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2020

Program Specification

Program Name: Diploma in Web & Mobile Application Development
Qualification Level :Diploma
Department: Computer Science & Applications
College: Applied College Khamis Mushait
Institution: King Khalid University

VISION رؤيــة
2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

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Content

A. Program Identification and General Information

1. Program Main Location:
Applied College Khamis Mushait Al-Mahala Campus.
2. Branches Offering the Program:
Applied College Khamis Mushait Al-Mahala Campus.
3. Reasons for Establishing the Program: (Economic, social, cultural, and technological reasons, and national needs and development, etc.)
Program is proposed in line with the University's general policy of excellence and the development of Applied College Khamis Mushait with academic accreditation and quality standards.   Web and Mobile Applications has dramatically changed our world. Almost all businesses, governments, and individuals' transactions are now in form of web-based applications. Successful web & Mobile applications depend on interactivity & security. The Diploma in Web and Mobile Application Development has been designed to equip graduates with the knowledge and skills for developing interactive web & Mobile applications that support the variety of business domains in the market achieving their missions.   The reason for establishing this program is to produce web and mobile technology graduates who are highly skilled and fully work-ready. The courses in this program contain a balance of current theory and relevant practical skills and help the student prepare for Professional industry certifications such as CIW, ICDL, Microsoft certifications which are highly accepted and regarded by the industry.   The purpose of the Diploma Program in Web & Mobile Application Development is to qualify the graduate to independently act as a web specialist in design and construction of web & mobile applications & architecture.
4. Total Credit Hours for Completing the Program: (70)
5. Professional Occupations/Jobs: • Web Developer   • Web Designer   • Web Content Manager   • Web Administrator   • Android/IOS APP Developer   • Graphic Designer   • Mobile Application Manager   • Mobile Application Analyst

6. Major Tracks/Pathways (if any):**Not Applicable**

Major track/pathway	Credit hours (For each track)	Professional Occupations/Jobs (For each track)
1.		

2.		
3.		
4.		

7. Intermediate Exit Points/Awarded Degree (if any)**: Not Applicable**

Intermediate exit points/awarded degree	Credit hours
1.	
2.	
3.	

B. Mission, Goals, and Learning Outcomes

1. Program Mission:

To be committed to high quality in offering Web & Mobile Application Development' programs, and to excellent academic performance in order to improve the quality of graduates and prepare them to compete in the marketplace.

2. Program Goals:

1. To offer a high quality applied education able to graduate qualified human resources equipped with scientific knowledge and skills to compete in the marketplace.

2. To prepare curricula with diversified teaching and learning methods compatible with the needs of students and the business sector.

3. To hold scientific and professional meetings and events in collaboration with local and international companies for the purposes of developing Web & Mobile Applications.

4. To develop and modernize programs to serve the applied educational process.

5. To develop a variety of assessment strategies and tools to measure various aspects of the learner with a view to promoting the learning process.

4. Relationship between Program Mission and Goals and the Mission and Goals of the Institution/College.

Mission of the Applied Colleges:
Providing high-quality applied learning environment, to building a social partnership that would contribute in meeting the labor market requirements by maintaining highly qualified and trained graduates in accordance with quality standards

Mission of the Web & Mobile Application Development Program:

To be committed to high quality in offering Web & Mobile Application Development' programs, and to excellent academic performance in order to improve the quality of graduates and prepare them to compete in the marketplace.

The Goals of Applied Colleges:
1. To prepare highly qualified and trained cadre, who are academically and professionally distinguished in line with the programs and goals of 2030 Vision.
2. To develop applied programs continuously to cope with the changes of the labor market
3. To build effective and purposeful partnerships with the local and international Organizations.
4. To employ modern technology in the programs, projects and community services provided by the college
5. To provide programs, training courses, specialist scientific consultancies with the purpose of developing the Applied Colleges self-resources

The Goals of Web & Mobile Application Development Program:

1. To offer a high quality applied education able to graduate qualified human resources equipped with scientific knowledge and skills to compete in the marketplace.

2. To prepare curricula with diversified teaching and learning methods compatible with the needs of students and the business sector.

3. To hold scientific and professional meetings and events in collaboration with local and international companies for the purposes of developing Web & Mobile Applications.

4. To develop and modernize programs to serve the applied educational process.

5. To develop a variety of assessment strategies and tools to measure various aspects of the learner with a view to promoting the learning process.

