 3:

Feedback and Improvement Procedures

INTRODUCTION

It is important that all stakeholders at CCI are able to present their points of view and comments through channels, ensuring that their voices are heard. The importance of this process resides in assessing the program's current status from the stakeholders' point of view, as well as, understanding what affects stakeholders' satisfaction to aid in the continuous efforts to improve it.

IMPROVEMENT PROCEDURES

The process of assessing stakeholders' satisfaction and soliciting their thoughts regarding the program performance, includes several specifically timed periodic questionnaires as the following:



Students' experiences regarding the college and its programs are also evaluated through periodic annual open meetings with the college Dean. Furthermore, the program must supply the students with an e-mail address designated for enquires and comments.

Chapter 4:

Teaching and Assessment

INTRODUCTION

Saudi Electronic University is considered the only public university specialized in the blended learning model in Saudi Arabia. It offers several bachelor's and master's programs supporting the concept of lifelong learning. The University adopts an educational model that is based on face-to-face education enhanced with utilizing information and communications technology to enrich the educational experience and impart self-learning and life-long learning characteristics to SEU graduates.

SEU has carefully selected academic programs that are not only compatible with the blended learning model but are enhanced by this model. These enhancements are reflected in the outcome of the programs that depend on technology (e.g., Bachelor of Information Technology, Health Informatics and Digital Media). Thus, SEU students will be able to identify various possibilities of using technology to deliver educational programs that will help them expand their skills and perspectives, as well as enabling them to utilize technology to its full potential in their field of study.

Finally, SEU has contacted the national regulatory authorities of each available program to determine the accreditation requirements. Some successful professional accreditation examples are the accreditation of the Bachelor's Program of Health Informatics, the Bachelor's Program of Public Health, and the Master's Program of Health Care Administration by the Saudi Commission for Health Specialties.

MEASURING TEACHING EFFECTIVENESS AT THE IT Program

The IT program measures effectiveness of teaching according to learning outcomes through different evaluation methodologies suitable for each course as in the traditional educational system. It is measured by using Course Report forms from the National Center for Assessment and Academic Accreditation that are filled out at the end of each semester and periodically reviewed and compared with the program learning outcomes specified in the Course Specification that are aligned with the learning outcomes in the Program Specification. Learning outcomes and their teaching methods are developed, as needed, to ensure achieving them. In addition, the achievement of learning outcomes is measured by the students' commitment to submitting weekly or biweekly assignments as well as taking midterm and final examinations.

In order to ensure completing the educational process, verifying measurements of teaching effectiveness, applying the University teaching philosophy and achieving academic accreditation requirement, at the end of each semester, colleges prepare a Course File for each course that includes all sections. The Course File includes Course Specification forms, Course Report forms, samples of the students' exams and activities and other requirements essential to fulfill the accreditation requirements. To assure the quality of courses, the Vice Rectorate for Planning, Development and Quality is continuously working to achieve the requirements of the National Center for Assessment and Academic Accreditation (NCAAA) through making sure that there is a complete Course File for all the courses being taught. The following is a detailed explanation of the Course File content as well as the correct way to prepare it.

COURSE FILE CONTENT

The Vice Rectorate for Planning, Development and Quality has set a unified general method to prepare the Course File. The Academic Accreditation Section works on developing and updating a guide before sending it at the end of each semester while reminding colleges of the importance of observing the unique University arrangement delineated in the presence of a number of similar sections that are taught by different faculty members in various branches of SEU. It also stresses that the Course Specification and the Course Report documents should be according to the NCAAA forms while the rest of the documents such as samples of exams and activities are submitted according to the language in which the course is taught. The colleges work on preparing a file for each course that includes:

Table 2: Course File Contents

File Name	Contents
Teaching Philosophy	The unified teaching philosophy can be obtained from the Academic Accreditation Section at the Vice Rectorate for Planning, Development and Quality.
Course Specification	One specification per course.
Course Outline	Summary for each course, which can be obtained from Blackboard.
Faculty Member's CV	For each faculty and each course.
Course Report	<ul style="list-style-type: none">• Course Report for each section.• The Integrated Course Report is written using all sections' reports, which integrates specific details from the different sections' reports.

	<ul style="list-style-type: none">• Include the Department Council approval of the Course Report with suggested changes in an additional specialized form.
Midterm and Final Exam Question and Answer Papers	For the pertinent semester.
Samples of students' examination papers	<ul style="list-style-type: none">• Sample for the low grade.• Sample for the middle grade.• Sample for the high grade. (With a total of 6 samples for each section including mid-term and final exams).
Students' Attendance	For virtual and actual lectures for the pertinent semester.
Students' Assessment Activities	Samples of students' assignments for each section (three samples for low grade, three samples for middle grade, and three samples for high grades), totaling nine samples per section.

