### Kingdom of Saudi Arabia

**The National Commission for Academic Accreditation & Assessment**

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| Program Specification |
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| **College of Science in Zolfi**  **Department of Computer Science and Information** |

7/4/2013

**National Commission for Academic Accreditation & Assessment**

**Program Specifications**

*For guidance on the completion of this template, please refer to NCAAA guidebooks.*

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| 1. Institution *Majmaah University* Date of Report *16/6/1435H* |
| 2. College/Department: *College of Science/ Computer Science and Information Dept.* |
| 3. Dean: *Prof. Dr. Mohammed alaboudi* [*m.alaboudi@mu.edu.sa*](mailto:m.alaboudi@mu.edu.sa) |
| 4. Insert program administrative flowchart  *Majmaah University*  *Zulfi Branch*  *College of Science*  Head of the department  Vice-Dean for  Development &Quality  Dean of the college  Supervisory committee  Development &Quality  Committee  Higher Supervisory committee  *Quality & Accreditation Unit*  **Study**  **Schedules**  **Unit**  **Student Activities Unit**  **Advertising &publishing Unit**  **Training & Community**  **Services**  **Unit**  **Post-Graduates**  **& Research**  **Unit**  **E-learning**  **Unit**  **Academic**  **Programs**  **& Plans**  **Unit**  **Safety**  **Unit**  **Measurement &Evaluation Unit**  **Alumni**  **Affairs**  **Unit**  **Student**  **Guidance** Unit |
| 5. List all branches/locations offering this program  *College of Science in Zolfi* *for males* |

**A. Program Identification and General Information**

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| 1. Program title and code: *Computer Science and Information Dept., CSI* |
| 2. Total credit hours needed for completion of the program: *161credit hours in 10 semesters (5 years)* |
| 3. Award granted on completion of the program: *Bachelor Degree (B.Sc.) in Computer Science and Information* |
| 4. Major tracks/pathways or specializations within the program (eg. transportation or structural engineering within a civil engineering program or counselling or school psychology within a psychology program)  *- Computer Graphics and Multimedia*  *- Computer Networks*  *- Individual Track*  *In compliance with ACM/IEEE-compliant. (Ref. ACM/IEEE Curriculum 2001, updated in 2010)* |
| 5. Intermediate Exit Points and Awards (if any) (eg. associate degree within a bachelor degree program)  *Not found* |
| 6. Professional occupations (licensed occupations, if any) for which graduates are prepared. (If there is an early exit point from the program (eg. diploma or associate degree) include professions or occupations at each exit point)  *1-The field of education and higher education.*  *2- The field of medicine and health.*  *3- The field of industry.*  *4- The banks and the fields of commerce and business.*  *5- The field of management.*  *6- The field of e-government.*  *7- The military field.*  *And many other fields* |

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| 7. (a) New Program Planned starting date  (b) Continuing Program Year of most recent major program review  *1434H*  √  Organization involved in recent major review (eg. internal within the institution,  Accreditation review by  *Plan committee:*  *Dr. Yosry Ahmed Azzam*  *Dr. Hasan AbdEltawab Mohamed Ali*  *Dr. Yaser Abdallah Mohamed*  *Dr. Mostafa Reda Abdallah Altantawi* |
| 8. Name of program coordinator or chair. If a program coordinator or chair has been appointed for the female section as well as the male section, include names of both.  *Dr. Yosry Ahmed Azzam* |
| 9. Date of approval by the authorized body (MoHE for private institutions and Council of Higher Education for public institutions).   |  |  |  | | --- | --- | --- | | Campus Branch/Location | Approval By | Date | | Main Campus: |  |  | | 1: *College of Science in Zolfi* | *Plan committee* | *1434* | | 2: |  |  | | 3: |  |  | | 4: |  |  | |

**B. Program Context**

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| 1. Explain why the program was established.  a. Summarize economic reasons, social or cultural reasons, technological developments, national policy developments or other reasons.  *Computer Science is the study of the theoretical foundations of*[*information*](http://en.wikipedia.org/wiki/Information) *and* [*computation*](http://en.wikipedia.org/wiki/Computation)*, and of practical techniques for their implementation and application in* [*computer*](http://en.wikipedia.org/wiki/Computer)*systems . The specialty of computer science and information is one of the computer branches that compete to enroll students in various universities locally and globally because of the rapid advances in computer science & information and the enormous development in computer engineering, software engineering, artificial intelligence, machine learning, robotics, information systems, computer networks, network & information security and other advanced software and hardware techniques which increased the demand for graduates of this specialization of the labor market. Universities has turned to cope with this enormous development and the development of study plans and the development of some of the programs and courses that serve this paradigm shift in computer fields.*  *Due to the expansion in computers in all fields of our lives, the program offers the career opportunities that the labor local market needs and offers distinct cadres scientifically and practically and ethically in the field of computer science & information to work to cover the deficit in this specialty.*  *With this in mind sought the college of Science in Zolfi searched for the development of the study plan for a Bachelor of computer science & information which is being taught in English.*  b. Explain the relevance of the program to the mission and goals of the institution.  *There is a close correlation between the university and the computer science & information program where this program includes providing high-quality education to prepare an outstanding distinguished graduate in computer science and information to achieve the requirements of labor market and qualify him for postgraduate studies and research.* |
| 2. Relationship (if any) to other programs offered by the institution/college/department.  √  a. Does this program offer courses that students in other programs are required to take? **Yes**  **No**  If yes, what has been done to make sure those courses meet the needs of students  in the other programs?   * *The course outlines must be developed in consultation and in the agreement with the concerned departments to ensure the course coverage meets their needs.* * *Study of the preparatory year courses of a total of 29 hour*   √  b. Does the program require students to take courses taught by other departments? **Yes**  **No**  If yes, what has been done to make sure those courses in other departments meet the needs of students in this program?  *1*- *Calculus I*  *2- Calculus II*  *3- Linear algebra & differential equations*  *4- Probability & Statistics*  *All are taught by the mathematics department.*  *5- Physics II which is taught by the physics department*  *6- General Chemistry which is taught by the medical laboratory department.*  *Also the program requires studying Arabic language and Islamic courses which are taught by the Faculty of Education as University requirements.*  *The Department of Computer Science and Information communicates its needs to other departments to ensure that the course coverage fulfills the needs of computer science students. The syllabi of the courses are reviewed by the Committee of the Computer Science and Information department to ensure compliance with the Department’s needs. The Department must approve the sylabii of the courses offered by the other departments.* |
| 3. Do students who are likely to be enrolled in the program have any special needs or characteristics? (eg. Part time evening students, physical and academic disabilities, limited IT or language skills).  **Yes** **No**  √  If yes, what are they?   * *English language skills (speaking and writing)*   *The students entering to the freshmen year (after Preparatory Year at University) must have sufficient knowledge in basic sciences, Mathematics and IT, and have proficiency in the English Language, both spoken and written. As for now, there is no provision for part-time or evening training.* |
| 4. What modifications or services are you providing for special needs applicants?  *A Preparatory Year Program is developed to strengthen the basic knowledge and skill of students in basic sciences, and IT and to increase their oral and written communication skills in the English Language. The academic level of the Preparatory Year Program should be monitored by relevant Colleges to ensure that its level of competence in these fields of study is adequate. An extra technical English course has been proposed in the program to conform with such special characteristics.* |

**C. Mission, Goals and Objectives**

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| 1. Program Mission Statement (insert)   *Providing higher outstanding education to acquire graduates sufficient skills and knowledge to communicate and work effectively in teamwork through scientific environment to compete in labor market .* |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. List goals and objectives of the program within to help achieve the mission. For each goal and objective describe the major strategies to be followed and list the indicators that are used to measure achievement.  |  |  |  | | --- | --- | --- | | **Goals and Objectives** | **Major Strategies** | **Measurable Indicators** | | *1- Graduates should be able to deploy appropriate tools for development of computer-based solutions.* | *Studying the modern technologies in computer Science & information.* | *- Overall rating of the quality of the program to students and courses.*  *- The opinion of the students in the quality and relevance of teaching methods .* | | *2- Graduates should be able to deploy effectively information systems used in modern computing practice.* | *Assigning students to the work of graduation projects that keep pace with technological development* | *- The opinion of the College members in the quality and relevance of teaching methods*  *- The opinion of independent evaluators in the quality and relevance of teaching methods.* | | *3- Enable graduates to compete in the labor market.* | *The Design courses, seminars and some related courses will provide scope for students to become familiar with contemporary issues, global challenges and will emphasize the impact of computer science on society.* | *- Satisfaction rate employers for graduates of the program.*  *- The number of hours of hands-on training provided by the program.* | | *4- Prepare graduates to communicate and work effectively in teamwork.* | *Cooperative learning* | *- The opinion of the students in the quality and relevance of teaching methods .*  *- The opinion of the College members in the quality and relevance of teaching methods*  *- The opinion of independent evaluators in the quality and relevance of teaching methods* | | *5- Develop the scientific reasearch in computer science and information.* | *Continuous adjustment of ‎salaries and improving contract ‎terms, and coordination of scientific-research projects.* | *- Statistical research , seminars and conferences for members of the College.*  *- Participation rate of College members in seminars and meetings related to the latest developments in the specialty .*  *- The proportion of College members who have qualified PhD who assume teaching in the program.* | | *6- Enable graduates to follow ethical responsibility.* | *Effective Communicators and Team Members* | *- Responsiveness to students' opinions and suggestions in the evaluation of courses.*  *- The extent of the response to the opinions and suggestions of graduates in the evaluation of the program.* | |

