

f. The COC common courses

Table 1 shows the QU general framework, disclosing the allowed percentage and credit range for three criteria:

Table 1: QU General Framework.

Requirements	QU Allowed Percentage Range		QU Allowed Credit Range	
	from	to	from	to
University and College Requirements	45%	55%	87	98
Department Requirements	33%	41%	57	79
Free Hours Requirements	3%	5%	6	8
Total	100%		150	185

Table 2: University Compulsory Courses – 12 Credits

Course Code	Course Name	Theory	Practical	Total Credits	Requisite	Requisite Type
ARAB101	Linguistic Skills	2	0	2	-	-
ARAB103	Arabic Writing	2	0	2	-	-
IC 101	Introduction to Islamic Culture	2	0	2	-	-
IC 102	Islam and Community Building	2	0	2	IC 101	Pre-requisite
IC 103	Economic System in Islam	2	0	2	IC 101	Pre-requisite
IC 104	Political System in Islam	2	0	2	IC 101	Pre-requisite
		12	0	12		

Table 3: First Year Requirments– 34 Credits

Course Code	Course Name	Theory	Practical	Total Credits	Requisite	Requisite Type
ENG0011	English I	0	8	8	-	-
STAT100	Statistics	1	1	2	-	-
PHYS110	Physics (1)	1	1	2	-	-
CSC105	Computer Skills	2	2	4	-	-
PSYCH101	Thinking Skills & Learning Styles	2	0	2	-	-
ENG0012	English II	0	5	5	ENG0011	-
ESP102	English for Engineering and Computer Science	0	2	2	ENG0011	-
MATH105	Calculus	2	1	3	-	-
PHYS115	Physics (2)	2	1	3	PHYS110	-
CSC111	Computer Programming	2	1	3	CSC105	-
Total		12	22	34		

Table 4: University Free Courses – 6 Credits

Course Code	Course Name	Theory	Practical	Total Credits	Requisite	Requisite Type
	Free Hours I	3	0	3	-	-
	Free Hours II	3	0	3	-	-
		6	0	6		-

Table 5: College Compulsory Courses – 37 Credits

Course Code	Course Name	Theory	Practical	Total Credits	Requisite	Requisite Type
COE121	Logic Design	3	0	3	CSC111 COE122	Pre-requisite Co-requisite
COE122	Logic Design Lab	0	1	1	COE121	Co-requisite
CS 181	Computer Programming II	2	1	3	CSC111	Pre-requisite
CS 182	Computer Programming III	2	1	3	CS181	Pre-requisite
CS 222	Operating Systems	2	1	3	CS182	Pre-requisite
MATH212	Discrete Mathematics	3	0	3	MATH116	Pre-requisite
CS 214	Data Structures	2	1	3	CS 182	Pre-requisite
IT 131	Database	2	1	3	CSC111	Pre-requisite
IT362	Communication Skills & Ethics issues*	2	0	2	-	-
MATH115	Integral Calculus	3	0	3	MATH105	Pre-requisite
MATH116	Linear Algebra and Multivariate Calculus	3	0	3	MATH115	Pre-requisite
STAT126	Probability & Statistics	3	0	3	STAT100	Pre-requisite
PHYS116	Physics (3)	3	1	4	PHYS115	Pre-requisite
		30	7	37		

* This course is equivalent to DAR (103) – University course request

Table (6): Elective Courses from CoC College: the student selects (6 Credits) at least from the following table