COURSE SPECIFICATION AND COURSE REPORT PROCEDURES

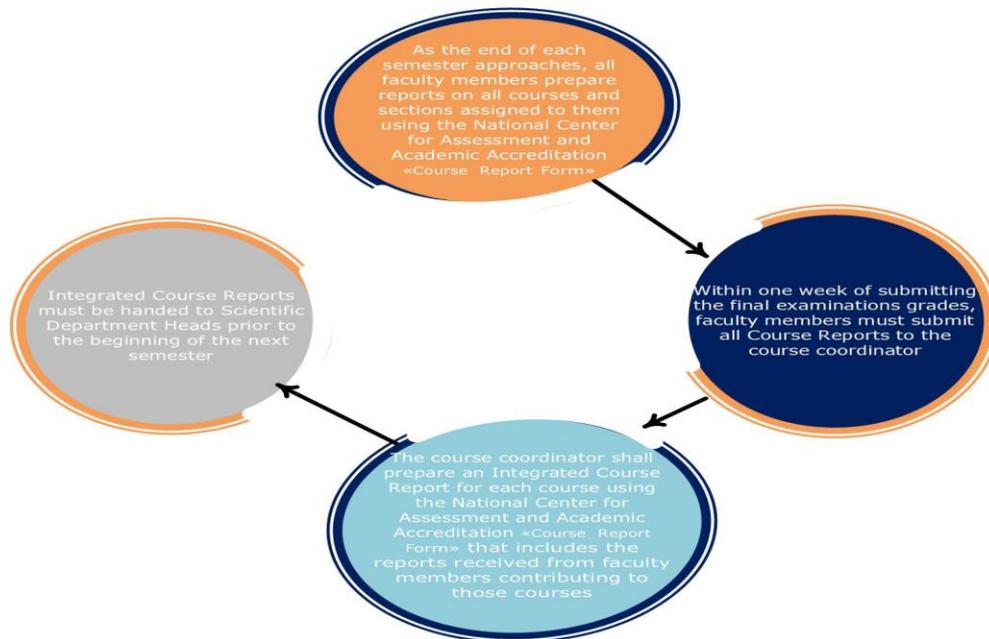
In accordance with the requirements of the National Center for Assessment and Academic Accreditation, the forms must be in the same language of the course being

taught and this is submitted to the Vice Rectorate for Planning, Development and Quality.
The following is an explanation of these procedures:

PREPARING A NEW COURSE SPECIFICATION



PREPARING COURSE REPORTS FOR EXISTING COURSES



DISCUSSION OF THE COURSE REPORT AND MODIFICATIONS

The modifications suggested in Course Reports are discussed by the scientific department ideally before the beginning of the semester but no later than the first week. The scientific department approves what it considers appropriate taking into consideration what was reviewed in the previous semester in terms of the extent of modifications and entities with

authority to approve or reject such modifications. The following forms are attached with the application:

Integrated Course Report

Course Specification

An additional document attached to the Course Specification (prepared by the department) that contains:

- Semester, name, and course number for each course.
- Modifications recommended by the department (or approved if under its responsibility)

Unit 2: Quality Assurance Guide for IT Program

Chapter 1:

Introduction

INTRODUCTION

This document will help you in preparing your quality files properly. By following the instructions and guidelines given in this document, we expect you submit error-free files. Kindly keep in mind that double-checking your files will definitely avoid mistakes. As this is the first version of the quality manual, the Quality & Academic Accreditation Committee appreciates your feedback on A.Abukhadrah@seu.edu.sa

National Center for Academic Accreditation and Evaluation (NCAAA)¹

- ✓ NCAAA is a school accreditation for the nation of KSA. It aims at contributing to the enhancement of quality and excellence in higher education institutions and programs through academic evaluation and accreditation.
- ✓ **Mission:** Supporting, evaluating, and accrediting higher education institutions and programs through the implementation of objective and transparent systems and procedures with the aim of securing local and international confidence in the outcomes of these institutions and programs.

Latest NCAAA forms is reachable via <https://www.seu.edu.sa/vropdq/en/quality-formsncaaa-forms>

Terminology:

QA: Quality Assurance

CR: Course Report

CS: Course Specification

CO: Course Outlines

CLOs: Course Learning Outcomes

PLOs: Program Learning Outcomes

Quality Assurance at the College of Computing and Informatics (CCI)

At the college's level, we fill reports & collect samples:

- ✓ CR (filled by the instructor for each course section)
- ✓ Samples from students' activities & exams (collected by the instructor for each course section)
- ✓ Integrated CR (filled by the course coordinator)
- ✓ CS report (filled by the course coordinator)

¹ <https://etec.gov.sa/en/productsandservices/NCAAA>

- ✓ Annual Program Report (Prepared by Quality & Accreditation Committee at CCI)
- ✓ Program Specifications Report (filled by Quality & Accreditation committee at CCI)

Course Report (CR): Main parts to fill.