**D. Program Structure and Organization**

**1. Program Description:**

List the core and elective program courses offered each semester from Prep Year to graduation using the below Curriculum Study Plan Table (A separate table is required for each branch IF a given branch/location offers a different study plan).

|  |
| --- |
| A program or department manual should be available for students or other stakeholders and a copy of the information relating to this program should be attached to the program specification. This information should include required and elective courses, credit hour requirements and department/college and institution requirements, and details of courses to be taken in each year or semester. *Refer to Department Manual and College Manual for more information.* |

**Curriculum Study Plan Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **Course**  **Code** | **Course Title** | **Required**  **or Elective** | **Credit**  **Hours** | **College or**  **Department** |
| **Prep**  **Year** |  |  |  |  |  |
|  | **PENG 111** | **Preparatory English (1)** | Required | 8 | College |
|  | **PMTH 112** | **Introduction to Mathematics (1)** | Required | 2 | College |
|  | **PCOM 113** | **Computer Skills** | Required | 2 | College |
|  | **PSSC 114** | **Learning & Communication Skills** | Required | 2 | College |
|  | **PENG 121** | **Preparatory English (2)** | Required | 6 | College |
|  | **PENG 123** | **English for Science and Engineering** | Required | 2 | College |
|  | **PMTH 127** | **Introduction to Mathematics (2)** | Required | 4 | College |
|  | **PPHS 128** | **General Physics** | Required | 3 | College |
| **1st Year**  **Semester 1** |  |  |  |  |  |
|  | **CSI 211** | **Programming 1** | Required | 3 | Department |
|  | **CSI 212** | **Disc. Math for CS 1** | Required | 3 | Department |
|  | **MATH 212** | **Calculus 1** | Required | 3 | College |
|  | **PHYS 217** | **Physics 2** | Required | 3 | College |
|  | **ENG 210** | **Tech. English** | Required | 2 | College |
|  | **ZPSY 211** | **Educational & Thinking Skills** | Required | 2 | College |
| **1st Year**  **Semester 2** |  |  |  |  |  |
|  | **CSI 221** | **Programming 2** | Required | 3 | Department |
|  | **CSI 222** | **Disc. Math For CS 2** | Required | 2 | Department |
|  | **MATH 220** | **Calculus 2** | Required | 3 | Department |
|  | **CSI 223** | **Dig. Logic Design** | Required | 3 | Department |
|  | **CSI 224** | **Fund. of Inf. Systems** | Required | 3 | Department |
|  | **CHEM 225** | **General Chemistry** | Required | 2 | College |
| **2nd Year**  **Semester 1** |  |  |  |  |  |
|  | **CSI 311** | **Visual Programming** | Required | 3 | Department |
|  | **CSI 312** | **Data Structure** | Required | 3 | Department |
|  | **CSI 313** | **Computer Organization and Assembly Language** | Required | 3 | Department |
|  | **CSI 314** | **Database** | Required | 3 | Department |
|  | **MATH 310** | **Linear Alg. & Diff. Eq.** | Required | 4 | College |
|  | **ISL \*\*\*** | **Elective Islamic Course 1** | Required | 2 | College |
| **2nd Year**  **Semester 2** |  |  |  |  |  |
|  | **CSI 321** | **Design & Analysis of**  **Algorithms** | Required | 3 | Department |
|  | **CSI 322** | **Computer Networks** | Required | 3 | Department |
|  | **CSI 323** | **Computer Architecture** | Required | 3 | Department |
|  | **CSI 324** | **Advanced Database** | Required | 3 | Department |
|  | **CSI 325** | **Software Engineering 1** | Required | 3 | Department |
|  | **STAT 320** | **Probability & Statistics** | Required | 3 | College |
| **3rd Year**  **Semester 1** |  |  |  |  |  |
|  | **CSI 411** | **Artificial Intelligence** | Required | 3 | Department |
|  | **CSI 412** | **Operating Systems** | Required | 3 | Department |
|  | **CSI 413** | **Compiler Design** | Required | 3 | Department |
|  | **\*\*\*** | **Elective Course 1** | Elective | 3 | Department |
|  | **ARAB \*\*\*** | **Elective Arabic Course** | Elective | 2 | College |
|  | **ISL\*\*\*** | **Elective Islamic Course 2** | Elective | 2 | College |
|  | **CSI 400** | **Summer Training** | Required | 1 | Department |
| **3rd Year**  **Semester 2** |  |  |  |  |  |
|  | **CSI 421** | **Distributed Systems &**  **Parallel Processing** | Required | 3 | Department |
|  | **CSI 422** | **Software Engineering 2** | Required | 3 | Department |
|  | **CSI 423** | **Cryptography and Information Security** | Required | 3 | Department |
|  | **CSI 425** | **Computer Graphics** | Required | 3 | Department |
|  | **\*\*\*** | **Elective Course 2** | Elective | 3 | Department |
|  | **ISL \*\*\*** | **Elective Islamic Course 3** | Required | 2 | Department |
| **4th Year**  **Semester 1** |  |  |  |  |  |
|  | **CSI 510** | **Graduation Project 1** | Required | 2 | Department |
|  | **CSI 511** | **Web Programming**  **& Internet Technology** | Required | 3 | Department |
|  | **CSI 512** | **Data Mining** | Required | 3 | Department |
|  | **CSI 513** | **Concepts of Prg. Lang.** | Required | 3 | Department |
|  | **\*\*\*** | **Elective Course 3** | Elective | 3 | Department |
|  | **\*\*\*** | **Elective Prereq. Univ.** | Elective | 2 | Department |
| **4th Year**  **Semester 2** |  |  |  |  |  |
|  | **CSI 520** | **Graduation Project 2** | Required | 3 | Department |
|  | **CSI 522** | **Human Computer Interaction** | Required | 3 | Department |
|  | **CSI 525** | **Professional Ethics** | Required | 2 | Department |
|  | **\*\*\*** | **Elective Course 4** | Elective | 3 | Department |
|  | **\*\*\*** | **Free Elective Course** | Elective | 3 | Department |
| Include additional years if needed. | | | | | |

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| --- | --- | --- | --- |
| **Requirements** | **Mandatory** | **Elective** | **Total** |
| University Requirements | 2 | 10 | 12 |
| College Core Requirements | 29 | 0 | 29 |
| Mathematics and Sciences Requirements | 23+9 (from college core Req.) | 0 | 23 |
| Department Core Requirements | 81 | 12 | 93 |
| Summer Training Requirements | 1 | 0 | 1 |
| Free Elective Course | 0 | 3 | 3 |
| **Total** | **136** | **25** | **161** |

**1.Foundation Year Core Requirements (College core Requirements) (29 Credits):**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Course Number** | **Course Title** | **Credit Hours** | **Weekly Hours** | | | **Prerequisite** |
| **Lecture** | **Lab** | **EX** |  |
| PENG 111 | Preparatory English (1) | 8 | 20 | 0 | 0 | - |
| PMTH 112 | Introduction to Mathematics (1) | 2 | 2 | 0 | 1 | - |
| PCOM 113 | Computer Skills | 2 | 1 | 2 | 0 | - |
| PSSC 114 | Learning and Communication Skills | 2 | 1 | 2 | 0 | - |
| PENG 121 | Preparatory English (2) | 6 | 14 | 0 | 0 | PENG 111 |
| PENG 123 | English for Science and Engineering | 2 | 2 | 0 | 0 | - |
| PMTH 127 | Introduction to Mathematics (2) | 4 | 4 | 0 | 1 | PMTH 112 |
| PPHS 128 | General Physics | 3 | 2 | 2 | 0 | - |
|  | **Total** | **29** | **48** | **2** | **0** |  |

