

# A\NNUAL PROGRAM REPORT (APR)

**<u>Program Eligibility</u>**: The program is to submit the two most recent APRs as part of the requirements for program eligibility using the NCAAA Template.

<u>Post Accreditation</u>: The program is required to annually complete an APR. The APR is to document a complete academic year.

APR's are prepared by the program coordinator in consultation with faculty teaching in the program. The reports are submitted to the head of department or college, and used as the basis for any modifications or changes in the program. The APR information is used to provide a record of improvements in the program and is used in the Self Study Report for Programs (SSRP) and by external reviews for accreditation.

# **Annual Program Report Annual Program Report**

Date of Report:

June 2017

2. College/ Department: Computer Science and Information Systems/ Computer Science
3. Dean: Dr. Abdullah A. Alabas
4. List all branches/locations offering this program
1. Main campus in Najran University Campus
2. Girls Campus in Najran University Campus
A. Program Identification and General Information
Program title and code: Computer Science (CS)
Name and position of person completing the APR: Dr. Muniba Memon, Coordinator of the Research, E-Learning, and graduation projects, Department of Computer Science.
Academic year to which this report applies: 2016-2017
B Statistical Information
<ul> <li>a) Number of students who started the program in the First Semester (2016-2017) concerned:</li> <li>5 male students, 22 female students</li> </ul>
<ul> <li>b) (a) Number of students who completed the program in the second semester 2016-2017 concerned:</li> <li>2 male student and 21 female student.</li> </ul>
Completed the final year of the program:
Completed major tracks within the program (if applicable)
Title

Title.....No

Title.....No

1. Institution: Najran University

- 2. (b) Completed an intermediate award specified as an early exit point (if any)
- 3. Apparent completion rate.
- (a) Percentage of students who completed the program, (Number shown in 2 (a) as a percentage of the number that started the program in that student intake.) male: 75 %, female: 95 %
- (b) Percentage of students who completed an intermediate award (if any) (e.g. Associate degree within a bachelor degree program)

(Number shown in 2 (b) as a percentage of the number that started the program leading to that award in that student intake).

Comment on any special or unusual factors that might have affected the apparent completion rates (e.g. Transfers between intermediate and full program, transfers to or from other programs).

4. Enrollment Management and Cohort Analysis (Table 1)

Cohort Analysis refers to tracking a specific group of students who begin a given year in a program and following them until they graduate (How many students actually start a program and stay in the program until completion).

A **cohort** here refers to the total number of students enrolled in the program at the beginning of each academic year, immediately after the preparatory year. No new students may be added or transfer into a given cohort. Any students that withdraw from a cohort may not return or be added again to the cohort.

**Cohort Analysis** (Illustration): **Table 1** provides complete tracking information for the most recent cohort to complete the program, beginning with their first year and tracking them until graduation (students that withdraw are subtracted and no new students are added). Update the years as needed.

Enrollment Management and Cohort Analysis (Table 1)												
Female												
Student Category	FS	SS	FS	SS	FS	SS	FS	SS				
	2013-	2013-	2014-	2014-	2015-	2015-	2016-	2016-				
	2014	2014	2015	2015	2016	2016	2017	2017				
	(341)	(342)	(351)	(352)	(361)	(362)	(371)	(372)				
Total cohort enrollment	0	23	22	22	22	22	22	8				
Retained till semester end	0	21	21	19	21	21	20	6				
Withdrawn during the	0	1	0	3	0	1	2	1				
semester and re-enrolled the												
following semester												

Withdrawn for good	0	1	1	0	0	0	0	1
Graduated successfully	0	0	0	0		0	14	5

- a) Provide an analysis for the cohort that started PYP on First semester (FS) 2013 14: No students commenced the semester. (0%)
- b) Provide an analysis for the cohort that started PYP on Second semester (SS) 2013 14:23 students commenced the semester and 21 students retained till semester end. (91%)
- c) Provide an analysis for the cohort that started PYP on First semester (FS) 2014 15: 22 students commenced the semester and 21 students retained till semester end. (95%)
- d) Provide an analysis for the cohort that started PYP on Second semester (SS) 2014 15: 22 students commenced the semester and 19 students retained till semester end. (86%)
- e) Provide an analysis for the cohort that started PYP on First semester (FS) 2015 16: 22 students commenced the semester and 21 students retained till semester end(95%)
- f) Provide an analysis for the cohort that started PYP on Second semester (SS) 2015 16: 22 student commenced the semester and 21 student retained till semester end(95%)
- g) Provide an analysis for the cohort that started PYP on First semester (FS) 2016 17: \_22\_ students commenced the semester, 20 students retained till semester end and \_\_14\_ students graduated at the end of the semester. (\_63.6\_%)
- h) Provide an analysis for the cohort that started PYP on Second semester (SS) 2016 17: \_8\_ student commenced the semester, and \_\_5\_\_\_student graduated at the end of the semester. (\_62\_%)

Enrollme	nt Mana	gement a	nd Coho	rt Analy	ysis (Tal	ole 2) Ma	le	
Student Category	FS 2013- 2014 (341)	SS 2013- 2014 (342)	FS 2014- 2015 (351)	SS 2014- 2015 (352)	FS 2015- 2016 (361)	SS 2015- 2016 (362)	FS 2016- 2017 (371)	SS 2016- 2016 (372)
Total cohort enrollment	0	15	15	13	12	11	11	11
Retained till semester Year end	0	15	11	11	11	10	11	10
Withdrawn during the Semester year and re- enrolled the following Semester	0	0	0	0	0	1	0	0
Withdrawn for good	0	0	2	1	1	1	0	0

- a) Provide an analysis for the cohort that started PYP on first semester (FS) 2013 14: 15 students commenced the semester and 15 students retained till semester end while .
- b) Provide an analysis for the cohort that started PYP on second semester (SS) 2013 14:15 students commenced the semester and 13 students retained till semester end while 2 students withdrawn during the semester and re-enrolling the following semester. (13%)
- c) Provide an analysis for the cohort that started PYP on first semester (FS) 2014 15: 13 students commenced the semester and 11 students retained till semester end while 2 students withdrawn during the semester and re-enrolling the following semester. (15%)
- d) Provide an analysis for the cohort that started PYP on first semester (FS) 2014 15: 12 students commenced the semester and 11 students retained till semester end while 1 students withdrawn during the semester and re-enrolling the following semester. (7%)
- e) Provide an analysis for the cohort that started PYP on second semester (FS) 2015 11: 13 students commenced the semester and 11 students retained till semester end while 4 students graduated successfully. (8%)
- f) Provide an analysis for the cohort that started PYP on second semester (SS) 2015 16: 11 student commenced the semester and 11 retained till semester end while .
- g) Provide an analysis for the cohort that started PYP on first semester (FS) 2016–17:
   11 students commenced the semester and 10 students retained till semester end
- h) Provide an analysis for the cohort that started PYP on first semester (SS) 2016–17: 11 students commenced the semester and 10 students retained till semester end while 1 students graduated during the semester and re-enrolling the following semester. (9%)

7. Destination	on of gradua	tes as shown in s	survey of gradu	ating students (Inc	clude this information
in years in w	hich a surve	y of employment	t outcomes for	graduating studen	ts is conducted).
Date of Surv	ey				
Number Surv	veyed:	Numb	er Responded:		Response
Rate:%	•		•		•
	Not A	vailable for		Available for Emp	loyment
Destination	Emp	oloyment			
	Further	Other	Employed	Other	Unemployed
	Study	Reasons	in Subject	Employment	
			Field		
Number					
		ļ			
Percent of	%	%	%	%	%
Responden		ļ			
ts					

Analysis: List the strengths and recommendations

The data collected was valuable in itself. However, an added bonus was the sense of involvement and importance it gave the alumni. Moreover it shows following points:

- Responses show that percentage of \_\_\_\_\_% are employed in subject field within six months of graduation.
- Responses show that percentage of \_\_\_\_\_% are seeking for further study.
- Result also shows the importance and need of employment for graduation students.
- Based on the result it is recommended to have Career Days which can be chance for students and alumni to connect with international employers on campus, explore professional opportunities, develop their skills and network for success.
- It is also recommended to train alumni students to get professional skills that may help them seeking jobs.

#### C. Program Context

Significant changes within the institution affecting the program (if any) during the past year.

- 1. Attendance system was not mandatory for the students. They were allowed to take virtual classes from Blackboard System. This greatly affected the performance of students during the year.
- 2. College of Computer Science & Information Systems (female campus) is currently located inside the building of faculty of education. Hence we face lack of resources in terms of classrooms, facilities and equipment and this affects students as well as faculty members.
- 3. Mode of teaching is blended currently at the university. And classrooms inside the building in female section do not have a good wireless connection and faculty cannot teach using the blackboard along with regular class.
- 4. Computer Science program has most of the courses with Lab sections and if students will not attend the lab classes, they will lack practical side of CS curriculum.

- 2. Significant changes external to the institution affecting the program (if any) during the past year.
  - 1. Security Situation in Najran affected the program.
  - 2. Many Students got transferred to other universities inside Kingdom.
  - 3. Some Students excused from the semester.
  - 4. Student Registration in the Computer Science Program is becoming less from last two years.
  - 5. Non mandatory Attendance Policy due to unstable security situation affected the academic progress of the students
  - 6. Experienced Faculty members are leaving because of security situation of the city.
  - 7. Female PhD holders recruitment is difficult in current situation
  - 8. Accreditation Visits of ABET as well as NCAAA were not possible because of security situation.
  - 9. Announcement from the Royal Decree to conduct exams before Ramzan resulted in the shortening of the semester duration and syllabus.

Implications for the program

#### **D.** Course Information Summary

**1. Course Results.** Describe and analyze how the individual NCAAA "Course Reports" are utilized to assess the program and to ensure ongoing quality assurance (eg. Analysis of course completion rates, grade distributions, and trend studies.)

#### (a.) Describe how the individual course reports are used to evaluate the program.

By the end of each semester, The instructors submit course reports that contain the achievements of program outcomes with suggested recommendations at the course level to the Curriculum Committee (CC). The program steering committee prepares the achievements of all program outcomes by using the ICLOs achievements. Further, the CC reviews the recommendations and meets with the academic staffs to discuss the recommendations and comments. Then, the CC approves the minor changes to be implemented. The CC will forward the major comments and improvements to the program steering committee to be discussed again each assessment cycle (2-3 years).

# (b.) Analyze the completion rates, grade distributions, and trends to determine strengths and recommendations for improvement.