- ✓ Course Identification
- ✓ Course Delivery
 - Topics covered, Teaching Strategies, Assessment Methods, & Verification of Results.
- ✓ Students Results
 - Distribution of Grades & Recommendations
- ✓ CLOs
- ✓ Course Evaluation
 - Recommendations for improvement & strengths
 - Difficulties
 - Improvement Plan

Samples to collect:

- ✓ Samples with high, middle and low grades collected from exams (Midterm and Final exams)
- ✓ Samples of students' activities (Assignments, Quizzes, Projects, case studies ...etc.)
- ✓ Students' attendance & evaluation surveys

Relationship between PLOs & CLOs

For CCI, the CLOs of all courses are linked to PLOs. Below example shows the mapping of the CLOs of IT242 to their corresponding IT PLOs. The mapping of all CCI courses is available on the Quality Portal (<http://tawkeed.seu.edu.sa>)



The image shows the cover of a 'Course Report' form. At the top, there are three logos: a green checkmark with the word 'اعتماد' (Accreditation) below it, the 'VISION 2030' logo with 'رؤية 2030' and 'الهيئة العامة للتعليم والتقنية' (General Authority for Education and Technology) below it, and the 'هيئة تقويم التعليم والتدريب' (Education & Training Evaluation Commission) logo. The title 'Course Report' is written in large green letters. Below the title is a table with the following information:

Course Title:	Software Engineering
Code:	IT242
Program:	Bachelor of Science in Information Technology
Department:	Information Technology
Institution:	Computing and Informatics
Academic Year:	2019/2020
Semester:	First Semester
Course Coordinator:	Dr. Abdulwahab Muzaffar
Date:	8-10-2019

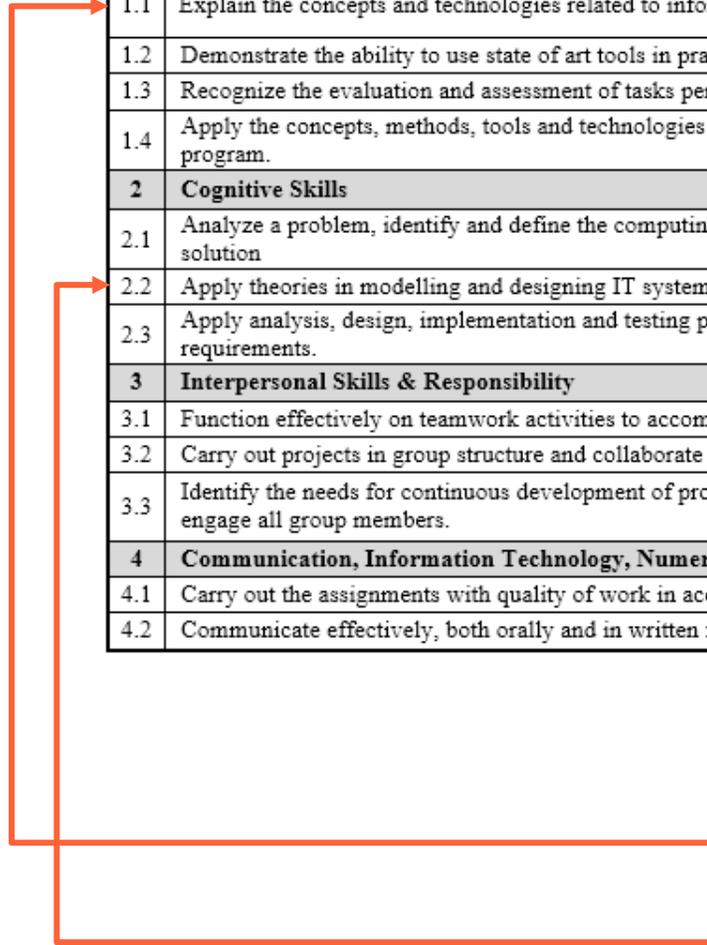
Program Learning Outcomes	
1	Knowledge
1.1	Explain the concepts and technologies related to information technology.
1.2	Demonstrate the ability to use state of art tools in practice based on the obtained skills.
1.3	Recognize the evaluation and assessment of tasks performed as IT professionals.
1.4	Apply the concepts, methods, tools and technologies mastered during the academic program.
2	Cognitive Skills
2.1	Analyze a problem, identify and define the computing requirements appropriate to its solution
2.2	Apply theories in modelling and designing IT systems using cutting edge technologies.
2.3	Apply analysis, design, implementation and testing principles of IT solutions to fit industrial requirements.
3	Interpersonal Skills & Responsibility
3.1	Function effectively on teamwork activities to accomplish a common goal.
3.2	Carry out projects in group structure and collaborate with group members.
3.3	Identify the needs for continuous development of professional skills with the ability to engage all group members.
4	Communication, Information Technology, Numerical
4.1	Carry out the assignments with quality of work in accordance with international standards.
4.2	Communicate effectively, both orally and in written form, using appropriate media.

