

جامعة الأمير مساعد بن عبدالرحمن
Prince Musaid Bin Abdulrahman University
2011-1432

College of Computing and Informatics

NEW PROGRAM DESCRIPTION

BACHELOR OF INFORMATION TECHNOLOGY

The New Information Technology Program

Mission

Prepared well-educated and qualified students with the most current knowledge and skills in the various fields of information technology and to build their lifetime learning and careers, meet the labor market needs and conduct scientific research that contributes to the advancement of society's knowledge, solving community issues and meeting of future challenges in Information Technology.

Goals

The main goals of the BSIT program are:

1. **Develop a technically proficient workforce capable of carrying out IT solutions to the best practices.**
2. **Provide students with soft skills and values to effectively communicate and collaborate with others professionally, ethically, legally as well as fulfill the needs of society.**
3. **Improve students' experience by empowering them with the necessary entrepreneurs' skills to develop innovative IT solutions and perform scientific research.**

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.**

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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	–
MATH251	Linear Algebra	3	MATH150
IT351	Computer Networks	3	IT241
STAT101	Statistics	3	–
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	–
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	–
ISLM102	Islamic Culture 2	2	–

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	–

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	–

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**