



Strategic Plan

FOR COMPUTER SCIENCE

May 2011

Contents

1	Department Mission	1
1.1	Mission Statement	1
1.1.1	Research Wise	1
1.1.2	Educational Wise	1
1.2	Vision	2
1.3	Guiding Principles	2
2	Members Roles	3
2.1	Department's Members' Roles	3
2.2	Administrative Assignments	4
2.2.1	Head Of Department (HOD)	4
2.2.2	Deputy Head Of Department (DHOD)	5
2.2.3	Undergraduate Course Director (UCD)	5
2.2.4	Postgraduate Course Director (PCD)	5
2.2.5	Internal Policies Director	5
2.2.6	Appeal Officer	5
2.2.7	Student Support and Disability Coordinator	6
2.2.8	Accreditation Board for Engineering and Technology (ABET) Director	6
2.2.9	Research Director (RD)	6
2.2.10	Publicity/Public Relations Director (PRD)	7
2.2.11	Career Advisor/Development and Alumni Relations coordinator/Outreach	7
2.2.12	Academic Advisor Years 1, 2, 3 & 4	8
2.2.13	Website Officer	8
2.2.14	Labs & Facility Coordinator	9
2.3	Boards of Examiners - Years 1 & 2	9
2.4	Boards of Examiners - Years 3 & 4	10
3	Departmental Meetings	11
3.1	Meetings Structure	11

Chapter 1

Department Mission

1.1 Mission Statement

1.1.1 Research Wise

The Computer Science Department aims for excellence in contributing, applying, and imparting knowledge in computer science and engineering. The department shall encourage by all possible means research collaborations with industry and/or government and dissemination through scholarly publications.

The department's objectives are clearly illustrated in the following:

- To expand the knowledge of Computer Science by encouraging scholarly publications.
- To pioneer cretin filed(s) in Computer Science.
- To serve as an advisory base for government/private sectors.

Eventually, the department aiming at serving the society, the country and the nation by producing high quality research that solves current problems and enhances our life style.

1.1.2 Educational Wise

The Department offers a bachelor of science degree in both computer science (CS) and computer science and engineering (CSE). The main difference between the CS and CSE degrees is that the former is designed to accommodate those students who desire a strong foundation in computer science, algorithms design, and programming skills, while the latter is designed for those

who also have a strong interest in computer systems hardware. Both majors shall be approved by the Accreditation Board for Engineering and Technology (ABET) “Inshalla”. Educational objectives are as follows:

- To produce students that meet the needs of the national market.
- Students shall demonstrate (hopefully) strong communication skills and the ability to function effectively as part of a team.
- To advise and support graduate students so as to effectively select their careers.
- To guide students who are potentially interested in higher education studies.

1.2 Vision

As a long term vision, we will be a leading institute “Inshalla” in Computer Science education at the undergraduate and graduate levels. “Inshalla” we will attract superior students and faculty to fulfill our educational and scholarship responsibilities. We will be widely recognised for the high quality of our research, be it foundational, applied, or interdisciplinary in nature. Our outreach activities will result in the dissemination of valuable knowledge to the Kingdom and the Nation.

1.3 Guiding Principles

We recognise that the achievements of our students and our academic staff are the ultimate measures of our success. Thus, the department shall provide, to the best of its abilities, the appropriate environment, space and equipments for both students and academics.

Adequate resources should be provided to all faculties, teaching assistants, students and staff in order for them to be successful in their respective job duties. This is required by ABET accreditation, and must be achieved yearly.

The department shall seek to hire and maintain high quality faculty in the areas of computer science, and interdisciplinary interests. Approval for academic positions, both replacement and new, needs to come from the Dean, Department’s Recruiting Committee and the Head of Department.