Table D.1.1: Grade distribution in First Semester 2016/2017 (Female Section)

Tuble D. 1.1. Grade distribution in 1134 Semester 2010/2017 (1 chaire Section)												
Course Code	Course Name	Section	A	В	C	D	F	Denied Entry	In Progress	Incom plete	Withdrawn	
111CSS-4	Programming Language – 1	657	1	1	4	3	0	0	0	0	4	
113CSS-4	Object Oriented Programming (CS)	660	0	2	6	5	1	0	0	0	0	
212CSS-3	Data Structures	663	2	2	1	1	0	0	0	0	4	
222CSS-4	Computer Organization and Architecture	666	1	3	1	3	0	0	0	0	0	
227CSS-3	Operating Systems	668	0	1	5	1	0	0	0	0	2	
235CSS-3	Theory of Computation	N/A	N/ A	N/ A	N/ A	N/ A	N/ A	N/A	N/A	N/A	N/A	

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281CSS-3	Computer Graphics	672	2	3	5	4	3	0	0	0	4
328CSS-3	Human Computer Interaction	674	1	1	2	2	0	0	0	0	0
329CSS-3	Data Communication & Computer Networks	676	0	1	3	4	0	0	0	0	2
330CSS-3	Programming Paradigm	678	0	1	2	2	0	0	0	1	0
342CSS-3	Software Engineering	N/A	N/ A	N/ A	N/ A	N/ A	N/ A	N/A	N/A	N/A	N/A
361CSS-3	Artificial Intelligence	684	0	4	4	4	1	0	0	1	2
380CSS-3	Fundamentals of Database Systems	685	2	5	5	3	0	0	0	1	0
429CSS-3	Computer Security	688	0	2	2	4	0	0	0	0	0
440CSS-3	Social, Ethical and Professional Issues	690	0	0	0	2	0	0	0	0	0
456CSS-3	Parallel and Distributed Systems	691	0	5	4	0	0	0	0	0	0
457CSS-3	Internet Technologies	693	2	0	1	1	0	0	0	0	0
474CSS-3	Algorithm Design and Analysis	695	2	0	1	0	0	0	0	0	0

Table D.1.2 Grade distribution in Second Semester 2016/2017 (Female Section)

Course Code	Course Name	Secti on	A	В	C	D	F	Denied Entry	In Progr ess	Incomple te	Withdraw n
111CSS-4	Programming Language – 1	38	2	4	1	0	0	0	0	0	4
113CSS-4	Object Oriented Programming (CS)	61	0	5	1	2	0	0	0	0	2
212CSS-3	Data Structures	165	2	2	1	1	0	0	0	0	4
222CSS-4	Computer Organization and Architecture	180	1	2	6	2	0	0	0	0	2
227CSS-3	Operating	194	2	2	2	2	0	0	0	0	0

	Systems										
235CSS-3	Theory of Computation	207						Data not avabl in coursefile			
281CSS-3	Computer Graphics	237	0	0	2	4	0	0	0	0	2
328CSS-3	Human Computer Interaction	271						Data not avabl in coursefile			
329CSS-3	Data Communication & Computer Networks	274						Data not avabl in coursefile			
330CSS-3	Programming Paradigm	277	1	2	2	8	0	0	0	0	0
342CSS-3	Software Engineering	289	0	1	1	1	0	0	0	0	0
361CSS-3	Artificial Intelligence	307	1	2	1	4	0	0	0	1	1
380CSS-3	Fundamentals of Database Systems	331	1	1	1	0	0	0	0	0	0
429CSS-3	Computer Security	356	0	0	1	2	0	0	0	0	0
440CSS-3	Social, Ethical and Professional Issues	359	0	1	1	0	0	0	0	0	0
456CSS-3	Parallel and Distributed Systems	361	2	3	0	2	0	0	0	0	1
457CSS-3	Internet Technologies	364	1	3	2	2	1	0	0	0	2
474CSS-3	Algorithm Design and Analysis	382	1	2	1	0	0	0	0	0	0

# (1) Completion rate analysis (Female Section)

It is quite evident from the above two tables D.1.1 and D.1.2 that in the female section in all the courses that was offered in the academic year 2016-17, most of the students have completed their registered courses by the end of each semester. Almost all the students completed their courses.

# (2) Grade distribution analysis (Female Section)

Table D.1.3: Aggregate Grade Distribution Female First Semester (2015/16)

Grade	A	В	С	D	F	Denied Entry	In Progres s	Incomplet e	Withdrawn
No. of students	13	31	46	39	5	0	0	3	18

Table D.1.4: Aggregate Grade Distribution Female Second Semester (2015/16)

Grade	A	В	С	D	F	Denied Entry	In Progres s	Incomplet e	Withdrawn
No. of students	14	30	23	30	1	0	0	1	1

• It is quite evident from the above two tables D.1.3 and D.1.4 that in the female section for most of the courses that was offered in the academic year 2016-17, most of the students passed in all the subjects and there are less number of failures.

Table D.1.5 Grade distribution in first Semester 2016/2017 (Male Section)

Course Code	Course Name	Sectio n	A	В	С	D	F	Denied Entry	In Progress	Incom plete	Withdra wn
111CS S-4	Programming Language – 1	7	1	0	6	4	1	0	0	0	5
113CS S-4	Object Oriented Programming	1	0	0	0	1	3	0	0	0	2
212CS S-3	Data Structures	35	1		4	2	0	0	0	0	4
222CS S-4	Computer Organization and Architecture	28	0	1	0	2	1	0	0	0	1

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222CS S-3	Computer Organization and Architecture	85	0	0	0	0	0	0	0	0	0
226CS S-3	Unix System Environment	0	0	0	0	0	0	0	0	0	0
227CS S-3	Operating Systems	91	0	0	1	1	1	0	0	1	1
235CS S-3	Theory of Computation	82	0	1	3	0	0	0	0	1	1
281CS S-3	Computer Graphics	37	0	0	2	2	3	0	0	0	0
328CS S-3	Human Computer Interaction	56	2	3	1	1	0	0	0	0	0
333CS S-3	Computer Architecture	73	0	0	0	0	0	0	0	1	0
329CS S-3	Data Communicatio n & Computer Networks	48	0	1	0	2	0	0	0	0	0
330CS S-3	Programming Paradigm	78	0	0	2	1	1	0	0	0	1
340CS S-3	GUI Programming										
342CS S-3	Software Engineering	18	0	0	0	4	2	0	0	0	0
345CS S-3	Compiler Design and Construction	95	0	0	0	1	0	0	0	0	0
361CS S-3	Artificial Intelligence	42	1	5	1	1	0	0	0	0	0
380CS S-3	Fundamentals of Database Systems	88	1	0	1	0	1	0	0	0	0
410CS S-3	Modern Topics in Computer Science	61	0	0	0	1	0	0	0	0	0
429CS S-3	Computer Security	93	0	2	2	0	0	0	0	0	0

440CS S-3	Social, Ethical and Professional Issues	94	0	0	0	0	0	0	0	0	1
456CS S-3	Parallel and Distributed Systems	63	0	1	2	8	1	0	0	0	0
457CS S-3	Internet Technologies	43	0	0	1	2	0	0	0	0	0
474CS S-3	Algorithm Design and Analysis	60	0	0	0	2	1	0	0	0	0
491CS S-3	Project 1	386	0	0	1	1	0	0	0	0	0
492CS S-3	Project 2	67	0	0	1	1	0	0	0	0	0
345	Operation Research	95	0	0	0	1	0	0	0	0	0

Table D.1.6: Aggregate Grade Distribution Male First Semester (2016/17)

Grade	A	В	С	D	F	Denied	In	Incomplet	With
						entry	Progres	e	drawn
							S		
No. of Students	4	6	19	21	12	0	0	3	15

# (1) (Completion Analysis: First semester Male (2016/17):

It is evident from table D.1.6, 18 students could not complete their courses i.e around 22.5 % The reason could be because of environmental issues.

#### (2) Grade distribution analysis: first Semester Male (2016/17):

From table D.1.6, the majority of students were in the lower part of the grade distribution (C and D), 15 students withdrew from the courses.

Table D.1.7 Grade distribution in Second Semester 2016/2017 (Male Section)

Cou rse Cod e	Course Name	Secti on	A	В	C	D	F	Denied Entry	In Progres s	In complete	With draw n
111 CSS- 4	Programming Language – 1	229	0	2	1	0	0	0	0	4	4
113 CSS- 4	Object Oriented Programming	238	1	1	2	7	1	0	0		
212 CSS- 3	Data Structures	271	1	0	0	1	0	0	0	3	2
222 CSS- 4	Computer Organization and Architecture	244	1	0	1	1	0	0	0	0	0
222 CSS- 3	Computer Organization and Architecture										
226 CSS- 3	Unix System Environment										
227 CSS- 3	Operating Systems	286	1	1	2	2	0	0	0	1	1
227 CSS- 3	Operating Systems	287	0	0	2	2	0	0	0	1	0
235 CSS- 3	Theory of Computation	283	0	2	0	0	1	0	0	0	0
281 CSS- 3	Computer Graphics	302	0	0	2	3	0	0	0	0	0

328 CSS- 3	Human Computer Interaction	248	0	2	0	0	0	0	0	0	0
333 CSS- 3	Computer Architechture										
329 CSS- 3	Data Communication & Computer Networks	219	0	1	1	0	0	0	0	0	0
330 CSS- 3	Programming Paradigm	278	1	0	0	3	0	0	0	0	0
340 CSS- 3	GUI Programming	0	0	0	0	0	0	0			
342 CSS- 3	Software Engineering	296	0	0	0	4	1	0	0	0	0
345 CSS- 3	Compiler Design and Construction										
361 CSS- 3	Artificial Intelligence	213	0	1	1	2	0	0	0	0	0
380 CSS- 3	Fundamentals of Database Systems	290	0	1	2	0	0	0	0	0	0
410 CSS- 3	Modern Topics in Computer Science										
429 CSS- 3	Computer Security	263	1	3	2	2	0	0	0	0	0
440 CSS- 3	Social, Ethical and Professional Issues	264	0	1	1	2	1	0	0	0	0
456 CSS- 3	Parallel and Distributed Systems	255	0	0	1	4	0	0	0	0	0
457	Internet	214	0	0	1	0	0	0	0	0	0

CSS-	Technologies										
474 CSS- 3	Algorithm Design and Analysis										
491 CSS -4	Project 1	311	0	2	3	1	0	0	0	0	0
492 CSS- 4	Project 2	313	0	0	1	1	0	0	0	0	0

Table D.1.8 : Aggregate Grade Distribution Male Second Semester (2014/15)

Grade	A	В	С	D	F	Denied	In	Incomplet	With
						entry	Progres	e	drawn
							s		
Number of Students	6	17	23	35	4	0	0	9	7

#### (1) <u>Completion Analysis : Second semester Male (2016/17):</u>

It is evident form table D.1.8, 34 that students could not complete their courses i.e around  $15.8\ \%$ 

#### (2) Grade distribution analysis: Second Semester Male (2016/17):

From table D.1.8, the majority of the students were in the lower part of the grade distribution (C and D), 7 students withdrew from the courses

# (3) Trend analysis (a study of the differences, changes, or developments over time; normally several semesters or years):

#### For Female Campus (2016/17):

Unlike the previous year where the mode of teaching was through e-learning, in this academic year, all the courses were delivered through traditional class room method, although blackboard was also used to upload the lecture notes and recordings. But the attendance of the students was still not mandatory.

#### **For Male Campus (2016/17):**

Also for the male campus unlike the previous year where the mode of teaching was through e-learning, in this academic year, all the courses were delivered through traditional class room method, although blackboard was also used to upload the lecture notes and recordings. But the attendance of the students was still not mandatory.

#### 2. Analysis of Significant Results or Variations.

List any courses where completion rates, grade distribution, or trends are significantly skewed, high or low results, or departed from policies on grades or assessments. For each course indicate what was done to investigate, the reason for the significant result, and what action has been taken.