**2.University Requirements (12 Credits):**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Course Number** | **Course Title** | **Credit Hours** | **Weekly Hours** | | **Elections** | **Total Credits** |
| **Lecture** | **Lab** |
| ZPSY 211 | Educational & Thinking Skills | 2 | 2 | **0** | **Mandatory** | 2 |
| SALM 101 | Introduction to Islamic Culture | 2 | 2 | 0 | **Students choose 3 courses** | 6 |
| SALM 102 | Islam and Society Building | 2 | 2 | 0 |
| SALM 103 | Economic System in Islam | 2 | 2 | 0 |
| SALM 104 | Fundamentals of Political System in Islam | 2 | 2 | 0 |
| ARAB 101 | Arabic Language Skills | 2 | 2 | 0 | **Students choose 1 course** | 2 |
| ARAB 103 | Arabic Writing | 2 | 2 | 0 |
| ELEC 101 | Principles of Health and Fitness | 2 | 2 | 0 | **Students choose 1 course** | 2 |
| ELEC102 | Business Entrepreneurship | 2 | 2 | 0 |
| SOCI 101 | Societal Issues | 2 | 2 | 0 |
| LHR 101 | Human Rights Systems | 2 | 2 | 0 |
| FCH 101 | Family and Childhood | 2 | 2 | 0 |
| VOW 101 | Volunteering Systems | 2 | 2 | 0 |
|  |  | **Total** | | | | **12** |

**3. Mathematics and Sciences Requirements (31 Credits):**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Course Number** | **Course Title** | **Credit Hours** | **Weekly Hours** | | | **Prerequisite** |
| **Lec.** | **Lab.** | **EX.** |
| PMTH 112 | Introduction to Mathematics (1) | 2 | 2 | 0 | 1 |  |
| PMTH 127 | Introduction to Mathematics (2) | 4 | 4 | 0 | 1 | PMATH 112 |
| PPHS 128 | General Physics | 3 | 2 | 2 | 0 |  |
| PHYS 217 | Physics 2 | 3 | 2 | 2 | 0 | PPHS 128 |
| CHEM 225 | General Chemistry | 2 | 2 | 0 | 0 | - |
| MATH 212 | Calculus I | 3 | 3 | 0 | 1 | - |
| MATH 220 | Calculus II | 3 | 3 | 0 | 1 | MATH 212 |
| MATH 310 | Linear Algebra & Differential Equations | 4 | 3 | 0 | 2 | MATH 220 |
| Stat 320 | Probability & Statistics | 3 | 3 | 0 | 1 | MATH 220 |
| CSI 212 | Discrete Math for Computer Science 1 | 3 | 2 | 0 | 2 | - |
| CSI 222 | Discrete Math for Computer Science 2 | 2 | 2 | 0 | 0 | CSI 212 |
|  | **Total** | **32** | **28** | **4** | **8** |  |

**4.Department Requirements (93 Credits):**

**4-a) Mandatory Department Courses (81 CHs):**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Course Number** | **Course Title** | **Credits Hours** | Weekly Hours | | | Prerequisite |
| **Lec** | Lab | Ex |
| **ENG 210** | **Technical English** | **2** | **2** | **0** | **0** | **--** |
| **CSI 211** | **Programming 1** | **3** | **2** | **2** | **0** | **--** |
| **CSI 221** | **Programming 2** | **3** | **2** | **2** | **0** | **CSI 211** |
| **CSI 223** | **Digital Logic Design** | **3** | **2** | **2** | **0** | **PHYS 217** |
| **CSI 224** | **Fundamentals of Information Systems** | **3** | **3** | **0** | **0** | **---** |
| **CSI 311** | **Visual Programming** | **3** | **2** | **2** | **0** | **CSI 221** |
| **CSI 312** | **Data Structure** | **3** | **2** | **2** | **0** | **CSI 221, CSI 212** |
| **CSI 313** | **Computer Organization and Assembly Language** | **3** | **2** | **2** | **0** | **CSI 223** |
| **CSI 314** | **Database** | **3** | **2** | **2** | **0** | **CSI 211** |
| **CSI 321** | **Design & Analysis of Algorithms** | **3** | **2** | **0** | **2** | **CSI 312** |
| **CSI 322** | **Computer Networks** | **3** | **2** | **2** | **0** | **CSI 224** |
| **CSI 323** | **Computer Architecture** | **3** | **3** | **1** | **0** | **CSI 313** |
| **CSI 324** | **Advanced Database** | **3** | **1** | **4** | **0** | **CSI 314** |
| **CSI 325** | **Software Engineering 1** | **3** | **2** | **2** | **0** | **CSI 221** |
| **CSI 411** | **Artificial Intelligence** | **3** | **2** | **2** | **0** | **CSI 321** |
| **CSI 412** | **Operating Systems** | **3** | **2** | **2** | **0** | **CSI 313** |
| **CSI 413** | **Compiler Design** | **3** | **2** | **2** | **0** | **CSI 222** |
| **CSI 421** | **Distributed Systems & Parallel Processing** | **3** | **2** | **2** | **0** | **CSI 321** |
| **CSI 422** | **Software Engineering 2** | **3** | **2** | **2** | **0** | **CSI 325** |
| **CSI423** | **Cryptography** | **3** | **3** | **1** | **0** | **CSI 321** |
| **CSI 425** | **Computer Graphics** | **3** | **2** | **2** | **0** | **Math 310** |
| **CSI 510** | **Graduation Project 1** | **2** | **2** | **0** | **0** | **120 Cr. Hrs** |
| **CSI 511** | **Web Programming & Internet Technology** | **3** | **2** | **2** | **0** | **CSI 322** |
| **CSI 512** | **Data Mining** | **3** | **2** | **2** | **0** | **CSI 314** |
| **CSI 513** | **Concepts of Programming Languages.** | **3** | **2** | **2** | **0** | CSI 222 |
| **CSI 520** | **Graduation Project 2** | **3** | **3** | **0** | **0** | **CSI 510** |
| **CSI 522** | **Human Computer Interaction** | **3** | **2** | **2** | **0** | **CSI 511** |
| **CSI 525** | **Professional Ethics** | **2** | **2** | **0** | **0** | **CSI 422** |
|  | **Total** | **81** | **59** | **44** | **2** |  |

**4-b) Department Elective Courses (12 Credit Hrs):**

- Student must select 4 courses from either of the next three tracks:-

**Track I: Computer Graphics and Multimedia**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Course**  **Number** | **Course Title** | **Credits Hours** | **Weekly Hours** | | **Prerequisite** |
| **Lecture** | **Lab** |
| CSI 414 | Digital Image Processing | 3 | 2 | 2 | MATH 310 |
| CSI 424 | Computer Vision | 3 | 2 | 2 | CSI 414 |
| CSI 514 | Interactive Computer Graphics | 3 | 2 | 2 | CSI 425 |
| CSI 521 | Multimedia Technology | 3 | 2 | 2 | CSI 425 |
| CSI 530 | Digital Photography | 3 | 2 | 2 | MATH 220 |

**Track II: Computer Networks**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Course**  **Number** | **Course Title** | **Credits Hours** | **Weekly Hours** | | **Prerequisite** |
| **Lecture** | **Lab** |
| CSI 431 | Advanced Computer Networks | 3 | 2 | 2 | CSI 322 |
| CSI 432 | Network Security | 3 | 2 | 2 | CSI 431 |
| CSI 531 | Wireless & Mobile Computing | 3 | 2 | 2 | CSI 322 |
| CSI 532 | Network Programming | 3 | 2 | 2 | CSI 431 |
| CSI 533 | Cloud Computing | 3 | 2 | 2 | CSI 322 , CSI 321 |