Course Code	Course Name	Theory	Practical	Total Credit	Prerequisite	Corequisite
MATH326	Mathematical Methods	3	1	4	MATH321	-
MATH351	Numerical Analysis	3	1	4	MATH242	-
MATH382	Real Analysis (I)	3	1	4	MATH203	-
MATH316	Numerical Methods	3	0	3	MATH116	-
STAT327	Statistical Inferences	3	0	3	STAT126	-
PHYS422	Electronics	3	1	4	PHYS202	-
MATH204	Vectors	3	0	3	MATH202	-
MATH213	Advanced Discrete Mathematics	3	0	3	MATH212	-
MATH244	Linear Algebra (II)	3	0	3	MATH242	-
MATH329	Operation Research	3	0	3	MATH116	-
MATH345	Algebra Applications	3	0	3	MATH242	-
PHYS211	Classical Mechanics (I)	3	0	3	MATH101 PHYS101	-
PHYS221	Electromagnetics (I)	3	0	3	PHYS116	-
PHYS243	Thermodynamics	3	0	3	PHYS101	-
PHYS321	Electromagnetics (II)	3	0	3	PHYS221	-
CHEM101	General Chemistry	3	1	4	-	-
CHEM111	General Chemistry	3	1	4	-	-
MATH 218	Differential Equations	3	0	0	MATH 116	-
MATH 319	Coding Theory and Cryptography	3	0	0	MATH 116	-
COE361	Signals and Systems Analysis	3	0	3	MATH218	CEO362
COE362	Signals and Systems Analysis Lab	0	1	1		CEO361
CS 341	Computer Graphics	2	1	3	CS 182	-
CS 315	Algorithms Analysis & Design	3	0	3	CS 211	-
CS 451	Introduction to Computer Security	3	0	3	CS 315	-
IT 351	Data Science for the Internet of Things	2	1	3	IT332	-

The advisor's approval is required for determining the elective courses and the COC can add other elective courses according to the job market requirements or the academic accreditation.

* This course has equevlint course in the study plan of the COC.

III. Information Technology (IT) Department

a. About the IT Department

Information Technology Department was established concurrently with the establishing of the College of Computer at Qassim University in the academic year 1427/1428, to cover the needs of the different sectors in the kingdom from this specialty and to prepare the needed qualifications and experiences. The department is looking to prepare the student to be specialized in the Information Technology field after his graduation. The curriculum was prepared to outfit the student with the necessary knowledge's and experiences required for professionalism in this field. Graduator is prepared to be able to work in the governmental and private sectors as an Information Technologist, and to work in Universities and Educational Institutions, Communications and Internet Companies, and various Companies and Organizations related with this field.

The graduates of Information technology program will be able to work effectively at planning, analysis, design, implementation, and maintenance of the information systems and computing infrastructure. The shaded portion in the Figure 1 represents the information technology discipline. The IT students have a special focus on satisfying human needs that arise from computing technology.

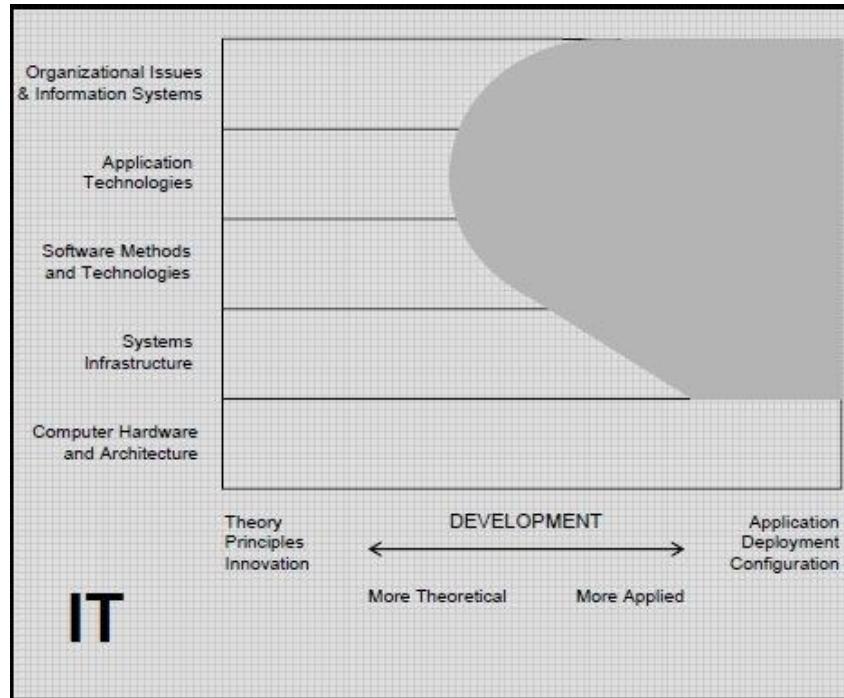


Figure 1. Scope of Information Technology program

b. IT Department Vision Statement

The department is looking to become distinguished in higher education and scientific research in the Information Technology field, contributing to sustainable development.