Course Learning Outcomes	
1	Explain different software processes and how to choose between them. (1.1)
2	Design in the large, including principled choice of a software architecture, the use of modules and interfaces to enable separate development, and design patterns. (2.2)
3	Demonstrate various quality assurance techniques, including unit testing, functional testing, and automated analysis tools. (2.3)
4	Elicit requirements from a client and specify them. (3.1)
5	Apply good coding practices, including documentation, contracts, regression tests and daily builds. (4.1)

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...

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Chapter 2:

Uploading the Quality Files

UPLOADING THE QUALITY FILES

To upload your files, kindly use the following details:

Link of the Quality portal: <http://tawkeed.seu.edu.sa>

Username: **university account**

Password: **same password for university account**

Two-phase files uploading:

Uploading quality files is based on two phases: Phase-1 & Phase-2.

Phase-1 files:

For **instructors**: CV, samples of Assessment 1 (high, middle, & low) and Midterm Exam (high, middle, & low) (7 files in total)

For **coordinators**: Course Outline, SEU Teaching Philosophy, and Midterm Exam Questions & Answers files.

The due date to upload Phase-1 files is usually by the end of Week 11.

Phase-2 files:

For **instructors**: samples of Assessments 2 & 3 (high, middle, & low), Final Exam samples (high, middle, & low), Student Attendance, Course Report (CR), and students' survey.

For **coordinators**: Course Specification, Final Exam Q&A files, Integ. CR, and coordinator survey.

The due date to upload Phase-2 files is four days after the course's Final Exam.

Notes:

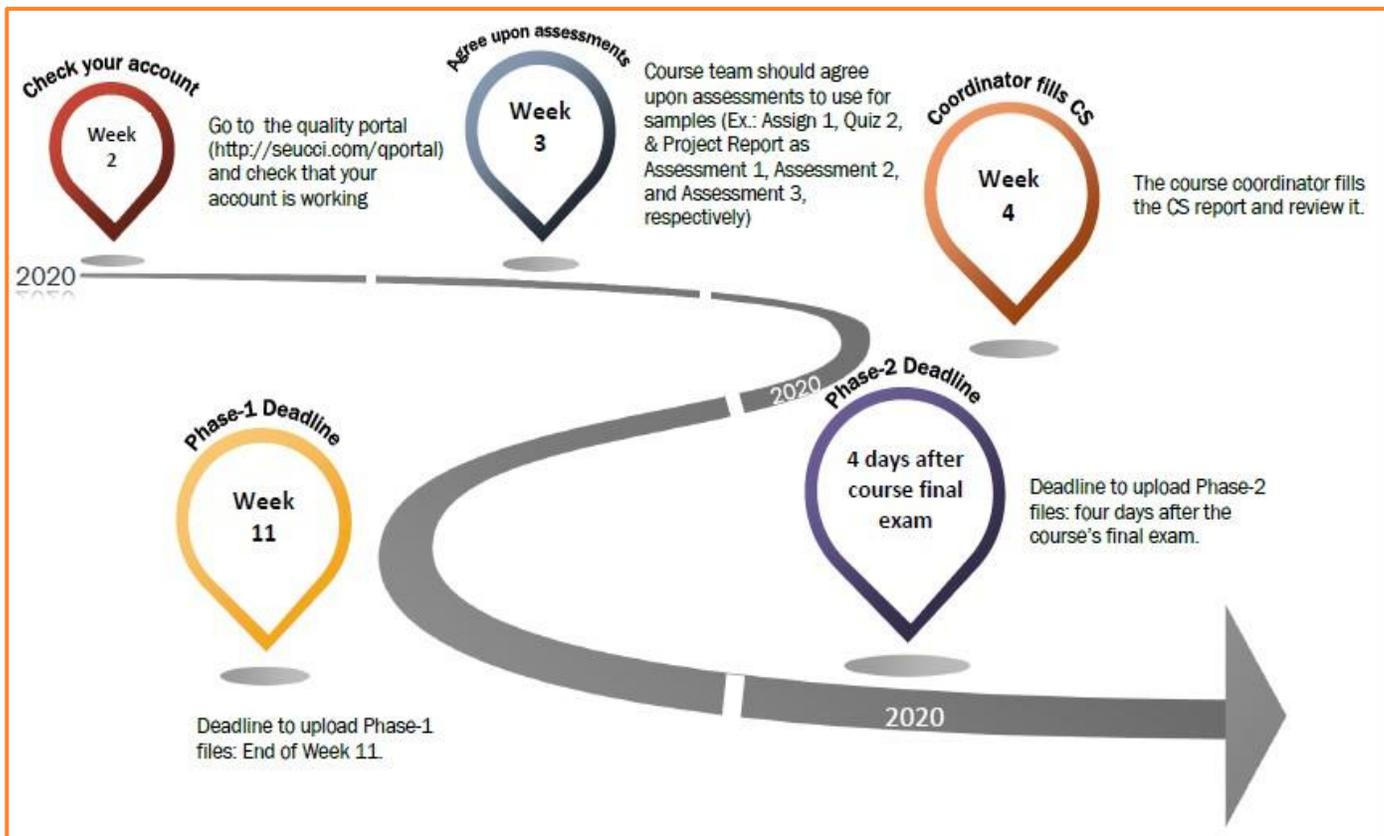
1. Reminders will be sent to all faculty members to upload Phase-1 & Phase-2 files.
2. The committee will contact instructors who have any mistakes in their files to correct the mistakes & upload correct samples.
3. The coordinators are kindly requested to tell the