**Track III: Individual Track:** Student should select his courses from the above two tracks or from the following table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Course**  **Number** | **Course Title** | **Credits Hours** | **Weekly Hours** | | **Prerequisite** |
| **Lecture** | **Lab** |
| CSI 441 | Machine Learning | 3 | 2 | 2 | CSI 411 |
| CSI 442 | Introduction to Robotics | 3 | 2 | 2 | CSI 411 |
| CSI 443 | Expert Systems | 3 | 2 | 2 | CSI 411 |
| CSI 444 | Computational Methods | 3 | 2 | 2 | Math 310 |
| CSI 445 | Operational Research | 3 | 2 | 2 | STAT 320, MATH 310 |
| CSI 446 | Information System Management | 3 | 2 | 2 | CSI 314 |
| CSI 447 | Information Security | 3 | 2 | 2 | CSI 423 |
| CSI 448 | Project Management | 3 | 2 | 2 | CSI 422 |
| CSI 449 | Geographic Information Systems (GIS) | 3 | 2 | 2 | CSI 324 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Curriculum Plan Levels** | | | | | | | | | | | | | | | |
| **Preparatory Year** | | | | | | | | | | | | | | | |
| **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | **Course Name** | **Course Code** | **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | | **Course Name** | | **Course Code** |
| **PENG 111** | **6** | **0** | **0** | **14** | **Preparatory English (2)** | **PENG 121** | **--** | **8** | **0** | **0** | **20** | | **Preparatory English (1)** | | **PENG 111** |
| **PENG 111** | **2** | **0** | **0** | **2** | **English for Science and Engineering** | **PENG 123** | **--** | **2** | **1** | **0** | **2** | | **Introduction to Mathematics (1)** | | **PMTH 112** |
| **PMTH 112** | **4** | **1** | **0** | **4** | **Introduction to Mathematics (2)** | **PMTH 127** | **--** | **2** | **0** | **2** | **1** | | **Computer Skills** | | **PCOM 113** |
| **--** | **3** | **0** | **2** | **2** | **General Physics** | **PPHS 128** | **--** | **2** | **0** | **2** | **1** | | **Learning & Communication Skills** | | **PSSC 114** |
| **29** | **15** | | | | **Total** | | **--** | **14** | | | | | **Total** | | |
| **First Year** | | | | | | | | | | | | | | | |
| **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | **Course Name** | **Course Code** | **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | | **Course Name** | | **Course Code** |
| **CSI 211** | **3** | **0** | **2** | **2** | **Programming 2** | **CSI 221** | **PCOM 113** | **3** | **0** | **2** | **2** | | **Programming 1** | | **CSI 211** |
| **CSI 212** | **2** | **0** | **0** | **2** | **Disc. Math For CS 2** | **CSI 222** | **PMTH 127** | **3** | **2** | **0** | **2** | | **Disc. Math for CS 1** | | **CSI 212** |
| **MATH 212** | **3** | **1** | **0** | **3** | **Calculus 2** | **MATH 220** | **PMTH 127** | **3** | **1** | **0** | **3** | | **Calculus 1** | | **MATH 212** |
| **PHYS 217** | **3** | **0** | **2** | **2** | **Dig. Logic Design** | **CSI 223** | **PPHS 128** | **3** | **0** | **2** | **2** | | **Physics 2** | | **PHYS 217** |
| **--** | **3** | **0** | **0** | **3** | **Fund. of Inf. Systems** | **CSI 224** | **PENG 121** | **2** | **0** | **0** | **2** | | **Tech. English** | | **ENG 210** |
| **--** | **2** | **0** | **0** | **2** | **General Chemistry** | **CHEM 225** | **--** | **2** | **0** | **0** | **2** | | **Educational & Thinking Skills** | | **ZPSY 211** |
| **32** | **16** | | | | **Total** | |  | **16** | | | | | **Total** | | |
| **Second Year** | | | | | | | | | | | | | | | |
| **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | **Course Name** | **Course Code** | **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | | **Course Name** | **Course Code** | |
| **CSI 312** | **3** | **2** | **0** | **2** | **Design & Analysis of**  **Algorithms** | **CSI 321** | **CSI 221** | **3** | **0** | **2** | **2** | | **Visual Programming** | **CSI 311** | |
| **CSI 313** | **3** | **0** | **2** | **2** | **Computer Networks** | **CSI 322** | **CSI 221, CSI 212** | **3** | **0** | **2** | **2** | | **Data Structure** | **CSI 312** | |
| **CSI 313** | **3** | **0** | **1** | **3** | **Computer Architecture** | **CSI 323** | **CSI 223** | **3** | **0** | **2** | **2** | | **Computer Organization and Assembly Language** | **CSI 313** | |
| **CSI 314** | **3** | **0** | **4** | **1** | **Advanced Database** | **CSI 324** | **CSI 211** | **3** | **0** | **2** | **2** | | **Database** | **CSI 314** | |
| **CSI 221** | **3** | **0** | **2** | **2** | **Software Engineering 1** | **CSI 325** | **Math 220** | **4** | **2** | **0** | **3** | | **Linear Alg. & Diff. Eq.** | **MATH 310** | |
| **MATH 212** | **3** | **1** | **0** | **3** | **Probability & Statistics** | **STAT 320** | **--** | **2** | **0** | **0** | **2** | | **Elective Islamic Course 1** | **ISL \*\*\*** | |
| **36** | **18** | | | | **Total** | |  | **18** | | | | | **Total** | | |
| **Third Year** | | | | | | | | | | | | | | | |
| **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | **Course Name** | **Course Code** | **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | **Course Name** | | | **Course Code** |
| **CSI 321** | **3** | **0** | **2** | **2** | **Distributed Systems &**  **Parallel Processing** | **CSI 421** | **CSI 321** | **3** | **0** | **2** | **2** | **Artificial Intelligence** | | | **CSI 411** |
| **CSI 325** | **3** | **0** | **2** | **2** | **Software Engineering 2** | **CSI 422** | **CSI 313** | **3** | **0** | **2** | **2** | **Operating Systems** | | | **CSI 412** |
| **CSI 321** | **3** | **0** | **1** | **3** | **Cryptography and Information Security** | **CSI 423** | **CSI 222, CSI 221** | **3** | **0** | **2** | **2** | **Compiler Design** | | | **CSI 413** |
| **Math 310** | **3** | **0** | **2** | **2** | **Computer Graphics** | **CSI 425** | **\*\*\*** | **3** | **\*** | **\*** | **\*** | **Elective Course 1** | | | **\*\*\*** |
| **\*\*\*** | **3** | **\*** | **\*** | **\*** | **Elective Course 2** | **\*\*\*** | **--** | **2** | **0** | **0** | **2** | **Elective Arabic Course** | | | **ARAB \*\*\*** |
| **--** | **2** | **0** | **0** | **2** | **Elective Islamic Course 3** | **ISL \*\*\*** | **--** | **2** | **0** | **0** | **2** | **Elective Islamic Course 2** | | | **ISL\*\*\*** |
|  |  |  |  |  |  |  | **72 Cr. Hrs** | **1** | **0** | **0** | **1** | **Summer Training** | | | **CSI 400** |
| **34** | **17** | | | | **Total** | |  | **17** | | | | **Total** | | | |
| **Fourth Year** | | | | | | | | | | | | | | | |
| **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | **Course** | **Course Code** | **Prerequisite** | **Cr** | **Ex** | **Lb** | **Le** | | **Course name** | | **Course Code** |
| **CSI 510** | **3** | **0** | **0** | **3** | **Graduation Project 2** | **CSI 520** | **120 Cr. Hrs** | **2** | **0** | **0** | **2** | | **Graduation Project 1** | | **CSI 510** |
| **CSI 511** | **3** | **0** | **2** | **2** | **Human Computer Interaction** | **CSI 522** | **CSI 322** | **3** | **0** | **2** | **2** | | **Web Programming**  **& Internet Technology** | | **CSI 511** |
| **CSI 422** | **2** | **0** | **0** | **2** | **Professional Ethics** | **CSI 525** | **CSI 314** | **3** | **0** | **2** | **2** | | **Data Mining** | | **CSI 512** |
| **\*\*\*** | **3** | **\*** | **\*** | **\*** | **Elective Course 4** | **\*\*\*** | **CSI 222** | **3** | **0** | **2** | **2** | | **Concepts of Prg. Lang.** | | **CSI 513** |
| **\*\*\*** | **3** | **\*** | **\*** | **\*** | **Free Elective Course** | **\*\*\*** | **\*\*\*** | **3** | **\*** | **\*** | **\*** | | **Elective Course 3** | | **\*\*\*** |
|  |  |  |  |  |  |  | **\*\*\*** | **2** | **0** | **0** | **2** | | **Elective Prereq. Univ.** | | **\*\*\*** |
| **30** | **14** | | | | **Total** | |  | **16** | | | | | **Total** | | |

