جامعة أم القرى
UMM AL-QURA UNIVERSITY

دليل لجنة الجودة والتطوير بقسم هندسة البرمجيات

Quality and Development Committee Guide for Software Engineering Department

Created by:
Quality and Development Committee

College of Computing

The College of Computing, founded in 1426 AH, includes five academic departments offering bachelor's and master's degrees. The college is internationally accredited by ABET for academic excellence in the Computer Science & Computer Engineering programs.

Vision

To establish a hub for learners and scholars to facilitate computing and knowledge technology for community and industry.

Mission

Creation of a conductive environment for quality education and innovative research in computing and informatics promoting knowledge-based economy, societal needs and ethical values.

Overview

The College of Computing at Umm Al Qura University is dedicated to creating a learning environment that focuses on students' needs, with the goal of nurturing highly skilled professionals. This dedication is demonstrated through the implementation of innovative academic programs that cover a wide range of subjects including computer science, artificial intelligence, computer engineering, networks, and data science. One particularly noteworthy program offered by the college is the Bachelor of Science in Software Engineering. Students will be prepared for careers in the ever-evolving field of software engineering, where they will learn a unique perspective on designing and developing high-quality software systems that meet the needs of society and industry.

The Quality Assurance Committee of the Software Engineering program is proposing an operational plan to fulfill the mission and goals of the College of Computing and the Software Engineering program. The operational plan is aligned with the College of Computing's strategic plan, the various objectives, and programs.

Vision

To be a leading reference in education and scientific research in the field of software engineering.

Mission

Providing comprehensive education in software engineering.

Objective

1. Obtaining academic accreditation for the software engineering programs.
2. Improving the quality and impact of research outcomes by focusing on publishing rigorous research in prestigious journals.
3. Enhancing curricula with methodologies in research, innovation, and entrepreneurship.
4. Providing practical training for students to engage in real software development projects, bridging the gap between theoretical studies and actual industry practices.
5. Showcasing the research and innovation output of faculty members, as well as educational outputs such as teaching content and graduation projects, on the university's website.

Committees Formed at the Department

1. Supervisory Committee for the Software Engineering Program
2. Graduation Projects Committee for the Software Engineering Department

3. Student Affairs and Advising Committee for the Software Engineering Department
4. Program Development Committee for the Software Engineering Program in the Software Engineering Department
5. Curriculum and Academic Plans Committee
6. Program Development Committee for Human-Computer Interaction
7. Development and Quality Assurance Committee
8. Examinations Management Committee in the Department
9. Student Training Committee for the Software Engineering Department
10. Screening and Selection Committee for Assistant Professor Applicants in the Software Engineering Department
11. Program Management Committee for the Software Engineering Program in the Software Engineering Department
12. Program Management Committee for the Human-Computer Interaction Program in the Software Engineering Department
13. Program Management Committee for the Information Systems Program in the Software Engineering Department

First: Curriculum and Academic Plans Committee

Duties of the Committee Chair:

- Distribute tasks among program committee members.
- Continuously coordinate among committee members and organize meetings to discuss the program.

- Organize communications, meetings, and workshops with beneficiaries of the program outcomes within and outside the university in coordination with the college administration.
- Review requirements, procedures, and forms related to academic plans and programs.
- Coordinate with the college and the college's curriculum committee on matters related to academic program development within the department.

Committee Duties and Responsibilities:

- Monitor, review, and ensure that the department's academic programs and plans meet university and academic requirements, market needs, quality requirements, accreditation standards, and national qualification framework regulations.
- Review proposals for new or updated academic programs.
- Review and provide feedback on the structure of academic plans.
- Review and provide feedback on program and course descriptions.
- Submit courses to the department council for approval after addressing all comments and complete the formal procedures.
- Undertake any additional tasks assigned by the department head.

Final Outputs of the Committee:

1. Document the committee's meeting minutes and submit them to the department head at the end of each semester.
2. Submit a report on the committee's accomplishments at the end of each semester and present it to the department council.
3. Comply with the governance requirements of committee work.

Second: Development and Quality Committee

Duties of the Committee Chair:

- Distribute tasks among program committee members.
- Continuously coordinate among committee members and organize meetings to discuss the program.
- Establish a timeline for preparing the program quality manual, update it when necessary, and monitor its implementation.
- Organize communications, meetings, and workshops with beneficiaries of program outcomes within and outside the university in coordination with the college administration.
- Review requirements, procedures, and forms related to academic plans and programs.
- Coordinate with the college's development and quality committee on matters related to the department's development and quality.

Committee Duties and Responsibilities:

- Monitor, review, and ensure that the department's academic programs and plans meet quality requirements, accreditation standards, and specialized criteria.
- Review and provide feedback on program and course descriptions to ensure they meet quality and accreditation requirements.
- Provide feedback to the course coordinator after submitting course files.
- Direct course coordinators to provide feedback to faculty members after submitting course outlines.
- Prepare and update the program's quality manual when needed.
- Supervise the implementation and management of the program's quality system.