# Female Campus First Semester 2016/17

Female Campus First Semester <u>2016/17</u>									
a. Course	Significant result or variation								
Investigation undertake	n:								
Reason for significant r	esult or variation								
Action taken (if require	d)								
b. Course	Significant result or variation								
Investigation undertake	n:								
	Reason for significant result or variation:								
•									
Action taken (if required)									

c.	Significant result or variation							
Investigation undertaken								
Reason for significant r	Reason for significant result or variation							
Action taken (if require	d)							
	Female Campus Second Semester <u>2016/17</u>							
a.	Significant result or variation							
Investigation undertake	n							
Reason for significant r	esult or variation							
Action taken (if require	d)							
b.	Significant result or variation							
Investigation undertake	n							
Reason for significant r	esult or variation							
Action taken (if require	Action taken (if required)							
Male Campus First Semester 2016/17								
a. Course	Significant result or variation							
Investigation undertaken								

Reason for significant	Reason for significant result or variation:					
Action taken (if requir	red)					
a. Course	Significant result or variation					
Investigation undertal	ken					
Reason for significant result or variation						
Action taken (if require	Action taken (if required)					
/ A 1 11'. 1	• • • • • • • • • • • • • • • • • • • •					

(Attach additional summaries if necessary)

# 4. Delivery of Planned Courses

(a) List any courses that were planned but not taught during this academic year and indicate the reason and what will need to be done if any compensating action is required.

the reason and what will need to be done if any compensating action is required.								
FIRST SEMESTER (2016-2017) (Female Section)								
Course title and code	Explanation	Compensating action if required						
1.Software Engineering & 342CSS-3 2.Theory of Computation & 235CSS-3	No Students registered for these courses.	Nil						
SECOND SEM	ESTER (2016-2017)	(Female Section)						
Course title and code	Explanation	Compensating action if required						
No Such Cases								

(b) Compensating Action Required for Units of Work Not Taught in Courses that were Offered. (Complete only where units not taught were of sufficient importance to require some compensating action)

e 11CSS-4 Compensating act	Unit of work  Unions, Enumerations  ion if required: Not muc	Reason  This topic was planned for 13th and 14th week and due to the lack of time the topic such as unions, enumerations were Not covered  th significant effect on the CLO		
Compensating act	cion if required:Not muc	13th and 14th week and due to the lack of time the topic such as unions, enumerations were Not covered  th significant effect on the CLO		
b) Cours	<u>-</u>	1		
<i>'</i>	Unit of work	The state of the s		
		Reason		
281CSS-3	Visible Surface Detection	This topic was planned for 14th week but this semester was an unusual semester and due to lack of time this topic was not covered.		
Compensating action if required::Not much significant effect on the CLO				
c) Course	Unit of work	Reason		

Second Semester (2016-2017) (Female Section)					
Course	Unit of work	Reason			

281CSS-3	Visible Surface Detection	This topic was planned for 14th week but due to royal decree the final exams were preponed and due to lack of time this topic was not covered.
Compensating action if requi	ired:Not much significant effe	ct on CLO
Course	Unit of work	Reason
361CSS-3	Introduction to prolog and implementation	Extra attention has taken to this topic
Compensating action if requirements Extra attention has taken to the		

(a) List any courses that were planned but not taught during this academic year and indicate the reason and what will need to be done if any compensating action is required. FIRST SEMESTER (2016-2017) (Male Section) Course title and code Compensating action if **Explanation** required 440CSS-3 Social, Ethical and No Students Nil **Professional Issues** registered for these courses. **SECOND SEMESTER (2016-2017) (Male Section)** Course title and code **Explanation Compensating action if** required 474CSS-3 Algorithm Design and No Students Nil Analysis registered for 345CSS-3 Compiler Design and these courses. Construction

(b) Compensating Action Required for Units of Work Not Taught in Courses that were Offered. (Complete only where units not taught were of sufficient importance to require some compensating action)

some compensating action)					
First Semester (2016-2017)) (Female Section)					
c) Cours e	Unit of work	Reason			
N/A					
Compensating action if required: Not much significant effect on the CLO					
d) Cours e	Unit of work	Reason			

N/A							
Compensating action if required::Not much significant effect on the CLO							
d) Course	Unit of wo	ork	Reason				
N/A							
Compensating a	nction if requ	iired:					
	Second	Semester (201	6-2017) (Male S	Section)			
Course		Unit of work		Reason			
N/A							
Compensating action if required:Not much significant effect on CLO							
Course	Unit of work			Reason			
N/A							
Compensating action if required:  Extra attention has taken to this topic							

# **E Program Management and Administration**

List difficulties (if any) encountered in management of the program	Impact of difficulties on the achievement of the program objectives	Proposed action to avoid future difficulties in Response
Security Situation was not good at the end of the year	Huge impact on performance	
Attendance system was not mandatory	Academic performance of students is affected	To convince the high authority of the University to make attendance mandatory.
Final Exams were Rescheduled because of announcement from Royal Decree to conduct exam before Ramzan	Huge impact on performance	

#### F. Summary Program Evaluation

# 1. Graduating Students Evaluation (To be reported on in years when surveys are undertaken)

 $1^{\text{st}}$  and  $2^{\text{nd}}$  semester 2016/2017 for Female campus  $1^{\text{st}}$  and  $2^{\text{nd}}$  semester 2016/2017 for Male campus

#### **Date of Survey:**

#### **Attach survey report:**

a. List most important recommendations for improvement, strengths and suggestions (Female Campus. Analysis (e.g. Assessment, action already taken, other considerations, strengths and recommendation for improvement.) (Female Campus)

	1			
b. Changes proposed in the program (if any) in response to this analysis and feedback.				
2. Other Evaluation (e.g. Evaluations by employers or other stakeholders, external review)				
List of documents send to the College Higher Authority:				
Attach review/survey report				
a. List most important recommendations for improvement, strengths and suggestions for improvement.	(e.g. Analysis of recommendations for improvement: Are recommendations valid and what action will be taken, action already taken, or other considerations?)			
b. Changes proposed in the program (if any) in response to this feedback.				
2. Datings on Sub Standards of Standard A has are grown faculty, and too shire a staff. A 1 to				
2. Ratings on Sub-Standards of Standard 4 by program faculty and teaching staff; 4.1 to 4.10.				
(a) List sub-standards. Are the "Best Practi	ices" followed; Yes or No? Provide a revised			

rating for each sub-standard. Indicate action proposed to improve performance (if any).				
Sub-Standards	Best Practic es Follow ed (Y/N)	5 Star Rating	List priorities for improvement.	
4.1 Student Learning Outcomes	Y	4	<ul> <li>Full revision of the CS program must be carried out to meet the 120 credit hours excluding the preparatory year.</li> <li>Training should be added to the CS program because it is highly recommended by NCAAA.</li> <li>The program should have external benchmarking for student learning outcomes</li> <li>Mapping of courses to learning outcomes must be reviewed regularly.</li> <li>Learning outcomes need to be well known by all teachers and students</li> </ul>	
4.2 Program Development Processes	Y	3	<ul> <li>Coordination between courses must be done through the knowledge groups and courses' coordinators.</li> <li>Levels of difficulties in exams for the same course given in more than one sections must be very similar.</li> <li>More qualified advisory board members are required.</li> <li>Ensure the implementation of course specification. This could be done through the course coordinator peerpeer visit.</li> <li>Educate all staff members on the processes and procedures concerned with Program development.</li> </ul>	

4.3 Program Evaluation and Review Processes	Y	4	<ul> <li>All reports and improvement plan must be prepared on time.</li> <li>Develop a plan to make sure that statistical data are easily accessed and available.</li> <li>External evaluations are required.</li> <li>Invite more qualified people to be in the advisory board</li> <li>Develop a plan to monitor the implementation of action or improvement plan.</li> <li>Develop two separate improvement plans, one for each section (Male and Female), if required.</li> <li>Requesting direct access and privilege to the student records and registration system to obtain data related to program</li> </ul>
4.4 Student Assessment	Y	4	<ul> <li>External benchmarking for student learning outcomes assessment must be conducted as soon as possible.</li> <li>Develop a comprehensive and consistent mechanism to monitor whether teaching staff follow the guidelines and mechanisms related to teaching and learning standard.</li> <li>Requesting training program in assessment for non-Arabic speaking lecturers</li> <li>Setting out performance indicators for these practices and collecting the relevant data</li> <li>Procedures must be developed and followed to ensure that the work submitted by students is actually done by them.</li> </ul>
4.5 Educational Assistance for Students	Y	3	Develop a plan to ensure adequate skills in English language before students at the beginning of the

			Program.  • Year to year progression rates and Program completion rates need to be monitored in order to prepare action to help students needing help.  • The program needs to develop an effective system to deal with students with low academic performance.  • We must have some mechanism to start the electronically (CTS) advising system between students and advisors.  • Tutorial classes should be mandatory in students' time table.  • We need entry exam, or changing the admission requirements for the entry exam to the college.
4.6 Quality of Teaching	Y	4	<ol> <li>The report of online course survey and other evaluation report of teaching staff need to be implemented and monitored.</li> <li>The quality of teaching in all courses is mainly depending on the online student survey. We need to develop a system to monitor the quality of teaching by other tools. This can be done by having a peer-peer review evaluation.</li> <li>A periodic evaluation of teaching stuff should be introduce to monitor the quality of teaching of the faculty members. This can be done by sudden visit in a class and monitor the quality of teaching by group of knowledge group members.</li> <li>Encourage quality in teaching by giving a Teaching Excellence Award for the outstanding teacher.</li> <li>Course syllabus must be distributed among students in the first week of the semester.</li> </ol>

			<ul> <li>6. For text and reference books if the target is &lt;90% then we must contact library affairs. But if the target is &gt;90% then it's OK.</li> <li>7. The program or university provide training courses in teaching strategies for non-Arab speakers.</li> </ul>
4.7 Support for Improvements in Quality of Teaching	Y	3	Improvement plan must be implemented and monitored. Develop annual professional development plan to improve the quality of teaching. Monitor the quality of teaching through peer-peer review. The development skills unit should provide training programs for non-Arab speakers. DSU and the program should provide training and workshops by considering the needs of the faculty members in the department. Provide professional and academic development assistance to teaching staff who are facing difficulties. Encourage quality in teaching by giving a Teaching Excellence Award for the outstanding teacher
4.8 Qualifications and Experience of Teaching Staff	Y	4	<ol> <li>Encouraging staff members by increasing incentives.</li> <li>Allowing members to attend international conferences to present their researches.</li> </ol>
4.9 Field Experience Activities			

4.10 Partnership Arrangements With Other Institutions				
Analysis of Sub-standards. List the strengths and recommendations for improvement of the program's self-evaluation of following best practices.				

Analysis of Sub-standards. List the strengths and recommendations for improvement of the program's self-evaluation of following best practices.

#### 4.1 Student Learning Outcomes

- · The program adopted ABETS a-k outcomes after taking the opinions of all stakeholders. Note that several CS programs adopted ABET a-k student outcomes in Saudi Arabia.
- · The learning outcomes of the program are taken from and meet the local needs. Also they fall into three domains of learning (Cognitive skills, Interpersonal Skills & Responsibility, Communication, Information Technology, and Numerical) in the National Qualification Framework (NQF).
- The program uses direct and indirect methods to assess the learning outcomes.
- · Student learning outcomes needs be benchmarked.