**2. Required Field Experience Component (if any, e.g. internship, cooperative program, work experience).**

|  |
| --- |
| Summary of practical, clinical or internship component required in the program. Note: see Field Experience Specification |
| a. Brief description of field experience activity  *Training in any of computer science or IT related governmental or private sector centers is an important requirement for a graduate before his graduation. This summer training will lead to raising of the professional skills in the field of computer science & information.*  ***Type of activity****: This training aims to narrowing the gap between the theoretical study in the department, and professional practical work in the governmental or private sector centers. The department distribute students to training places through an agreement with these places during the summer vacation, and the distribution is based on the student's desire and the available opportunities. The training is evaluated by the training advisor at the CS or IT canter and by the CSI training committee.* |
| b. At what stage or stages in the program does the field experience occur? (eg. year, semester)  *After finishing of study of 72 credit hours the summer before the last summer of graduation* |
| c. Time allocation and scheduling arrangement. (eg. 3 days per week for 4 weeks, full time for one semester)  *5 days per week for 8 weeks in summer vacation* |
| d. Number of credit hours (if any)  *1 hour* |

**3. Project or Research Requirements (if any)**

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| --- |
| Summary of any project or thesis requirements in the program. (Other than projects or assignments within individual courses) (A copy of the requirements for the project should be attached.) |
| a. Brief description  *Graduation project is an idea targeting to solve a real problem taking into account that the idea is new and that the method of solution is an innovative. The idea is followed by proper planning and real implementation. The graduation project is a real test to the student, as it reveals his capabilities to analyze problems and invent new solutions through the design of the project using one of the programming languages ​​that he completed. The students are divided into groups of not more than 3 where they are supervised by a staff member. The project is divided into two parts in the last two semesters of program study plan. In the first part the students are typically expected to study the problem, see what others have done, perform the analysis, determine the requirements and suggest/design a solution. The project will culminate in a formal public presentation, and written documentation. In the second part the students will continue the software development of the problem they picked in first part. The project will culminate in the delivery of a working system, a formal public presentation, and written documentation. Oral and written progress reports are required.* |
| b. List the major intended learning outcomes of the project or research task.   * *Innovation in the field of computer science & information.* * *Participation and cooperation through cooperation and fruitful exchange of ideas within groups.* * *Evidence-Based Practice.* * *Quality and proficiency and professionalism* * *Training students to scientific research and dealing with various conditions and know how to analyze results obtained.* |
| c. At what stage or stages in the program is the project or research undertaken? (e.g. year, semester)  *9th & 10th semesters* |
| d. Number of credit hours (if any)  *2 hrs in the 9th semester and 3 hrs in the 10th semester* |
| e. Description of academic advising and support mechanisms for students.  *The supervision of faculty members to their group students to conduct research projects and guidance when needed.* |

|  |
| --- |
| f. Description of assessment procedures (including mechanism for verification of standards)   * *Students are evaluated by the supervisor of the project and the department supervisor.* * *Discuss the students at the end of the project by an internal committee, and evaluate students within specific criteria.* |

**4. Learning Outcomes in Domains of Learning, Assessment Methods and Teaching Strategy**

Program Learning Outcomes, Assessment Methods, and Teaching Strategy work together and are aligned. They are joined together as one, coherent, unity that collectively articulate a consistent agreement between student learning and teaching.

The ***National Qualification Framework*** provides five learning domains. Learning outcomes are required in the first four domains and sometimes are also required in the Psychomotor Domain.

On the table below are the five NQF Learning Domains, numbered in the left column. For Program Accreditation there are four learning outcomes required for knowledge and cognitive skills. The other three domains require at least two learning outcomes. Additional learning outcomes are suggested.

**First**, insert the suitable and measurable learning outcomes required in each of the learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each program learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **NQF Learning Domains**  **and Learning Outcomes** | **Teaching**  **Strategies** | **Assessment**  **Methods** |
| **a** | **Knowledge** | | |
| a1 | Acquire knowledge of computing and ‎mathematics appropriate to the discipline including ‎simulation and modeling.‎ | * *Brainstorming* * *Cooperative learning* * *Dialogue and discussion.* * *Constructivist* * *Learning* * *Self-learning* | * *Conducting scientific research and follow-up of advances in the field.* * *Quarterly tests.* * *Duties and discussions within the lecture* |
| a2 | Recognize the need for and an ability to engage in ‎continuing professional development.‎ |
| a3 | Understand of best practices and standards and ‎their application.‎ |
| **b** | **Cognitive Skills** | | |
| b1 | Analyze a problem to identify and define the ‎computing requirements appropriate to its solution.‎ | * *Problem-solving strategy* * *Cooperative learning strategy* * *Strategy group discussions* | * *Practical test* * *Written test* * *Individual and group activities* * *Short cognitive tests.* |
| b2 | Design, implement, develop and evaluate ‎complicated computer-based system, process ‎component, or program to meet desired needs.‎ |
| b3 | Use and apply current technical concepts and ‎practices in the core information technologies of ‎human computer interaction, information ‎management, programming, networking, web ‎systems and technologies.‎ |
| b4 | Identify and analyze user needs and take them ‎into account in the selection, creation, evaluation ‎and adminstration of computer-based systems.‎ |
| b5 | Integrate IT-based solutions into the user ‎environment‏ ‏‎ effectively.‎ |  |  |
| **c** | **Interpersonal Skills & Responsibility** | | |
| c1 | Adhere professional, ethical, legal, security, and ‎social issues and their responsibilities.‎ | *Training students to build good relationships with their counterparts and collaborate with others and develop personal and professional performance through the following strategies:*   * *cooperative learning* * *peer education* * *mini-workshops teaching* * *solve problems* | *Students are assessed through:*   * *evaluation of field activities* * *verbal tests* * *assessment assignments* * *style note* |
| c2 | Analyze the local and global impact of computing ‎on individuals, organization, and society.‎ |
| c3 | Use current techniques, skills, and tools nessary ‎for computing practice.‎ |
| **d** | **Communication, Information Technology, Numerical** | | |
| d1 | Function effectively on teams to accomplish a ‎common goal.‎ | * *Cooperative learning* * *Self-learning to the global of information networks* * *Computer labs.* * *Simulation programs.* * *Programming languages.* * *Readymade programs.* * *Smart Board* * *Power point* | * *Written tests* * *Laboratory tests* * *Evaluate the information gathered by the students that are using information networks.* |
| d2 | Communicate effectively with a range of ‎audiences.‎ |
| d3 | Apply advanced numerical methods.‎ |
| **e** | **Psychomotor** | | |
| e | NA |  |  |

**NQF Learning Outcome Verb, Assessment, and Teaching Strategies and Suggestions**

|  |  |
| --- | --- |
| **NQF Learning Domains** | **Suggested Verbs** |
|  |  |
| **Knowledge** | list, name, record, define, label, outline, state, describe, recall, memorize, reproduce, recognize, record, tell, write |
| **Cognitive Skills** | estimate, explain, summarize, write, compare, contrast, diagram, subdivide, differentiate, criticize, calculate, analyze, compose, develop, create, prepare, reconstruct, reorganize, summarize, explain, predict, justify, rate, evaluate, plan, design, measure, judge, justify, interpret, appraise |
| **Interpersonal Skills & Responsibility** | demonstrate, judge, choose, illustrate, modify, show, use, appraise, evaluate, justify, analyze, question, and write |
| **Communication, Information**  **Technology, Numerical** | demonstrate, calculate, illustrate, interpret, research, question, operate, appraise, evaluate, assess, and criticize |
| **Psychomotor** | demonstrate, show, illustrate, perform, dramatize, employ, manipulate, operate, prepare, produce, draw, diagram, examine, construct, assemble, experiment, and reconstruct |

Suggested ***verbs not to use*** when writing measurable and assessable learning outcomes are as follows:

Consider Maximize Continue Review Ensure Enlarge Understand

Maintain Reflect Examine Strengthen Explore Encourage Deepen

Some of these verbs can be used if tied to specific actions or quantification.

**Suggested assessment methods and teaching strategies are:**

According to research and best practices, multiple and continuous assessment methods are required to verify student learning. Current trends incorporate a wide range of rubric assessment tools; including web-based student performance systems that apply rubrics, benchmarks, KPIs, and analysis. Rubrics are especially helpful for qualitative evaluation. Differentiated assessment strategies include: exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, lab manuals, video analysis, group reports, lab reports, debates, speeches, learning logs, peer evaluations, self-evaluations, videos, graphs, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, antidotal notes, artwork, KWL charts, and concept mapping.

Differentiated teaching strategies should be selected to align with the curriculum taught, the needs of students, and the intended learning outcomes. Teaching methods include: lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, guest speakers, memorization, humor, individual presentation, brainstorming, and a wide variety of hands-on student learning activities.