- Prepare periodic reports on the implementation of the quality system in the program.
- Supervise the processes for local and international accreditation and work on meeting its requirements.
- Comply with all quality and accreditation requirements, such as fulfilling institutional quality requirements, preparing annual follow-up reports for accredited programs, and preparing accreditation condition and recommendation reports.
- Contribute to spreading the culture of quality and accreditation among department members through lectures, seminars, and training courses in coordination with the College's Development and Quality Unit.
- Identify challenges and problems facing program development and propose solutions.
- Provide a comprehensive database and information on all quality activities within the department.
- Assess the completion and archiving of quality requirements and documents such as performance files and course files at the program level in the department.
- Evaluate the completion and archiving of requirements for self-assessment studies of academic programs within the college.
- Undertake any additional tasks assigned by the department head.

Final Outputs of the Committee:

1. Document the committee's meeting minutes and submit them to the department head at the end of each semester.
2. Submit a report on the committee's accomplishments at the end of each semester and present it to the department council.
3. Comply with the governance requirements of committee work.

4. Prepare a report on the committees that have submitted quality-related work.

Third: Scheduling Committee

Committee Duties and Responsibilities:

- Prepare class schedules for all department programs, including bachelor's, diploma, and master's programs.
- Prepare the schedule for each semester, considering the expected number of students per the university's educational affairs and the Admissions and Registration Deanship's procedures.
- Handle emergency requests from students and faculty members from the start of the semester.
- Communicate and coordinate with the college's academic affairs regarding program schedules.
- Undertake any additional tasks assigned by the department head.

Final Outputs of the Committee:

1. Document the committee's meeting minutes and submit them to the department head at the end of each semester.
2. Submit a report on the committee's accomplishments at the end of each semester and present it to the department council.
3. Comply with the governance requirements of committee work.

Fourth: Examination Coordination Committee

Committee Duties and Responsibilities:

- Organize dates for midterm and final exams, coordinate them, create examination schedules for students, and assign proctoring duties.
- Record problems during exams and propose appropriate solutions in coordination with the department head and college's educational affairs.

- Supervise exam proceedings and ensure the presence of proctors as scheduled.
- Monitor and follow up with students who miss final exams in coordination with the course instructor and department head to verify the validity of excuses provided by students.
- Assist students from other departments who missed final exams and ensure the submission of accepted excuses to the department.
- Undertake any additional tasks assigned by the department head.

Final Outputs of the Committee:

1. Document the committee's meeting minutes and submit them to the department head at the end of each semester.
2. Submit a report on the committee's accomplishments at the end of each semester and present it to the department council.
3. Comply with the governance requirements of committee work.

Fifth: Student Affairs and Advising Committee

Committee Duties and Responsibilities:

- Organize meetings to support academic advising for faculty members.
- Prepare and distribute an academic advising booklet for students at the beginning of the semester, with an electronic version published on the college website.
- Assign advisors to students.
- Instruct advisors to create a file for each student containing information about their hobbies, academic achievements, challenges, and other details.
- Ensure students know the office hours of faculty members.

- Encourage faculty members to communicate with students using the approved communication methods.
- Monitor student performance in midterms, provide support and guidance to those in need, and identify struggling students early.
- Provide academic follow-up for students in different years, offer guidance, and direct them according to their academic standing.
- Prepare periodic reports on academic challenges faced by some students in different years.
- Inform students of the results of presenting their issues and proposed solutions.
- Submit monthly reports to the department head for matters requiring the department council's decisions.
- Undertake any additional tasks assigned by the department head.

Final Outputs of the Committee:

1. Document the committee's meeting minutes and submit them to the department head at the end of each semester.
2. Submit a report on the committee's accomplishments at the end of each semester and present it to the department council.
3. Comply with the governance requirements of committee work.

Sixth: Graduation Projects Committee

Committee Duties and Responsibilities:

- Supervise the graduation projects of department students.
- Manage the process for selecting project supervisors.
- Address grievances and problems students face in their graduation projects and recommend suitable solutions.
- Schedule and manage project discussions.

- Prepare an annual report including project descriptions and statistics.
- Coordinate in preparing the student achievement exhibition.

Final Outputs of the Committee:

1. Document the committee's meeting minutes and submit them to the department head at the end of each semester.
2. Submit a report on the committee's accomplishments at the end of each semester and present it to the department council.
3. Comply with the governance requirements of committee work.

Seventh: Graduate Studies Committee

Committee Duties and Responsibilities:

- Organize meetings to support graduate students in the department.
- Monitor the progress of graduate students concerning compliance with the approved duration.
- Act as a point of reference for supervisors and students when needed.
- Encourage faculty members to communicate with students using approved communication methods.
- Provide feedback to students regarding the outcomes of their issues and proposed solutions.
- Submit monthly reports to the department head for matters requiring the department council's decisions.
- Guide graduate students in their studies, ensure adherence to study plans, and monitor course and examination timelines, including thesis submission and supervisor selection.
- Assist graduate students in learning about faculty research interests and workloads.

- Guide graduate students on following required procedures and using the necessary forms.
- Track the progress of graduate students in earning their degrees.
- Provide the executive administration with the necessary forms to assist the Graduate Studies Committee in monitoring graduate students in the department.