#### **4.2 Program Development Processes**

- · Course Specification for all courses are approved by the curriculum committee and program council.
- Any change in the course specification must be reviewed by the curriculum committee.
- · For each course, the program assigns a course coordinator to make sure that everything at the course level is implemented as planned.
- The program is divided into knowledge areas each of which contains courses in the same area.
- · Since the CS and IS students are taking courses together, the coordinators of some areas are from the IS program.
- The college and university provide training related to the best educational practices and strategies in outcomes based education.

#### 4.3 Program Evaluation and Review Processes

- · The program uses KPIs that include completion rates in all courses and the program as a whole.
- · The records of students are not always available
- · The program uses various direct and indirect assessment methods to evaluate the attainments of student

outcomes and prepare improvement plans.

- · The data are always collected using a very well designed assessment planning data collection.
- · The major changes will be accumulated to be discussed by the end of assessment cycle (3-4 years)
- PAC must be involved in the program through annual meetings and surveys. Note that PAC members represent various sectors in Najran (private, public and teaching staff from other colleges).
- · The students evaluations from both sections are evaluated separately but the a single improvement plan is prepared.
- · Since the student records and registration is a central system, some difficulties in obtaining quality assurance data for program report are faced
- · Sometimes the evaluation of some aspects of the program in both section Some is inconsistent

#### 4.4 Student Assessment

- The program uses various direct and indirect assessment methods to evaluate student learning outcomes.
- Currently, the program uses internal benchmarking to improve the achievements of student learning outcomes.
- We have chosen the CS program from KFUPM to be the external benchmarking. Information about KFUPM's PIs about student learning outcomes must be used to improve the quality of learning in the program.
- 10-hours office hours are reserved to answer questions of students about exams and other issues related to their courses.
- A coordinator is assigned for each course to make sure that unified exams for several sections (Male and Female) of the course.
- · The exam moderation committee is introduced to monitor and evaluate the unified exams.
- · Each instructor has to develop an assessment plan to assess and evaluate course learning outcomes.
- · The program provides several training related to assessment of student learning outcomes
- · If the student did not achieve the desired outcomes, then an improvement plan must be prepared. This improvement plan may affect anything in the program including the assessment itself

#### 4.5 Educational Assistance for Students

- · New students are offered an orientation program at the beginning of the semester.
- Each student is assigned to an advisor once he has admitted to the program.
- · The level of students in English language is very poor
- · Staff members have assigned at least 10-hours for office hours.
- · The preparatory year is considered as part of the computer science program.
- The students can give their opinions through surveys about the appropriateness and effectiveness of educational assistance provided by the program.
- · The Program Student Council (PSC) consists of students representing various levels in the program. PSC

- · The Deanship of Student Affairs at the university level provides several educational assistances for students.
- · The process of academic advising system is implemented electronically (CTS) among academic advisors, not between students and advisors.
- · Students are not coming/ attending to the tutorial classes.

#### 4.6 Quality of Teaching

- $\cdot$  The program provides workshops on how to prepare your course file including course specification and report.
- · By the end of each semester, every student (Male and Female) must fill out an online course survey to evaluate the quality of teaching in the course.
- · All course reports are reviewed by the program curriculum committee.
- · A set of KPIs were developed to monitor the quality of teaching.
- · Course Syllabus including learning outcomes, assessment methods, etc. must be distributed to students in the first lecture.
- The university provides a very effective system to monitor the attendance and absence of students. Specifically, each instructor has to fill out the absence and attendance of students with 48 hours from the lecture date. Students receive SMS message in the percentage of their absences.
- The quality of full-time staff members is continuously evaluated by online course survey (students) and observations of the program's chair and head's of development and quality unit.
- · KPI 13, 14 and 15 can be used here to monitor the quality of teaching in the program.
- · Sometimes it's very difficult to cover everything in course syllabus.
- · For textbooks and references, the target is 90%
- · Needs both Arabic and English versions of course survey and report.
  - Course report must be submitted at the end of semester.

#### 4.7 Support for Improvements in Quality of Teaching

- The Development Skills Unit (DSU) at the university level provides programs to faculty members to improve the quality of their teaching.
- A professional development survey is used to develop plans for professional development.
- · Most of staff members have a long period of experience in university teaching.
- · Teaching staff have reasonable teaching load.
- · The program provides several workshops related to course structure and student assessment.
- · The deanship of research provides several workshops related to research aspects.
- The dean of the college and the head of the program meet individually with teaching staff who are facing

difficulties. They provide the appropriate assistance to solve problems.

- The program provides informal recognition to outstanding teacher. For example, by the end of each semester a certificate is distributed to some faculty members based on their performances in different aspects (teaching, attendance, etc.).
- · The program provides strategies for improving quality of teaching based on several key performance indicators such as online course survey, CLOs achievements, course reports and student learning outcomes assessment.

#### 4.8 Qualifications and Experience of Teaching Staff

- $\cdot$  Courses are distributed among faculty members as per their knowledge group, specialization and interest till 2nd semester 2016/2017.
- · Most of the faculty members are involved for NU research projects as well as external research institutions.
- · CS and IS faculty members are one of the top in NU for their contribution in scientific researches and publications.

#### **F. Summary Program Evaluation**

1. Graduating Students Evaluation (To be reported on in years when surveys are undertaken)

1<sup>st</sup> and 2<sup>nd</sup> semester 2016/2017 for Male campus

#### **Date of Survey**

#### **Attach survey report**

a. List most important recommendations for improvement, strengths and suggestions

Analysis (e.g. Assessment, action already taken, other considerations, strengths and recommendation for improvement.)

	•			
b. Changes proposed in the program (if any) in response to this analysis and feedback.				
2. Other Evaluation (e.g. Evaluations by employers or other stakeholders,				
external review)				
A 44 - 1				
Attach review/survey report				
a. List most important recommendations for improvement, strengths and suggestions for improvement.	(e.g. Analysis of recommendations for improvement: Are recommendations valid and what action will be taken, action already taken, or other considerations?)			
b. Changes proposed in the program (if any) in response to this feedback.				
N/A				
2. Ratings on Sub-Standards of Standard 4 by program faculty and teaching staff; 4.1 to 4.10.				
(a) List sub-standards. Are the "Best Practices" followed; Yes or No? Provide a				
	ate action proposed to improve performance			

Sub-Standards	Best Practic es Follow ed (Y/N)	5 Star Rating	List priorities for improvement.
4.1 Student Learning Outcomes	Y	4	<ul> <li>Formulate specific learning outcomes for the program</li> <li>Mapping of courses to learning outcomes must be reviewed regularly.</li> <li>Learning outcomes need to be well known by all teachers and students</li> <li>The program should develop an external benchmarking strategy to assess student learning outcomes</li> <li>Relate course topics and chapters to learning outcomes.</li> <li>Teach and deliver the program according to learning outcomes.</li> <li>Design exams and assessment methods according to learning outcomes.</li> <li>Develop a system to monitor the implementation of action or improvement plan.</li> <li>Enhance the alumni unit to collect data from alumni in a yearly basis.</li> <li>More and better participations from students in the surveys are required.</li> </ul>
4.2 Program Development Processes			
4.3 Program Evaluation and Review Processes			
4.4 Student Assessment			
4.5 Educational Assistance for Students			
4.6 Quality of Teaching			

4.7 Support for Improvements in Quality of Teaching						
4.8 Qualifications and Experience of Teaching Staff						
4.9 Field Experience Activities						
4.10 Partnership Arrangements With Other Institutions						
Analysis of Sub-standards. List the strengths and recommendations for improvement of the program's self-evaluation of following best practices.						

Analysis of Sub-standards. List the strengths and recommendations for improvement of the program's self-evaluation of following best practices.

#### 4.1 Student Learning Outcomes

- · The program adopted ABETS a-k outcomes after taking the opinions of all stakeholders. Note that several CS programs adopted ABET a-k student outcomes in Saudi Arabia.
- The learning outcomes of the program are taken from and meet the local needs. Also they fall into three domains of learning (Cognitive skills, Interpersonal Skills & Responsibility, Communication, Information Technology, and Numerical) in the National Qualification Framework (NQF).
- · The program uses direct and indirect methods to assess the learning outcomes.
- · Student learning outcomes needs be benchmarked.

#### **4.2 Program Development Processes**

- Course Specification for all courses are approved by the curriculum committee and program council.
- · Any change in the course specification must be reviewed by the curriculum committee.
- For each course, the program assigns a course coordinator to make sure that everything at the

- course level is implemented as planned.
- The program is divided into knowledge areas each of which contains courses in the same area.
- · Since the CS and IS students are taking courses together, the coordinators of some areas are from the IS program.
- The college and university provide training related to the best educational practices and strategies in outcomes based education.

# 4.3 Program Evaluation and Review Processes

- · The program uses KPIs that include completion rates in all courses and the program as a whole.
- · The records of students are not always available
- · The program uses various direct and indirect assessment methods to evaluate the attainments of student outcomes and prepare improvement plans.
- · The data are always collected using a very well designed assessment planning data collection.
- The major changes will be accumulated to be discussed by the end of assessment cycle (3-4 years)
- · PAC must be involved in the program through annual meetings and surveys. Note that PAC members represent various sectors in Najran (private, public and teaching staff from other colleges).
- The students evaluations from both sections are evaluated separately but the a single improvement plan is prepared.
- · Since the student records and registration is a central system, some difficulties in obtaining quality assurance data for program report are faced
- · Sometimes the evaluation of some aspects of the program in both section Some is inconsistent

#### 4.4 Student Assessment

- The program uses various direct and indirect assessment methods to evaluate student learning outcomes.
- · Currently, the program uses internal benchmarking to improve the achievements of student learning outcomes.
- · We have chosen the CS program from KFUPM to be the external benchmarking. Information about KFUPM's PIs about student learning outcomes must be used to improve the quality of learning in the program.
- 10-hours office hours are reserved to answer questions of students about exams and other issues related to their courses.
- A coordinator is assigned for each course to make sure that unified exams for several sections (Male and Female) of the course.
- · The exam moderation committee is introduced to monitor and evaluate the unified exams.
- Each instructor has to develop an assessment plan to assess and evaluate course learning outcomes.

- · The program provides several training related to assessment of student learning outcomes
- · If the student did not achieve the desired outcomes, then an improvement plan must be prepared. This improvement plan may affect anything in the program including the assessment itself

#### 4.5 Educational Assistance for Students

- · New students are offered an orientation program at the beginning of the semester.
- Each student is assigned to an advisor once he has admitted to the program.
- · The level of students in English language is very poor
- · Staff members have assigned at least 10-hours for office hours.
- · The preparatory year is considered as part of the computer science program.
- The students can give their opinions through surveys about the appropriateness and effectiveness of educational assistance provided by the program.
- The Program Student Council (PSC) consists of students representing various levels in the program. PSC
- The Deanship of Student Affairs at the university level provides several educational assistances for students.
- The process of academic advising system is implemented electronically (CTS) among academic advisors, not between students and advisors.
- · Students are not coming/ attending to the tutorial classes.