Good Practice: Create a new folder in your Outlook email to keep all emails you receive related to quality.

instructors in their groups what assessments to use when taking samples. For example: Assignment 1, Online Quiz 1, and Project Report as Assessment 1, Assessment 2, and Assessment 3, respectively.

Kindly keep in mind that online quizzes and project reports should have unified cover pages among all CRNs/samples. Appendix A shows a suggested cover page for online quiz samples. Kindly refer to the course coordinator concerning extracting the samples of quizzes and exams.

Timeline for Main Quality Tasks



As an instructor, how do you complete the CR properly?

On the day of the Final Exam, the coordinator will send you the CR prepared for your course. You will only complete specific parts given in **Red**. In addition, kindly adhere to the guidelines from the course coordinator.

1. Kindly do NOT change the text appears in **Black**. Change only the Red-color text.

Once you finish completing your report, you should change all text to **Black**.

2. **Page 1:** Add your name and date.
3. **Part A:** Put your section details.
4. **Kindly do NOT change Parts B.1 to B.5 and E.2.**
5. **Part B.6:** Give any recommendations that may improve the course delivery.
6. **Part C.1:** Fill the grades table. Do double-clicking to activate the Excel sheet.
7. **Part C.2:** Give your comments on the student results (Give a reasonable factor that affected the results).
8. **Part C.3:** Give any recommendations to improve the student results.
9. **Part D.1:** Give the actual level for each CLO from the Examination system system. Add your comment for each assessment result as follows:
 - ✓ Write **Achieved** if the actual level is greater than or equal to 70%. Otherwise, write a proper reason, for example:
 - Some of the students in this section are poor in the course subjects.
 - The Midterm Exam was of high level.
 - The Final Exam was of high level.
 - Some students have work and they did not study well due to time matter.
 - Or **any other acceptable reason**.
10. **Part D.2:** Add any recommendations that may improve the assessment results.
11. **Part E.1:** Fill the following parts from the survey you received from quality@seu.edu.sa :
 - ✓ **Date of Survey, Number of Participants, and Percentage of Participation.**
 - ✓ **Strengths:** Add the strength points that appear under: Evaluation Summary/Strengths and Areas of Improvement/Strengths, then give your comment or response.
 - ✓ **Areas for improvement:** Add the mentioned improvement points appear under: Evaluation Summary/Strengths and Areas of Improvement/Areas of Improvement, then give your comment or response.
 - ✓ **Suggestions for Improvement:** Add the students suggestions appear under: "What suggestion(s) do you have to improve this course?" then give your comment or response.

If the survey report is **not available**, then kindly write "the students of this section did not fill the survey report".

If students **did not give any suggestions**, then write "No

12. **Part E.3:** Give any general recommendations.
13. **Part F:** Give any difficulties or leave it **None**.
14. **Part G.2:** Fill this part properly by giving any recommendations.

As a Course Coordinator, how do you fill the first version of the CR properly?