Chapter 2

Members' Roles

2.1 Department's Members' Roles

The main role of faculty members is to support the mission of the department. All members have certain common responsibilities. Namely, to commit themselves fully to their teaching obligations, to participate in the development of the programs of their departments, and, finally to processed with their research activities. Thus, members shall have the freedom to divide their working hours into three portions to serve their duties in the department as follows:

1. Teaching
2. Research (Optional)
3. Administrative

There is a minimum compulsory teaching percentage that should be undertaken by each member. This minimum portion of teaching should be compatible with the total number of modules' credit hours provided by the department in any semester. Thus, for example, if all members decided to have the minimum portions for teaching, then all modules should be taken by at least one member. Therefore, the minimum percentage of *Teaching* will depend on the number of available members in the department at any semester and the number of offered modules. An ideal distribution of duties for a PhD member is 25% teaching, 15% administrative tasks and 60% research.

The minimum portion of teaching can be calculated in a simple calculations as follows:

The weekly working hours for each active member is 40 hours and the total number of academics is *PhDs*. In addition, the number of Master lecturers is *MScs* (where each *MSc* is allowed to

teach 16 credit hours per semester). The number of teaching hours provided by the department in any semester is h . Finally, there is a c extra time factor which needs to be considered. This factor is used in preparations, marking, writing exams, ... etc. The value of this factor is related to the available number of *Teaching Assistants* (TAs) as they will carry off some of the loads from the *PhDs* members. Thus, the c factor will be different every year as the situation changes. For simplicity, and to avoid any unnecessary complexity, we will keep this factor as a fixed constant for all members.

$$MinimumTeaching = \left[\frac{(c \times h) - (MScs \times 16c)}{PhDs} \right] / 40 \quad (2.1)$$

2.2 Administrative Assignments

The main purpose of administrative assignments is to delegate authority and assign responsibility to the Administrative Review Board (i.e., PhDs faculty members), define its composition, and describe its functions. Each role must have at least one contact individual; however, the same role may be held by multiple individuals "if necessary". It is preferable to rotate these assignments every defined period.

The Department of Computer Science in Um Al-Qua University shall have a different internal administrative structure as detailed in the following subsections. Other administrative duties can be assigned if required. The list below should be reviewed and updated based on the department's built-up experience on a yearly basis.

Each member shall raise/discuss any of his/her concerns with other academic members in the departmental meetings. Additionally, each member shall report the progress made since the previous meeting. Naturally, all members are welcomed to offer their advice, share their experiences and suggest new ideas.

2.2.1 Head Of Department (HOD)

The HOD is responsible for the management of the department to help achieve its defined aims and objectives. Through the departmental development plan, HOD is responsible for reviewing the operation of the department and planning future development. Additionally, HOD is required to follow-up the general headlines of all other administrative assignments.

2.2.2 Deputy Head Of Department (DHOD)

The primary duty of the DHOD is to deputise for and support the HOD in leading the Department's academic and administrative performance and external engagements. Specific responsibilities and accountabilities are determined by the HOD and are subject to the approval of the Dean.

2.2.3 Undergraduate Course Director (UCD)

The role of the UCD is to lead department efforts to improve undergraduate course offerings and increase undergraduate numbers in the department. The UCD works closely with all faculty members in the departments to develop courses, and to facilitate interaction between different courses in different levels. In a nutshell, UCD is required to ensure that the learning outcome of any course is able to prepare the students for the next level and, eventually, the outcome of all courses is consistent to prepare the students for a professional careers. In addition, the UCD promotes and coordinates undergraduate research in the department and represents the department at university-wide events concerning undergraduate programs.

2.2.4 Postgraduate Course Director (PCD)

(To be assigned when needed)

2.2.5 Internal Policies Director

This is a temporary task (one month maximum). The internal policies director will prepare three handbooks. Namely, Postgraduate Students' Handbook, Undergraduate Students' Handbook and Staff Handbook. The internal policies director will work closely with the HOD. Once this task finishes the member will be assigned to another administrative position.

2.2.6 Appeal Officer

The top priority of the appeal officer is to make sure appeals are handled in a just and timely manner. The appeal officer is required to ensure that the department rules and guidelines (provided in the students' handbook) are met in relation to the students' complaints. In the case of active appeals the officer is required to form a committee to discuss and deal with the complaints. The officer is responsible to *formally* inform the relevant student about the committee's decision in any appropriate method (e.g., email or written letter). The appeal officer shall receive

plagiarism allegations from academic members and deal with them accordingly. Appeal officer shall record and store all cases, together with their decisions, in an archive for the departmental records.