# 4.6 Quality of Teaching

- · The program provides workshops on how to prepare your course file including course specification and report.
- · By the end of each semester, every student (Male and Female) must fill out an online course survey to evaluate the quality of teaching in the course.
- · All course reports are reviewed by the program curriculum committee.
- · A set of KPIs were developed to monitor the quality of teaching.
- $\cdot$  Course Syllabus including learning outcomes, assessment methods, etc. must be distributed to students in the first lecture.
- The university provides a very effective system to monitor the attendance and absence of students. Specifically, each instructor has to fill out the absence and attendance of students with 48 hours from the lecture date. Students receive SMS message in the percentage of their absences.
- The quality of full-time staff members is continuously evaluated by online course survey (students) and observations of the program's chair and head's of development and quality unit.
- · KPI 13, 14 and 15 can be used here to monitor the quality of teaching in the program.
- Sometimes it's very difficult to cover everything in course syllabus.
- For textbooks and references, the target is 90%
- Needs both Arabic and English versions of course survey and report.

• Course report must be submitted at the end of semester.

# 4.7 Support for Improvements in Quality of Teaching

- $\cdot$  The Development Skills Unit (DSU) at the university level provides programs to faculty members to improve the quality of their teaching.
- · A professional development survey is used to develop plans for professional development.
- · Most of staff members have a long period of experience in university teaching.
- · Teaching staff have reasonable teaching load.
- The program provides several workshops related to course structure and student assessment.
- The deanship of research provides several workshops related to research aspects (Dr. Anwar).
- The dean of the college and the head of the program meet individually with teaching staff who are facing difficulties. They provide the appropriate assistance to solve problems.
- The program provides informal recognition to outstanding teacher. For example, by the end of each semester a certificate is distributed to some faculty members based on their performances in different aspects (teaching, attendance, etc.).
- The program provides strategies for improving quality of teaching based on several key performance indicators such as online course survey, CLOs achievements, course reports and student learning outcomes assessment.

# 4.8 Qualifications and Experience of Teaching Staff

- $\cdot$  Courses are distributed among faculty members as per their knowledge group, specialization and interest till 2nd semester 2014/2015.
- · Most of the faculty members are involved for NU research projects as well as external research institutions.
- $\cdot$  CS and IS faculty members are one of the top in NU for their contribution in scientific researches and publications.

#### F. Summary Program Evaluation

1. Graduating Students Evaluation (To be reported on in years when surveys are undertaken)

Different type of surveys was conducted to evaluate the program.

- 1. Exit Survey (female campus): First Semester 2015/2016
- 2. Current Students Survey (female campus): First Semester 2015/2016

- 3. Exit Survey (female campus): Second Semester 2015/2016
- 4. Exit Survey (male campus): Second Semester 2014/2015
- 5. Current Students Survey (male campus): Second Semester 2014/2015
- 6. Survey to evaluate the IS program mission (based on the response from Program Advisory Committee (PAC), faculty members, current students and alumni students): Second Semester 2015/2016.

**Note:** For detailed analysis please see the survey analysis reports.

#### Attach survey report

- a. List most important recommendations for improvement, strengths and suggestions
- · Update the course curriculum and course materials periodically.
- Provide a library within the college for students.
- · Provide important references books and materials.

Analysis (e.g. Assessment, action already taken, other considerations, strengths and recommendation for improvement.)

- The student received adequate academic advising throughout the year.
- · Faculty members have adequate knowledge of the course content
- · Faculty members were keen to work
- · Faculty members were interested on the extent of their students' progress
- · Supportive courses are modern and useful
- Suitable facilities are available for performing religious rites
- · The students learned updated knowledge from this program which will be important for their future career
- The program has developed the ability of the students to investigate and solve new problems
- The program has improved student's communication skills and ability to work in a group as well as individual
- CS Program has developed the necessary knowledge and skills for chosen career
- b. Changes proposed in the program (if any) in response to this analysis and feedback.
- · Conduct work shop or seminar for the student to explain the NCAAA criteria, their role for achieving the accreditation and the importance of the surveys conducted.
- · Need more Doctorate with teaching experience in female campus.
- Labs and lecture halls should be equipped with modern technology and original software

2. Other Evaluation (e.g. Evaluations by employers or other stakeholders, external review)

According to the 2013/2014 Annual Program Repot the following documents were send "College Higher Authority "for external evaluation and the DQU is waiting for their step taken regarding to the issue.

List of documents send to the College Higher Authority:

- · Documents demonstrating vision, mission, goals, values
- · Program handbook.
- · Program specification.
- · A report of the current state of the program.
- The initial Self-Evaluation, which was prepared in 1431.
- · A list of graduates and miscellaneous statistics.
- · Samples of course specifications.
- · Samples of student's course evaluation forms.
- · Samples of the questionnaire of students' opinions about faculty members.
- · A list of the faculty members and their CVs.
- · Samples of course specifications.

Beside this the NCAAA evaluation committee visits the CS college(Male and female both) college (Male) in March 2014 for the evaluation of the programs but the DQU have not reany reports from them yet.

Along with the above processes, the quality of CS program(male and female) is evaluated re by the consultants of the deanship of development and Quality, who visit the college regula report on the quality of the program and its progress in a form of periodic report.

Attach review/survey report

a. List most important recommendations for improvement, strengths and suggestions for improvement.

(e.g. Analysis of recommendations for improve Are recommendations valid and what action will taken, action already taken, or other consideration

b. Changes proposed in the program (if any) in response to this feedback.

N/A

2. Ratings on Sub-Standard	s of Standa	rd 4 by pro	ogram faculty and teaching staff; 4.1 to 4.10	0.
(a) List sub-standards. Are the each sub-standard. Indicate a			llowed; Yes or No? Provide a revised ratin prove performance (if any).	g for
Sub-Standards	Best Practic es Follow ed (Y/N)	5 Star Rating	List priorities for improvement.	
4.1 Student Learning Outcomes	Y	4	<ul> <li>The program should have external benchmarking for student learning outcomes</li> <li>Mapping of courses to learning outmust be reviewed regularly.</li> <li>Learning outcomes need to be well known by all teachers and student</li> <li>Full revision of the CS program materied out to meet the 120 credit excluding the preparatory year.</li> <li>Training should be added to the CS program because it is highly recommended by NCAAA.</li> </ul>	tcomes  Il s ust be hours
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Analysis of Sub-standards program's self-evaluation of		and recommendations for improvement ces.	of the

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- · All course reports are reviewed by the program curriculum committee.
- · A set of KPIs were developed to monitor the quality of teaching.
- · Course Syllabus including learning outcomes, assessment methods, etc. must be distributed to students in the first lecture.
- · The university provides a very effective system to monitor the attendance and absence of students. Specifically, each instructor has to fill out the absence and attendance of students with 48 hours from the lecture date. Students receive SMS message in the percentage of their absences.
- The quality of full-time staff members is continuously evaluated by online course survey (students) and observations of the program's chair and head's of development and quality unit.

- · KPI 13, 14 and 15 can be used here to monitor the quality of teaching in the program.
- · Sometimes it's very difficult to cover everything in course syllabus.
- For textbooks and references, the target is 90%
- Needs both Arabic and English versions of course survey and report.
  - Course report must be submitted at the end of semester.

# 4.7 Support for Improvements in Quality of Teaching

- The Development Skills Unit (DSU) at the university level provides programs to faculty members to improve the quality of their teaching.
- · A professional development survey is used to develop plans for professional development.
- · Most of staff members have a long period of experience in university teaching.
- · Teaching staff have reasonable teaching load.
- · The program provides several workshops related to course structure and student assessment.
- · The deanship of research provides several workshops related to research aspects (Dr. Anwar).
- The dean of the college and the head of the program meet individually with teaching staff who are facing difficulties. They provide the appropriate assistance to solve problems.
- The program provides informal recognition to outstanding teacher. For example, by the end of each semester a certificate is distributed to some faculty members based on their performances in different aspects (teaching, attendance, etc.).
- The program provides strategies for improving quality of teaching based on several key performance indicators such as online course survey, CLOs achievements, course reports and student learning outcomes assessment.

# 4.8 Qualifications and Experience of Teaching Staff

- $\cdot$  Courses are distributed among faculty members as per their knowledge group, specialization and interest till 2nd semester 2014/2015.
- $\cdot$  Most of the faculty members are involved for NU research projects as well as external research institutions.
- $\cdot$  CS and IS faculty members are one of the top in NU for their contribution in scientific researches and publications.

2. Other Evaluation (e.g. Evaluations by employers or other stakeholders, external review)									
Describe evaluation process									
2 control of manifold process									
Attach review/survey report		1							
a. List most important recomm		_	nalysis of recommendations for						
for improvement, strengths an		-	ement: Are recommendations valid and						
suggestions for improvement	•		tion will be taken, action already taken, or						
		oulei co	onsiderations?)						
b. Changes proposed in the	program (if	any) in re	sponse to this feedback.						
2. Ratings on Sub-Standard	s of Standa	rd 4 by p	program faculty and teaching staff; 4.1 to						
4.10.		<b>J</b> 1							
(a) List sub-standards. Are th	e "Best Prac	tices" fol	lowed; Yes or No? Provide a revised						
rating for each sub-standard.	Indicate acti	on propos	sed to improve performance (if any).						
	Best	5 Star							
	Practices	Rating							
Sub-Standards	Followe		List priorities for improvement.						
	d (Y/N)								
44 00 7 17									
4.1 Student Learning Outcomes	Y	4	<ul> <li>Formulate specific learning outcomes for the program</li> </ul>						
Outcomes			Mapping of courses to learning outcomes						
			must be reviewed regularly.						
			<ul> <li>Learning outcomes need to be well known by all teachers and students</li> </ul>						
			by an teachers and students						

		<ul> <li>The program should develop an external benchmarking strategy to assess student learning outcomes</li> <li>Relate course topics and chapters to learning outcomes.</li> <li>Teach and deliver the program according to learning outcomes.</li> <li>Design exams and assessment methods according to learning outcomes.</li> <li>Develop a system to monitor the implementation of action or improvement plan.</li> <li>Enhance the alumni unit to collect data from alumni in a yearly basis.</li> <li>More and better participations from students in the surveys are required.</li> </ul>
4.2 Program Development Processes		
4.3 Program Evaluation and Review Processes		
4.4 Student Assessment		
4.5 Educational Assistance for Students		
4.6 Quality of Teaching		
4.7 Support for Improvements in Quality of Teaching		
4.8 Qualifications and Experience of Teaching Staff		
4.9 Field Experience Activities		
4.10 Partnership Arrangements With Other Institutions		

Analysis of Sub-standards. List the strengths and recommendations for improvement of the

#### 4.1 Student Learning Outcomes

program's self-evaluation of following best practices.

- · The program adopted ABETS a-k outcomes after taking the opinions of all stakeholders. Note that several CS programs adopted ABET a-k student outcomes in Saudi Arabia.
- The learning outcomes of the program are taken from and meet the local needs. Also they fall into three domains of learning (Cognitive skills, Interpersonal Skills & Responsibility, Communication, Information Technology, and Numerical) in the National Qualification Framework (NQF).
- The program uses direct and indirect methods to assess the learning outcomes.
- · Student learning outcomes needs be benchmarked.