1. Kindly put the text, which the instructors of your group should update, in **Red** color. Leave other text in **black**. Once the instructors complete their files, they should change all text to **Black**.
2. Fill out **Page 1** properly by reflecting your course details.
3. **Part A:** put your section details so the instructors can know how to fill this part.
4. **Parts B.1, B.2, B.5, and E.2** should not be changed; they should be unified among all CCI courses.
5. **Part B.3:** Add other teaching strategies you used in the course. Should be the same as what exists in the CS report.
6. **Part B.4:** Add other assessment methods you used in the course. Should be the same as what exists in the CS report.
7. **Part B.6:** Give any recommendations that may improve the course delivery.
8. **Part C.1:** Fill the grades table. Do a double click to activate the Excel sheet.
9. **Part C.2:** Add your comments on the student results (Give a reasonable factor that affected the results).
10. **Part C.3:** Add any recommendations to improve the student results.
11. **Part D.1:** Add the CLOs and link them to the PLOs. Use the Excel sheet you received earlier. In addition, add the methods you used to measure each CLO. Give the actual level for each CLO from the **Examination system**. Add your comment for each assessment result as follows:
 - ✓ Write **Achieved** if the actual level is greater than or equal to 70%. Otherwise, write

a proper reason, for example:

- Some of the students in this section are poor in the course subjects.
- The Midterm Exam was of high level.
- The Final Exam was of high level.
- Some students have work and they did not study well due to time matter.
- Or **write any other acceptable reason.**

12. **Part D.2:** Add any recommendations that may improve the assessment results.

13. **Part E.1:** Fill the following parts from the survey you will receive from quality@seu.edu.sa:

- ✓ **Date of Survey, Number of Participants, and Percentage of Participation.**
- ✓ **Strengths:** Add strength points appear under: Evaluation Summary/Strengths and Areas of Improvement/Strengths, then give your comments or response.
- ✓ **Areas for improvement:** Add the mentioned improvement points appear under: Evaluation Summary/Strengths and Areas of Improvement/Areas of Improvement, then give your comments or response.
- ✓ **Suggestions for Improvement:** Add the students suggestions appear under: "What suggestion(s) do you have to improve this course?" then give your comments or response.

14. **Part E.3:** Add any general recommendations.

15. **Part F:** Add any difficulties or leave it None.

16. **Part G.1 and G.2:** Fill these parts properly by giving the recommended actions.

Important Remarks:

1. The following parts **MUST** be the same for all CRs and the Integrated CR:

B.1 Course Contact Hours

B.2 Topics not Covered

B.3 Teaching Strategies

B.4 Activities/Assessment Methods

B.5 Verification of Credibility of Students' Results

The list of CLOs and the Target Level (70%) in **D.1**

E.2 Other Evaluations

G.1 Course Improvement Actions

2. The list of CLOs, the used Teaching Strategies, and Assessment Methods **MUST** be the same among all course reports (CS, all CRs, and the Integrated CR)

As a Coordinator, how do you fill the CS report properly?

1. Fill out **Page 1** properly by reflecting your course details.
2. Make sure that ALL fields are filled and correct to the best of your knowledge.
3. The form should be filled in accordance to the course details available from the IT Study Plan.
4. **Part A.6:** As SEU follows a blended teaching model, add 56 hours next to “Blended” with a 100% percentage.
5. **Part A.7:** In “Contact Hours”, enter 28 hours for “Lectures” and 28 hours for “Others (Interactive learning)”. This must be unified for all Course Specifications across the University. For “Other Learning Hours” enter the relevant hours for your course depending on the college.
6. **Parts B.1 and B.2:** Enter the course description and course main objectives as indicated in the Study Plan (or previous Course Specifications report).
7. **Part B.3:** Enter all relevant CLOs and their aligned PLOs from the Study Plan (or previous Course Specifications).
8. **Part C:** Fill in the topics of the course for each week and include the number of contact hours. The contact hours must be 4 hours for each week, excluding week 8, which should be zero hours. The total must be 56 hours.
9. **Part D.1:** Enter all CLOs and specify the Teaching Strategies and Assessment Methods that will be used to achieve each CLO. Use the “Teaching Strategies and Assessment Methods” provided in **Appendix B** of this guide.
10. **Part D.2:** Enter the assessment tasks that will be used for the course. For example, “Coursework Assessments, Midterm Exam and Final Exam”. In addition, indicate which weeks these tasks are due to take place and the percentage of the total score for each type. For example, “25/100”.
11. **Part E:** Enter the arrangements made by the college to make sure faculty members are available to provide advice for students.
12. **Part F.1:** Enter all learning resources including textbooks, essential references,

electronic materials and/or other learning materials that could be used for the course.

13. **Part F.2:** Enter the facilities required accordingly.