**Program Learning Outcome Mapping Matrix**

Identify on the table below the courses that are required to teach the program learning outcomes. Insert the program learning outcomes, according to the level of instruction, from the above table below and indicate the courses and levels that are required to teach each one; use your program’s course numbers across the top and the following level scale. Levels: I = Introduction P = Proficient A = Advanced

CSI=Computer Scienc, PE=PENG, ‎ PM=PMTH, ‎ PC=PCOM, ‎ PS=PSSC, PPH=PPHS, ‎ A=ARAB, ‎ SA=SALM, ‎ ST=STAT, M = MATH

PH = PHYS E=ENG, Z= ZPSY, CH = CHEM

| Learning Outcomes | | **Course Code and Number** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PE**  **111** | **PM**  **112** | **PC**  **113** | **PS**  **114** | **PE**  **121** | **PE**  **123** | **PM**  **127** | **PPH**  **128** | **CSI**  **211** | **CSI**  **212** | **M**  **212** | **PH**  **217** | **E**  **210** | **Z**  **211** | **CSI**  **221** | **CSI**  **222** | **M**  **220** | **CSI**  **223** |
| **Knowledge** | Acquire knowledge of computing and ‎mathematics appropriate to the discipline including ‎simulation and modeling.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Recognize the need for and an ability to engage in ‎continuing professional development.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand of best practices and standards and ‎their application.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Cognitive Skills** | Analyze a problem to identify and define the ‎computing requirements appropriate to its solution.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Design, implement, develop and evaluate ‎complicated computer-based system, process ‎component, or program to meet desired needs.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Use and apply current technical concepts and ‎practices in the core information technologies of ‎human computer interaction, information ‎management, programming, networking, web ‎systems and technologies.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify and analyze user needs and take them ‎into account in the selection, creation, evaluation ‎and adminstration of computer-based systems.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Integrate IT-based solutions into the user ‎environment‏ ‏‎ effectively.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Interpersonal Skills & Responsibility** | Adhere professional, ethical, legal, security, and ‎social issues and their responsibilities.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Analyze the local and global impact of computing ‎on individuals, organization, and society.‎ |  |  |  |  |  |  | ` |  |  |  |  |  |  |  |  |  |  |  |
| Use current techniques, skills, and tools nessary ‎for computing practice.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Communication, Information Technology, Numerical** | Function effectively on teams to accomplish a ‎common goal.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Communicate effectively with a range of ‎audiences.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Apply advanced numerical methods.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Psychomotor** | NA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| Learning Outcomes | | **Course Code and Number** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CSI**  **224** | **CH**  **225** | **CSI**  **311** | **CSI**  **312** | **CSI**  **313** | **CSI**  **314** | **M**  **310** | **ISL**  **\*\*\*** | **CSI**  **321** | **CSI**  **322** | **CSI**  **323** | **CSI**  **324** | **CSI**  **325** | **ST**  **320** | **CSI**  **411** | **CSI**  **412** | **CSI**  **413** | **A**  **\*\*\*** |
| **Knowledge** | Acquire knowledge of computing and ‎mathematics appropriate to the discipline including ‎simulation and modeling.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Recognize the need for and an ability to engage in ‎continuing professional development.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand of best practices and standards and ‎their application.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Cognitive Skills** | Analyze a problem to identify and define the ‎computing requirements appropriate to its solution.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Design, implement, develop and evaluate ‎complicated computer-based system, process ‎component, or program to meet desired needs.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Use and apply current technical concepts and ‎practices in the core information technologies of ‎human computer interaction, information ‎management, programming, networking, web ‎systems and technologies.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify and analyze user needs and take them ‎into account in the selection, creation, evaluation ‎and adminstration of computer-based systems.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Integrate IT-based solutions into the user ‎environment‏ ‏‎ effectively.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Interpersonal Skills & Responsibility** | Adhere professional, ethical, legal, security, and ‎social issues and their responsibilities.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Analyze the local and global impact of computing ‎on individuals, organization, and society.‎ |  |  |  |  |  |  | ` |  |  |  |  |  |  |  |  |  |  |  |
| Use current techniques, skills, and tools nessary ‎for computing practice.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Communication, Information Technology, Numerical** | Function effectively on teams to accomplish a ‎common goal.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Communicate effectively with a range of ‎audiences.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Apply advanced numerical methods.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Psychomotor** | NA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| Learning Outcomes | | **Course Code and Number** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ISL**  **\*\*\*** | **CSI**  **400** | **CSI**  **421** | **CSI**  **422** | **CSI**  **423** | **CSI**  **425** | **ISL**  **\*\*\*** | **CSI**  **510** | **CSI**  **511** | **CSI**  **512** | **CSI**  **513** | **\*\*\*** | **CSI**  **520** | **CSI**  **522** | **CSI**  **525** |  |  |  |
| **Knowledge** | Acquire knowledge of computing and ‎mathematics appropriate to the discipline including ‎simulation and modeling.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Recognize the need for and an ability to engage in ‎continuing professional development.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand of best practices and standards and ‎their application.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Cognitive Skills** | Analyze a problem to identify and define the ‎computing requirements appropriate to its solution.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Design, implement, develop and evaluate ‎complicated computer-based system, process ‎component, or program to meet desired needs.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Use and apply current technical concepts and ‎practices in the core information technologies of ‎human computer interaction, information ‎management, programming, networking, web ‎systems and technologies.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify and analyze user needs and take them ‎into account in the selection, creation, evaluation ‎and adminstration of computer-based systems.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Integrate IT-based solutions into the user ‎environment‏ ‏‎ effectively.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Interpersonal Skills & Responsibility** | Adhere professional, ethical, legal, security, and ‎social issues and their responsibilities.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Analyze the local and global impact of computing ‎on individuals, organization, and society.‎ |  |  |  |  |  |  | ` |  |  |  |  |  |  |  |  |  |  |  |
| Use current techniques, skills, and tools nessary ‎for computing practice.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Communication, Information Technology, Numerical** | Function effectively on teams to accomplish a ‎common goal.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Communicate effectively with a range of ‎audiences.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Apply advanced numerical methods.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Psychomotor** | NA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| Learning Outcomes | | **Course Code and Number** | | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CSI**  **414** | **CSI**  **424** | **CSI**  **514** | **CSI**  **521** | **CSI**  **530** | **CSI**  **431** | **CSI**  **432** | **CSI**  **531** | **CSI**  **532** | **CSI**  **533** | **CSI**  **441** | **CSI**  **442** | **CSI**  **443** | **CSI**  **444** | **CSI**  **445** | **CSI**  **446** | **CSI**  **447** | **CSI**  **448** | **CSI**  **449** |
| **Knowledge** | Acquire knowledge of computing and ‎mathematics appropriate to the discipline including ‎simulation and modeling.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Recognize the need for and an ability to engage in ‎continuing professional development.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Understand of best practices and standards and ‎their application.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Cognitive Skills** | Analyze a problem to identify and define the ‎computing requirements appropriate to its solution.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Design, implement, develop and evaluate ‎complicated computer-based system, process ‎component, or program to meet desired needs.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Use and apply current technical concepts and ‎practices in the core information technologies of ‎human computer interaction, information ‎management, programming, networking, web ‎systems and technologies.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify and analyze user needs and take them ‎into account in the selection, creation, evaluation ‎and adminstration of computer-based systems.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Integrate IT-based solutions into the user ‎environment‏ ‏‎ effectively.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Interpersonal Skills & Responsibility** | Adhere professional, ethical, legal, security, and ‎social issues and their responsibilities.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Analyze the local and global impact of computing ‎on individuals, organization, and society.‎ |  |  |  |  |  |  | ` |  |  |  |  |  |  |  |  |  |  |  |  |
| Use current techniques, skills, and tools nessary ‎for computing practice.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Communication, Information Technology, Numerical** | Function effectively on teams to accomplish a ‎common goal.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Communicate effectively with a range of ‎audiences.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Apply advanced numerical methods.‎ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Psychomotor** | NA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**5. Admission Requirements for the program**

|  |
| --- |
| Attach handbook or bulletin description of admission requirements including any course or experience prerequisites**.**   * *Pass the preparatory year* * *Pass a personal interview* |

**6. Attendance and Completion Requirements**

|  |
| --- |
| Attach handbook or bulletin description of requirements for:  a. Attendance: : *Students must attend 75% for each course of theoretical and practical lecture*  b. Progression from year to year: *The student can transmit to the next year either by succeeding in all subjects or with a minimum of 3 portable subjects*  c. Program completion or graduation requirements: *to get an acceptable minimum rate at graduation and receive a percentage of not less than 60% in each course.* |

