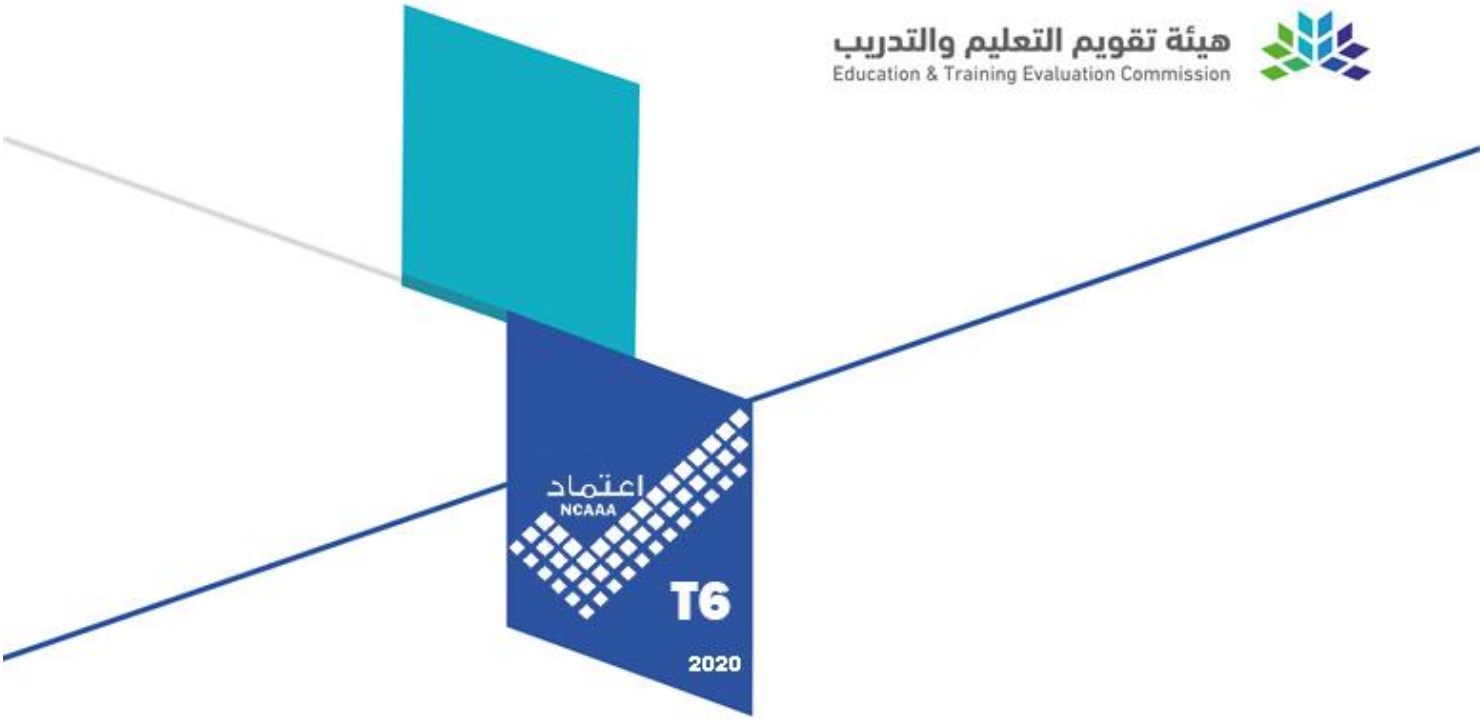
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Annual Program Report

Program Name:	Bachelor in Computer Science
Qualification Level:	Bachelor (6th Level according to latest NQF)
Department:	Computer Science
College:	Computer Science and Information Technology
Institution:	Jazan University, Jazan
Academic Year:	2020-2021
Main Location:	**Campus 1:** Department of Computer Science, Jazan University (For Boys) **Campus 2:** Mahaliya Campus, Jazan University (For Girls)
Branches offering the Program:	Sabya Campus

Table of Contents

A. Implementation of Previous Action Plan

Considering the recommendations of previous year annual report, list the planned actions and their status.

Planned Actions	Responsibility of Action	Planned Completion Date	Level of Completion		If Not Completed	
			Completed	Not Completed	Reasons	Proposed Actions
1. Review and update the curriculum regularly based on the recent trends	Curriculum Review Committee / Teaching and Learning Unit	Ongoing	Yes			
2. Design the new curriculum	Curriculum Review Committee	Completed				
3. Enhance and Strengthen the Teaching methodologies of the faculties	Teaching and Learning Unit	On going	Yes			
4. Update the Labs with the latest hardware and software tools as per the industry requirement	Curriculum Review Committee	On going	Yes			
5. Conduct review / Survey from stakeholders periodically	Vice Dean, Curriculum Review Committee, T & L, QAU, HOD	Bi annually/ anually	Yes			
6. Build partnership with industry to obtain regular feedback from industry to update the curriculum.	Curriculum Review Committee, HoD, Vice Dean - Academics, Dean	August 2022	Yes			
7. Provide training opportunities for students with the industry in the technical field	HoD, Vice-Dean Academic, Professional development	Anually	Yes			

8. Conduct training programs and prepare them towards national and international certifications.	Excellence unit/ Vice Dean Academics/ HOD/Dean/ TLU/ Professional development	Bi anually	Yes			
9. Motivate students to participate in technical competitions, workshops, seminars and conferences	Vice Dean/TLU/ Professional development /Academic advising	Anually	Yes			
10.Create Alumni database.	Head, Coordinator Alumni Unit, Vice Dean Academics	Completed				
11.Utilize existing alumni connections with industry and invite them as speakers.	Head, Coordinator Alumni Unit, Vice Dean Academics	Bi annually	Yes			
12.Organize exhibitions to showcase the mini projects and graduation projects and encourage them towards professional development.	Graduation Committee/ Professional development / Vice Dean Academics, HoD	Ongoing	Yes			
13.Conduct regular personality and interpersonal training programs for the professional success of the students in the global market	Research Unit/ Vice- Dean Academic	Ongoing	Yes			

14.Provide training in entrepreneurship skills and motivate students to be entrepreneurs	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Bi annually		No	Yet to identify alumni entrepreneur	
15.Invite alumni who are experts in the field to share their success stories.	Vice Dean - AcademicVice Dean – QAU, HoD / Dean	Bi annually		No	Identify alumnus. In the process of inviting them	
16.Develop translation of students projects into products to become an entrepreneur.	Teaching and Learning Unit, Graduation Project Unit, Community Services, HoD	Every semester		No	Projects not upto the mark	Need to identify more scientific projects
17.Conduct training programs and involve students and faculty members in research activities.	Research Unit / Vice Dean/ Academic coordinator/ HOD	Ongoing	Yes			
18.Reward the innovative ideas and publications in the field of research and developments	Research Unit, Vice Dean – Academic, HoD / Dean	Ongoing	Yes			
19.Encourage faculty publications in research journals and conferences.	Research Unit, Vice Dean – Academic, HoD / Dean	Ongoing	Yes			
20.Well-functioning research groups with high production based on the specialization	Research Unit, Vice Dean – Academic, HoD / Dean	Every semester	Yes			

21.Increase the number of peer-reviewed papers.	Research Unit, Vice Dean – Academic, HoD / Dean	Bi annually	Yes			
22.Involve students in research and publish papers along with the faculty.	Vice- Dean Academic, QAU, Research Unit/ Coordinators /	Every semester	Yes			
23.Encourage faculty members to apply for local research projects funded by various agencies. (KAUST projects, Deanship of Scientific Research Funds & King Abdul Aziz city).	Research Unit, HoD, Vice- Dean, Academic, Dean	Annually	Yes			
24.Nurture a Inter / Multidisciplinary research culture and productivity.	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Annually	Yes			
25.Provide specialized training for the community in the area of Information and Communication Technology (ICT).	Research Unit/ Coordinator, CEO, HoD / Dean	Every semester	Yes			
26.Encourage students to use IT tools and techniques for solving community needs	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Every semester	Yes			

27.Conduct awareness program for the society with the help of stakeholders	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Every semester	Yes			
28.Participate in cultural and community events.	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Every semester	Yes			
29.Enhance the contributions of students & faculty members in community service activities	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Every semester	Yes			

B. Program Statistics

1. Students Statistics (in the year concerned)

No.	Item	Results
1	Number of students who started the program	**97+237+96 = 430**
2	Number of students who graduated	**13+103+61 = 177**
3	Number of students who completed major tracks within the program (if applicable)	
	a.	**NA**
4	**a.** Number of students who completed the program in the minimal time	**177**
5	**a.** Percentage of students who completed the program in the minimal time (Completion rate)	Main Campus: **13.40%** Mahaliya Campus: **43.46%** Sabya Campus: **63.54%** Overall: **41.16%**
6	Number of students who completed an intermediate award specified as an early exit point (if any)	**NA**
7	Percentage of students who completed an intermediate award specified as an early exit point (if any)	**NA**

Comment on any special or unusual factors that might have affected the completion rates:

The average completion rate is low in the Male and Mahaliya campus as compared to last year's cohort but, it slightly improves in the case of Sabya Campus. Student retention is improved as per previous years but dropping or transferring to other programs needs a serious review and to be monitored at the beginning of the program. To reduce the dropout percentage, proper advising should be done periodically and at the time of the Student Orientation Program.

2. Cohort Analysis of Current Graduate Batch (2020-2021)

Student Categories / Years		Total cohort enrollment	Withdrawn	Retained till year end	Not passed	Passed	Passing rate
Four Years Ago (2016-2017)	M	97	31	66	49	17	17.53%
	F	237	7	230	105	125	52.74%
	Total	425	38	296	154	142	33.41%
Three Years Ago (2017-2018)	M	66	9	57	49	8	12.12%
	F	230	12	218	128	90	39.13%
	Total	296	21	275	177	98	33.10%
Two Years Ago (2018-2019)	M	57	6	51	48	3	05.26%
	F	218	22	196	119	77	35.32%
	Total	275	28	247	167	80	29.09%
Last Year (2019-2020)	M	51	3	48	45	3	05.88%
	F	196	20	176	165	11	05.61%
	Total	247	23	224	210	14	05.66%
Current Year (2020-2021)	M	48	2	33	20	13	27.08%
	F	176	3	71	54	102+1= 103	57.95%
	Total	224	5	104	74	116	51.34%

Comments on the results:

As per the cohort, male graduates are **13** with a completion percentage of **13.40%.**
Female graduates (Mahaliya Campus) are **103** with a completion percentage of **43.46%.**

102 females graduated in the current semester (2020-21) whereas **1** female graduated last year (2019-20) with a total of **103** graduates.