14. **Part G:** This part should be divided into two rows:

The first row should be the evaluation of the student to the course and could be filled in as the following:

- a. **Evaluation Areas/Issues:** List the headings of the actual Course Survey sent to students such as: "Effectiveness of Teaching and Assessment, Quality of Learning Resources, Instructor's Interaction with Students, Blackboard Tools Efficiency, and Reasonability of Assessments' Grading".
- b. **Evaluators:** Enter "Students".
- c. **Evaluation Methods:** Enter "Indirect (Student Survey)".

The second row should be the evaluation of faculty members and could be filled in as the following:

- a. **Evaluation Areas/Issues:** Enter "Effectiveness of Assessments", or similar name.
- b. **Evaluators:** Enter "Faculty Members".
- c. **Evaluation Methods:** Enter "Direct".

15. **Part E:** This part is filled by the "CCI Quality and Academic Accreditation Committee".

Important instructions when preparing the Quality Files

Assessments

- Each assessment's question must be linked to a CLO.
- All assessment samples must contain the course title & code, and the student's name, ID, & CRN.
- Submit the required number of assessment samples (three samples per assessment). In case a section (CRN) has less than three students, the instructor should create and upload a file, for each missing sample, writing inside it: **"This section has only # students"**. For example, "This section has only two students."

Midterm/Final Exams

- Each Midterm/Final exams' question must be linked to a CLO.
- All course CLOs must be linked to one (or more) questions of Midterm or Final exams.
- Submit the required number of samples (three samples per exam). In case a section (CRN) has less than three students, the instructor should create and upload a file, for each missing sample, writing inside it: **"This section has only # students"**. For example, "This section has only two students."
- The exam file you export from Examination system must be readable, in **Portrait** format, and contains all questions.

Students Attendance Report

- Attendance report must be readable, in horizontal format, and show **all columns** in one sheet.

Course Report (CR)

- You reflect your section's details, marks, analysis, and recommendations to the CR that you will receive from the Course Coordinator.
- Add the number of withdrawn students to Part C.1 (take it from the Attendance report).
- In Part A, the number of students completed the course (appears in Part C.1) = the number of pass and fail students (i.e., all students **excluding** the withdrawn

students).

- The numbers of students **started the course** and students **completed the course** (Part A) must match the corresponding values given in the Results part (Part C.1).
- The number of students who **started** the course must match the total number of students in the attendance report (**including** the withdrawn students).
- The number of students who **completed** the course must match the total number of students in the attendance report (**excluding** the withdrawn students).
- Do **NOT** change the common information between all course CRNs. This includes the following parts: **B.1** (Course Contact Hours), **B.2** (Topics not Covered), **B.3** (Teaching Strategies), **B.4** (Activities/Assessment Methods), **B.5** (Verification of Credibility of Students' Results), (The list of CLOs and the Target Level (70%) in **D.1**), **E.2** (Other Evaluations), and **G.1** (Course Improvement Actions).
- Do not remove the **Excel sheet** embedded in Part C.1 (just do a double-clicking to edit it and add the grades).
- The student absent in the Final Exam is considered "completed the course" (has grade F).
- After you add all grades, If any percentage cell **appears as ###**, then kindly select the cell you want to adjust, go to Home tab of the ribbon, from Cells group choose Format then click on **AutoFit Column Width**.
- Give appropriate comments on the students' results part (Part C.2).
- Fill Part D.1 & D.2 properly.
- Fill Part E (Course Quality Evaluation) properly and upload the **Course Evaluation Survey** you will receive from quality@seu.edu.sa. If the survey report is **not available**, then your students did not fill it, kindly write "the students of this section did not fill the survey report". If students **did not give any suggestions**, then write "No suggestions were given by the students". If the suggestions are **in Arabic**, then refer to the course coordinator if you need any assistance with translation.
- Fill Parts F and G properly.

Keep in mind that double-checking your files will avoid mistakes.

Repeated Mistakes

- Uploading samples with missing/incorrect student details.
- Uploading samples with missing/incorrect section details.
- Mismatching data among the same course files.
- Leaving fields empty.
- Registering No-lecture Weeks (Week 8 & sometimes Week 15) in the attendance system.