c. IT Department Mission Statement

To provide qualified and trained graduates in the field of Information Technology in order to meet the market needs and produce an excellent scientific research, to contribute the technical infrastructure by adapting novel technologies to reinforce a knowledge-based economy and to improve the performance of the local community institutions, through the use of state-of-the-art techniques, resources development, and national and international collaboration.

d. IT Department Program Educational Objectives (PEOs)

1. Knowledge:
Graduate will be able to solve the problems with knowledge, skills and high quality education acquired during program with basic concepts, principles and theories in different fields of Information Technology, and scientific researches.
2. Professional Achievement:
Enable students to apply their knowledge, develop solutions for the problems and implement these solutions efficiently and effectively for different applications and systems in the fields of Information Technology that contributes nationally.
3. Lifelong Learning:
Enables the graduates to complete the graduate studies in the Information Technology and other related fields.
4. Communal Responsibility:
Prepare students with the knowledge, and to provide assistance and guidance for them to acquire required skills in the field of specialization as active members of a teamwork, and understanding of importance of the team and bearing personal and social responsibility.
5. Ethical Standards:
Enable students to consider the ethical, legal, security and social issues of the technology, learn them then take responsible actions.

e. IT Department Program Student Outcomes

The student outcomes for the IT program are:

- a) An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- b) An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
- c) An ability to design, implement, and evaluate a computer-based system, processes, components, or programs to meet desired needs.
- d) An ability to work effectively in teams to accomplish a common goal.
- e) An understanding of professional, ethical, legal, security and social issues and responsibilities.

- f) An ability to communicate effectively with a range of audiences for the purpose of supporting and serving the community and the surrounding environment.
- g) An ability to analyze the local and global impact of computing on individuals, organizations, and society
- h) Recognition of the need for and an ability to engage in continuing professional development
- i) An ability to use current techniques, skills, and tools necessary for computing practice.
- j) An ability to use and apply current technical concepts and practices in the core information technologies of human computer interaction, information management, programming, networking, and web systems and technologies.
- k) An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.
- l) An ability to effectively integrate IT-based solutions into the user environment.
- m) An understanding of best practices and standards and their application.
- n) An ability to assist in the creation of an effective project plan.

f. Degree Obtained by the Student

Information Technology graduates are awarded a Bachelor of Science Degree in Information Technology.

g. IT Specialization Requirement

All CoC students are required to undergo and pass four common semesters in the college to prepare them for their department specialization, such as Programming, Logic Design, Database, and Advanced Math. After finishing and passing these courses, CoC students can apply for specialization in the IT department.

h. IT Program Options

The graduates from the program obtain a degree of Bachelor of Science in Information Technology. There is only one Information Technology Bachelor program, and all students are full-time day and on-campus program students. The program provides the student two opportunities for industrial training; either through a two-month summer training program or through a 7-month COOP training program. The summer training program is equivalent to 1 credit while the COOP program is equivalent to 12 credits.

i. Graduation Requirements

To become eligible for a Bachelor of Science degree in an Information Technology program, a student must complete of the number of semester-credit-hours required by the IT program (**162** credit hours), cumulative and major GPAs of 2.00 or higher on a 5.00 point scale.

j. Career opportunities for graduates

A graduate program of Information Technology can filled one of the jobs listed below:

- Database administrator.
- Analyst and designer of information systems.
- Developer of information systems (software engineer).
- Specialized in the development and data processing.
- Specialized in e-commerce.
- Specialized in information security.
- Designer and developer of web pages.
- Technical and systems support and end users services.
- Technician in information systems.
- Technician of computer lab.
- Technician specialist in personal computers.
- Applications Programmer.
- Developer of systems security.

- Specialized in educational jobs

Course Numbers Convention

The course coding consists of two main parts (Alphabetic and number of three digits):

First part “**IT**” (Alphabetic part) is an abbreviation refers to the Department specialization “**I**nformation **T**echnology”.