2.2.7 Student Support and Disability Coordinator

This officer's responsibility is to coordinate a variety of individualised educational activities for students in need of special assistance, including; assessment, development of support plans, counselling, and instruction. If necessary, the disability coordinator can allocate a TA to a particular student to provide any required educational support. Additionally, the the disability coordinator shall provide awareness among students for un-obvious disabilities (e.g., dyslexia) and identify solutions for these problems. Further, the disability coordinator shall confer regularly with relevant students' supervisor, other Student Services staff, and other college offices/personnel to plan, coordinate and evaluate services, exchange information, investigate and resolve problems, refer students for assistance with special needs, and the like.

2.2.8 Accreditation Board for Engineering and Technology (ABET) Director

The ABET director will work closely with all academics and the HOD. The prime role of the ABET director is to ensure that the department is going in the right direction toward getting the ABET accreditation. The ABET director shall provide a reasonable time plan to be followed by the department. If the department has been already awarded the ABET, then the ABET director is responsible for ensuring that the department will maintain its requirements and to prepare a long term plan to further develop the department's standards.

2.2.9 Research Director (RD)

The main role of this position is to establish and adapt administrative programs for research within the department and develop and execute programs to fulfill the department's missions. In a nutshell, the RD shall be responsible to make a long-term plan to meet the department's research goals. This includes, but is not limited to, organising regular seminars, facilitate an internal review procedure for grant proposals written by academic members (i.e., form a review committee of members that have similar interests), in order to increase its chances of success. Advise members who are willing to submit grants (thus, the RD is required to be familiar with different funding bodies and their policies and have direct contact with them). Organise workshops and conferences in collaboration with other universities. Support other members who

already working on grants. Organise meetings with other departments that might have intersection with computer science (e.g., mathematics, biology/bioinformatics, ...etc.) in order to create further collaboration opportunities.

The RD will work closely with all academic members who decide to dedicate a portion of their working hours to research. The RD is responsible for monitoring the research progress carried out by the relevant academic members. All academic members who are active in research are required to submit monthly progress reports to the RD. Any previously submitted reports (e.g., reports submitted to funding body) can be submitted to the RD so as to not spend extra effort in filing paper work.

2.2.10 Publicity/Public Relations Director (PRD)

PRD will draft press releases and contact members in the media who might print or broadcast the department's significant news. Many radio or television special reports, newspaper stories, University's main web page and magazine articles start at the desks of the PRD. Moreover, the PRD shall create a weekly local news paper that includes all local departmental news (e.g., published papers, distinctive students' projects, grants won by members, ..etc.) and locally broadcast it in any suitable method (e.g., email or printed copies). The PRD shall ensure that this local news paper reaches all personnel, students, department's dean, department's deputy and the university chancellor.

2.2.11 Career Advisor/Development and Alumni Relations coordinator/Outreach

The prime role of this position is divided threefold. Firstly, as a career advisor, to provide advice, assistance, and resources for students to secure appropriate employment in business, government, education, and other professional fields. A related important focus is developing effective relationships with employers to promote UQU CS department, and develop opportunities for the students and graduates. Organise career events where many high profile employers will gather. Secondly, as alumni relations coordinator, this position will keep graduates engaged with the University in many ways including: updating them on research and developments, connecting and networking with their peers, encouraging the sharing ideas and discussion with the academy, offering meaningful volunteering opportunities and organising alumni events. Finally, to recruit distinctive prospective students via workshops and presentations at local schools.