Final Outputs of the Committee:

1. Document the committee's meeting minutes and submit them to the department head at the end of each semester.
2. Submit a report on the committee's accomplishments at the end of each semester and present it to the department council.
3. Comply with the governance requirements of committee work.

Eighth: Faculty Affairs Committee

Committee Duties and Responsibilities:

- Develop policies and procedures for selecting faculty members.
- Regularly assess the performance of faculty members using established criteria and provide feedback in coordination with the department head.
- Provide professional and academic development programs and encourage faculty participation.
- Gather feedback from faculty to assess the adequacy and quality of services provided to them and gauge their satisfaction.
- Organize interviews with candidates for faculty positions.
- Provide recommendations and feedback on applications for academic and administrative positions in the department.

- Orient new faculty members and encourage them to attend orientation programs organized by the university.
- Follow up with teaching assistants and lecturers in the department and support them in completing their graduate studies.
- Follow up with faculty members on scholarships and communicate with them as needed.
- Undertake any additional tasks assigned by the department head.

Final Outputs of the Committee:

1. Document the committee's meeting minutes and submit them to the department head at the end of each semester.
2. Submit a report on the committee's accomplishments at the end of each semester and present it to the department council.
3. Comply with the governance requirements of committee work.

Ninth: Research and Laboratories Committee

Committee Duties and Responsibilities:

- Develop and implement a strategic plan to support and promote research in the department.
- Foster a culture of research among faculty members and students.
- Evaluate research project proposals submitted by faculty members for support.
- Seek funding for research projects from local and international funding bodies.
- Foster interdisciplinary research collaborations within and outside the university.
- Monitor the research progress of faculty members and provide feedback to improve research quality.
- Maintain an updated list of faculty research areas and achievements.

- Develop and oversee research incentive programs for faculty members.
- Maintain a database of department research facilities and their usage.
- Ensure that laboratories and equipment are used effectively in research and teaching.
- Provide feedback on the laboratory needs of the department and collaborate with the college to address those needs.
- Undertake any additional tasks assigned by the department head.

Final Outputs of the Committee:

1. Document the committee's meeting minutes and submit them to the department head at the end of each semester.
2. Submit a report on the committee's accomplishments at the end of each semester and present it to the department council.
3. Comply with the governance requirements of committee work.

Graduates' Attributes

Our SE alumni have four essential characteristics: professionalism, ethics, lifelong learning and research, and leadership. Thus, these are the primary attributes:

1. Deep knowledge and understanding of Software Engineering.
2. Required technical competencies to solve real-world problems using adequate SE methods, tools, and technologies.
3. Effective communication in a variety of professional contexts.

4. High professional and ethical standards competencies in software systems development to efficiently contribute to the progress of the working organizations and worldwide societies at large
5. Leadership and team management skills by taking initiatives facilitating the successful completion of professional duties.
6. High skills and knowledge through life-long learning and pursuit of graduate studies.

Curriculum Structure

Program Structure	Required / Elective	No. of courses	Credi Hours	Percentage
Institution Requirements	Required	13	32	17.67%
	Elective	3	6	3.31%
College Requirements	Required	16	49	27%
	Elective			
Program Requirements	Required	22	73	40.33%
	Elective	3	9	5%
Capstone Course/Project	Required	2	4	2.2%
Field Experience/Internship	Required	2	8	4.41%
Others				
Total			181	100%

Study Plan Details

Level	Course Title	Required Elective /	Pre- Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	Intensive English C1	Required		4	College
	Islamic Culture 1	Required		2	College
	Computational Thinking & Problem Solving	Required		3	College
	Calculus	Required		4	College
	Discrete Structures 1	Required		4	College
Level 2	Intensive English C2	Required	Intensive English C1	4	College
	Holy Quran 1	Required		2	College
	Computer Programming 1	Required	Computational Thinking & Problem Solving	3	College
	General Physics	Required		4	College
	Linear Algebra	Required	Calculus	4	College
Level 3	Intensive English C3	Required	Intensive English C2	4	Institution
	Career Preparation Skills	Required		2	Institution

	Computer Programming 2	Required	Computer Programming 1	3	College

	Topics in Computing	Required		3	College
	Statistics & probability	Required		4	College
Level 4	Foundations of Software Engineering	Required	Computer Programming 1	3	Department
	Hardware Software interface	Required	Computer Programming 1	4	Department
	Software Engineering Ethics	Required		2	Department
	Data Structures	Required	Computer Programming 2	3	Department
	Islamic Culture 2	Required	Islamic Culture 1	2	Institution
	Holy Quraan 2	Required	Holy Quraan 1	2	Institution
Level 5	Requirements Engineering 1	Required	Foundations of Software Engineering	4	Department
	Distributed Programming paradigms	Required	Hardware software interface	4	Department
	Database Fundamentals	Required	Computer Programming 2	3	Department

	Algorithm Fundamentals	Required	Data Structures	3	Department
	Arabic Writing	Required		2	Institution
	Holy Quraan 3	Required	Holy Quraan 2	2	Institution
Level6	Software Design & Construction 1	Required	Requirements Engineering 1	5	Department
	Requirements Engineering 2	Required	Requirements Engineering 1	3	Department
	Web Engineering	Required	Computer Programming 2	3	Department
	Project Management	Required	Foundations of Software Engineering	3	Department
	University Elective 1	Elective		2	Institution
	Holy Quraan 4	Required	Holy Quraan 3	2	Institution
Level7	Software Testing	Required	Software Design & Construction 1	3	Department
	Mobile Apps engineering	Required	Computer Programming 2	3	Department
	Models & Methods	Required	Software Design & Construction 1	3	Department