4. Graduate Attributes:

Following are the graduate attributes:
- Professional in Web & Mobile Application Development.
- Knowledgeable in computer science.
- Problem solver.
- Lifelong learner.
- Effective communicator.
- Team leader/player.

5. Program learning Outcomes*

Knowledge and Understanding

K1	Ability to define mathematical concepts, algorithmic principles, language skills and computer science fundamentals.
K2	Ability to describe and compare different mobile and web application models/architectures and patterns.

Skills

S1	Ability to assess and select a suitable programming language for the implementation of development requests.
S2	Ability to recognize Security, Privacy & Ethics in computer science and implement measures to create secure web & mobile applications.
S3	Widespread development methods within web & mobile application development as well as be able to reflect on their suitability in different development situations.

Values

V1	Handle complex and development-oriented situations within web & mobile Application development.

V2	Ability to use current techniques, skills, and tools necessary for Design, development and management of computer applications.
V3	Ability to demonstrate the specific requirements, possibilities and challenges when developing for a mobile and web context and to communicate effectively in written and oral with range of audiences.

* Add a table for each track and exit Point (if any)

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	4	10	14.2%
	Elective			
College Requirements	Required	3	8	11.42%
	Elective			
Program Requirements	Required	13	45	64.2%
	Elective			
Capstone Course/Project		1	4	5.7%
Field Experience/ Internship		1	3	4.2%
Others				
Total		22	70	100%

* Add a table for each track (if any)

2. Program Study Plan

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	101-ENG-3	English Language-1	Required	-	3	Institution
	101-ISC-2	Islamic Culture	Required	-	2	Institution
	001-ARAB-2	Arabic Language Basics	Required	-	2	Institution
	110-CIS-3	Introduction to Computers	Required	-	3	College
	001-MATH-3	Mathematics	Required	-	3	College
	144-CIS-2	Computer Ethics and Society	Required	-	2	College
	115-CIS-3	Computer System Maintenance	Required	-	3	Department
Level 2	102-ENG-3	English Language 2	Required	101-ENG-3	3	Institution
	131-CSA-4	Introduction to programming	Required	110-CIS-3	4	Department
	222-CIS-4	Database Systems	Required	110-CIS-3	4	Department
	132-CSA-4	Web Programming-1	Required	110-CIS-3	4	Department
	112-CIS-3	Operating Systems	Required	110-CIS-3	3	Department
Level 3	233-CSA-4	Web Programming-2	Required	132-CSA-4	4	Department
	233-CIS-3	Algorithms & Data Structure	Required	131-CSA-4	3	Department
	234-CSA-4	Mobile Application Development-1	Required	131-CSA-4	4	Department
	214-CIS-3	Multimedia and Computer Graphics	Required	110-CIS-3	3	Department
	221-CSA-3	Content Management System	Required	132-CSA-4	3	Department

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 4	235-CSA-4	Mobile Application Development-2	Required	234-CSA-4	4	Department
	241-CSA-3	Applications Privacy & Security	Required	233-CIS-3	3	Department
	224-CIS-3	Software Project Management	Required	131-CSA-4	3	Department
	225-CIS-4	Project	Required	Must Passed 53 Cr.hr	4	Department
	226-CIS-3	Field Training	Required	Must Passed 53 Cr.hr	3	Department
Level 5						
Level 6						
Level 7						
Level 8						

* Include additional levels if needed
** Add a table for each track (if any)

3. Course Specifications
Insert hyperlink for all course specifications using NCAAA template

https://comkh.kku.edu.sa/

4. Program learning Outcomes Mapping Matrix
Align the program learning outcomes with program courses, according to the following desired levels of performance (**I = Introduced   P = Practiced M = Mastered**)