A total of **116 students** are graduated in 2020-2021. Students' retention rate is being improved. The completion rate at the male campus is low as compared to the female campus.

* add more rows for further years (if needed)
** attach separate cohort analysis report for each branch

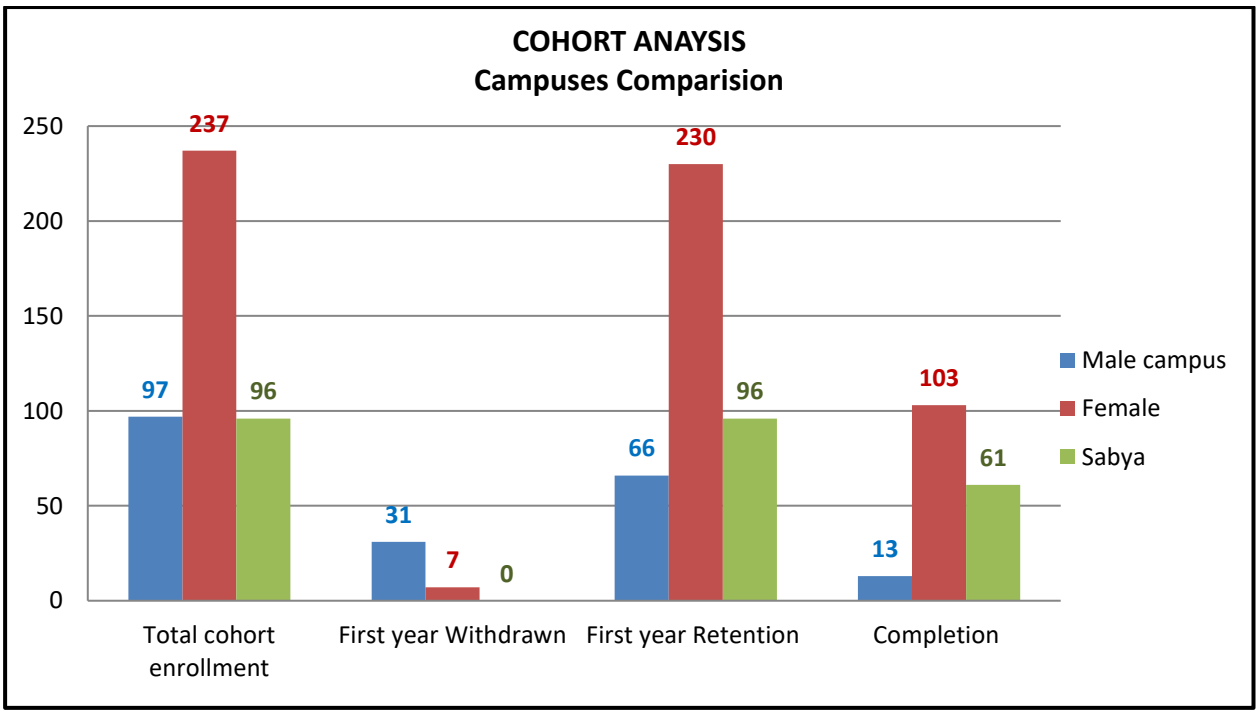
Cohort Analysis Graduate Batch (2020-2021) Sabya Campus Branch

Student Categories / Years		Total cohort enrollment	Withdrawn	Retained till year end	Not passed	Passed	Passing rate
Four Years Ago (2016-2017)	M						
	F	96	0	96	37	59	61.46%
	Total						
Three Years Ago (2017-2018)	M						
	F	96	2	96	38	56	58.33%
	Total						
Two Years Ago (2018-2019)	M						
	F	96	3	91	32	49	51.04%
	Total						
Last Year (2019-2020)	M						
	F	91	4	87	84	4	04.40%
	Total						
Current Year (2020-2021)	M						
	F	87	2	24	23	61	70.11%
	Total						

Comments on the results:

The total no of females registered in the program is **96**. Overall graduates **61** with a completion percentage of **63.54%.**

Students' retention rate is being improved. The completion rate is satisfactory as compared to male & female main campuses.



3. Analysis of Program Statistics

(including strengths, areas for improvement, and priorities for improvement)

Strengths :

- The passing rate of female campuses is higher and more satisfactory as compared to the male campus.
- Students retention rate at female campuses is satisfactory.

Areas for Improvement:

- Male Campus Students pass out rates need to be analyzed, and proper guidance and support should be provided to improve the pass out rate.
- Annual Completion and Retention Rate are the main concerns, especially for the male campus.
- Student's dropout rate at the male campus is high. Students are either dropping or shifting to other programs. Students counseling should be done at the beginning of the programs and orientation programs should concentrate on future job prospects.
- Students pass out percentage in 3rd & 4th year is very low, need to know the reason and give them proper guidance to improve the result.
- The student advising committee should support students and strive to identify the reasons that impact students most so that the retention rate and pass out results of the students should improve.

Priorities for Improvement:

- Need to take immediate action to improve the annual completion and retention rate, especially for male campus students.
- The student advisory committee should be active and involved with the students right from the beginning of the semester.

C. Program Learning Outcomes Assessment

1. Program Learning Outcomes Assessment Results.

#	Program Learning Outcomes	Assessment Methods (Direct and Indirect)	Performance Target	Results	
				Direct	Indirect
Knowledge and Understanding					
K1	**Describe** the sound knowledge of principles of Computing, Science and Mathematics required in the field of Computer Science.	Exams, Assignments & Surveys	4.0	3.60	3.75
K2	**Relate** recent trends and current research in the field of Computer Science.	Assignments, Mini Project, Case Studies & Surveys	4.0	4.0	3.80
Skills					
S1	**Analyze** complex computing problems to apply principles of computing and other relevant disciplines to identify solutions.	Exams, Assignments, Laboratory Exercises, Lab Exams, Final Project & Surveys	4.0	3.88	3.72
S2	**Evaluate** problem-solving strategies to propose a large number of solutions and come up with the best possible solution.	Laboratory Exercises, Lab Exams, Case Studies, Mini Project & Surveys	4.0	4.36	3.82

S3	**Design** and **implement** computing-based solutions to meet a given set of computing requirements in the context of the program's discipline.	Laboratory Exercises, Lab Exams, Case Studies, Mini Project & Surveys	4.0	4.27	3.82
S4	**Apply** computer science theory and software development fundamentals to produce computing-based solutions.	Laboratory Exercises, Lab Exams, Case Studies, Mini Projects, Exam, Field Training Assessment & Surveys	4.0	3.92	3.83
S5	**Communicate** effectively in a variety of professional contexts for technical and non-technical audiences.	Mini Project Presentation, Final Projects Defense Viva & presentation, & Surveys	4.0	4.33	3.82
Values					
V1	**Recognize** professional and social responsibilities to make informed judgments in computing practices based on legal and ethical principles.	Field Training Assessment, Community Services Participation & Surveys	4.0	3.70	3.86
V2	**Demonstrate** the ability to function effectively as a member or leader of a team engaged in activities appropriate to the field of Computer Science.	Group Assignments, Mini Projects & Surveys	4.0	4.59	3.89
V3	**Identify** the need for and an ability to engage in continuing professional development and entrepreneurship.	Observations, and judgments about technology views, Mini-Project Presentation & Surveys	4.0	4.25	3.89

Comments on the Program Learning Outcome Assessment results.

Direct Assessment is done using the assessment methods demarcated in the program specification and indirect assessment calculation is based on students Exit Survey.

Indirect and direct assessments detail calculations done in the PLO assessment report.

- All PLO's achievements are satisfactory, especially in direct assessment.
- There are variations in results from various entities. There is an improvement in direct assessment but a decline in indirect Assessment.
- Exam evaluations need to be verified to evaluate the direct assessments and ascertain the reason for the variation.
- Due to COVID 19 pandemic, in place of exams, assignments were given and students score good marks; but, in surveys, the students highlighted other issues that were reflected in indirect assessment and rating was low, although the overall variation is minimized.

* Include the results of measured learning outcomes during the year of the report according to the program plan for measuring learning outcomes

** Attach a separate report on the program learning outcomes assessment results for male and female sections and for each branch (if any)

2. Analysis of Program Learning Outcomes Assessment

(including strengths, Areas for Improvement:, and priorities for improvement)

Strengths :

Students have shown good skills in core areas like analyzing, problem-solving, communicating in a professional context, designing and implementing computing to obtain appropriate solutions and working as a member of a team to solve numerous issues.

- Students need to be given specific care in Mathematics and English courses. Most students are facing difficulty in these courses.
- Students improved significantly in terms of PLO achievements in the majority of PLOs but in a few, the decline is very minor.
- Overall the students progressed well.
- PLO achievement upsurges as exams, assignments and quizzes were conducted and submitted online due to COVID -19 pandemic.
- It has been observed that in scarce courses the number of A and A+ achieved by the students are more than satisfactory.

Areas for Improvement:

- The indirect assessment was conducted with the help of an exit student survey. Students rated their accomplishments less than their achievements in direct assessment.
- Online teaching was not much effective as traditional teaching and its values were reflected in indirect assessments. Students were not able to access the entire resources and material available to them.
- Student's communicational and programming skills need to be improved as per the industries requirements.
- Practical knowledge, trends and technology awareness, and current research areas should be clear to the graduating students.
- Need to arrange workshops, seminars and training programs to improve students learning ability and enhance their carrier and lifelong learning.

Some of the PLOs require extra efforts from teachers to assist students to achieve the learning outcomes that reveal the graduate attributes of the computer science program after graduation.

- **Analyze** complex computing problems to apply principles of computing and other relevant disciplines to identify solutions.
- **Apply** computer science theory and software development fundamentals to produce computing-based solutions.

Priorities for Improvement:

The major areas that have been highlighted are lack of awareness of recent trends, understanding and applying computing to obtain suitable solutions, professional social responsibilities, continuous professional development and entrepreneurship.

Above discussed domain need to be improved and planning is required to help the students to ameliorate their social, ethical, scientific, mathematical, and programming skills.

Some of the PLOs should be closely monitored and reinforced in the classroom in order to increase student achievement.

- **Relate** recent trends and current research in the field of Computer Science.
- **Demonstrate** the sound knowledge of principles of Computing, Science and Mathematics required in the field of Computer Science.
- **Recognize** professional and social responsibilities and make informed judgments in computing practice based on legal and ethical principles.

D. Summary of Course Reports

1. Teaching of Planned Courses / Units

List the courses / units that were planned and not taught during the academic year, indicating the reasons and compensating actions.