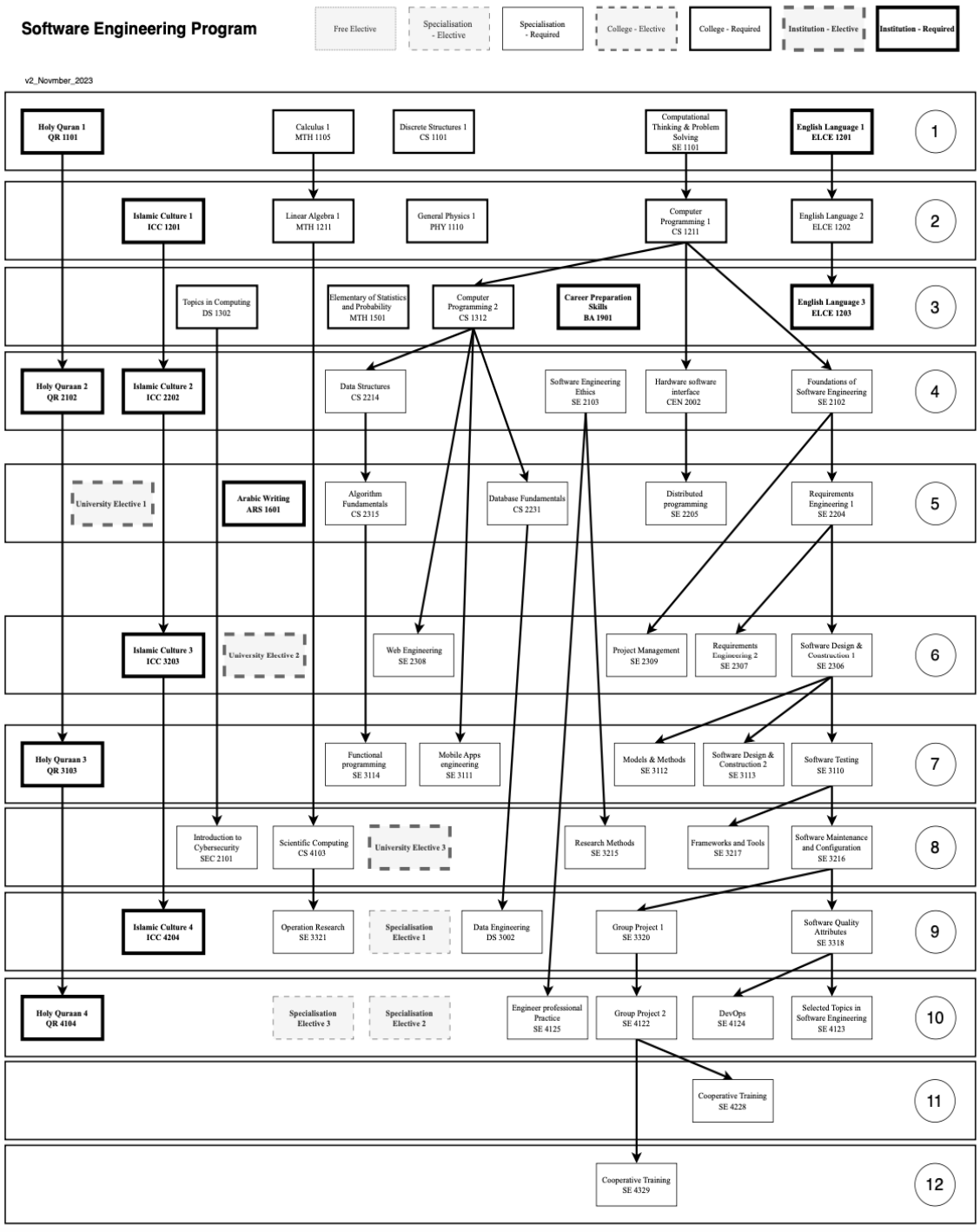
	Software Design& Construction 2	Required	Software Design & Constructio n 1	3	Departmen t
	Functional programming	Required	Calculus	3	Departmen t
	University Elective 2	Elective		2	Institution
Level8	University Elective 3	Elective		2	Institution
	Research Methods	Required	Software Engineering Ethics	2	Departmen t
	Software Maintenance and Configuration	Required	Softwa re Testin g	4	Departmen t
	Introduction to Cybersecurity	Required	Topics in Computing	3	Departmen t
	Scientific Computing	Required	.....	3	Departmen t
	Frameworks and Tools	Required	.....	4	Departmen t
Level9	Software Quality Attributes	Required	Software Maintenan ceand Configuration	4	Departmen t
	Specialization Elective 1	Elective		3	Departmen t
	Data Engineering	Required	Database Fundamental s	3	Departmen t