Course code & No.	Program Learning Outcomes							
	Knowledge and understanding		Skills			Values		
	K1	K2	S1	S2	S3	V1	V2	V3
101-ENG-3	I	P	P	I	P	P	P	M
102-ENG-3	I	P	P	I	P	P	P	M
101-ISC-2	I	I	P	I	P	P	P	M
001-ARAB-2	I	I	P	I	P	P	P	M
110-CIS-3	I	P	M	P	P	P	P	M
001-MATH-3	I	P	M	P	M	M	M	M
144-CIS-2	I	P	M	M	M	M	P	M
131-CSA-4	I	P	M	M	M	M	P	M
222-CIS-4	I	P	M	M	M	M	P	M
132-CSA-4	I	P	M	M	M	M	M	M
115-CIS-3	I	P	M	P	M	P	M	M
112-CIS-3	I	P	P	M	M	P	M	M
233-CSA-4	I	P	M	M	M	M	M	M
233-CIS-3	I	P	M	P	P	M	M	M
234-CSA-4	I	P	M	M	M	M	M	M
214-CIS-3	I	P	P	M	M	M	M	M
221-CSA-3	I	P	M	M	M	M	M	M
235-CSA-4	I	P	M	M	M	M	M	M
241-CSA-3	I	P	M	M	M	M	M	M
224-CIS-3	I	P	M	P	M	M	M	M
225-CIS-4	I	P	M	M	M	M	M	M
226-CIS-3	I	P	M	M	M	M	M	M

* Add a table for each track (if any)

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5. Teaching and learning strategies to achieve program learning outcomes
Describe policies, teaching and learning strategies, learning experience, and learning activities, including curricular and extra-curricular activities, to achieve the program learning outcomes.

Learning Outcome can be achieved by classroom Lectures – Theory Lectures and practical Lectures, Case studies, observations, discussion, presentation, survey, problem solving, Guiding Students by visiting labor market requirements etc.
By assigning practical Projects and supervise field training properly. By taking Quizzes, assignments, Presentation, demonstrations, Mid-1, Mid-2 and Final Exam.

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6. Assessment Methods for program learning outcomes.
Describe assessment methods (Direct and Indirect) that can be used to measure achievement of program learning outcomes in every domain of learning.

Mid-Exams, Final Exam, Quizzes, Long and Short Questions, lab exercises, Seminars and Practical exercises, Reports Writing, and Individual and group presentation,
Graduation projects, Individual and group presentation, Group Report, projects, technical report, Demonstrations, Survey and Questionnaire etc.

D. Student Admission and Support:

1. Student Admission Requirements Refer KKU STUDENTS HAND BOOK
2. Guidance and Orientation Programs for New Students Refer KKU STUDENTS HAND BOOK
3. Student Counseling Services (academic, career, psychological and social) Group of students (10-12) are assigned to academic advisor (faculty members) for providing academic counselling. Students are required to meet the Student Academic Advisor at least twice per semester; the academic advisors have students' data. Students with poor performance (GPA < 2.0) are closely monitored and are provided appropriate counselling. Students can get advice on academic matters from academic advisor. They can also have discussions on course and lecture specific problems. Each faculty members allocates 10 office hours per week in time table for students counselling. The department has a Students' Council which act as a bridge between student's community and department.
4. Special Support (low achievers, disabled, gifted and talented) Refer KKU STUDENTS HAND BOOK

E. Teaching and Administrative Staff

1. **Needed Teaching and Administrative Staff**

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Professors						
Associate Professors						
Assistant Professors						
Lecturers	Computer Science	Web & Mobile Application Development	Databases, Programming,	10		10
Teaching Assistants						
Technicians and Laboratory Assistants						
Administrative and Supportive Staff						
Others (specify)						

2. **Professional Development**

2.1 Orientation of New Teaching Staff

Describe briefly the process used for orientation of new, visiting and part-time teaching staff

A new faculty member will be oriented in following ways:

1. A new faculty is provided with a copy of Faculty Handbooks that contains all information about the duties and responsibilities of the faculty, including the rights, privileges and code of conduct.

2. He/she will be asked to attend the workshops organized by University.

3. The department will conduct periodic orientations for new faculty member to familiarize them with department, college and university regulations.

4. Student feedbacks are taken into consideration to evaluate new faculty. By student evaluation the department can monitor their performance to identify their weaknesses and suggest improvements.

2.2 Professional Development for Teaching Staff

Describe briefly the plan and arrangements for academic and professional development of teaching staff (e.g., teaching & learning strategies, learning outcomes assessment, professional development, etc.)

- The department of Computer Science & Applications made the following arrangements for improvement of faculty:

- University provides workshops and training programs related to teaching and student assessment.
- Periodical seminars/open discussions, training, workshop in computer science related topics.
- Introduce a Mechanism for staff performance in their academic activities
- Provision for faculties to attend national and international workshops/conferences in computer science.
- The department encourages participation in national and international conferences.
- Periodic workshops and seminar are conducted on e-learning, effective teaching, educational technologies, academic development & quality, learning environment and other related topics for professional grooming of faculty.
- The department has entered into national/international collaboration to improve the program quality.
- The dean of research provides several workshops related to research aspects.