Appendices

Appendices

Appendix A: Sample of Online Quiz's Cover Page

Appendix B: Teaching Strategies and Assessment Methods

Appendix A: Sample of Online Quiz's Cover Page



College of Computing and Informatics

Software Engineering IT242

ONLINE QUIZ 1

Date: Wednesday 30/09/2020

[Total Marks for this Quiz are 2]

Student Details

Name: ###

ID: ####

CRN: ###

Appendix B: Teaching Strategies and Assessment Methods

This appendix encompasses three parts:

Part A: Suggested Teaching Strategies

Part B: Suggested Assessment Methods

Part C: Example that links teaching strategies and assessment methods together (taken from one CCI courses)

Part A: Suggested Teaching Strategies

	Teaching strategy	Brief Description
1.	Group teaching (F2F Lectures)	Give lectures to students accompanied by tutorials
2.	Active learning (group-work case study, problem-solving exercises)	Explore teaching and learning methods that put students in charge of their own learning through meaningful activities
3.	Problem based learning (assignments, projects)	Students learn about a subject through understanding and solving problems
4.	Virtual sessions	Online learning and independent study
5.	Class Discussion	Support a lesson with a group discussion to refresh students, memories about the assigned readings, or generate a set of questions stemming from the assigned readings
6.	Work based learning	Provide students the opportunity to learn through real-life work experiences. Examples: internships, job shadowing or field trips
7.	Demonstrating in practical classes	Explore the key learning aims of practical classes and how to get learners to effectively engage with them. Examples: undertake experiments; tackle problem-solving exercises; carry out survey and project work and experience at firsthand how the theory and principles of their discipline are applied
8.	Student-led learning	Students work together to support each other's learning
9.	Cooperative Learning	Small groups of students work together for the achievement of a common goal. Examples: developing learning communities, stimulating student/faculty discussions
10.	Integrating Technology	Use electronic mail or on-line notes in learning
11.	Lab Teaching	A class in lab
12.	Experiential Learning	Learn by doing

13.	Service Learning or Community based learning	Combine classroom instruction, engaged student learning, meaningful service in the community, and personal reflection
14.	Inquiry-Based Instruction	Students learn by asking questions, investigating, exploring, and reporting what they see
15.	Role playing and simulations	Using a model of behavior to gain a better understanding of that behavior, or the spontaneous acting out of situations, without costumes or scripts. Example, a mock job interview, engage students in a simple simulation of specialization and division of labor
16.	Collaborative Testing	Students rely on the knowledge of others; providing students the opportunity to take multiple-choice exams in a group or in pairs. This testing approach allows students to discuss the materials and "teach each other
17.	Just-in-time teaching	Learning through two steps. Step 1: students complete a focused set of activities outside of class and submit their work to the instructor. Step 2: the instructor (often just hours before the next lecture) collects the students' responses and identifies areas of understanding and misunderstanding to adjust the next lesson so that students can receive specific "just-in-time" feedback on those particular areas
18.	Flipped classroom	Consider a 'flipped' approach by asking learners to watch video content before the class session, and devote in-class time to exercises, projects and discussions

Important Remark:

Kindly refer to the QA Office at SEU (Ms. Amal Alshathri, aalshthri@seu.edu.sa) if you would like to suggest/use any other teaching strategy not mentioned in the table above.

Part B: Suggested Assessment Methods

1. Assignments
2. Online Quizzes
3. In-class Quizzes
4. Discussion boards
5. Case Study
6. Project
7. Presentation
8. Practice exams
9. Midterm and final exams

Important Remark:

Kindly refer to the QA Office at SEU (Ms. Amal Alshathri, aalshthri@seu.edu.sa) if you would like to suggest/use any other assessment method not mentioned in the list above.

Part C: Example

Below is an example taken from one of IT courses.

Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge		
1.1	Explain different software processes and how to choose between them.	<ul style="list-style-type: none"> Group teaching (F2F Lectures) Virtual sessions Class discussions 	<ul style="list-style-type: none"> Assignments Quizzes Midterm and final exams
2.0	Cognitive Skills		
2.1	Design in the large, including principled choice of a software architecture, the use of modules and interfaces to enable separate development, and design patterns.	<ul style="list-style-type: none"> Group teaching (F2F Lectures) Virtual sessions Class discussions Active learning (group-work case study) 	<ul style="list-style-type: none"> Assignments Case Study Quizzes Discussion boards Midterm and final exams
2.2	Demonstrate various quality assurance techniques, including unit testing, functional testing, and automated analysis tools.	<ul style="list-style-type: none"> Group teaching (F2F Lectures) Virtual sessions Class discussions Active learning (group-work case study) 	<ul style="list-style-type: none"> Assignments Quizzes Midterm and final exams
3.0	Interpersonal Skills & Responsibility		
3.1	Elicit requirements from a client and specify them.	<ul style="list-style-type: none"> Group teaching (F2F Lectures) Virtual sessions Class discussions Active learning (group-work case study) 	<ul style="list-style-type: none"> Case Study Midterm and final exams Case Study
4.0	Communication, Information Technology, Numerical		
4.1	Apply good coding practices, including documentation, contracts, regression tests and daily builds.	<ul style="list-style-type: none"> Group teaching (F2F Lectures) Virtual sessions Class discussions 	<ul style="list-style-type: none"> Assignments Quizzes Midterm and final exams