**The New Information Technology Program**

###### **Mission**

**​ Prepare qualified and skilled students to meet the needs of the labor market in the field of Information Technology and to pursue advanced degrees; by providing outstanding education with the latest and most sufficient knowledge, best practices, and skills in Information Technology.**

###### **Goals**

* **Develop a technically proficient workforce capable of carrying out IT solutions to the best practices.**
* **Provide students with soft skills and values to effectively communicate and collaborate with others professionally, ethically and legally.**
* **Improve students' experience by empowering them with the necessary entrepreneurs’ skills to develop innovative IT solutions.**

###### **Program Learning Outcomes**

* **Demonstrate a deep understanding of the main concepts and technologies related to information technology.**
* **Realize the evaluation and assessment of tasks performed as IT professionals.**
* **Describe and analyze the user needs and computing requirements appropriate to problems’ solutions.**
* **Apply the concepts, methods, tools and technologies mastered during the academic program.**
* **Apply theories in modelling and designing IT systems using cutting edge tools and technologies.**
* **Apply analysis, design, implementation, testing and evaluation principles of IT solutions to fit industrial requirements and support techpreneurship.**
* **Carry out the assigned tasks with quality of work in accordance with international standards.**
* **Communicate effectively, both orally and in written form, using appropriate media.**
* **Identify the needs for continuous development of professional, legal and ethical skills with the ability to engage all group members.**
* **Function effectively on teamwork projects and activities to accomplish a common goal.**

###### **Introduction**

**​ Due the increasing demand for IT graduates in the job market and the large investment of the Saudi government in knowledge economy which is based on advanced IT facilities, and due to the need for various specializations relevant to IT field, the BSc in IT has been launched to meet these requirements. The program enhances and thus contributes to the National strategic plans for communication and IT needed for localizing IT and satisfying job market demands. The academic plan covers various IT domains and complies with the accreditation criteria and international peer programs**

**Note: Program applied to all student who finish first common year and entering the program at the beginning of the academic year 2021-2022**

###### **Justifications for offering the program**

* **Contributing to the national strategic communication and IT plan.**
* **The importance of information technology job for Saudi institutions and society.**
* **The increasing job market needs in the Kingdom of Saudi Arabia for specialized workforce in IT.**
* **The constant need in the labor market (public and private) to specialists in information technology.**
* **Few number of Saudi universities offer BSc programs in IT.**
* **The fulfilment of national high-quality projects, which aim to develop the IT in the Kingdom of Saudi Arabia.**

###### **Objectives**

* **Apply technical solutions that can improve task delivery and help institutions in achieving their objectives.**
* **Administer IT the hardware and the manpower in the work place.**
* **Keep pace with rapid developments in IT and evaluate and adopt the best applications in the work environment.**
* **Build and manage digital content of available IT systems in the workplace.**

###### **Study Duration**

**8 semesters of total of 130 Credits and 42 Courses**

###### **Employment Opportunities for Graduates**

* **Software developer.**
* **Assistant database administrator.**
* **Computer Network Supervisor.**
* **Site supervisor and operator.**
* **Technical support specialist.**
* **Website developer and programmer.**
* **Information systems supervisor.**
* **Information technology specialist.**
* **Information systems administrator.**
* **Computer operator.**
* **Computer operator supervisor.**
* **Internet of Things specialist (upon completion of the Internet of Things Track).**
* **Cloud computing specialist (upon completion of the cloud computing Track).**
* **Cyber ​​security specialist (upon completion of the cyber security Track).**

###### **Available Branches**

* **Riyadh: Male and Female**
* **Jeddah: Male and Female**
* **Dammam: Male and Female**
* **Madina: Male and Female**
* **Abha: Male and Female**
* **Jazan: Male and Female**
* **Qasim: Male only**
* **Tabuk: Male Only**