Course	Units/Topics	Reasons	Compensating Actions
COMP-241 Artificial Intelligence (Second Semester)	Conjunctive Normal form	Due to early exam and reduction of teaching weeks	Already the contents are uploaded and relevant topics are covered for CLO coverage.
COMP-222 Algorithms & Data structures-II (Second Semester)	Hash Codes, Compression Functions	Preponed for final examination	Compensated through Assignments
COMP-324 Data Security & Privacy (Second Semester)	Firewall, Security of RSA, MIMA, Other Public Key Cryptography Algorithms	Due to the early final exam schedule	Already the multimedia content was uploaded and covered the important topics relevant to covering all CLOs.
INFS-336 Human Computer Interaction (Second Semester)	Chapter 8. Information visualization	Due to the advancement of Exams	Compensated through Assignments
INFS-334 Software Engineering (Second Semester)	Chapter # 8: Software Maintenance	Final Exam schedule preponed due to Eid Vacations	Students were advised for self-reading. Already concepts of software maintenances have been explained to them in Chapter # 2.
INFS-323 Data Warehousing and Data Mining (Second Semester)	In chapter – 6 few topics were not covered	Immediate preponing of the final examination	Important topics are taken into consideration from chapter -6 to balance CLOs

2. Courses with Variations

List courses with marked variations in results that are stated in the course reports, including: (completion rate, grade distribution, student results, etc.), and giving reasons for these variations and actions taken for improvement.

Course Name &Code	variation	Reasons for variation	Actions taken
100MATH-3 Mathematics (First Semester)	Low Grades	Most of the students fail two to three times because of their weak background in mathematics.	The course must be revised according to the student's understanding and level
114COMP-3 Programming of Statistics and Probability (First Semester)	Low Grades	- The exams were online. - Half of the semester was online.	The assessment method must be reviewed to be adapted to online learning.
COMP-111 & Introduction to Computing	More number of students got A+ and A	Some topics were lengthy, and questions were from that.	Try to minimize lengthy topics as per student's capability and arrange some more classes to explain those topics.
COMP-011 Programming-1	Low Grades	More Students in D+, D and fail.	Need to explain basic concepts in class before starting any chapter. Arrange extra classes to help students to sharpen their programming skills.
PHY-201 Physics	Low Grades	24% are failed may be due to the shortage in the basics of English, Math and Physics and did not make any effort to improve their standard.	The Students must concentrate in the basics of English, Math and Physics but did a small effort to improve their standards.
222COMP-3 Algorithm & Data Structures-II (First Semester)	Low grades	Good Performance. Still, online classes affect the students concentration, unable to focus in the class therefore less marks in offline exams as compared to assignments.	Students must watch the recordings to understand the concept clearly.
COMP-252 Data Modeling &Simulation	Low Grades	Students face difficulty in solving multiple choice questions.	Try to minimize lengthy topics as per student's capability and arrange some more classes to explain those topics.
COMP-213 Object-Oriented Programming	Low Grades	The overall result was good, but some of the groups does not perform up to the mark.	Minimize lengthy topics, and arrange some more classes to explain lengthy topics. Arrange the contents in a proper and understandable manner

Course Name &Code	variation	Reasons for variation	Actions taken
CNET-213 Computer Organization & Architecture	More Students got D+ & D	-	-
INFS-241 Internet Technology	Low Grades	All topics were clear, and questions were easy but most of the students didn't answer correctly.	Need to focus more on lengthy topics.
CNET-111 Digital Logic	Low Grades	Some topics were lengthy and questions were explained on the LMS platform i.e blackboard. So the faculty couldn't know whether the students are listening or not. Students are lagging in mathematical simplifications.	Minimize lengthy topics as per student's capability and arrange some classes to explain those simplifications topics offline with social distancing.
471COMP-3 Java Programming (First Semester)	Low grades	Due to lack of programming skills	Special attention must be given to program writing
433COMP-3 Theory of Compilers (First Semester)	Low grades	Some Topics were lengthy and the questions are from that	Try to minimize lengthy topics as per student's capability and arrange some more classes to explain those topics.
442COMP-3 Artificial Neural Network (First Semester)	Low Grades	Topics are lengthy and difficult to remember for students	Can minimize the lengthy topics to short and understandable

Courses with Variations (Second Semester)

Course Name &Code	variation	Reasons for variation	Actions taken
COMP-011 Programming-1	Low Grades	More Students in D+, D and fail.	Need to explain basic concepts in class before starting any chapter. Arrange extra classes to help students to sharpen their programming skills.
COMP-112 Programming -2	Low Grades	Some topics were lengthy and questions were from that.	Need to arrange some more classes to explain those topics.
COMP-252 Data Modeling & Simulation	Low Grades	Students face difficulty in solving multiple choice questions.	Need to arrange some more classes and a collection of similar programs to explain those topics.

Course Name &Code	variation	Reasons for variation	Actions taken
COMP-213 Object-Oriented Programming	Low Grades	Many Students have scored grades between C and C+, students need to focus more on solving programming examples in class so that it will be easy for them to answer programming based questions in the exam which in turn can improve the student grades.	Focus on improving the ability of students in thinking and writing the programs by oral questions immediately after each class.
COMP-222 Algorithm & Data Structures-II	Low grades	Good Performance. Still, online classes affect the student's concentration, unable to focus in the class therefore less marks in offline exams as compared to assignments.	Students must understand the concept clearly.
COMP-231 Operating System	Low grades	Few students couldn't able to solve problems and memorize long answers due to a lack ness of English.	More focus should be given to analytical problems and theoretical answers can be explained by giving more examples and pictorial representation
COMP-241 Artificial Intelligence	More Students got A+ & A	The number of students who got 'A's on this course seems to be very high. The questions set seemed to be easy for the students and because of the online exams the score was very high.	The questions should be a little difficult so that there should be a clear variation between the grades obtained by the students.
COMP-315 Elective-I (Second Semester)	Low Grades	The overall result is satisfactory	- Extra learning resources should be provided to the students (Ex. Virtual Lectures). - Encourage and provide proper guidance to the students. - Increase the ability of students in thinking and writing the program by oral questions immediately after each class than simply conducting quizzes in 1 or 2 topics.
COMP-323 Analysis & Design of Algorithms	Low Grades	The students only concentrated on problems, not in algorithms. Maximum students didn't write the algorithms	Teachers have to take an extra class to tell them about the importance of algorithms and make them practice again & again.

Course Name &Code	variation	Reasons for variation	Actions taken
COMP-324 Data Security & Privacy	More students are in A+ and A category	The overall result is satisfactory. Students faced issues in online resources as few of them does not have resources available at their homes to use online medium.	Teachers can improve and try to provide more interactive study materials and extra tutorials for students help but resources for needy students need to be handled from the university side.
COMP-332 Advanced Operating System (Second semester)	Low Grades	Some topics were lengthy and questions were from that.	Try to minimize lengthy topics as per student's capability and arrange some more classes to explain those topics.
COMP-471 Java Programming	Low grades	Due to lack of programming skills	Special attention must be given to program writing.
CNET-426 Mobile Computing	Low Grades	Exam questions were lengthy and need extra focus from students on those topics. Due to online, affected and students face problems in understanding.	Need to explain lengthy topics more through tutorials and conduct extra classes to explain those topics
COMP-433 Theory of Compilers	Low grades	Some Topics were lengthy and the questions are from that	Try to minimize lengthy topics as per student's capability and arrange some more classes to explain those topics.
COMP-442 Artificial Neural Network	Low Grades	Topics are lengthy and difficult to remember for students	Can minimize the lengthy topics to short and understandable conduct more innovative class

3. Result Analysis of Course Reports

(including strengths, Areas for Improvement:, and priorities for improvement)

Strengths :

The capacity to work efficiently as a responsible member of a team engaged in various appropriate activities related to their domain.

Areas for Improvement:

- Need to consider the issues related to more students getting lower grades (i.e. D, D+) in some of the courses.
- Students are weak in programming and algorithm concepts, additional classes should be provided or special attention should be given to the weak students.

Priorities for Improvement:

- Students should be taught using diagrams, charts, graphs and other such methods as they are weak in understanding theoretical concepts.
- Students are lacking in language and mathematical skills so it is affecting the results, especially in the courses that are more oriented toward mathematical skills. It's needs a review of courses offered by other departments (English and Mathematics) and modifies the course contents and teaching strategies if required.

E. Program Activities

1. Student Counseling and Support

Activities Implemented	Brief Description*
Academic Plan	At the beginning of each semester academic advisory unit plan the activities. Orientation programs for newly admitted students are arranged and the role of academic advisors during their program tenure is explained.
Allocation of Advisors to sections	Advisors collect the progress of each student.
Identification of underachievers	**Low average students:** The primary goal is to identify the students having a low average score. Advisors are allocated to solve the problems the issues of the students. If students are failing in previous exams then try to troubleshoot their problems and provide assistance through guidance and arrange extra classes and tutorial programs for them. **Monitoring and observing:** Throughout the semester the advisors monitor all the students and observe the progress of underachievers who got assistance from advisors.
CS students distribution	**Mahaliya Campus:** A total of 162 computer science students were assigned to 12 academic advisors in Semester-I and 65 students to 12 academic advisors in Semester II. The advisors should be Arabic speakers to ease the communication with students without any language barriers. **Sabya Campus:** 373 students were assigned to 14 academic advisors throughout the year.
Advising week	The counseling week was implemented in the first week at the college level electronically through the academic counsellors according to the distribution of counsellors for each academic level.
Low average students	**Male campus:** 12 students of lower-level face problems in mathematics courses. Advisors identified the students and assist those students. **Mahaliya Campus:** The number of low CGPA students below 2 was 16 students in Semester-I & II. Advisors conducted regular meetings to understand and solve the problems. **Sabya campus:** Identified low achieving students via several advisors and provided assistance to fix the issue.

Special counseling and support to students with psychological issues	Department deals with and provides effective physiological, and social guidance and counseling through qualified and sufficient staff and experts.
Duties and rights of the students	The duties of advisors are sent to all of them via email where the responsibilities and duties are explained clearly. The date varies from one advisor to another depending on the time addressed for advising. A form is distributed to each advisor to be filled out by the student and signed by the advisor. Every advisor established a sequence of meeting with his students in order to explain and clarify all the rules regarding the students' rights along with their duties.
Comments on Students Counseling	An electronic evaluation form for the counseling week's activities was used to measure female students' satisfaction with the counseling week.
Activities	Activities were conducted by the advisors.
Comment on Student Counseling and Support **	
Student advice has to be improved in the following ways: ▪ Develop a systematic strategy for continuously observing and monitoring the students' status. ▪ "Student Advising Helper" is a suggested graduation project for final CS students to make it easier for advisors to monitor, track, or report all cases of students. The system is suggested to be integrated with a student database to make it easier to access all student data directly. ▪ Consider advising as a routine task for each staff member, which can be evaluated annually based on his progress on this task.	