2.2.12 Academic Advisor Years 1, 2, 3 & 4

The academic advisor plays an enormously important role in the study process. Students are advised to be in touch with their academic advisor. The role of the academic advisor extends beyond course and program scheduling. The advisor shall assist the students with all aspects of the academic experience and provide information regarding campus resources as needed. Some of the specific responsibilities of the academic advisor includes but are not limited to:

- Assistance with goal setting.
- Selection of educational program/ courses so as to coincide with the students career objectives.
- Monitoring academic progress.
- Clarification of academic policies.
- Assistance with academic issues.
- Assistance with personal concerns.

the academic advisor shall provide awareness that students are urged to contact your advisor on any matters related to educational progress. Also, the advisor shall provide awareness of students responsibilities of helping the advisor by sharing essential information about the academic progress, strengths, weaknesses, interests, and goals. Ideally, students should see their advisors at least three times per semester, at the beginning, near the mid-term, and at the conclusion of the semester.

All advisor sessions should be documented for the department records. Students shall be discouraged from registering for courses without consultation and advisor approval of their academic program. Also, the academic advisor is responsible to the course registration at the beginning of every semester.

2.2.13 Website Officer

The main objective of the website officer role is to assist in the creation of an improved website. The website officer shall work closely with all academic members.

2.2.14 Labs & Facility Coordinator

A science laboratory coordinator is a person who manages and oversees a laboratory and other facilities in the department (i.e., projectors, faculty's PC, scanners). The labs & facility coordinator is responsible for developing the laboratory's schedule and determining when it needs to be open for students or researchers. A calendar of times reserved for ongoing projects or particular kinds of work shall be provided. Additionally, a lab coordinator keeps track of all equipment and materials needed in the lab and orders more as needed. This will include to creating and following a budget. The lab coordinator is responsible for ensuring the safety of the department's laboratory by overseeing the use and maintenance of equipment, and by making sure that people working in the lab follow all of the established safety policies. Thus, the lab coordinator must be familiar with procedures for handling and storing any dangerous or hazardous materials.

The Labs & Facility Coordinator shall form a detailed proposal of all equipments needed for the department. Also, the role of this position will include forming an independent IT decision for the department.

2.3 Boards of Examiners - Years 1 & 2

The Boards of Examiners (or Examiners Committee) is chaired by the HOD or the DHOD and should be composed of 1) Undergraduate Course Director (UCD), 2) Appeal Officer, 3) Disability Coordinator, 4) All four academic advisor, 5) All academic tutors for the given courses in the semester and finally a secretary shall be the registrar of the meeting.

To ensure fairness in the marking scheme, the functions of Boards of Examiners are:

1. To undertake the responsibility for assessment of candidates and determination of results of degree and certificate examinations.
2. The Chairman of the Board of Examiners shall be responsible for ensuring that meetings are conducted in accordance with general department regulations (provided in the student's handbook) concerning examinations and also are in accordance with any special ordinances affecting the particular course of study on which the Board of Examiners is adjudicating.
3. The mark sheets shall be treated as confidential. Only those marks gained by an individual student, as determined finally by the Board of Examiners, shall be disclosed to the student concerned.

The Boards will meet after three weeks after the end date of the last exam. Detailed minutes of the meeting shall be reported to the Dean, the department's representative.

2.4 Boards of Examiners - Years 3 & 4

The same process as described in the previous section will be repeated.

Chapter 3

Departmental Meetings

The Department of Computer Science shall hold a monthly meeting that includes all academic members. The meeting will discuss in details the progress of the academic members in their administrative tasks.

3.1 Meetings Structure

Each member shall receive a meeting's agenda before the meeting starts.

The congregation will be chaired by the HOD or the DHOD and will start with a brief report to identify new matters to be discussed in the meeting. The chair shall check whether there are any new concerns to be included in the agenda before the meeting starts. The rest of the meeting will proceed as all members will share their progresses (in relation to their administrative positions) that have been made since the last meeting. The aim of this meeting is to utilise all members' experiences as to provide suggestions, guidance and offering advice in relation to the department's developmental plan. Moreover, the meeting will allow all members be aware of the department's situation and enforce the teamwork environment.

At the end of the meeting the chair will summarise the current achievements and the new targets that need to be accomplished by the next meeting. The secretary shall attend the meeting as a registrar and then send the minutes.

Attending the departmental meeting is very important and mandatory for all.