Second Part “number of three digits”:

- The first digit (from left) refers to the year in which the course is taught in the Department plan.
- The second digit (from left) refers to a sub-specialty (track) of the Department plan.
- The third digit (from left) refers to sequence of courses in a track.

As in an example

Course Code		Course Number		
		hundredth	Tenth	Units
		Course Year	Sub-specialty	Course Sequence
I	T	1	3	1
		First year	Database	First course

9	8	7	6	5	4	3	2	1	Medium Number
FYP	Prog.	WEB	Management	Analysis	Multimedia	DB	Security	VP	Topic

k. General framework of the proportions for QU and the IT department

Table 1 shows the QU general framework. Shows the QU general framework, disclosing the allowed percentage and credit range for three criteria:

- University and College requirements.
- Department requirements.
- Free Hours requirements.

The last column shows our proposed IT plan, and how it fulfills all QU requirements.

Table 1: QU General Framework.

Requirements	QU Allowed Percentage Range		QU Allowed Credit Range		IT Plan	
	From	to	from	to	Hours	%
University and College Requirements	45%	55%	87	98	89	55%
Department Requirements	33%	41%	57	79	67	41%
Free Hours Requirements	3%	4%	6	8	6	4%
Total	100%		150	185	162	100%

Table 2 shows the Qassim University frameworks in more details. The last column shows our proposed IT plan, and how it fulfills all Qassim University requirements.

Table 2: Qassim University Detailed Framework for 5-year programs.

Requirements		QU Allowed Percentage Range		QU Allowed Credit Range		IT Plan	
		from	to	from	to	Hours	%
University		6%	7%	11	13	12	7%
First Year		18%	20%	33	37	34	21%
College	Mandatory	20%	22%	37	40	37	23%
	Optional at college	3%	4%	6	8	6	4%
Department	Mandatory from Outside Dep.	6%	11%	11	20	10	6%
	Mandatory from Inside Dep.	22%	26%	40	48	45	28%
	Optional/Selected	3%	6%	6	11	12	7%
Free Hours		3%	4%	6	8	6	4%
Total		100%		150	185	162	100%

Table 3: Obligatory Courses from IT Department for Program 45 Credits (39+6 for Options A/B)

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 214	Object Oriented Programming I	2	1	3	CS 182	-
IT 215	Human Computer Interaction (HCI)	2	0	2	IT 214	-
IT 221	Information Assurance and Security	3	0	3	IT 251	-
IT 251	Information System Fundamentals	3	0	3	-	-
IT 271	Web Technologies	2	1	3	CS 182	-
IT 315	Object Oriented Programming II	2	1	3	IT 214	-
IT 332	Advance Database	3	1	4	IT 131	-
IT 352	Information Systems Analysis & Design	3	0	3	IT 251	-
IT 361	System Administration and Maintenance	2	1	3	IT 251	-
IT 372	Data Mining and Warehousing	3	0	3	IT 332	-
IT 342	Mobile and Cloud Computing	2	1	3	IT 214	-
IT 435	Decision Support Systems	3	0	3	IT 332	-
IT 473	Electronic Commerce Systems	3	0	3	IT 352	-
Total		33	6	39		

Table 4: Obligatory Courses from Outside Department – 10 Credits

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
COE 351	Computer Networks	3	0	3	CS 222	COE 352
COE 352	Computer Networks Lab	0	1	0	-	COE 351
CS 211	Concepts of Algorithms	3	0	3	CS 181	-
CS 383	Software Engineering	3	0	3	CS 222	-
Total		9	1	10		

IT Optional Courses – 12 Credit Hours

IT Optional courses are specialized courses taken by IT student to improve his depth knowledge in different areas in the Information Technology field, given the academic advisor's approval.