* including action time, number of participants, results and any other statistics.
** including performance evaluation on these activities

2. Professional Development Activities for Faculty and Other Staff

Activities Implemented	Brief Description*
Orientation	Event Name **: Department of Computer Science Academic Meeting** **AGENDA:** 1. Suggestion to evaluate online teaching medium due to COVID-19. 2. Introduction of faculty members and the new Head of the department. **Chaired by:** Dr. Mohammed Hameed Alhameed (HoD) **Date:** Aug 26, 2020 **Venue: CS Department Meeting Room**
Certificate Distribution	**Event Name:** Appreciation Certificate Distribution Certificate of Appreciation to the faculty members of CS department who have given their valuable efforts to College of CS & IT during academic year 2020-21. **Activity:** Certificate Distribution **Presented by: Dr.** Basem Ibrahim Assiri No. of Participants: 15 Date : 01/12/2020 **Venue : Auditorium, ground floor College of CS& IT**

Exhibition	**PROJECT EXHIBITION DAY** No. of Participants: Students of Main, Mahaliya and Sabya Campuses. Presented by: Students of CS department , Mahaliya & Sabya college Date : 1/12/2020 **Venue : Central Lawn, near Student Affair Unit**
Course Specification & Report Preparation Workshop (Quality Practices Training)	**Cohort Analysis** Date: 1th Sept, 2020 **Conducted by: DAD** **Venue: Zoom**
	Program and course specification according to NCAAA Templates 2020 Date: 7th Sept, 2020 **Chaired by:** Dr. Ahmed Taha & Dr. Ali Bagdadi **(DAD)** **Venue: Zoom Application (Online).**
	Appropriate CLO writing Date: Feb 25, 2021 Time: 8:00 PM - 9:00PM **Presented by:** Dr. Shams Tabrez Siddiqui **Venue: Zoom Application (Online).**
	Writing Program Self-Study Report Date: Feb 22, 2021 **Conducted by: DAD** **Venue: Zoom Application (Online).**
	Course report preparation Date: 30th Mar 2021 Presented by: Dr. Shams Tabrez Siddiqui Attendees: 40 Location: Online through Zoom **Organized by: QAU committee & CS Activity Unit**
	Objective Based Education Date: March 2021 Presented by: Dr. Ahsan Asim Attendees: Sabya Campus Location: **Online through Zoom** **Organized by: QAU committee Sabya Campus**
Assessment Method Workshop	Topic: **Introduction to Assessment** Date Time: Aug 24, 2020 **Hosted by DAD** **Venue: Zoom Application (Online).**
	Topic: **Assessment Designing Process** Date Time: Aug 25, 2020 **Hosted by DAD** **Venue: Zoom Application (Online).**
Research Activity	**Research Groups & Activity Plan** Date: 14th Oct 2020 No. of Participants: 37 Presented by: Mr. Mohammed Alamgeer Husain **Venue : BLACKBOARD**

<table>
<tr><td>Reserach Orientation</td><td>Research Committee Initiatives
Date: 10th March 2021
No. of Participants: 68
Presented by: Dr. Mohammed Hameed Alhameed
Location: Online through Zoom
Organized by: Research Committee & CS Activity Unit</td></tr>
<tr><td>Webinar - AWS Academy

Artificial Intelligence (AI) and Machine Learning (ML)” from Sept 14, 2020 to Sept 18, 2020 (4 Days)</td><td>
<table>
<tr><th>Topic</th><th>Date</th><th>Participants</th></tr>
<tr><td>Introduction to AI.</td><td>9/14/2020</td><td>25</td></tr>
<tr><td>Apply ML to detect patterns of fraud, waste, and abuse.</td><td>9/14/2020</td><td>27</td></tr>
<tr><td>Automate document management and improve search, discovery, and insights with AI.</td><td>9/15/2020</td><td>17</td></tr>
<tr><td>Improve student outcomes with ML.</td><td>9/16/2020</td><td>18</td></tr>
<tr><td>Extract insights from unstructured medical data with AI.</td><td>9/17/2020</td><td>13</td></tr>
<tr><td>ML for forecasting service demand and planning capacity".</td><td>9/18/2020</td><td>15</td></tr>
<tr><td>Monitoring and modifying ML models when major events occur".</td><td>9/18/2020</td><td>17</td></tr>
</table>
</td></tr>
<tr><td rowspan="2">Certification Training</td><td>Red Hat Academy - RHA Administration Training
Date: 4-Jun-20
Resource person: Red Hat Academy Trainer
Self-paced and Online</td></tr>
<tr><td>Latest certification courses Oracle/Microsoft
Date: 21th Mar 2021
No of participant: 38
Presented by: Mr. Shabbir Alam
Location: Online through Zoom</td></tr>
<tr><td>Orientation - Red Hat Academy Management</td><td>Red Hat Academy Management
Resource person: Red Hat
Date: 5/7/2020
Venue: Webinar</td></tr>
<tr><td rowspan="2">Faculty Development Program</td><td>Orientation on Saudi Digital Library
Date: 28th Oct 2020
Presented by: Mr. Syed Ziauddin
Attendees: 17 attended and 39 on recording
Organized by: CS Department event management and coordination
Venue: Zoom Application (Online).</td></tr>
<tr><td>Topic: Blackboard online platform training
Date: 16th Sept 2020
Attendees: 20
Presented by: Dr. Mohammed Saad
Organized by: CS Department event management and coordination</td></tr>
</table>

	The usage of e- learning free software and applications Date: 21/02/2021 Presented by: Ms. Atheer Bajneed **Location: Sabya College**
	Topic: **Effective teaching strategies and assessment method** Date: 07th Mar 2021 Location: Online through Zoom Attendees: 45 Presented by: Dr. Shanmuga Sundaram Morappan **Organized by: CRC Committee & CS Activity Unit**
	E-learning types and E-courses platforms Date: 29/3/2021 Presented by: Ms. Ahmed Unnisa Begum **Location: Sabya College**
Comment on Professional Development Activities for Faculty and Other Staff **	
Faculty members are encouraged to get more involved in professional development programs and to contribute more through a self-learning mechanism.	

* including action time, number of participants, results and any other statistics.
** including performance evaluation on these activities

3. Research and Innovation

Activities Implemented	Brief Description*
Research Publications	**Total 69 Publications** **06 patents** **Book Chapter 01** **45** research articles have been published in reputational **international journals (ISI/SCI Indexed, Springer, Scopus, etc.)** **17** research articles have been presented and published at various **international conferences** (IEEE, Springer, etc.).
Research Seminar	Topic: **Blockchain, Cybersecurity and Research Directions** Date: 07th Oct 2020 Presented by: Dr. Shadab Alam No. of Participants: 75 Organized by: CS Department Event Committee **Venue: BLACKBOARD**
	Topic: **Machine Learning: Paradigms, Algorithms and Models** Date: 29th Oct 2020 Presented by: Dr. R. JOHN MARTIN No. of Participants: 26 Organized by: College CS & IT Academic Affairs Unit **Venue: BLACKBOARD**
Workshop	**Novel Trends in Wireless Sensor Networks** Date: 15th Sept 2020 **Organized by: CS Department event management and coordination** Attended: 10 Presented by: Mr. Phiros Mansur

	Topic: **Identifying the sources of ambiguity in natural language** Date: 15th Sept 2020 No. of Participants: 133 Presented by: Mr. Yasir Ahmad **Organized by: College CS & IT Academic Affairs Unit & CS Department event management and coordination** Venue: BLACKBOARD
Research Talk	**Recent Trends in Artificial Intelligence** Date: 16th Mar 2021 No. of Participants: 27 Presented by: Dr. Rajan John **Location: Online through Zoom**
Workshop	**Motion pictures using photoshop** Date: 23/02/2021 Presented by: Ms. Ayasha Siddiqua Participant students **Location: Sabya College**
Research Seminar	**5G and its impact on Internet of Things** Presented by: Dr.Shermin Shamsudheen Participant students: 13 Date: 14/2/2021 **Venue: Zoom**
Research seminar series	Topic: **Introduction to the basics and principles of research** Date: Feb 9, 2021/ Feb 16, 2021 Resource person: Dr. Ali Ahmed / Dr Ibrahim AlShourbaji Total participants: 60 + / 53 **Venue Zoom**
	Topic: **Research Helping Tools, Mendeley, Typeset.io** Date: March 9, 2021 Resource person: Mr.Yasir Ahmad & Dr.Sadia Husain Target group: All the Faculty members from CS & IT No of attendees: 65 **Venue: Zoom**
	Topic: **Research Helping Tools, Plagiarism** March 30, 2021 Resource person: Dr. Shadab Alam Target group: All the Faculty members from CS & IT No of attendees: 60 **Venue: Zoom**

Comment on Research and Innovation **

Faculty members have published numerous research articles in reputed International Journals.

The department's faculty and students have been encouraged and inspired to participate in additional research activities in the current academic year and the future.

Sabya campus faculty needs to focus more on publications.

* including action time, number of participants, results and any other statistics.

** including performance evaluation on these activities

4. Community Partnership

Activities Implemented	Brief Description*
Awareness Campaign	Topic: **Cybersecurity threats methods to avoid them** No. of Participants: 98 Date: 17th Mar 2021 Presented by: Dr. Abdullah Shenemar Organized by: Community service committee & CS Activity Unit **Location: Online through Zoom**
Health and various educational platforms	**Good health practices when using the educational platform** Date: 23/03/2021 Presented by: Ms. Atheer Bajneed **Location: Sabya College**
Security management to the airport security staff	A workshop on security management to the security staff of Gizan regional airport Date: 25/01/2021 Presented by: Dr. Eshrag Refael Mahaliya Campus
A virtual conference on women in data science	A virtual conference on women in data science Date: 02/03/2021 Participant: Dr. Eshrag Refael, Dr. Huda Fatima, Ms. Padmanayaki, Ms. Rahma Salman, Ms. Haala Zain Mahaliya Campus
Saudi National Day celeberation in remote area	Event name: **National Day Celebration** Date 09/22/2020- 09/28/2020 Execution time 7 days Remote implementation location Celebrating the 90th Saudi National Day
Training to students to utilize the virtual resouces using BLACKBOARD	Training on how to use BLACKBOARD Date: 9-08-2020 to23-11-2020
Students' Rights and Responsibilities	Students' Rights and Responsibilities Attendees: Students Date: 26-01-2021 **Resource person: Afnan Sumaily**

Comment on Community Partnership **

There should be a Community Partnership Committee, and a separate budget.

The department has only organized a webinar, which was due to the impact of COVID-19 pandemic.