	Group Project 1	Required	Software Maintenance and Configuration	2	Department
	Operation Research	Required	Scientific Computing	4	Department
	Islamic Culture 3	Required	Islamic Culture2	2	Institution
Level10	Group Project 2	Required	Group Project 1	2	Department
	Selected Topics in Software Engineering	Required	Software Quality Attributes	3	Department
	DevOps	Required	Software Quality Attributes	3	Department
	Islamic Culture 4	Required	Islamic Culture 3	2	Institution
	Engineer professional Practice	Required	EngineeringEthics	2	Department
	Specialization Elective 2	Elective	Specialization Elective 1	3	Department
	Specialization Elective 3	Elective	Specialization Elective 1	3	Department
Level 11	Cooperative Training	Required	Group Project 2	4	Department
Level 12	Cooperative Training	Required	Group Project 2	4	Department

Elective Courses

1	Design Patterns	3	Software Design & Construction 2	Department
2	Internet of Things Application Development	3	Frameworks and Tools	Department
3	Code Generation	3	DevOps	Department
4	Software documentation and redocumentation	3	Software Maintenance and Configuration	Department
5	Game programming	3	Software Design & Construction 2	Department
6	Cloud Computing	3	Foundations of Software Engineering	Department
7	Seminars in Software Engineering	3	Software Quality Attributes	Department
8	Software Crisis	3	Software Maintenance and Configuration	Department
9	Software Quality Standardization	3	Software Quality Attributes	Department

Prerequisites Structure



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Student Guide for Support and Services

University-Level support and Services

List of Services	Information Links
AdmissionFAQs	https://uqu.edu.sa/dadregis/App/GALLERY/153371?id=21 5167
The universityguide	https://drive.uqu.edu.sa/_/luc/files/ل%20الطلب%20المعي.pdf

Ghali Centrefor disabled	https://uqu.edu.sa/studaff/App/FAQ/124146
Student Guidance andCounseling Center	**https://uqu.edu.sa/studaff/App/FAQ/124167**
Department of Student Rights Protection and Disciplinary	**https://uqu.edu.sa/studaff/App/FAQ/124286**
Student Accommodationn	**https://uqu.edu.sa/studaff/App/FAQ/124293**
Student Transportation Department	**https://uqu.edu.sa/studaff/App/FAQ/124272**
Regulations forstudy and examinations	**https://drive.uqu.edu.sa/__/dadregis/files/44/LDWEJ442C.pdf**

List of Services	Information Links
King Abdullah bin Abdulaziz Library	https://uqu.edu.sa/lib
Free Microsoft Office packagefor students	https://uqu.edu.sa/it/1075
University Medical Centre	https://uqu.edu.sa/umc

College Level Services and Support

Injaz

Injaz aims to present the achievements of the college, exemplified by the graduation projects of its students from diverse departments. The students accentuate their graduation projects through scientific posters, subsequently undergoing evaluation by aspecialized committee.

The exhibition is accompanied by the **"Your Project in 3 Minutes (3MP)"** competition, which is adapted from the well-known international competition "3 Minute Thesis (3MT)". This competition is designed to elevate students' proficiency in delivering clear and concise presentations, motivating them to compete and showcase their ideas in innovative and unconventional ways.

Hackathons

The college has organized and continues to organize numerous competitions and hackathons, such as the **Smart Makkah Hackathon**, which brought together university students and faculty members to devise innovative solutions that serve the cityof Makkah.

To facilitate and streamline engagement in competitions and hackathons, the college has set up a specialized committee called the **'Competitions and Internal and External Participations Committee.'** This committee plays a pivotal role in supporting students throughout their participation journey, ensuring they receive regular updates on upcoming competitions, hackathons, and relevant opportunities. Moreover, the committee serves as a resource for students by providing guidance on preparing for competitions, offering mentorship, and facilitating access to necessary resources. For more information about participation in competitions and hackathons, please refer to the frequently asked questions at: https://uqu.edu.sa/cis/App/FAQ/156696.

Collage initiatives

Teach Me: Voluntary Initiative

It is a voluntary initiative among the members of the College of Computer Society to enrich the students' experience.
Gestures and acts of generosity and charity through this initiative are purely for Allah's Sake, without any expected reward or possible gain, with no limitation period.

Etqan Initiative

It is an initiative that aims to provide a training program to prepare students of the University for the requirements of the labor market. The initiative provides a training portfolio with a variety of technical training by continuously providing training programs throughout the week during the academic year. Experts from major technical companies and non-profit governmental and private entities concerned with technology will be sought for cooperation in this endeavor.

Digital Fountains Initiative

The initiative concerns providing a series of virtual scientific lectures, meetings and discussions by a constellation of specialists in the technical and informational fields. This initiative aims to spreading knowledge among the largest number of beneficiaries, introducing the new technologies in the field of computing, taking advantage of the expertise and capabilities from inside and outside the college in serving the community and Contributing to community awareness in a technical and informational manner by organizing specialized seminars and meetings.

'Communities Like You' Initiative

The initiative concerns to provide a safe environment for creatures living among us, such as the cats in our universities, and to spread the culture of kindness to animals which is urged by our religion and human nature.