#### **4.2 Program Development Processes**

- · Course Specification for all courses are approved by the curriculum committee and program council.
- Any change in the course specification must be reviewed by the curriculum committee.
- · For each course, the program assigns a course coordinator to make sure that everything at the course level is implemented as planned.
- · The program is divided into knowledge areas each of which contains courses in the same area.
- · Since the CS and IS students are taking courses together, the coordinators of some areas are from the IS program.
- · The college and university provide training related to the best educational practices and strategies in outcomes based education.

#### 4.3 Program Evaluation and Review Processes

- The program uses KPIs that include completion rates in all courses and the program as a whole.
- · The records of students are not always available
- · The program uses various direct and indirect assessment methods to evaluate the attainments of student outcomes and prepare improvement plans.
- · The data are always collected using a very well designed assessment planning data collection.
- · The major changes will be accumulated to be discussed by the end of assessment cycle (3-4 years)
- PAC must be involved in the program through annual meetings and surveys. Note that PAC members represent various sectors in Najran (private, public and teaching staff from other colleges).
- The students evaluations from both sections are evaluated separately but the a single improvement plan is prepared.
- · Since the student records and registration is a central system, some difficulties in obtaining quality assurance data for program report are faced
- · Sometimes the evaluation of some aspects of the program in both section Some is inconsistent

#### 4.4 Student Assessment

- The program uses various direct and indirect assessment methods to evaluate student learning outcomes.
- Currently, the program uses internal benchmarking to improve the achievements of student learning outcomes.
- We have chosen the CS program from KFUPM to be the external benchmarking. Information about KFUPM's PIs about student learning outcomes must be used to improve the quality of learning in the program.
- 10-hours office hours are reserved to answer questions of students about exams and other issues related to their courses.
- · A coordinator is assigned for each course to make sure that unified exams for several sections (Male and Female) of the course.
- · Each instructor has to develop an assessment plan to assess and evaluate course learning outcomes.
- · The program provides several training related to assessment of student learning outcomes
- · If the student did not achieve the desired outcomes, then an improvement plan must be prepared. This improvement plan may affect anything in the program including the assessment itself

# 4.5 Educational Assistance for Students

- · New students are offered an orientation program at the beginning of the semester.
- · Each student is assigned to an advisor once he has admitted to the program.
- · The level of students in English language is very poor
- · Staff members have assigned at least 10-hours for office hours.
- · The preparatory year is considered as part of the computer science program.
- · The students can give their opinions through surveys about the appropriateness and effectiveness of educational assistance provided by the program.
- · The Program Student Council (PSC) consists of students representing various levels in the program. PSC
- · The Deanship of Student Affairs at the university level provides several educational assistances for students.
- · The process of academic advising system is implemented electronically (CTS) among academic advisors, not between students and advisors.
- · Students are not coming/ attending to the tutorial classes.

#### 4.6 Quality of Teaching

- · The program provides workshops on how to prepare your course file including course specification and report.
- $\cdot$  By the end of each semester, every student (Male and Female) must fill out an online course survey to evaluate the quality of teaching in the course.

- · All course reports are reviewed by the program curriculum committee.
- · A set of KPIs were developed to monitor the quality of teaching.
- · Course Syllabus including learning outcomes, assessment methods, etc. must be distributed to students in the first lecture.
- The university provides a very effective system to monitor the attendance and absence of students. Specifically, each instructor has to fill out the absence and attendance of students with 48 hours from the lecture date. Students receive SMS message in the percentage of their absences.
- The quality of full-time staff members is continuously evaluated by online course survey (students) and observations of the program's chair and head's of development and quality unit.
- · KPI 13, 14 and 15 can be used here to monitor the quality of teaching in the program.
- · Sometimes it's very difficult to cover everything in course syllabus.
- · For textbooks and references, the target is 90%
- · Needs both Arabic and English versions of course survey and report.
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- · A professional development survey is used to develop plans for professional development.
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- · Teaching staff have reasonable teaching load.
- The program provides several workshops related to course structure and student assessment.
- The deanship of research provides several workshops related to research aspects (Dr. Anwar).
- The dean of the college and the head of the program meet individually with teaching staff who are facing difficulties. They provide the appropriate assistance to solve problems.
- The program provides informal recognition to outstanding teacher. For example, by the end of each semester a certificate is distributed to some faculty members based on their performances in different aspects (teaching, attendance, etc.).
- The program provides strategies for improving quality of teaching based on several key performance indicators such as online course survey, CLOs achievements, course reports and student learning outcomes assessment.

# 4.8 Qualifications and Experience of Teaching Staff

 $\cdot$  Courses are distributed among faculty members as per their specialization and interest till 2n semester 2014/2015.

Several KPIs can be used in this substandard. Specifically, KPIs 13, 15 are very suitable to this substandard.

# **G. Program Course Evaluation**

Course Title/Course Code	Students Evaluati on Yes	No	Other Evaluation (Specify)	Action Planne d Yes	No
FIRST SEMESTER (2016-17) (female Section)					
Programming Language 1 /111CSS- 4	Yes		Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	
Object Oriented Programming /113CSS-4		No	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	
Data Structures/212CSS-3	Yes		Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	
Computer Organization and Assembly Language/222CSS-3	Yes		Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		No
Operating Systems/227CSS-3 NEW	Yes		ect method Assessment before the Final n regarding Course Learning Outcome evement	Yes	
Theory of Computation/235CS S-3			Not offered in this semester		
Computer Graphics/281CSS-3	Yes		ect method Assessment before the Final n regarding Course Learning Outcome evement	Yes	

Human and Computer Interaction/328CSS-3	ect method Assessment before the Final n regarding Course Learning Outcome evement	Yes	
Data Communication and Computer Networks/329CSS-3	ect method Assessment before the Final n regarding Course Learning Outcome evement	Yes	
Programming Paradigms/330 CSS-3	ect method Assessment before the Final n regarding Course Learning Outcome evement	Yes	
Software Engineering/342CSS- 3	offered in this semester		
ration Research/45CSS-	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		No
Artificial Intelligence/361CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		No
Fundamentals of Database Systems/380CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		No
Computer Security/429CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
Social, Ethical and Professional Issues/440CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
Parallel and Distributed	Indirect method Assessment before the Final Exam regarding Course Learning		

Systems/456CSS-3	Outcome Achievement		
Internet Technologies/457CSS -3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
Design and Analysis of Algorithms/474CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
SECOND SEMESTER			
Programming Language 1 /111CSS- 4	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
Object Oriented Programming /113CSS-4	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	
Data structures/212CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
Computer Organization and Assembly Language/222CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
Operating Systems/227CSS-3 (NEW)	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
Theory of	Indirect method Assessment before the		

Computation/235CSS-3	Final Exam regarding Course Learning Outcome Achievement	
Computer Graphics/281CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Human and Computer Interaction/328CSS- 3(NEW)		No
Data Communication and Computer Networks/329CSS-3		
Programming Paradigms/330 CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Software Engineering/342CSS- 3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Operation Research/345CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Artificial Intelligence/361CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	

Fundamentals of Database Systems/380CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Computer Security/429CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Social, Ethical and Professional Issues/440CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	No
Parallel and Distributed Systems/456CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Internet Technologies/457CSS -3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Design and Analysis of Algorithms/474CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	

(Add items or attach list if necessary)

Course Title/Course Code	Students Evaluati on Yes	No	Other Evaluation (Specify)	Action Planned Yes	No
FIRST SEMESTER (2016-17) (Male Section)					
Programming Language 1 /111CSS- 4	Yes		Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	
Object Oriented Programming /113CSS-4		No	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	
Data Structures/212CSS-3	Yes		Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	
Computer Organization and Assembly Language/222CSS-3	Yes		Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		No
Operating Systems/227CSS-3 NEW	Yes		ect method Assessment before the Final n regarding Course Learning Outcome evement	Yes	
Theory of Computation/235CS S-3			Not offered in this semester		
Computer Graphics/281CSS-3	Yes		ect method Assessment before the Final n regarding Course Learning Outcome evement	Yes	
Human and Computer Interaction/328CSS-3			Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	

Data Communication and Computer Networks/329CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	
Programming Paradigms/330 CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	Yes	
Software Engineering/342CSS- 3	offered in this semester		
ation Research/45CSS-	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	N	No
Artificial Intelligence/361CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	N	No
Fundamentals of Database Systems/380CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	N	No
Computer Security/429CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
Social, Ethical and Professional Issues/440CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		
Parallel and Distributed Systems/456CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement		

Internet Technologies/457CSS -3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Design and Analysis of Algorithms/474CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
SECOND SEMESTER		
Programming Language 1 /111CSS- 4	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Object Oriented Programming /113CSS-4	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Data structures/212CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Computer Organization and Assembly Language/222CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Operating Systems/227CSS-3 (NEW)	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Theory of Computation/235CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	

Computer Graphics/281CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Human and Computer Interaction/328CSS- 3(NEW)		No
Data Communication and Computer Networks/329CSS-3		
Programming Paradigms/330 CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Software Engineering/342CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Operation Research/345CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Artificial Intelligence/361CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Fundamentals of Database	Indirect method Assessment before the Final Exam regarding Course Learning	

Systems/380CSS-3	Outcome Achievement	
Computer Security/429CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Social, Ethical and Professional Issues/440CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	No
Parallel and Distributed Systems/456CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Internet Technologies/457CSS -3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	
Design and Analysis of Algorithms/474CSS-3	Indirect method Assessment before the Final Exam regarding Course Learning Outcome Achievement	

(Add items or attach list if necessary)

2. List All Campus Branch/Locations (approved by Ministry of Higher Education or Higher Council of Education).

Campus Branch/Location	Approval By	Date
Main Campus:		

1:Male	campus,New	City,Najran	
University,N	ajran,Saudi Arabia,POB	OX 1988	
2:Female car	mpus,New City,Najran		
University,N	ajran,Saudi Arabia,POB	OX 1988	

List all courses taught by this program and for this program that are in other programs (if any).