Still a need to explore more in community services. Female campuses are encouraged to participate with full strength in social activities with some social cause.

* including action time, number of participants, results and any other statistics.
** including performance evaluation on these activities

5. Analysis of Program Activities

(including strengths, Areas for Improvement:, and priorities for improvement)

Strengths :

A good number of activities were conducted during the academic year 2020-21 and the focus was on professional development activities for faculty, research and community services.

A total of 35 events were conducted in all three campuses out of which 12 events were for research and development whereas 15 were for faculty development and the remaining 8 were for community services.

Areas for Improvement:

More workshops and training programs for faculty development from experts.

Events related to Community Partnership need to be organized at the ground level although due to COVID 19 many community-related activities were conducted but mostly through the webinar.

Female campuses need to focus more, encourage faculty members to participate and be a part of Community Partnership Activities

Priorities for Improvement:

- Need to establish a unit for Community Partnership Activities.
- Faculty Development / Training programs on Teaching & learning discussing the teaching strategies and evaluation methods based on the nature of the courses need to conduct on a priority basis.
- Need to form a group of faculty's area of specialization, to achieve more research publications.

F. Program Evaluation

1. Evaluation of Courses

Course Code	Course Title	Student Evaluation (Yes-No)	Other Evaluations (specify)	Developmental Recommendations
101 CSC-3	Introduction to Computer	Yes	Faculty/Teaching & Learning Unit/QAU-Male campus	- In Lab, some excel functions cab be added like (SUMIF, AVERAGEIF, COUNTIF, AND, OR, LOOKUP, HLOOKUP, VLOOKUP, YEAR, MONTH, DAY) - Some more Assignments should be added.
011 COMP-3	Programming-1	Yes	Faculty/Teaching & Learning Unit/QAU	The overall content is absolutely fine however, the first three chapters can be reduced to allow students to focus on the programming concepts.

Course Code	Course Title	Student Evaluation (Yes-No)	Other Evaluations (specify)	Developmental Recommendations
112 COMP-3	Programming-2	Yes	Faculty/Teaching & Learning Unit/QAU	1. Chapters 3, 4, 5, 6, and 7 can be generalized so that students can be able to write the program for any given class. 2. Searching and sorting topics can be deleted as these concepts are beyond the student's understanding level and it is also covered at a higher level. 3. Include simple examples for concepts related to arrays and add basic concepts of inheritance.
213 COMP-3	Object-Oriented Programming	Yes	Faculty/Teaching & Learning Unit/QAU	1. Add GUI and handling errors chapters. 2. Simplify chapters 3, 4 & 5. 3. A proper lab manual should be prepared according to the necessary contents from the book.
221 COMP-3	Algorithm & Data Structures-I	Yes	Faculty/Teaching & Learning Unit/QAU-Male campus	1. Add tutorials to the theoretical part 2. Some more examples of 3. Mathematical type problems should be added from the chapter stack, Queue and linked list.
222 COMP-3	Algorithm & Data Structures-II	Yes	Faculty/Teaching & Learning Unit/QAU	No changes required
231 COMP-3	Operating System	Yes	Faculty/Teaching & Learning Unit/QAU-Male campus	- The course syllabus is appropriate CLOs 2.2 needs to be rectified. - Some programs must be added to synchronize the lab material with the theory. - Do the update according to the new plan.

Course Code	Course Title	Student Evaluation (Yes-No)	Other Evaluations (specify)	Developmental Recommendations
241 COMP-3	Artificial Intelligence	Yes	Faculty/Teaching & Learning Unit/QAU-Male campus	Lab Manual Should be revised.
252 COMP-3	Data Modeling & Simulation	Yes	Faculty/Teaching & Learning Unit/QAU-Male campus	- Some more mathematical problem - Can add to give students more accuracy on random generation of numbers and goodness of fit.
323 COMP-3	Analysis & Design of Algorithms	Yes	Faculty/Teaching & Learning Unit/QAU	1. Delete Chapter 5- DFS & BFS, these topics are covered in Algorithm and Data Structures I & II. 2. Require to DELETE Boyer-Moore and Horspool's Algorithm because these algorithms are beyond the student's understanding level. 3. Require to add the topic assignment problem from 3.4 (Exhaustive search).
324 COMP-3	Data Security & Privacy	YEs	Faculty/Teaching & Learning Unit/QAU	No changes required
315 COMP-3	Elective-I (Visual Programming)	Yes	Faculty/Teaching & Learning Unit/QAU	Delete Chapter-6, Web App development with ASP.NET, delete from theory but, can use it in Lab.
332 COMP-3	Advanced Operating System	Yes	Faculty/Teaching & Learning Unit/QAU	Already updated in the previous semester, no changes were required
336 COMP-3	Computer Graphics	Yes	Faculty/Teaching & Learning Unit/QAU	Course content and lab manual are appropriate.
390 COMP-3	Summer Training	Yes	GP Committee /Teaching & Learning Unit/QAU	1. There must be a committee to contact IT Companies for the student summer training. 2. The student should develop some apps and web applications. There must be a committee to contact IT Companies for the student summer training.

Course Code	Course Title	Student Evaluation (Yes-No)	Other Evaluations (specify)	Developmental Recommendations
433 COMP-3	Theory of Compiler	Yes	Faculty/Teaching & Learning Unit/QAU-Male campus	- Course contents and lab manual are appropriate. - CLOs are modified with the help of Track Leader. - Course material must be modified according to time management.
315CNET-3	Microprocessor & Assembly Lang gauge	Yes	CRC	- Capture student attention at the beginning of class. - Use relevant examples - emphasize important information of students
442 COMP-3	Artificial Neural Network	Yes	Faculty/Teaching & Learning Unit/QAU	- Need to delete Chapter-5 Support Vector Machine (SVM) - Add more neural network-based programs - Add Exercises
331CNET-3	Computer Networks	Yes	CRC	Course material should be updated
213CNET-3	Computer Organization & Architecture	Yes	CRC	Well, formatted enriched contents of the Computer organization & Architecture provided to the students.
426CNET-3	Mobile Computing	Yes	CRC	Reduce some topics. Update the lab manual.
495 COMP-3	Final Project	Yes	GP Committee/ Teaching & Learning Unit/QAU	- Extra classes should be provided for Programming and Designing the Project. - Need to include training programs and workshops related to the respective students project title. Workshop for Research-based projects before starting the projects to discuss the importance of literature survey, how to select research papers, find objective, the scope of the project, select research methodology used in the project and learn how to find research gap.

2. Students Evaluation of Program Quality

Every year Program evaluation survey is conducted by SSU and data is collected from exit students (graduating) survey. Based on this survey the program evaluation is done by QAU and Program Assessment Committee.

Evaluation Date : 31-3-2021	**Number of Participants: 31**
Students Feedback	**Program Response**
Strengths: • The evaluation is satisfactory in every way. • Improved student facilities such as laboratories, classrooms facilities, celebration hall and religious observance. • The course's study materials were upgraded and up to the mark. • An orientation program is arranged for the students at the beginning of the semester. • New curriculum designed & implemented based on industry job market requirements. • Academic and career counseling and the performance of the students were monitored by the advisory unit members who were available for the students whenever they required assistance.	The new curriculum implemented will improve the students' performance. In the near future strength of the students will increase.
Areas for Improvement:: • Need to incorporate new teaching strategies and methods. • Teachers should give the students feedback on regular basis to improve the performance of the students. • Need to encourage students and teachers to participate in community services at ground level into different sectors. • More facilities for extracurricular activities e.g. sporting and recreational activities. • Need to establish state of art infrastructure to enhance student's cognitive and soft skills.	The curriculum review committee and QAU will discuss with course teachers and course coordinators to incorporate other effective teaching strategies other than traditional. Department should encourage and conduct various extracurricular activities for students.
Suggestions for improvement: • Library resources are not sufficient, need to procure books and learning resources for college library. • Need to extend timing of library and laboratory to succor students in completing their assignments and programs. • Need to collaborate with IT industries and organizations for placements and corporative trainings. • Photocopy and other similar facilities need to establish for students.	Request already communicated to university administration regarding library resources. Cooperative training and placement cell establishment plan at college level.

* Attach report on the students evaluation of program quality

3. Other Evaluations

(e.g. Evaluations by independent reviewer, program advisory committee, and stakeholders (e.g., faculty members, alumni, and employers)

Alumni Feedback

Evaluation method : Survey	**Date: 04-03-2021**	**Number of Participants : 54**
Summary of Evaluator Review		**Program Response**
Strengths: • Students problem solving and development computer-based solution skills show positive trends. • Working in a team under professional and ethical responsibilities. • Apply and learn the latest tools. • Your stay in college has a good impact in your life and career.		The survey report is satisfactory.
Points for Improvements:: • Need to establish a career counseling unit for the students to improve the employability • Active participation of final year students with alumni at least once a year. • Need to invite employers to the campus and include them in the program advisory board. • Program advisory board meetings should be conducted on a regular basis. • Need to develop partnership with the IT industries for providing training and earning professional certificates. • More training sessions/workshops/seminars should be arrange for the graduating students and others for learning and developing interpersonal, ethical, and communications kills to assist them in effectively performing the assigned tasks when working in teams or groups. • Extra effort needed from the Mahaliya and Sabya campuses to arrange more workshops, training programs and seminars for their students. • Mahaliya and Sabya campuses should encourage students to participate neck to neck with male campus in professional, ethical, societal and economic development their community.		Department and college council need to set up a committee for establishing the required units in the department for the program. Need to conduct an Alumni meet and invite some employers Carrier and placement cell need to be established at the college level in collaboration with the university training and placement unit.

Suggestions for improvement • Student must be introduced about specialization of job market • More industry oriented courses must be offered. • Department necessity is to build strong communication and interaction with the alumni. • Program must tie up with the IT organization and other sectors for the Cooperative training for their students.	Latest industrial tools will be provided to students in the labs as the new curriculum is being implemented. Alumni meet in near future with final year students to share their experiences and guidance.