HCI Program

Overview

The Human Computer Interaction Program is a four-year program that aims to graduate specialists who have the necessary knowledge and skills that enable them to provide interactive solutions based on the capabilities and requirements of users using the latest digital technologies with the aim of achieving user satisfaction and enriching the user experience.

Mission

The mission of the Human-Computer Interaction (HCI) program is to provide students with high-quality education to fully develop their professional qualities and skills as HCI specialists and contribute to the development of knowledge-based economy and community service, based on our Arabian and Islamic values

Goals

The goals of the Human-Computer Interaction program are to:

1. Provide the public and private sectors with highly competent HCI specialists.
2. Provide graduates who demonstrate professionalism and a sense of societal and ethical responsibility in their endeavors.
3. Provide graduates who continually improve their skills through professional or postgraduate education.
4. Encourage interaction of the students with the community to solve its HCI- related problems.

Relationship between program mission and the University Mission

The mission of the program ties directly with the university mission as the program aims to excel in the education provided to its students aiming to positively contribute to the economy and knowledge society.

Relationship between program objectives and the University Objectives

The program goals align directly with the University's first and second objectives as the program focus on:

1. Providing quality education programs
2. Raising the university's position globally by equipping graduates with the necessary knowledge and skills to compete at a high level internationally.

Graduate Attributes

The following table shows the program graduate attributes:

No.	Code	Attribute	Description
1	PGA1	Comprehensive (in-depth) knowledge and integrate understanding in HCI	Have a broad and integrated structure of knowledge, theories, concepts in computing, a broad understanding of human cognition, and an in-depth understanding of the theories, principles, methodologies, materials, and techniques in the field of HCI
2	PGA2	Creative Application of Knowledge	Utilize research skills to identify and employ HCI methodologies to develop innovative solutions
3	PGA3	Critical Thinking & Problem Solving	Apply logical and critical thinking to solve human computing related problems based on HCI theories, principles, & methodologies
4	PGA4	Technical Skills	Have the ability and proficiency in the design and development of computing technology
5	PGA5	Communication Skills	Have effective communication skills with a wide range of audiences

6	PGA6	Professionalism & Ethics	Recognize & adhere to ethical and professional integritystandards & responsibilities when designing and developing computing technology for human use.
7	PGA7	Leadership & Teamwork	Work independently and within a team to effectively meet goals and provide leadership.
8	PGA8	Life-long learning	Actively acquire and apply new knowledge in various fields, using appropriate learning strategies
9	PGA9	Community service	Effectively participate & contribute in the community to aid in its development and well being

The following table shows the UQU graduate attributes

No.	Code	Attribute
1	IGA1	Acquisition of a comprehensive, coherent, and organized body of knowledge in aparticular field of study
2	IGA2	Application of Knowledge
3	IGA3	Critical Thinking and Problem-Solving Skills
4	IGA4	Technical Skills
5	IGA5	Communication Skills
6	IGA6	Islamic Ethics and Values, Integrity, and Professionalism
7	IGA7	Autonomy, Responsibility, and Teamwork
8	IGA8	Self-Study Skills and Life-long learning
9	IGA9	Serve the community and Pilgrims

Program learning Outcomes

Knowledge and Understanding	
K1	Exhibit general knowledge of computing theories and concepts
K2	Demonstrate broad knowledge & understanding of human cognition and psychology and its relationship to the HCI field
K3	Explain the theoretical & practical aspects of the HCI field
Skills	
S1	Solve problems utilizing HCI theories, tools, and techniques by applying knowledge from related disciplines aiming at universal access & inclusiveness.
S2	Analyze the context of use, stakeholder needs, state-of-the-art interaction opportunities, andenvisioned solutions considering user attitude.
S3	Evaluate design of interactive applications by presenting and defending opinions based on validideas and sound HCI principles.