F. Learning Resources, Facilities, and Equipment

1. Learning Resources.

Mechanism for providing and quality assurance of learning resources (textbooks, references and other resource materials, including electronic and web-based resources, etc.)

- Text books and reference books are identified by the subject coordinator in consultation with other course teachers at the beginning of the academic year. The list of books is submitted to the Central library through Head of the Department.
- Digital Library Available on University website
- Additional teaching materials are made available anytime by the course teachers through blackboard (lms.kku.edu.sa).

The students are encouraged to give their feedback on availability of books in the library. The library is fully computerized which enables the students to search for the availability of books.

2. Facilities and Equipment

(Library, laboratories, medical facilities, classrooms, etc.).

Classrooms, Library and Labs available and equipped with projectors, computers and First aid medical kits.

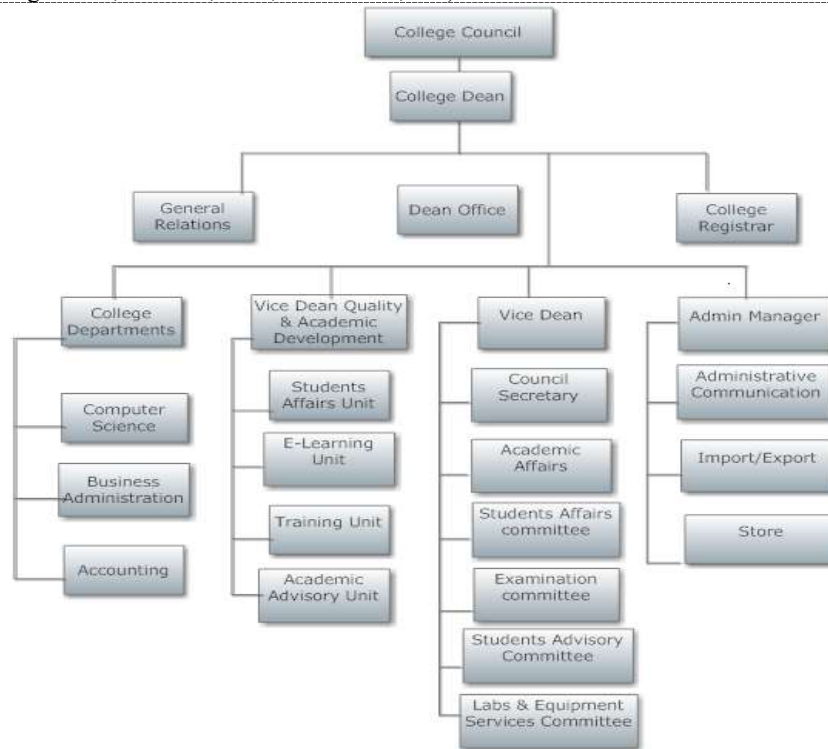| |
|---|
| **3.** **Arrangements to Maintain a Healthy and Safe Environment** (According to the nature of the program) |
| The Applied College Khamis Mushait has well-defined policies to meet the safety requirements and adequate provisions for the security of the faculty, staff and students. A comprehensive sprinkler system is installed in all classrooms, labs and office spaces. Moreover, all the buildings are equipped with fire extinguishers and first aid kits.
 There are many essential units. These units include cleaning waste disposal, maintenance, safety, and environmental management. Security and Safety unit ensure the application of safety and security regulations to protect employees, staff and students and properties within the University campus and make sure healthy and safe environment. |

G. Program Management and Regulations

1. Program Management   **1.1 Program Structure**   (including boards, councils, units, committees, etc.)

1.2 Stakeholders Involvement   Describe the representation and involvement of stakeholders in the program planning and development. (students, professional bodies, scientific societies, alumni, employers, etc.)
The main stakeholders of the Web & Mobile Application Development program are defined as follows: • Computer Science Faculty: The faculty members at both campuses (male and female) are involved in establishing the program mission, objectives, outcomes, curricula, etc. Also, they

are mainly involved on regular basis in the assessment and evaluation processes of the quality of the program.

• Current Students: The current students are those students who are currently enrolled in the program.