* Attach independent reviewer's report and stakeholders' survey reports (if any)

4. Key Performance Indicators (KPIs)

List the results of the program key performance indicators (including the key performance indicators required by the National Center for Academic Accreditation and evaluation)

No	KPI	Target Benchmark	Actual Value	Internal Benchmark IS Program - Jazan University	External Benchmark CS Program- (King Khalid University)	Analysis	New Target Benchmark
KPI-P-01	Percentage of achieved indicators of the program operational plan objectives	70%	64.56%	73.67%	77%	Negative	70%
KPI-P-02	Students' Evaluation of quality of learning experience in the program	4.25	4.09	4.15	3.9	Positive trend	4.25
KPI-P-03	Students' evaluation of the quality of the courses	4.0	3.87	4.19	4.1	Negative	4.0
KPI-P-04	Completion rate	50%	39.99%	34.38%	54%	Negative	50%
KPI-P-05	First-year students retention rate	90%	88.36%	82.79%	86%	Stable	90%
KPI-P-06	Students' performance in the professional and/or national examinations	**NA**					
KPI-P-07	Graduates' employability and enrolment in postgraduate programs	40%	38.33%	9.67%	12%	Positive trend	40%
KPI-P-08	Average number of students in the class	25	22.27	25	23	Positive trend	25

KPI-P-09	Employers' evaluation of the program graduates' proficiency	4.0	4.4	-	4.3	Positive trend	4.5
KPI-P-10	Students' satisfaction with the offered services	3.5	3.29	3.08	4.2	Positive trend	3.5
KPI-P-11	Ratio of students to teaching staff	20:1	20:1	27:1	15.5:1	Positive trend	20:1
KPI-P-12	Percentage of teaching staff distribution	Prof=5 % Associate Prof= 10 % Asst. Prof= 15 % Lecturer= 70 %	Prof = 0 % Assoc. Prof = 0 % Asst. Prof = 23.3% Lecturer = 67.96% Teaching Assistant = 8.74%	Prof.=0% Assoc. Prof.=0% Asst Prof=16.5% Lecturer=86.33% TA=17.15%	Prof = 2% Assoc. Prof = 9% Asst. Prof = 24.5% Lecturer = 64.5%	Positive trend	Prof.=5% Associate Prof.=10% Asst Prof=25% Lecturer=60 %
KPI-P-13	Proportion of teaching staff leaving the program	5%	5.83%	3.62%	5%	Positive trend	5%
KPI-P-14	Percentage of publications of faculty members	25%	25.60 %	12.77%	80%	Positive trend	30%
KPI-P-15	Rate of published research per faculty member	0.5:1	0.69:1	0.55:1	0.76:1	Positive trend	0.75:1
KPI-P-16	Citations rate in refereed journals per faculty member	15:1	15.38:1	20.16:1	0.62:1	Positive trend	20:1
KPI-P-17	Satisfaction of beneficiaries with the learning resources	3.5	3.39	3.83	3.9	Stable	3.5

Comments on the Program KPIs and Benchmarks results :

- In addition, there are a few areas of concern that should be addressed, the most noticeable of which is the apparent completion rate, which appears to be declining when compared to prior years.
- The retention rate has increased and is on the rise, which is encouraging.
- Publications by faculty members has risen steadily over time.
- The overall average completion rate is improving, but the apparent completion rate among male students has dropped precipitously. The number of students registering declined from 2014 to the present however, it is increasing again. During that time period, students were transferring to other programs due to mathematics courses as passing rate was very low which resulted in an apparent decline in the completion rate. New study plan is implemented in which the mathematics appropriate courses were only considered and at suitable level.

There were various other factors also involved; the most significant of which were outdated college infrastructure and a scarcity of IT firms in the area. The college relocated to a new site during the previous academic year and is now attracting a significant number of students. Department conducted meeting in which the decided to increase the threshold for admission so that good students will join the program. Counsellor session with the students who wants to take admission in computer science program to aware them about the job opportunities and scope of the CS program. [Meeting with the counsellor]

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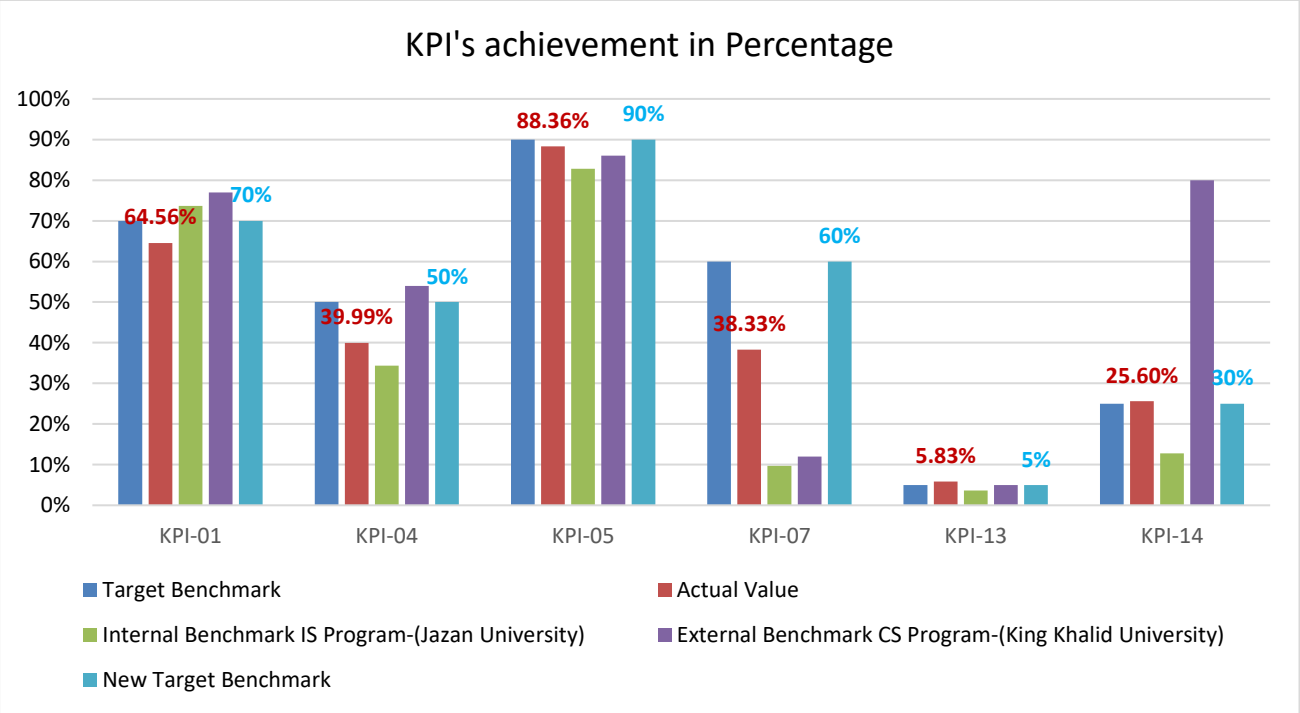