**E. Regulations for Student Assessment and Verification of Standards**

|  |
| --- |
| What processes will be used for verifying standards of achievement (eg check marking of sample of tests or assignments? Independent assessment by faculty from another institution) (Processes may vary for different courses or domains of learning.)   * *Examine a sample of tests or duties; or an independent assessment of the work by the College in another institution.* * *Operations may vary with different courses or fields of study.* |

**F Student Administration and Support**

**1. Student Academic Counselling**

|  |
| --- |
| Describe the arrangements for academic counselling and advising for students, including both scheduling of faculty office hours and advising on program planning, subject selection and career planning (which might be available at college level).   * *Determine the number of office hours for faculty members of academic guidance* * *Distribution of students to academic advisors* * *Work periodic reports for guidance to follow the academic performance of students* |

**2. Student Appeals**

|  |
| --- |
| Attach the regulations for student appeals on academic matters, including processes for consideration of those appeals. *According the regulations of the ministry of Higher Education* |

**G. Learning Resources, Facilities and Equipment**

|  |
| --- |
| 1a. What processes are followed by faculty and teaching staff for planning and acquisition of textbooks, reference and other resource material including electronic and web based resources?  *The requirements of text book and other materials for teaching are identified by the instructor teaching the course. The instructor’s suggestions are reviewed by the Undergraduate Committee, who may seek the opinion of the other faculty members. The instructor, proposing the text book for a course, is asked to review at least two text books on the subject and submit justifications for the chosen text book. The department requests the Purchasing department to procure the text books selected by the department.*  1b. What processes are followed by faculty and teaching staff for planning and acquisition resources for library, laboratories, and classrooms.  *Faculty and staff members generally follow the procedures to acquire resources, which typically start by submitting their requests in appropriate forms through their department heads.* |
| 2. What processes are followed by faculty and teaching staff for evaluating the adequacy of textbooks, reference and other resource provisions?  *1 - Revision of the revenue of these books to the students through the process of monitoring the results of these students and by asking students if the reference was effective or not.*  *2 - Periodic review of references approved by the department.*  *3 – Refereeing of the authored books by department members or the translated books.*  *4 - Provide expensive books and references by the university library to lighten the burden on students.* |
| 3. What processes are followed by students for evaluating the adequacy of textbooks, reference and other resource provisions?  *Students have the opportunity to evaluate textbooks within student course experience survey as well as annual student focus group. Both activities are run by the college-level Academic Assessment Unit.* |
| 4. What processes are followed for textbook acquisition and approval?  *Textbooks are made available to students through the University Bookstore. Departments submit their revised textbook lists at the end of the academic year before summer to be made available by beginning of following year.* |

**H. Faculty and other Teaching Staff**

**1. Appointments**

|  |
| --- |
| Summarize the process of employment of new faculty and teaching staff to ensure that they are appropriately qualified and experienced for their teaching responsibilities.  *1-Formation of a committee from within the department to examine the experiences of applied members.*  *2- Approval of both the council of the department and of the college council.*  *3- Approval of the Employment Committee at the University* |

**2. Participation in Program Planning, Monitoring and Review**

|  |
| --- |
| a. Explain the process for consultation with and involvement of teaching staff in monitoring program quality, annual review and planning for improvement.  *- Formation of committees in various academic department affairs committees such as tables committee, scientific research committee and quality control committee.*  *- Work on activating the recommendations of these committees through discussion within the department meetings and recommendations of these committees to the department meetings.*  *- Participation of department' faculty members in the program's periodic report, which is the outcome of the reports of their courses.*  *- Discuss faculty members in the results of surveys of students about the program.*  *- Participation of faculty members in the preparation of a plan to improve the program*  b. Explain the process of the Advisory Committee (if applicable)  *Not applicable* |

**3. Professional; Development**

|  |
| --- |
| What arrangements are made for professional development of faculty and teaching staff for:  a. Improvement of skills in teaching and student assessment?  *Ongoing training for faculty staff members on modern teaching aids such as the use of smart board and e-learning methods as well as to provide laboratories section with modern equipment.*  *Also:*  *- Encourage faculty member to attend conferences and workshops, whether financially or academically through promotions.*  *- Internal department seminars and workshops.*  *- Holding a weekly seminar for all the faculty members of the college of Science in Zulfi.*  *- Encouraging faculty members to perform scientific research and publishing.*  b. Other professional development including knowledge of research and developments in their field of teaching specialty?  *- Holding seminars and workshops within the department, college and university.*  *- Invite specialist professors to give talks to the faculty members.*  *- Holding training courses for faculty members which are being implemented by the deanship of Accreditation and Quality Assurance in the university* |

**4. Preparation of New Faculty and Teaching Staff**

|  |
| --- |
| Describe the process used for orientation and induction of new, visiting or part time teaching staff to ensure full understanding of the program and the role of the course(s) they teach as components within it.  *- New members are being recruited according to the department needs where they are introduced by the department program, plan, courses as well as courses descriptions*  *- Introducing them by University's internal regulations and a list of Higher Education rules.*  *- Workshops held by the college to introduce the college rules to those new teaching staff.*  *- Prepare an introductory guide for the program provides for faculty members who are recruited.* |

**5. Part Time and Visiting Faculty and Teaching Staff**

|  |
| --- |
| Provide a summary of Program/Department/College/institution policy on appointment of part time and visiting teaching staff. (ie. Approvals required, selection process, proportion to total teaching staff, etc.)  *Doesn't apply* |

**I. Program Evaluation and Improvement Processes**

**1. Effectiveness of Teaching**

|  |
| --- |
| a. What processes are used to evaluate and improve the strategies for developing learning outcomes in the different domains of learning? (eg. assessment of learning achieved, advice on consistency with learning theory for different types of learning, assessment of understanding and skill of teaching staff in using different strategies)  *- Evaluation and report forms for different courses.*  *- Forms of student assessment to faculty members.*  *- Workshops and department meetings to discuss about the improvements necessary to the courses .*  *- Continuous review of the program plan to assure that it meet the latest technologies in computer science and the fast changing society needs.*  *- continuous assure that the program plan satisfies and fulfills the IEEE/ACM Computing Curricula guidelines for computer science curriculum and meets the Computing Accreditation Criteria (CAC).* |
| b. What processes are used for evaluating the skills of faculty and teaching staff in using the planned strategies?  *- Conduct questionnaires to faculty members and to students.*  *- Evaluation forms from student to faculty members.*  *- Evaluation carried out by the department head and the dean of the college.* |

**2. Overall Program Evaluation**

|  |
| --- |
| a. What strategies are used in the program for obtaining assessments of the overall quality of the program and achievement of its intended learning outcomes: |
| (i) From current students and graduates of the program?  *Conduct questionnaires for students to get their opinions about evaluation of the program and the problems they face, such as identifying the scheduled calendar and identifying the quality of teaching materials and other related teaching matters.*  *Questionnaires for students already graduated.* |
| (ii) From independent advisors and/or evaluator(s)?.  *Consult specialists in the field of computer science & information outside the department and see their point of view on the process of educational department and the suitability of the curriculum with the developments occurring and advances in the field.*  *Questionnaires to governmental and private sector agencies to assess the performance of the employed students and their education.* |
| (iii) From employers and/or other stakeholders.  *Communication with employers and stakeholders in the field of computer science & information to find out the real requirements of them and meet their needs through the application of student satisfaction questionnaire.* |