###### **Program Course Requirements**

**University Requirements: 34 Credits**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **ENG001** | **English Skills 1** | **8** |  |
| **ENG002** | **English Skills 2** | **8** |  |
| **CS001** | **Computer Essentials** | **3** |  |
| **COMM001** | **Communication Skills** | **2** |  |
| **CI001** | **Academic Skills** | **2** |  |
| **MATH001** | **Fundamentals of Mathematics** | **3** |  |
| **ISLM 101** | **Islamic Course 1** | **2** |  |
| **ISLM 102** | **Islamic Course 2** | **2** |  |
| **ISLM 103** | **Islamic Course 3** | **2** |  |
| **ISLM 104** | **Islamic Course 4** | **2** |  |
| **Total** | **34** |  |

**Collage Requirements: 30 Credits**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT232** | **Object Oriented Programming**  | **3** | **Pass First Year** |
| **MATH150** | **Discrete Mathematics**  | **3** | **Pass First Year** |
| **IT241** | **Operating Systems** | **3** | **IT233** |
| **IT244** | **Introduction to Database** | **3** | **IT232** |
| **IT245** | **Data Structure** | **3** | **IT232** |
| **ENG103** | **Technical Writing** | **3** | **ـــ** |
| **MATH251** | **Linear Algebra** | **3** | **MATH150** |
| **IT351** | **Computer Networks** | **3** | **IT241** |
| **STAT101** | **Statistics** | **3** | **ـــ** |
| **IT499** | **Practical Training** | **3** | **Passing 86 Credit Hours** |
| **Total** | **30** |  |

**~~Major~~ Program Requirements: 66**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT231** | **Introduction to IT and IS** | **3** | **Pass First Year** |
| **IT233** | **Computer Organization** | **3** | **Pass First Year** |
| **SCI101** |  **General Physics 1** | **3** | **Pass First Year** |
| **SCI201** |  **General Physics 2** | **3** | **SCI101** |
| **IT352** | **Human Computer Interaction** | **3** | **IT231,IT245** |
| **IT353** | **System Analysis and Design** | **3** | **IT245** |
| **IT354** | **Database Management Systems** | **3** | **IT244** |
| **IT361** | **Web Technologies** | **3** | **IT352, IT244** |
| **IT362** | **IT Project Management** | **3** | **IT353** |
| **IT363** | **Network Management** | **3** | **IT351** |
| **IT364** | **IT Entrepreneurship and Innovation** | **3** | **IT244** |
| **IT365** | **Enterprise Systems** | **3** | **IT352** |
| **IT475** | **Decision Support Systems** | **3** | **IT354** |
| **IT476** | **IT Security & Policies** | **3** | **IT351** |
| **IT479** | **Senior Project I** | **3** | **IT354, IT361** |
| **IT485** | **Professional Ethics in IT** | **3** | **IT362** |
| **IT487** | **Mobile Application Development** | **3** | **IT361** |
| **IT489** | **Senior Project II** | **3** | **IT479** |
| **IT4XX** | **Elective Course in IT 1**  | **3** | **See Electives Tables** |
| **IT4XX** | **Elective Course in IT 2**  | **3** | **See Electives Tables** |
| **IT4XX** | **Elective Course in IT 3**  | **3** | **See Electives Tables** |
| **IT4XX** | **Elective Course in IT 4**  | **3** | **See Electives Tables** |
| **Total** | **66** |  |

**Electives Courses – Cloud Computing Track**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT471** | **Introduction to Cloud Computing** | **3** | **IT363** |
| **IT473** | **Cloud Systems Architecture** | **3** | **IT363** |
| **IT481** | **Cloud Security** | **3** | **IT471** |
| **IT483** | **Cloud System Administration** | **3** | **IT471** |

**Electives Courses – Cyber Security Track**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT474** | **Introduction to Cyber Security and Digital Crime** | **3** | **IT363** |
| **IT478** | **Network Security** | **3** | **IT363** |
| **IT484** | **Wireless Sensor Networks** | **3** | **IT474** |
| **IT488** | **Cyber Forensics** | **3** | **IT474** |