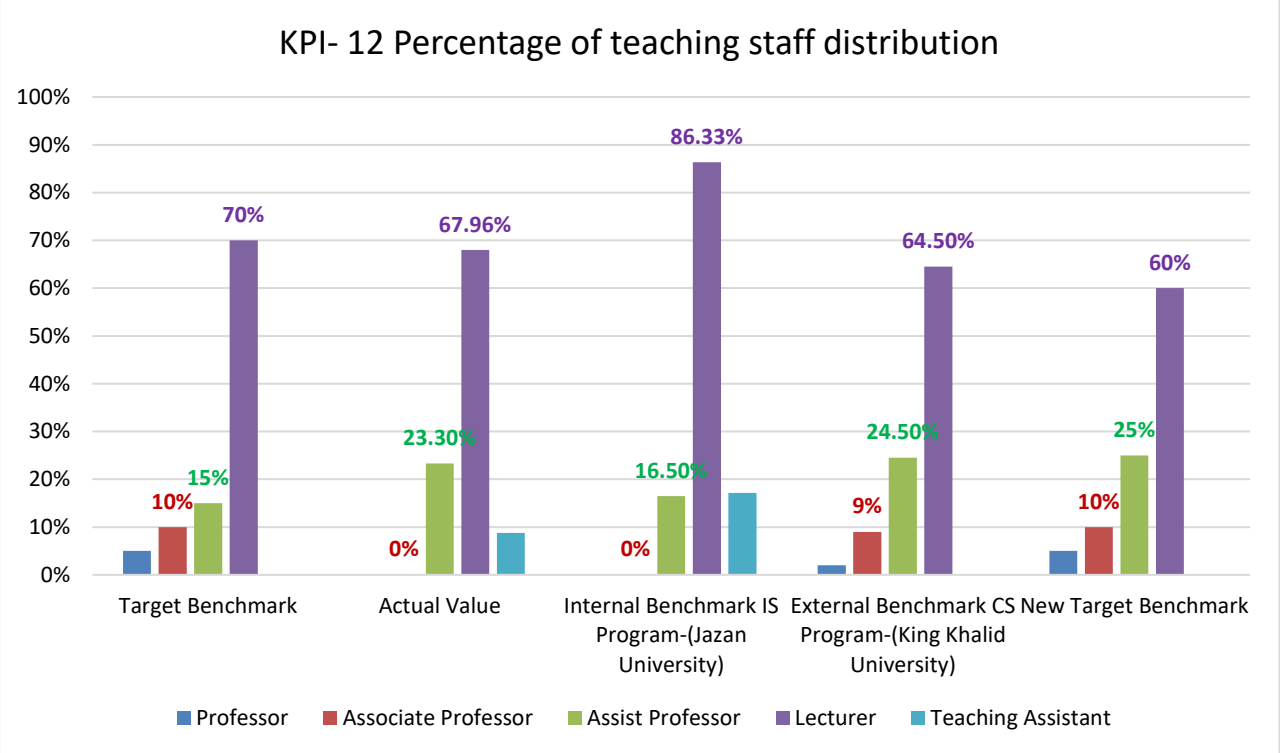

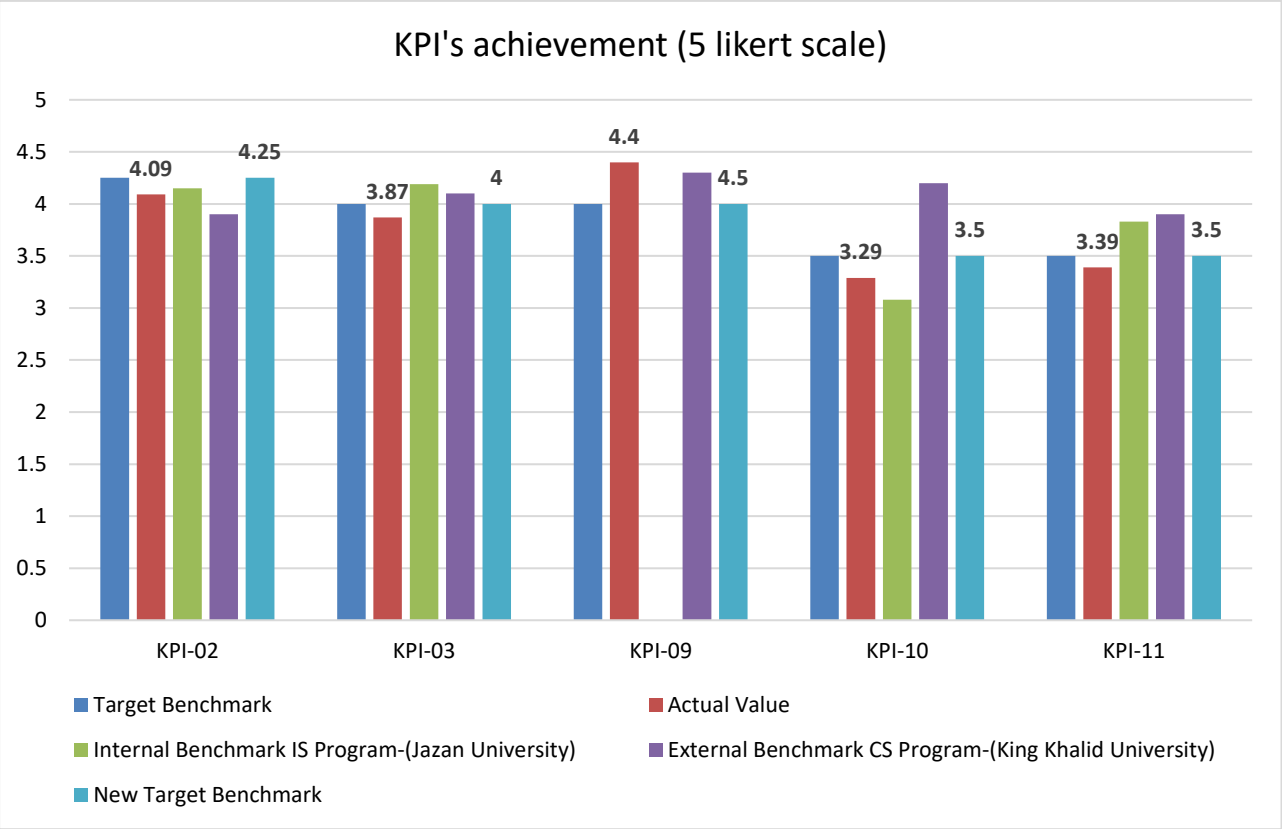
KPI's achievement (5 likert scale)
5
4.5
4
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3
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2
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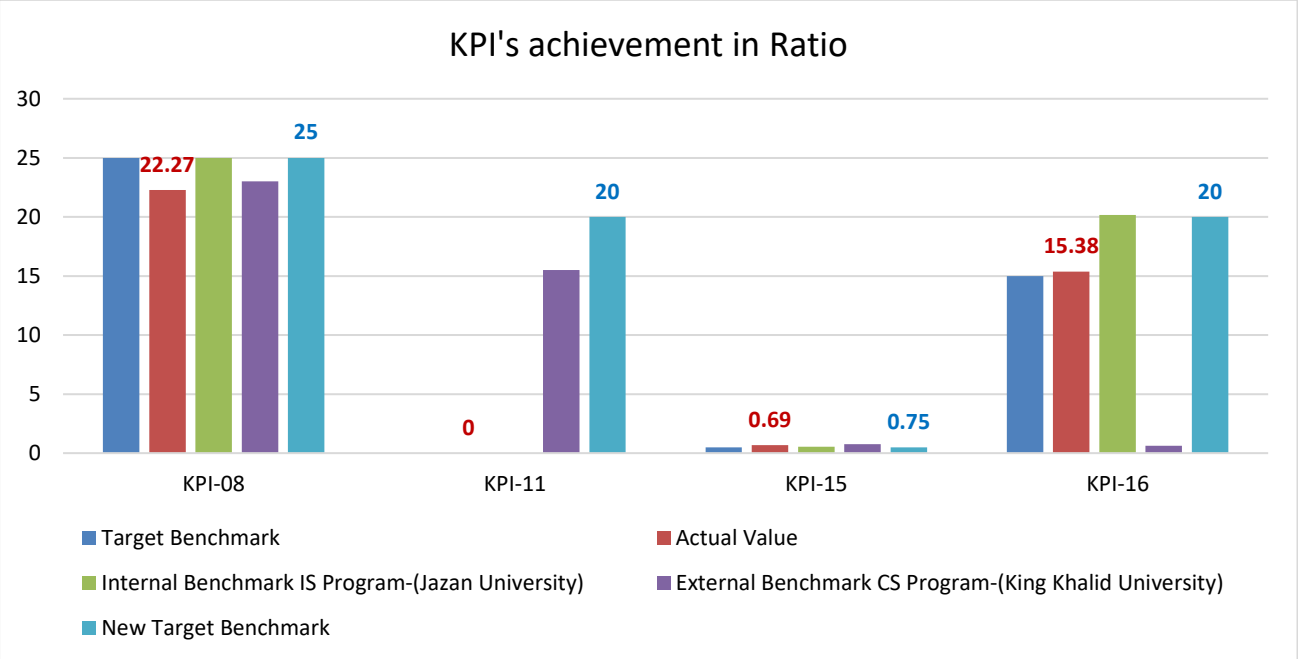
1
0.5
0
4.09
4.25
3.87
4
4.4
4.5
3.29
3.5
3.39
3.5
KPI-02
KPI-03
KPI-09
KPI-10
KPI-11
Target Benchmark
Actual Value
Internal Benchmark IS Program-(Jazan University)
External Benchmark CS Program-(King Khalid University)
New Target Benchmark


KPI's achievement in Ratio
30
25
20
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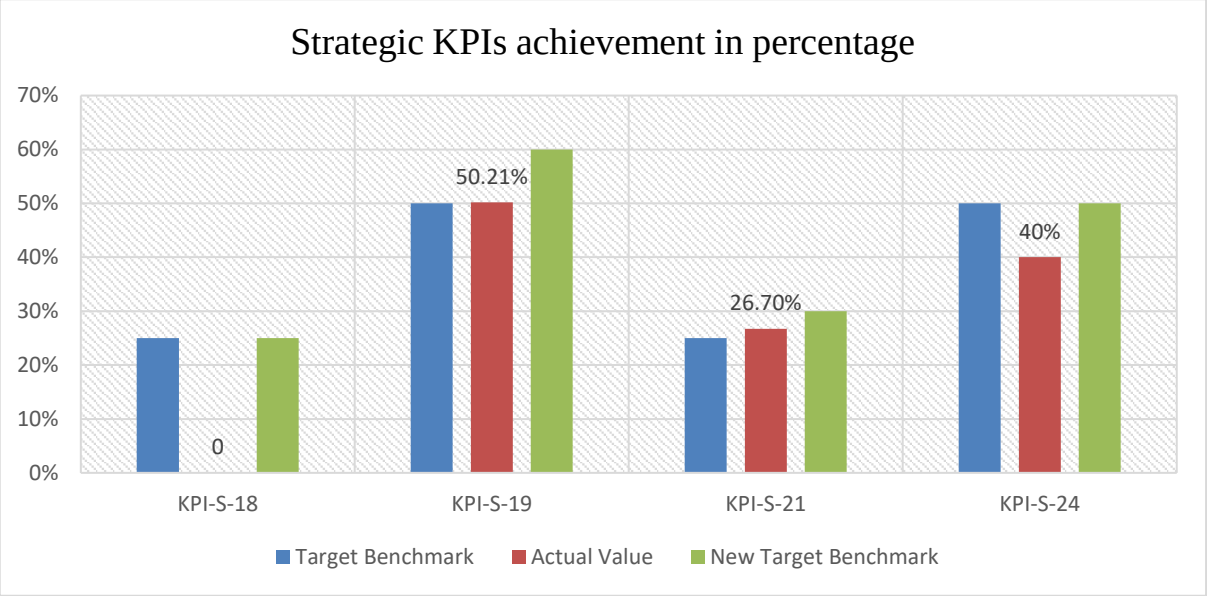
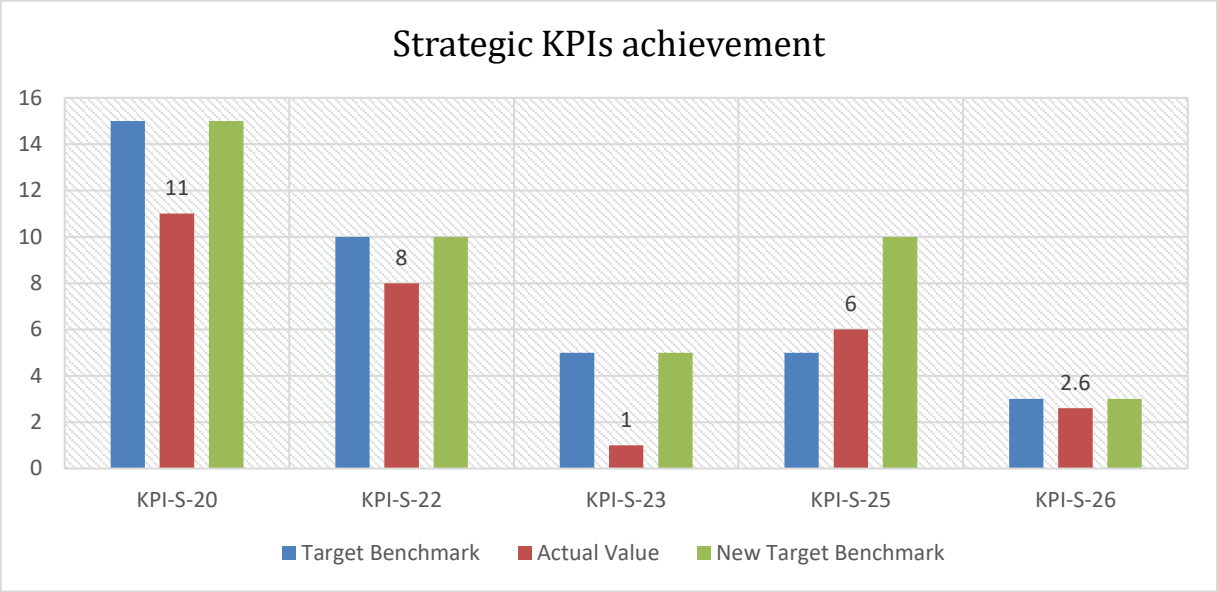
22.27
25
0
20
0.69
0.75
15.38
20
KPI-08
KPI-11
KPI-15
KPI-16
Target Benchmark
Actual Value
Internal Benchmark IS Program-(Jazan University)
External Benchmark CS Program-(King Khalid University)
New Target Benchmark

Strategic Key Performance Indicators (SKPIs)

Strategic KPI's are based on strategic goals and their initiates

No	KPI	Target Benchmark	Actual Value	Analysis	New Target Benchmark
KPI-S-18	Percentage of courses updated based on the latest trend and research requirements.	25 %	0%	Negative	25%
KPI-S-19	Students attended the workshops and got trained in the industry-based certification courses.	50 %	50.21%	Positive trend	60%
KPI-S-20	Number of mini-projects presented at department level.	15	11	Positive	15
KPI-S-21	Students who participated in technical competitions, workshops, seminars and conferences.	25%	26.70%	Positive trend	30%
KPI-S-22	Number of workshops conducted by DAD/QAU to implement best practices in teaching strategies and assessment methods.	10	8	Positive trend	10
KPI-S-23	Number of Quartile awards received towards research every year.	5	1	Negative	5
KPI-S-24	Faculty participated in workshops, training, seminars and conferences.	50 %	40%	Positive trend	50%
KPI-S-25	Number of training conducted in soft skills for the students.	5	6	Positive trend	10
KPI-S-26	Number of specialized training programs conducted for the society.	3	2.6	stable	3





5. Analysis of Program Evaluation

(including strengths, Areas for Improvement:, and priorities for improvement)

Strengths :

- The department's Strategic and Action Plans are well-defined (2017-22).
- Percentage of achieved indicators of the program operational plan objectives
- Improvement in Completion rate and First-year retention rate of the student.
- Students on the new campus have access to specialized and well-equipped labs; the library has been relocated from the old campus to the college premises, and cafeteria and photocopier services have become accessible.