• The Alumni: Graduates with career achievements are alumni. They play a vital role through survey in the revision of the Program Educational Objectives based on their work experience. Also, they can give their feedback on the overall program quality and curricula.

• Program Advisory Committee (PAC):

The purposes of the PAC are to:

• Encourage communication between the program and private and public employers Sectors.

• Convey current challenges facing the IT industry into the program plan.

• Help develop and guide the education and curriculum issues in the program.

• Assessment and improvement of academic programs.

• Recent technologies directions, skills and knowledge provided by the program's objectives and mission, as well as other relevant issues.

• To recognize the achievement of alumni and the other supporters of the program.

2. Program Regulations
Provide a list of related program regulations, including their link to online version: admission, study and exams, recruitment, appeals and complaint regulations, etc.)

Refer to KKU

H. Program Quality Assurance

1. Program Quality Assurance System
Provide online link to quality assurance manual

2. Program Quality Monitoring Procedures

For Quality Education all the activities of the department are initially discussed internally, and suggestions are forwarded to the Department council for further consideration and suitable decisions. The Department activities are planned and executed with the following committees are:

1. Quality and Academic Development Committee deals with all quality related activities based on ADAQ (Academic Development and Quality Deanship) guidelines.

2. Timetable committee deals with all tasks related to timetable and room allocation.

3. Curriculum Committee responsible for the program curriculum and make necessary changes to maintain the consistency of the program.

4. E-Learning committee facilities E-Learning services to the staff and students.

5. Academic Project committee provides guidelines to the students and evaluate the same.

6. Examination Committee manages examination process of the department

7. Equipment and Facilities: committee prepare the requirements of the laboratories and libraries.

8. Research Committee enhances all scientific research related activities

Measurement and evaluation Committee to evaluate the performance of department semester-wise.

3. Arrangements to Monitor Quality of Courses Taught by other Departments.

Course Coordinator responsibility to follow updated Course Specification, Course Plan and follow-up accordingly. Exam questions must match with course learning outcome. It is department responsibility to monitor course quality taught by other department.

4. Arrangements Used to Ensure the Consistency between Main Campus and Branches (including male and female sections)

To ensure the consistency between male and female section,
Course Coordinator for each course, must follows the progress of the course, Mid exams, and final exam structure and question with CLOs in the male and female section.
Follow the updated Course Specification and Course plan by both sides (male and female).
In the courses material theory and practical material applies the same in both sections, which will ensure the consistency between two sides.

5. Arrangements to Apply the Institutional Regulations Governing the Educational and Research Partnerships (if any).

Not Applicable

6. Assessment Plan for Program Learning Outcomes (PLOs), and Mechanisms of Using its Results in the Development Processes

Department of Computer Science and Applications uses a well-developed assessment plan to assist the program learning outcomes in every domain of learning Quality development and its improvement of the program is directly controlled and managed by the university higher authority along with the deanship of development and quality's supports, monitoring, and commitment to establish quality culture.

Dean of the College has formed several committees and sub-committees of representatives from program's administrators, faculty members, and other staff members. Direct involvement of all the academic and administrative staffs of the program creates a generous quality environment in the college as well as in the department that supports further development, control, and improvement of the quality culture within the program. Committees and sub-committees of the college supports and advice on mechanism, policies, procedures, management, and implementation of activities and tasks related to quality control and improvement in the program.

Improvements in quality are appropriately acknowledged and great achievements recognized. Faculty members are involved in the quality improvement processes and their participation is required in all sorts of activities. Seminars, workshops, training programs relating to quality have been provided by Deanship for development and quality, ensures continued quality monitoring.

7. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Leadership	Faculty	Survey	End of the academic year
effectiveness of teaching & assessment	Faculty, Student	Survey	End of the semester
Learning resources	Faculty, Student	Survey, interview	beginning of semesters

Evaluation Areas/Aspects (e.g., leadership, effectiveness of teaching & assessment, learning resources, partnerships, etc.)
Evaluation Sources (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others (specify)
Evaluation Methods (e.g., Surveys, interviews, visits, etc.)
Evaluation Time (e.g., beginning of semesters, end of academic year, etc.)

8. Program KPIs*

The period to achieve the target (.........) year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1					
2					
3					
4					
5					
......					

* including KPIs required by NCAAA

I. Specification Approval Data

Council / Committee	
Reference No.	
Date	