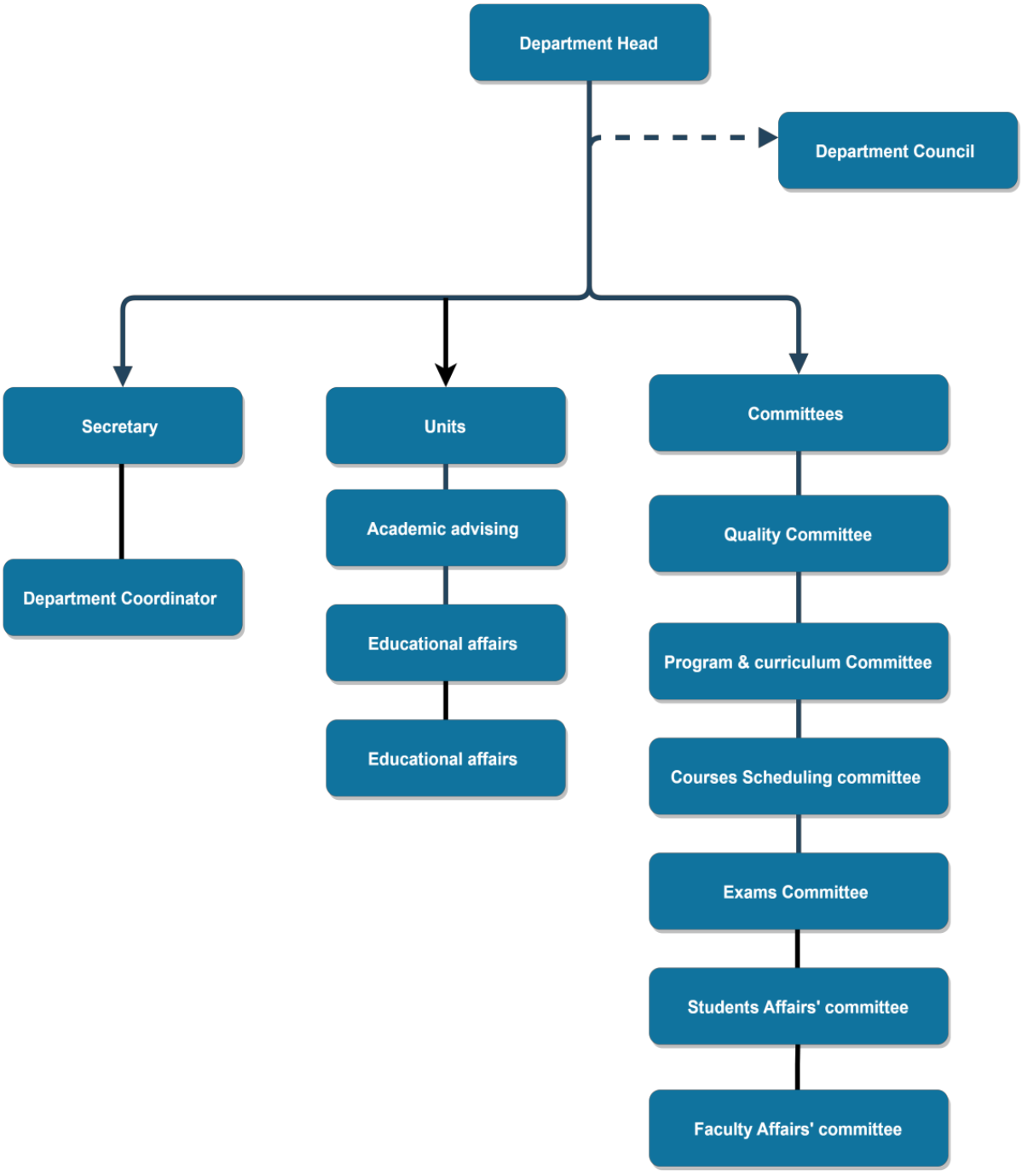
S4	Design interactive applications by applying relevant principles, tools, & techniques
S5	Effectively communicate with a wide range of audiences.

Values	
V 1	Recognize & adhere to ethical and professional integrity standards & responsibilities when designing and developing computing technology for human use.
V 2	Engage in self-learning as a base for lifelong learning of new concepts, techniques and toolsrelating to the HCI field and its related disciplines
V 3	Work independently and within a team to effectively meet goals and provide leadership.
V 4	Effectively participate and contribute in the community to aid in its development and well being

Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	**11**	**24**	**13.3**
	Elective	**3**	**6**	**3.33**
College Requirements	Required	**11**	**40**	**22.22**
	Elective	**0**	**0**	**0**
Program Requirements	Required	**24**	**78**	**43.33**
	Elective	**4**	**12**	**6.66**
Capstone Course/Project		**3**	**12**	**6.66**
Field Experience/ Internship		**1**	**8**	**4.44**
Others		**0**	**0**	**0**
Total		**57**	**180**	**100**

Program Structure



Program structure diagram

Program Study Plan

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Department)
1st Year						
Level 1	ELCE 1201	English Language 1	Required		4	Institution
	QR 1101	Holy Quran (1)	Required		2	Institution
	SE 1101	Computational Thinking & Problem Solving	Required		3	College
	MTH 1105	Calculus 1	Required		4	College
	CS 1101	Discrete Structures (1)	Required		4	College
Level 2	ELCE 1202	English Language 2	Required	ELCE 1201	4	College
	ICC 1201	Islamic Culture (1)	Required		2	Institution
	CS 1211	Computer Programming (1)	Required	SE 1101	3	College
	PHY 1110	General Physic (1)	Required		4	College
	MTH 1211	Linear Algebra (1)	Required	MTH 1105	4	College
Level 3	ELCE 1203	English Language 3	Required	ELCE 1202	4	College
	BA1901	Career Preparation Skills	Required		2	Institution
	CS 1312	Computer Programming (2)	Required	CS 1211	3	College
	DS 1302	Topics in Computing	Required		3	College
	MTH1501	Elementary of	Required		4	College