**Complete the following two tables.**

**1. Program KPI and Assessment Table**

**2. Program Action Plan Table**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Program KPI and Assessment Table** | | | | |  |  |
|  | **Standard 3 Management of Quality Assurance and Improvement** | | | | |  |  |
| **Kpi#** | **List of Program KPIs Approved by the**  **Institution** | **KPI**  **Target**  **Bench mark** | **KPI**  **Actual**  **Bench mark** | **KPI**  **Internal Bench marks** | **KPI**  **External Bench marks** | **KPI**  **Analysis** | **KPI New**  **Target**  **Bench mark** |
| 1 | Students overall evaluation on the quality of their learning experiences. | 75% | 73.49% |  |  |  | 80% |
| 1.1 | **Advice and Support** | 75% | 69.4% |  |  |  | 80% |
| 1.2 | **Learning Resources and Facilities** | 85% | 83% |  |  |  | 90% |
| 1.3 | **Learning and Teaching** | 75% | 73.3% |  |  |  | 80% |
| 1.4 | **Help and Support for my Learning** | 70% | 65.29% |  |  |  | 75% |
| 1.6 | **Resources to Support my Learning** | 75% | 71.4% |  |  |  | 80% |
| 1.7 | **Evaluation of my Learning** | 80% | 74.31% |  |  |  | 90% |
| 1.8 | **Overall Evaluation** | 80% | 77.7% |  |  |  | 90% |
| 2 | Proportion of courses in which student evaluations were conducted during the year. | 60% | 50% |  |  |  | 65% |
|  | **Standard 4 Learning and Teaching** | | | | |  |  |
| **Kpi#** | **List of Program KPIs Approved by the**  **Institution** | **KPI**  **Target**  **Bench mark** | **KPI**  **Actual**  **Bench mark** | **KPI**  **Internal Bench marks** | **KPI**  **External Bench marks** | **KPI**  **Analysis** | **KPI New**  **Target**  **Bench mark** |
| 1 | Ratio of students to teaching staff(Based on full time equivalents) | 1:10 | 1:12 |  |  |  | 1:10 |
| 2 | Students overall rating on the quality of their courses. |  |  |  |  |  |  |
| 2.1 | **Questions about the start of the course** |  | 3.8 |  |  |  |  |
| 2.2 | **Questions about what happened during the course** |  | 4.3 |  |  |  |  |
| 2.3 | **Evaluation of the Course** |  | 4.2 |  |  |  |  |
| 3 | Proportion of teaching staff with verified doctoral qualifications. | 75% | 67% |  |  |  | 80% |
| 4 | Percentage of students entering programs who successfully complete first year. | 50% | 46% |  |  |  | 60% |
| 5 | Proportion of students entering undergraduate programs who complete those programs in minimum time. | 30% | 24% |  |  |  | 40% |
| 6 | Proportion of graduates from undergraduate programs who within six months of graduation are: (a) employed (b) enrolled in further study not seeking employment or further study. | 45%  10% | 36%  %5 |  |  |  | 50%  15% |
|  | **Standard 5 Student Administration and Support Services** | | | |  |  |  |
| **Kpi#** | **List of Program KPIs Approved by the**  **Institution** | **KPI**  **Target**  **Bench mark** | **KPI**  **Actual**  **Bench mark** | **KPI**  **Internal Bench marks** | **KPI**  **External Bench marks** | **KPI**  **Analysis** | **KPI New**  **Target**  **Bench mark** |
| 1 | Ratio of students to administrative staff | 1:7 | 1:9 |  |  |  | 1:5 |
| 2 | Proportion of total operating funds (other than accommodation and student  allowances) allocated to provision of student services |  |  |  |  |  |  |
| 3 | Student evaluation of academic and career counselling. | 75% |  |  |  |  | 80% |
|  | **Standard 6 Learning Resources** | | | |  |  |  |
| **Kpi#** | **List of Program KPIs Approved by the**  **Institution** | **KPI**  **Target**  **Bench mark** | **KPI**  **Actual**  **Bench mark** | **KPI**  **Internal Bench marks** | **KPI**  **External Bench marks** | **KPI**  **Analysis** | **KPI New**  **Target**  **Bench mark** |
| 1 | Number of book titles held in the library as a proportion of the number of students. | 15:1 | 12:1 |  |  |  | 20:1 |
| 2 | Number of web site subscriptions as a proportion of the number of programs offered. | 15:1 | 10:1 |  |  |  | 20:1 |
| 3 | Number of periodical subscriptions as a proportion of the number of programs offered. | 15:1 | 13:1 |  |  |  | 20:1 |
| 4 | Student evaluation of library services. (Average rating on adequacy of library services on a five point scale in an annual survey of program students.) |  |  |  |  |  |  |
|  | **Standard 7 Facilities and Equipment** | | | |  |  |  |
| **Kpi#** | **List of Program KPIs Approved by the**  **Institution** | **KPI**  **Target**  **Bench mark** | **KPI**  **Actual**  **Bench mark** | **KPI**  **Internal Bench marks** | **KPI**  **External Bench marks** | **KPI**  **Analysis** | **KPI New**  **Target**  **Bench mark** |
| 1 | Annual expenditure on IT as a proportion of the number of students | 8000:1 | 6000:1 |  |  |  | 10000:1 |
| 2 | Number of accessible computer terminals per student | 2:1 | 3:1 |  |  |  | 1:1 |
| 3 | Average overall rating of adequacy of facilities and equipment in a survey of teaching staff |  |  |  |  |  |  |
| 4 | Internet bandwidth per user |  |  |  |  |  |  |
|  | **Standard 8 Financial Planning and Management** | | | |  |  |  |
| **Kpi#** | **List of Program KPIs Approved by the**  **Institution** | **KPI**  **Target**  **Bench mark** | **KPI**  **Actual**  **Bench mark** | **KPI**  **Internal Bench marks** | **KPI**  **External Bench marks** | **KPI**  **Analysis** | **KPI New**  **Target**  **Bench mark** |
| 1 | Total operating expenditure (other than accommodation and student allowances) per student. |  |  |  |  |  |  |
|  | **Standard 9 Employment Processes** | | | |  |  |  |
| **Kpi#** | **List of Program KPIs Approved by the**  **Institution** | **KPI**  **Target**  **Bench mark** | **KPI**  **Actual**  **Bench mark** | **KPI**  **Internal Bench marks** | **KPI**  **External Bench marks** | **KPI**  **Analysis** | **KPI New**  **Target**  **Bench mark** |
| 1 | Proportion of teaching staff leaving the institution in the past year for reasons other than age retirement | 7% | 10% |  |  |  | 5% |
| 2 | Proportion of teaching staff participating in professional development activities during the past year | 90% | 80% |  |  |  | 100% |
|  | **Standard 10 Research** | | | |  |  |  |
| **Kpi#** | **List of Program KPIs Approved by the**  **Institution** | **KPI**  **Target**  **Bench mark** | **KPI**  **Actual**  **Bench mark** | **KPI**  **Internal Bench marks** | **KPI**  **External Bench marks** | **KPI**  **Analysis** | **KPI New**  **Target**  **Bench mark** |
| 1 | Number of refereed publications in the previous year per full time equivalent member of teaching staff. (Publications based on the formula in the Higher Council Bylaw excluding conference presentations) |  |  |  |  |  |  |
| 2 | Number of citations in refereed journals in the previous year per full time equivalent teaching staff |  |  |  |  |  |  |
| 3 | Proportion of full time member of teaching staff with at least one refereed publication  during the previous year |  |  |  |  |  |  |
| 4 | Number of papers or reports presented at academic conferences during the past year per full time equivalent members of teaching staff |  |  |  |  |  |  |
| 5 | Research income from external sources in the past year as a proportion of the number of full time teaching staff members |  |  |  |  |  |  |
| 6 | Proportion of total operating funds spent on research. |  |  |  |  |  |  |
|  | **Standard 11 Institutional Relationships with the Community** | | | |  |  |  |
| **Kpi#** | **List of Program KPIs Approved by the**  **Institution** | **KPI**  **Target**  **Bench mark** | **KPI**  **Actual**  **Bench mark** | **KPI**  **Internal Bench marks** | **KPI**  **External Bench marks** | **KPI**  **Analysis** | **KPI New**  **Target**  **Bench mark** |
| 1 | Proportion of full time teaching and other staff actively engaged in community service activities | 25% | 20% |  |  |  | 30% |
| 2 | Number of community education programs provided as a proportion of the number of departments | 2:3 | 1:3 |  |  |  | 3:3 |

**Program Action Plan Table**

Directions: Based on your “*Analysis of KPIs and Benchmarks*” provided in the above Program KPI and Assessment Table, list the recommendations identified below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Recommendations** | **Action**  **Points** | **Assessment**  **Criteria** | **Responsible**  **Person** | **Start**  **Date** | **Completion**  **Date** |
| **1** |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |
| **3** |  |  |  |  |  |  |
| **4** |  |  |  |  |  |  |
| **5** |  |  |  |  |  |  |
| **6** |  |  |  |  |  |  |
| Action Plan Analysis (List the strengths and recommendations for improvement of the Program Action Plan). | | | | | | |

**Attachments: ‎**

‎ ‎1.‎‎ Copies of regulations and other documents referred to in template preceded by a table of ‎contents.‎

‎ 2. Course specifications for all courses including field experience specification if applicable‎

**Authorized Signatures**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dean /**  **Program Chair** | **Name** | **Title** | **Signature** | **Date** |
| **Program Dean**  **or Chair of Board of Trustees**  **Main Campus** |  |  |  |  |
| **Vice Rector** |  |  |  |  |