Areas for Improvement:

- Need to establish a career counseling unit for the students to improve the employability
- The program department has to build strong communication and interaction with the alumni.
- Need to invite employers to the campus and include them in the program advisory board.

Priorities for Improvement:

- Annual evaluations of teaching staff should be conducted to determine faculty members' performance so that departments may make better informed decisions on how to keep skilled members intact in any circumstances.
- Seminars and conferences should be arranged by the Research Unit in collaboration with the Deanship of Research to motivate the faculty members to get involved in research activities.
- Department must put a request for requesting some highly cited professors for encouraging research culture.

G. Difficulties and Challenges Faced Program Management

Difficulties and Challenges	Implications on the Program	Actions Taken
Lack of Senior PhD Faculty Member	Quality of Research Publication in the Program	Request sent to higher authorities in this regard
Lack of original/latest software in the Labs	Students are unable to do Lab properly	Request sent to higher authorities in this regard
Non Availability of Hard Copy of Text Book	Students and concerned Faculty face difficulties in course material for further references	College Library is under Construction
Non Availability of sufficient copies of text and reference book.	Faculty face difficulties while preparing the course contents	Need to bring more books relevant to program
Projector required in the classroom for Theory classes	Faculty will not be able to give presentations properly	Should assign the classes to have projectors

*Internal and external difficulties and challenges

H. Program Improvement Plan

No.	Priorities for Improvement	Actions	Action Responsibility	Date		Achievement Indicators	Target Benchmark
				Start	End		
1.	Review and update the curriculum regularly based on the recent trends	Review the courses based on the recent research trends	Curriculum Review Committee / Teaching and Learning Unit	Sep-21	Aug-22	Percentage of courses updated based on latest trend and research requirements	25%
2.	Design the new curriculum	Completed					
3.	Enhance and Strengthen the Teaching methodologies of the faculties	Identify and strengthen the teaching methodologies	Teaching and Learning Unit, HoD	Sep-21	Aug-22	No. of programs conducted	1 per semester
4.	Update the labs with the latest hardware and	Check for the latest software & hardware,	Curriculum Review Committee, HOD	Sep-21	Aug-22	No. of labs updated with latest hardware	-

	software tools as per the industry requirements	open source softwares				& Software tools.	
5.	Conduct review / Survey from stakeholders periodically	Review / Survey from Stakeholders	Curriculum Review Committee, HOD	Sep-21	Aug-22	Number of feedbacks obtained from stakeholders.	1 per semester
6.	Build partnership with industry to obtain regular feedback from industry to update the curriculum.	Identify partnering industries	Curriculum Review Committe, HoD, Vice Dean Academics, Dean	Sep-21	Aug-22	Number of meetings conducted, feedback from faculty	2 per semester
7.	Provide training opportunities for students with the industry in the technical field	At a Periodicity of 1 to 2 Semester, Trainings are conducted by inviting professionals from Industry	HoD, Vice-Dean Academic, Professional Developmen t	Sep-21	Aug-22	Students satisfaction with the offered services. **(KPI-P- 10)**	1 per semester
8.	Conduct training programs and prepare them towards national and international certifications.	Workshops and trainings are conducted by inviting professionals from Industry. Motivate students	Excellence Unit/ Vice- Dean Academic/ HOD/Dean	Sep-21	Aug-22	Students attended the workshops and got trained in the industry-based courses and certification courses to total number of students. **(KPI-P-02)**	60% should take part in the training
9.	Motivate students to participate in technical competitions, workshops, seminars and conferences	Students are motivated and encouraged to participate in technical competitions, conferences, workshops, seminars and conferences	Programmin g Committee,/ DEPT/Vice Dean – Academic, Vice Dean / Dean	Sep-21	Aug-22	Students who participated in technical competitions, workshops, seminars and conferences to total number of students. **(KPI-S-21)**	30% of the students should attend
10.	Create Alumni database.	Completed					
11.	Utilize existing alumni connections with industry and invite them as speakers.	Identify the alumni working in the industry and based on their expertise invite them as speakers	Head, Coordinator Alumni Unit, Vice Dean Acaedemic	Sep-21	Aug-22	Number of alumni employed in the industry	Atleast once in a semester

12.	Organize exhibitions to showcase the mini projects and graduation projects and encourage them towards professional development.	Organize exhibitions to show case the mini projects	Programming Committee / Department Project Graduation Committee / DEPT/HOD / CEO/ Vice Dean – Academic,	Sep 2021	May 2022	Number of Projects exhibited **(KPI-S-20)**	Every semester
13.	Conduct regular personality and interpersonal training programs for the professional success of the students in the global market.	-Students participation -Faculty participation	Research Unit, Vice Dean – Academic, HoD / Dean	Sep-21	Aug-22	Number of trainings conducted in the soft skills for the students. . **(KPI-S-25)**	Atleast once per semester
14.	Provide training in entrepreneurship skills and motivate students to be entrepreneurs	Identify entrepreneurs in the field	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Sep-21	Aug-22	Number of trainings towards entrepreneurship skills. **(KPI-S-19)**	Atleast once per semester
15.	Invite alumni who are experts in the field to share their success stories.	Collect alumni details from database and identify their expertise	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Sep-21	Aug-22	Percentage of alumni who are experts in the field. Percentage of Alumni working in the industry Feedback from the students	Atleast once per semester
16.	Develop translation of students projects into products to become an entrepreneur.	Training sessions including Kingdom Rules which guides to start small business	Teaching and Learning Unit, Graduation Project Unit, Community Services, HoD	Sep-21	Aug-22	Number of Student active participation.	Atleast one project
17.	Conduct training programs and involve students and faculty members in research activities.	Training programs	Research Unit / Vice Dean/ Academic coordinator/ HOD	Sep-21	Aug-22	Percentage of publications of faculty members **(KPI-P-07)**	Two per semester
18.	Reward the innovative ideas and publications	Forming a research group with experts	Research Unit, Vice Dean –	Sep-21	Aug-22	No of quartile awards / grants received.	5

	in the field of research and development		Academic, HoD / Dean			**(KPI-S-23)**	
19.	Encourage faculty publications in research journals and conferences	Quality of the paper/ usefulness of the conference	Research Unit, Vice Dean – Academic, HoD / Dean	Sep-21	Aug-22	List of published articles by the faculty members	Two per semester
20.	Well-functioning research groups with high production based on the specialization	Identify faculty specialization and create groups.	Research Unit, Vice Dean – Academic, HoD / Dean	Sep-21	Aug-22	-List of specialization. -Number of research groups based on the specialization.	Two per semester
21.	Increase the number of peer-reviewed papers.	High quality ISI, WOS journals etc, papers peer reviewed	Research Unit, Vice Dean – Academic, HoD / Dean	Sep-21	Aug-22	Number of peer reviewed papers	One per semester
22.	Involve students in research and publish papers along with the faculty.	Guiding the students, research oriented problems	Vice- Dean Academic, QAU, Research Unit/ Coordinators/	Sep-21	Aug -22	-Number of publications. -Number of students involved in research.	One per semester
23.	Encourage faculty members to apply for local research projects funded by various agencies. (KAUST projects, Deanship of Scientific Research Funds & King Abdul Aziz city).	Relationships/ Contracts/ Cooperation/ Evaluation	Vice- Dean Academic, QAU, Research Unit/ Coordinators/	Sep-21	Aug -22	Number of funded projects applied.	One per semester
24.	Nurture a Inter / Multidisciplinary research culture and productivity.	Research in different disciplines	Vice- Dean Academic, QAU, Research Unit/ Coordinators/	Sep-21	Aug -22	Number of Inter / Multidisciplinary / transdisciplinary research	One per semester
25.	Provide specialized training for the community in the area of Information and Communication Technology (ICT).	Organizing workshops, training sessions	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Sep-21	Aug -22	Number of specialized training programs conducted for the community towards ICT. **(KPI-S-26)**	One per semester

26.	Encourage students to use IT tools and techniques for solving community needs	Workshops / Training /Seminars	Research Unit/ Coordinator, CEO, HoD / Dean	Sep-21	Aug -22	Number of mini projects/ projects towards solving social requirements. **(KPI-S-20)**	One per semester
27.	Conduct awareness program for the society with the help of stakeholders	Organizing workshops, training sessions	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Sep-21	Aug -22	Number of awareness program conducted.	One per semester
28.	Participate in cultural and community events.	Organizing community events and cultural events.	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Sep-21	Aug -22	Number of community events conducted.	One per semester
29.	Enhance the contributions of students & faculty members in community service activities	Organize community service activities.	Head - Cooperative Training & Community Services, HOD/ Vice-Dean-Academic/ Dean	Sep-21	Aug-22	-Number of students involved in community service activities. -Number of faculties involved in community service activities	One per semester

I. Report Approving Authority

Report prepared on: **20-06-2021**

Council / Committee	DEPARTMENT COUNCIL
Reference No.	**001/1443/02**
Date	**12/10/2021**

J. Attachments:

- **A separate cohort analysis report (2020-21) for male and female sections and for each branch**
- **A report on the program learning outcomes assessment results for male and female sections and for each branch (if any)**
- **A report on the students evaluation of program quality**
- **Independent reviewer's report and other survey reports (if any)**

Additional Documents:

- **KPI Analysis Report**
- **Program KPI Analysis Report**
- **Courses Evaluation Report**

Dr. Mohammed Alhameed

Head of
Computer Science Department