**Electives Courses – Internet-of-Things Track**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT470** | **Introduction to IoT** | **3** | **IT363** |
| **IT472** | **IoT Network Design** | **3** | **IT363** |
| **IT480** | **Enterprise Internet of Things** | **3** | **IT470** |
| **IT482** | **IoT Security and Privacy** | **3** | **IT470** |

###### Study Plan

 **Level One**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **ENG001** | **English Language Skills** | **8** |  |
| **CS001** | **Computer Essentials** | **3** |  |
| **CI001** | **Academic Skills** | **2** |  |

 **Level Two**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **ENG002** | **English Language Skills 2** | **8** |  |
| **MATH001** | **Fundamentals of Mathematics** | **3** |  |
| **COMM001** | **Communication Skills** | **2** |  |

**Level Three**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT231** | **Introduction to IT and IS** | **3** | **Pass First Year** |
| **IT232** | **Object Oriented Programming**  | **3** | **Pass First Year** |
| **IT233** | **Computer Organization** | **3** | **Pass First Year** |
| **MATH150** | **Discrete Mathematics**  | **3** | **Pass First Year** |
| **SCI101** |  **General Physics 1** | **3** | **Pass First Year** |
| **ISLM101** | **Islamic Culture 1** | **2** | **Pass First Year** |

 **Level Four**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT241** | **Operating Systems** | **3** | **IT233** |
| **IT244** | **Introduction to Database** | **3** | **IT232** |
| **IT245** | **Data Structure** | **3** | **IT232** |
| **ENG103** | **Technical Writing** | **3** | **ـــ** |
| **MATH251** | **Linear Algebra** | **3** | **MATH150** |
| **SCI201** |  **General Physics 2** | **3** | **SCI101** |

 **Level Five**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT351** | **Computer Networks** | **3** | **IT241** |
| **IT352** | **Human Computer Interaction** | **3** | **IT231,IT245** |
| **IT353** | **System Analysis and Design** | **3** | **IT245** |
| **IT354** | **Database Management Systems** | **3** | **IT244** |
| **STAT101** | **Statistics** | **3** | **ـــ** |
| **ISLM102** | **Islamic Culture 2** | **2** | **ـــ** |

 **Level Six**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT361** | **Web Technologies** | **3** | **IT352, IT244** |
| **IT362** | **IT Project Management** | **3** | **IT353** |
| **IT363** | **Network Management** | **3** | **IT351** |
| **IT364** | **IT Entrepreneurship and Innovation** | **3** | **IT244** |
| **IT365** | **Enterprise Systems** | **3** | **IT352** |
| **ISLM103** | **Islamic Culture 3** | **2** | **ـــ** |

**Practical Training Guide**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT499** | **Practical Training** | **3** | **Passing 86 Credit Hours** |

**Level Seven**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT4XX** | **Elective Course in IT 1**  | **3** | **See Electives Tables** |
| **IT4XX** | **Elective Course in IT 2**  | **3** | **See Electives Tables** |
| **IT475** | **Decision Support Systems** | **3** | **IT354** |
| **IT476** | **IT Security & Policies** | **3** | **IT351** |
| **IT479** | **Senior Project I** | **3** | **IT354, IT361** |
| **ISLM104** | **Islamic Culture 4** | **2** | **ـــ** |

 **Level Eight**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **​ Course Name​** | **Credit Hours** | **Prerequisites** |
| **IT4XX** | **Elective Course in IT 3**  | **3** | **See Electives Tables** |
| **IT4XX** | **Elective Course in IT 4**  | **3** | **See Electives Tables** |
| **IT485** | **Professional Ethics in IT** | **3** | **IT362** |
| **IT487** | **Mobile Application Development** | **3** | **IT361** |
| **IT489** | **Senior Project II** | **3** | **IT479** |