		Statistics and Probability				
2nd Year						
Level 4	QR 2102	Holy Quran (2)	Required	QR 1101	2	Institution
	PSY 2101	Introduction to Psychology	Required		3	Department
	PSY 2102	Introduction to Human Cognition	Required		3	Department
	HCI 2101	Fundamentals of Human-Computer Interaction	Required		4	Department
	CS 2231	Database Fundamentals	Required	CS 1312	3	Department
Level 5	ICC 2202	Islamic Culture (2)	Required	ICC 1201	2	Institution
	HCI 2202	Foundations of User Experience	Required		3	Department
	CS 3251	Web Development Fundamentals	Required	CS2231	4	Department
	HCI 2203	Visual Design	Required		3	Department
	HCI 2204	User Research	Required	HCI 2101	3	Department
Level 6	ARS1601	Arabic Writing and Editing	Required		2	Institution
	HCI 2304	User Interface Design	Required	HCI 2203	4	Department
	SE 2102	Foundations of Software Engineering	Required	CS 1312	3	Department
	HCI 2305	Information Architecture	Required	HCI 2202	3	Department
	HCI 2306	Ethics for the Information	Required		3	Department

		Age				
3rd Year						
Level 7	HCI 3104	Design Systems	Required	HCI 2203	3	Department
	HCI 3105	Project Management	Required		3	Department
	HCI 3106	Inclusive Design	Required	HCI 2202	3	Department
	HCI 3107	Persuas in Techniques	Required	HCI 2304	3	Department
	HCI 3108	Prototyping Methods	Required	HCI 2304	3	Department
	QR 3103	Holy Quran (3)	Required	QR 2102	2	Institution
Level 8		University Elective (1)	Elective		2	Institution
	ICC 3203	Islamic Culture (3)	Required	ICC 2202	2	Institution
	HCI 3209	Usability Evaluation	Require	HCI 3108	4	Department
	HCI 3210	Designing Mobile Interfaces	Required	HCI 2304	4	Department
	HCI 3211	Voice User Interfaces	Required	HCI 3108	3	Department
Level 19	HCI 3333	Cooperative Training	Required		8	Department
4th Year						
Level 20	QR 4104	Holy Quran (4)	Required	QR 3103	2	Institution
	HCI 4109	Web Development Frameworks	Required	CS 3251	4	Department
	HCI 4110	Graduation Project (1)	Required	HCI 3105 HCI 3209	4	Department
		University Elective (2)	Elective		2	Institution
		Specialization Elective (1)	Elective		3	Department
Level 21	HCI 4211	User Experience for Extended Reality	Required		3	Department

	HCI 4212	Data Visualization Design	Required	HCI 2203 CS 2231	3	Department
	HCI 4213	Graduation Project (2)	Required	HCI 4110	4	Department
	ICC 4204	Islamic Culture (4)	Required	ICC 3203	2	Institution
		Specialization Elective (2)	Elective		3	Department
Leve 22		University Elective (3)	Elective		2	Institution
	HCI 4314	Portfolio Development	Required		3	Department
	HCI 4315	Graduation Project (3)	Required	HCI 4213	4	Department
		Specialization Elective (3)	Elective		3	Department
		Specialization Elective (4)	Elective		3	Department

Elective Courses

#	Course Code	Course Title	Credit Hours	Pre-Requisite Courses	Type of requirements (Institution, College, or Department)
1	HCI 4011	Computer Game Design	3	HCI 3107	Department
2	CS 4051	Mobile Applications	3	CS 2231 CS 3251 HCI 2304	Department
3	HCI 4013	Service Design	3	HCI 2304	Department
4	HCI 4014	Wearable Technologies	3		Department
5	HCI 4015	Human-Robot Interaction	3		Department
6	HCI 4016	Search Engine Optimization and User Experience	3	HCI 2202	Department
7	HCI 4017	Advanced Topics in Human-Computer Interaction	3		Department

Quality Assurance Committee

The Quality Committee in the department takes the following measures at the end of each semester:

1. Preparing an official letter addressed to all coordinators of the program's courses to prepare a file for the relevant course after coordination with all the course providers from both sides (male and female students).

2. Approving the letter mentioned in the previous point from the department head and officially delivering it to the course coordinators.
3. Receiving the files of the coordinators and transferring them to the members of the Quality Committee to analyze their content, monitor the progress of the process of linking the learning outcomes of the course with the learning outcomes of the program, study the mentioned deficiencies, and prepare a special report for that.
4. Holding a meeting of the Quality Committee to discuss and prepare an improvement plan to raise the efficiency of program performance and submit that plan to the department head.
5. Present the plan mentioned in the previous point to the department council members for approval as an improvement plan of action to raise the program quality's efficiency.
6. Receiving and evaluating suggestions from faculty members and the program students to improve the program.
7. Review the course descriptions for each semester during the prior term to evaluate and revise the content, activities, and assessment criteria, update references, and submit them to the Curriculum and Academic Plans Committee..

Committee Members

No.	Name	Position
1	Dr. Foziah Gazzawe	Chairman of the Committee
2	Dr. Asmaa Sulaiman Al-Ayed	Vice chairmanship
3	Dr. Salman Zayed Al-Harithi	Member of the Committee
4	Dr. Abdulhadi Muhadhar Aidarous	Member of the Committee
5	Dr. Muhammad Mukhtar Abdulkadir Al-Tunisi	Member of the Committee
6	Turki Muhammad Al-Anzi	Member of the Committee
7	Ismail Muhammad Dagestani	Member of the Committee
8	Rua Tawfiq Al-Sirouji	Member of the Committee

Forms

All NCAAA files are accessible on the Deanship of Development and Quality section of the College of Computers web page (click here) , for further reference.