Year	Course Code	Course Title	Require d or Elective	Credit Hours	College or Department	
Prep Year (Level 1)						
	140TEC-3	Computer Skills	Required	3		
	140MAT H-2	Introduction to Mathematics	Required	2		
	140 SKL- 2	Learning ,thinking and Research skills	Required	2		
	140ENGG -2	English Language :Reading Skills	Required	2		
	141ENGG -2	English Language :Writing Skills	Required	2		
	142ENGG -2	English Language :Listening & Speaking Skills	Required	2		
	143ENGG -2	English Language :Grammar	Required	2		
	-	Total No of credit	hours 15			
Prep Year (Level 2)						
	150 MAN-1	Occupational Ethics	Required	2		
	150MAT H-4	Calculus	Required	4		
	150SKL-2	Communication Skills	Required	2		
	150ENGG -3	General English	Required	3		

	151ENGG -2	Technical Writing Reports	Required	2	
		Total No of credit hours	I.	12	
		Total Credit Hou	rs 27		
1 <sup>st</sup> Year Semester 1					
	111IC-2	Introduction to Islamic Culture	Required	2	
	104PHIS- 4	Fundamental to Physics	Required	4	
	111CSS-4	Programming Language 1	Required	4	
	106MAT H-3	Introduction to Integration	Required	3	
	152MAT H-3	Discrete Mathematics	Required	3	
		Total No of Credit Hours	1	16	
1 <sup>st</sup> Year Semester 2					
	201ARAB -2	Arabic Language Skills	Required	2	
	342MAT H-3	Linear Algebra	Required	3	Offered in IS Dept also
	113CSS-4	Object Oriented Programming	Required	4	Offered in IS Dept also
	324STAT- 3	Probabilities and Engineering Statistics	Required	3	Offered in IS Dept also
	203MAT H-3	Advanced Calculus	Required	3	
Total No of C	redit Hours		•	15	
2 <sup>nd</sup> Year Semester 1					
	112ISL-2	Islamic Culture-2	Required	2	
	212CSS-3	Data Structures and Algorithms	Required	3	Offered in IS Dept also

	105PHIS- 4	Advanced Physics	Required	4	
	222CSS-4	Computer Organization and Architecture	Required	4	
	330CSS-3	Programming Paradigm	Required	3	
Total No of C	redit Hours	1	•	16	
2 <sup>nd</sup> Year Semester 2					
	227 CSS-3	Operating Systems	Required	3	Offered in IS Dept also
	113 ISL-2	Islamic Culture 3	Required	2	
	342 CSS-3	Software Engineering	Required	3	
	101 BIOL-4	General Biology	Required	4	
	235 CSS-3	Theory of Computation	Required	3	
Total No of C	redit Hours	•	<u>.</u>	15	
3 <sup>rd</sup> Year Semester 1					
	281CSS-3	Computer Graphics	Required	3	
	361CSS-3	Artificial Intelligence	Required	3	
	457CSS-3	Internet Technologies	Required	3	
	380CSS-3	Fundamentals of Database Systems	Required	3	
	329CSS-3	Data Communication and Computer Networks	Required	3	
Total No of C	redit Hours			15	
3 <sup>rd</sup> Year Semester 2					
	491CSS-4	Graduation Project-1	Required	4	
	45.CCCC 2	Parallel and Distributed	Required	3	
	456CSS-3	Systems Systems	required		

	328CSS-3	Human and Computer Interaction	Required	3	
	474CSS-3	Algorithm Design & Analysis	Required	3	
Total No of C	redit Hours		ı	15	
4 <sup>th</sup> Year Semester					
	492CSS-4	Graduation Project-2	Required	4	
	345MAT H-3	Operational Research	Required	3	
	440CSS-3	Social, Ethical & Professional Issues	Required	3	
	429CSS-3	Computer Security	Required	3	
	202ARAB -2	Arabic Writing	Required	2	
Total No of C	redit Hours		•	15	

4 <sup>th</sup> Year Semester 2				
Semester 2				
N/A				
Include addition	na	al years if needed		

Program Learning Outcome Assessment. Design a program learning outcome assessment plan using the NCAAA accreditation four year cycle. By the end of the four year cycle all program learning outcomes are to be assessed using KPIs with benchmarks and analysis, national or international standardized testing if available, rubrics, exams and grade analysis, or some alternative scientific measure of student performance.

K PI #	NQF Learning Domains and Learning Outcomes	Method of Assessment	Date of Assessment
1.	Knowledge		

0			
2. 0	Cognitive Skills		
2. 1	An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline;	Direct Methods:  1. Course Learning Outcomes assessment (Each Semester) 2. Performance	First Semester 2012/2013
2. 2	An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;	Indicators with a set of rubrics (once every assessment cycle)  Indirect Methods:	First Semester 2012/2013
2. 3	An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs;	1. Exit Survey (Each Semester) 2. Current Student Survey (Each Semester) 3. PAC Meeting and	Second Semester 2012/2013
2. 4	An ability to use current techniques, skills, and tools necessary for computing practice;	Discussions (Once a Year) 4. Alumni Survey 5. Employer Survey	First Semester 2012/2013
2. 5	An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the trade-offs involved in design choices;		First Semester 2013/2014
2. 6	An ability to apply design and development principles in the construction of software systems of varying complexity		First Semester 2013/2014
3. 0	Interpersonal Skills & Responsi	bility	
3. 1	An ability to function effectively on teams to accomplish a common goal;	Direct Methods:  1. Course Learning Outcomes assessment	Second Semester 2012/2013
3. 2	An understanding of professional, ethical, legal, security and social issues and responsibilities	(Each Semester) 2. Performance Indicators with a set of rubrics (once every	Second Semester 2012/2013
3. 3	An ability to analyze the local and global impact of computing on individuals, organizations, and society;	assessment cycle)  Indirect Methods:  1. Exit Survey (Each Semester)	First Semester 2013/2014
3.	An ability to recognize the need for and to engage in continuing	2. Current Student Survey (Each Semester)	Second Semester 2012/2013

4	professional development;	<ul><li>3. PAC Meeting and Discussions (Once a Year)</li><li>4. Alumni Survey</li><li>5. Employer Survey</li></ul>	
4. 0	Communication, Information T	echnology, Numerical	
4. 1	An ability to communicate effectively with a range of audiences	Direct Methods:  1. Course Learning Outcomes assessment (Each Semester)  2. Performance Indicators with a set of rubrics (once every assessment cycle)  Indirect Methods:  1. Exit Survey (Each Semester)  2. Current Student Survey (Each Semester)  3. PAC Meeting and Discussions (Once a Year)  4. Alumni Survey  5. Employer Survey	First Semester 2012/2013
5. 0	I	Sychomotor	

Provide "direct assessments" for the current year's program learning outcomes, according to the dates provided above (G.2). A *KPI Assessment Table* is provided below. Each learning outcome should utilize a separate KPI table. Over the four (five/six ) year cycle, all program learning outcomes are to be assessed and reported in the *Annual Program Report*(s). Normally a program has 6 to 8 program learning outcomes. Therefore 1 to 3 learning outcomes are directly assessed each year.

The KPI table is used to document directly assessed program learning outcomes. Assessments methods may include: national or international standardized test results, rubrics, exams and grade

analysis, or learning achievement using an alternative scientific assessment system (copy the *KPI Assessment Table* and paste to make additional tables as needed).

Currently, the student learning outcomes (PLOs) or student outcomes (SOs) are assessed by using both direct and indirect assessment methods. In this report we present PLOs/SOs assessment data from the two direct assessment methods including:

- 1. Assessment of student learning outcomes using course learning outcomes (CLOs)
- 2. Assessment of student learning outcomes using performance indicators (PIs), Embedded Ouestions and Rubrics
  - 1. Assessment of student learning outcomes using course learning outcomes (CLOs):

The idea behind this method is that all courses are mapped to the appropriate student outcomes by relating CLOs of all courses to SOs. Mapping courses to SOs ensures that all SOs are addressed by several courses at different levels in the program. In addition, this will help us to know if student outcomes have not been met at a particular course. The assessment of SOs using CLOs assessment each semester supports us to maintain a semester-based continuous improvement by using the achievements of CLOs. The expected performance is 65% for each SO. Note that courses that are related to a specific SO have equal contribution.

1. Assessment of student learning outcomes using performance indicators (PIs), Embedded Ouestions and Rubrics:

This is our overall assessment method to evaluate the attainment of SOs. A set of Performance Indicators were developed for each one of the SOs. PIs are then aligned to the curriculum to facilitate the collection of data. Data are then evaluated by using a set of rubrics. In this method, we collect data and evaluate each SO once in a complete assessment cycle (3-4 years).

The first cycle of PLOs or SOs assessment through PIs, embedded questions and rubrics started in 2012/2013 and finished in 2015/2016. Hence, the College of CSIS has planned a new cycle for the academic years 2017-2021 to assess the PLOs/ SOs and the new assessment plan is described below:

#### 1. Assessment Types

- We are using direct assessment and it will be achieved through performance indicators (PIs) for all CS SOs and using course learning outcomes (CLO). He said that direct assessment will used for the direct examination or observation of student knowledge, skills and/or behaviours. e.g. Exams, Presentation, etc.
- Indirect assessment will be done through indirect methods, e.g. exit surveys, current student survey and meeting and survey with program advisory committee.

#### 2. Assessment Methods

The formative and summative assessment methods which will be used in updated assessment plan for year 2017 - 2021 are:

#### • Formative Assessment.

- 1. Formative assessments are on-going assessments, reviews, and observations in a classroom and or within an academic year or pre-determined time.
- 2. We should use formative assessment to improve instructional methods and student feedback throughout the teaching and learning process.

- 3. The goal of formative assessment is to *monitor student learning* to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning.
- 4. Example of formative assessment is quizzes, assignments, midterms, etc. It will be used in level 3 to 6.

#### • Summative Assessment.

- 5. Summative assessments are typically used to evaluate the effectiveness of instructional programs and services at the end of an academic year or at a pre-determined time.
- 6. The goal of summative assessments is to make a judgment of student competency after an instructional phase is complete.
- 7. The goal of summative assessment is to evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark.
- 8. Example of summative assessment is final exams, nationwide Tests and it will be done from levels 7 and 8.

It has been discussed that DQU mode five groups which will be responsible for assessment of SOs for CS program. These five groups are shown in Table 5.

Table 5: SO Assessment groups for Computer Science Program

Student Outcomes	Members	Coordinators	Group No.
a i	Ms. Saira Ms. Eman Dr. Khairi Mr. Basit Mr. Omar Mr. Mazen Gazzan Mr. Khalid Makdi	Dr. Fekri	Group 1
b f	Ms. Nazeema Ms. Enam Dr. Muniba Mr. Selim Mr. Akram Mr. Adlan Mr. Abdullah Al Qahtani	Dr. Shargabi	Group 2
d j	Ms. Rania Ms. Dalal Dr. Addin Mr. Shah Masud Mr. Naif	Dr. Asadullah	Group 3

C e	Mr. Saltan Al Azmei Ms. Gulshan Ms. Suad Dr. Khairan Mr. Golam faruque Mr. Yahya Mr. Bakri Mr. Mohammad Al Shahrani	Dr. Ghassan	Group 4
g h k	Ms. Nyla Ms. Sumaiya Dr. Abwar Mr. Kafil Mr. Haji Mr. Moath Mr. Hamad Ali Mr. Ahmad Al Musabi	Dr. Abdurrahman	5 Group

# Assessment of student learning outcomes using performance indicators (PIs), Embedded Questions and Rubrics:

The assessment of the DQU at college of computer science and information systems for the cycle (2017-2021), had selected SO (b) and SO (f) for assessment in the second semester of 2016-17 i.e Semester 372.

# **Student Outcome (b, f):**

- b. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
- f. An ability to communicate effectively with a range of audiences

Semester/Year Data collected: 372, Second Semester, 2016/2017 Assessment Coordinator (Collection Agent): Dr. Mohammad Al-Shargabi

Table 12: Assessment Process

	Tuoic 12: Tissessiment Trocess					
SO	Description	Assessment	Assessment	Target of	Evaluation	
			Methods	Achievement	of Results	
b and f	b) An ability	235CSS-3	Embedded	65% of the	SO	
	to analyze a	227CSS-3	Assessment	students at	Assessment	
	problem, and	342CSS-3		the	Group	
	identify and	361CSS-3		accomplished	_	
	define the	328CSS-3		or above		

computing requirements appropriate to its solution.	levels	
f) An ability to communicate effectively with a range of audiences		

# **Evaluation Results**

- 1. The instructors of the corresponding courses were asked to make question based to CLO's which had has a mapping to SO(b) and SO(f)
- 2. The instructor submitted to the SO assessment group, the scanned answer scripts of the students along with students grades achieved in that particular question.
- 3. The SO Assessment group aggregated ,evaluated and analysed the results
- 4. Based on the results action are proposed, to be taken in the assessment and evaluation stages!!

Table 14: Achievement for PLOs/ SOs (b and f) from all the selected CS Courses in both Male and Female Sections (presented in %)

CS Course	Section	SO(b)	SO (f)
235CSS-3	Male	100	
227CSS-3	Female	87.5	
342CSS-3	Female	66.67	
342CSS-3	Female		66.67
235CSS-3	Female	60	
227CSS-3	Male	40	
361CSS-3	Female	81.25	
328CSS-3	Male		Data not available
361CSS-3	Male	77	
342CSS-3	Male	33.33	
342CSS-3	Male		40
328CSS-3	Male		100
328CSS-3	Female		44
Overall		68.21%	62.67%

Achievement		

The assessment of the DQU at college of computer science and information systems for the cycle (2017-21), had selected SO(a) and SO(i) for assessment in the first semester of 2016-17 i.e Semester 371.

# **Student Outcome (a,i):**

- a) An ability to analyse a problem, and identify and define the computing requirements appropriate to its solution
- i) An ability to use current techniques, skills, and tools necessary for computing practice

Semester/Year Data collected: 371, **First Semester, 2016/2017**Assessment Coordinator (Collection Agent): **Dr. Fikri Abdul Wedood** 

Table	12:	Assessment Process

SO	escription	rces of ssment	ssment hod(s)	get of vement	ation of sults
a and i	An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution  An ability to use current techniques, skills, and tools necessary for computing practice	CSS-3 CSS-3 CSS-3 CSS-3	pedded ssment	e students at mplished or e levels	sessment roup

# **Evaluation Results**

1. The instructors of the corresponding courses were asked to make question based to CLO's which had has a mapping to SO(a) and SO(i)

- 2. The instructor submitted to the SO assessment group, the scanned answer scripts of the students along with students grades achieved in that particular question.
- 3. The SO Assessment group aggregated ,evaluated and analyzed the results
- 4. Based on the results action are proposed, to be taken in the assessment and evaluation stages!!

Table 13: Achievement for PLOs/ SOs (a,i) from all the selected CS Courses in both Male and Female Sections (presented in %)

CS Course	SO (a)	SO (i)
113CSS-3	44	40
329CSS-3	100	75
227CSS-3	40	86
222CSS-3	69	56
361CSS-3	50	72
Overall Achievement	60.09	74.53

3. O	rientation	programs	for new	teaching	staff
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Orientation programs provided? Y I I If offered how many participated?

# a. Brief Description

- 1- The new staff member will meet with the Heads/coordinators to discuss variety of topics as stated.
- 2- OPF shall be completed within four weeks from the date the new member joined the college.
- 3- The completed OPF will be maintained in the program administration and a copy

will be sent to the new staff member.

- 4- The mentor ensures that the OPF is filled properly. For example, each representative must sign to verify the completion of responsibilities and submission of documents and related materials (Guidelines, policies, procedures, etc.).
- 5- The mentor arrange meetings with the heads and coordinators (representatives).
- 6- The mentor supports the new staff member to complete necessary paperwork in the office of human resources.

b.	L	ist recomme	ndations fo	or improvemen	t by teach	ing staff.		
N	ev	v staff needs	extra time	from faculty n	nember to	understand	the college	process

c. If orientation programs were not provided, give reasons.

4. Professional Development Activities for Faculty, Teaching and	How	many
Other Staff	Partic	ipated
	Teachin	Other
a. Activities Provided	g	Staff
	Staff	
Welcome to the CSIS, Overview about the college vision, mission		
and objectives, Academic Programs, Salary and issues related to the		
contract and Job Description		
Assign one administrative staff to assist with the necessary 'Forms'		
(Joining Contract Form, Housing Form, Medical Form, Bank Form,		
Furnishing Allowance Form, etc.)		
Teaching load time table including office hours, administrative hours,		
quality hours, etc.		
Course distribution procedure.		
Opening Faculty Member Portfolio (CV, etc.)		
Overview of Graduation Project		

b. Summary analysis on usefulness of activities based on participant's evaluations or other

evaluation methods.

H. Independent Opinion on Quality of the Program after Considering Draft Report (e.g. head of another similar department/ program offering comment on evidence received and conclusions reached) (Attach notes)

1. Matters Raised by Evaluator Giving	Comment by Program Coordinator
Opinion	
2. Implications for Planning for the Program	

I. Action Plan Progress Report					
1. Progress on Implementation of Previous Year's Action Plans (2015/2016)					
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons	
Evaluate CLOs for all courses	End of each semester 2015/2016	Faculty	Yes		
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons	
Apply two surveys (Current student and exit survey)	End of each semester 2015/2016	DQU (Development and Quality Unit)	No	We could not conduct the Current Student Survey due to the security status of Najran	
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons	
Accept new students in the modified curriculum	First Semester 2015/2016	Program's Head	Yes		
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons	
Assign a course coordinator for each course	Every Semester in 2015/2016	DQU	Yes		
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons	

Finish the	June 2016	DQU	Yes	
preparation of	June 2010	DQU	103	
the requirements				
of ABET				
Accreditation	Planned	Person		
Actions Planned	Completion Date	Responsible	Completed	If Not Complete, Give Reasons
Pranned	Date			Reasons
Submit the	June 2016	Head of DQU	Yes	
update of ABET SSR				
	Planned	Person		
Actions	Completion	Responsible	Completed	If Not Complete, Give
Planned	Date			Reasons
Update the	June 2016	DQU	No	Not all requirements
SSR of NCAAA accreditation				were completed because of the security status in Najran
Actions	Planned	Person	Commissed	If Not Complete Cive
Planned	Completion Date	Responsible	Completed	If Not Complete, Give Reasons
Prepare the	April 2016	DQU	Yes	
requirements of NCAAA				
accreditation				
(KPIs report)	Planned	Person		
Actions	Completion	Responsible	Completed	If Not Complete, Give
Planned	Date			Reasons
Prepare some	June 2013	DQU	Yes	
mechanisms (orientation				
program,				
evaluation of performance)				
related to				

faculty				
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons
Apply a new mechanism to evaluate the performance of faculty members	End of Semester in 2015/2016	Head of the Program with the heads of other units	Yes	
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons
Update the college's website	2015/2016	Website Committee	Yes	
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons
Ensure that all recommendations are implemented and followed up	2015/2016	Program's head and DQU	No	Some recommendations are not implemented properly because we must have a system to monitor the implementation of actions
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons
Enhance the academic advising system	2015/2016	Academic Advising Unit	Yes	
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons
Ensure that the new mission	2015/2016	DQU	Yes	

and objectives and outcomes of the program are available to the public				
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons
Preparation of course portfolios using the new online application for all courses	2015/2016	Faculty Members	Yes	
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons
Evaluate the appropriatenes s of facilities and resources	April 2016	Facilities and Resources Committee (FRC)	Yes	
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons
Update the program's handbook and portfolio	June 2016	DQU and Program's Head	Yes	
Actions Planned	Planned Completion Date	Person Responsible	Completed	If Not Complete, Give Reasons
Continue to apply a new orientation program for new teaching staff	2015/2016	DQU	Yes	

# 2. Proposals for Program Development

- a. Proposals for Changes to Program Structure (units/credit-hours, compulsory or optional courses, other)
- 1. PhD Holders will teach Core Courses in Male/Female Section
- 2. PhD holders will supervise graduation projects.
- 3. Same instructor will teach theory and lab sections of a course.
- 4. Tutorial sections for all lab courses of CS program will be added.
- 5. Lab Section for HCI course will be added.
- 6. Committee will be formalized to solve the issue of transferred students from Community college.

(such as to see the equivalence of curriculum with community college computer science courses)

- 7. Graduation project evaluation will be for 2 Hours.
- b. Proposals for Changes to Courses, (deletions and additions of units or topics, changes in teaching or assessment procedures etc.)
- 1. Knowledge groups will be formulized depending upon the specialization of the faculty members.
- 2. Course learning outcomes and course syllabus will be revised by the knowledge groups.
- 3. Online course file system will be implemented.
- 4. NCAAA Course specifications will be updated by knowledge groups.
- 5. Course project must be added for some courses
- 6.E-Learning method of teaching will be adopted for the next semester if the security situation will not improve.

# c. Development Activities for Faculty and Teaching Staff

- 1. Develop a plan for training and professional development of faculty members
- 2. Collaborate with the Deanship of Development and Quality at the university level to provide a set of training programs on best practices related to learning and teaching for non-Arab faculty members.
- 3. More IT facilities (printer, scanner, membership of professional bodies and photocopy machine) are needed to help faculty members in achieving their

educational, professional and research goals.

- 4. Educate all faculty members (Male & Female) at the program on the processes and procedures related to the evaluation and improvement of the program.
- 5. Conduct seminars in the college about outcome-based education
- 6. Provide orientation program to new faculty member
- 7. Develop a policy to ensure that each expatriate faculty member has the right to attend at least one conference per year.
- 8. Submit at least 2 research proposals per year to KACST

	Actions Required	Completion Date	Person Responsible
a.	Evaluate all student learning outcomes using a Course Learning Outcomes and rubrics	Completed	Curriculum Committee and DQU an Assessment Groups
b.	Update NCAAA SSR and SES	April 2017	DQU
c.	Submit the Updated ABET SSR	End of 2016/ 2017	DQU
d.	Continue to apply a new mechanism to evaluate the performance of faculty members		Program's Head and DQU
e.	Update the college's website	January 2017	Website Committee
f.	Ensure that all recommendations are implemented and followed up	2016/2017	Program's head and DQU
g.	security situation in Najran ) such as E-Learning, Balckboard, Echo system	Applied 2016/2017	Program's head and E- Learning Committee
h.	Ensure that the new mission and vision are available to the public		DQU
i.	Development of the Online Course file Management System to update Syllabus, Course specification	2016-2017	Faculty Members an DQU
j.	Update Course file using the Online Course file Management System to update	2016-2017	DQU and Program's Head

k.	Accomplish the new University Project in its	September	Facilities and
	third phase	2017	Resources
			Committee
			(FRC)
1.	Continue to apply a new orientation program for		DQU
	new teaching staff		

Report Prepared By: Dr. Muniba Memon (Coordinator of Research and Graduation Projects)

Signature: Date Report Completed: May, 2017

Program Chair/ Coordinator Name: Dr. Abdulrahman Thaqfan

Signature: Date Report Completed: 10 June, 2017

Received by: \_\_\_\_\_ Dean/Department Head

Signature: Date: 10 June, 2017