Table 5: Optional Courses from IT Department - 12 Cr. (9 credits from them are in optional A)

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 424	Knowledge-Based Systems Applications	3	0	3	IT 251	-
IT 425	Geographic information system	2	1	3	IT 352	-
IT 433	Distributed and Object Database	2	1	3	IT 332	-
IT 434	Advanced Web Technologies	2	1	3	IT 271	-
IT 442	Wireless and Mobile Data Networks	2	1	3	COE 351	-
IT 443	Multimedia Data Compression	3	0	3	IT 214	-
IT 462	Network and database Administrator	2	1	3	IT 332, COE 351	-
IT 463	Parallel & Distributed Systems	2	1	3	IT 352	-
IT 474	Big Data Analysis	3	0	3	IT 332	-
IT 475	Data Driven Website	2	1	3	IT 271	-
IT 491	Selected topics in IT (1)	3	0	3	IT 332	-
IT 492	Selected topics in IT (2)	3	0	3	IT 372	-

The advisor's approval is required for determining the elective courses and the IT can add other elective courses according to the job market requirements or the academic accreditation

Option (A): Study Plan for Information Technology Program with Summer Training.

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
	IT Optional I	3	0	3	-	-
	IT Optional II	3	0	3	-	-
	IT Optional III	3	0	3	-	-
	IT Optional IV	3	0	3	-	-
IT 497	Summer Training	0	1	1	120 C.H.	-
IT 498	Graduation Project I	2	0	2	120 C.H.	-
IT 499	Graduation Project II	3	0	3	IT 498	-
Total		17	1	18		

IT 497: Summer training require at least 8th weeks to finish the course.

Option (B): Study Plan for Information Technology Program with CO-OP

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 494	Cooperative Training I	0	1	1	120 C.H.	Summer
IT 495	Cooperative Training II	0	11	11	IT 494	-
IT 496	CO-OP Graduation Project	3	0	3	IT 495	-
Total		3	12	15		

IT 494 is a summer cooperative training I has period at least 8th weeks.

IT 495 is a summer cooperative training II has period at least 16th weeks

1. Overall Structure of the Study Plan Department of Information Technology

- Total Credit Hours: 162 Credit Hours.
- Each theory-credited unit is equivalent to 50 lecture minutes.
- Each practical-credit unit is equivalent to 100 lab minutes

First Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
ENG 0011	English (I)	0	8	8	-	-
STAT 100	Statistics	1	1	2	-	-
PHYS 110	Physics (I)	1	1	2	-	-
CS 105	Computer Skills	2	2	4	-	-
PSYCH 101	Thinking Skills & Learning Styles	2	0	2	-	-
Total		6	12	18		

Second Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
ENG 0012	English (II)	0	5	5	ENG 0011	-
ESP 102	English for Engineering and Computer Science	0	2	2	ENG 0011	-
MATH 105	Calculus	3	0	3	-	-
PHYS 115	Physics (II)	2	1	3	PHYS 110	-
CSC 111	Computer Programming	2	1	3	CS 105	-
Total		7	9	16		

Third Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
CS 181	Computer Programming II	2	1	3	CSC 111	-
PHYS 116	General Physics (2)	3	1	4	PHYS 115	-
MATH 115	Integral Calculus	3	0	3	MATH 105	-
ARAB 101	Linguistic Skills	2	0	2	-	-
IT 131	Database	2	1	3	CSC 111	-
		12	3	15		

Fourth Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
COE 121	Logic Design	3	0	3	CSC 111	COE 122
COE 122	Logic Design Lab	0	1	1	-	COE 121
CS 182	Computer Programming III	2	1	3	CS 181	-
MATH 116	Linear Algebra and Multi-Variable Calculus	3	0	3	MATH 115	-
STAT 126	Statistics & Probability	3	0	3	STAT 100	-
ARAB 103	Arabic Writing	2	0	2	-	-
IC 101	Introduction to Islamic Culture	2	0	2	-	-
Total		15	2	17		

Fifth Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 251	Information System Fundamentals	3	0	3	-	-
IT 214	Object Oriented Programming I	2	1	3	CS 182	-
IT 271	Web Technologies	2	1	3	CS 182	-
MATH 212	Discrete Mathematics	3	0	3	MATH 116	-
CS 211	Concepts of Algorithms	3	0	3	CS 181	-
IC 102	Islam and Community Building	2	0	2	IC 101	-
Total		15	2	17		

Sixth Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 221	Information Assurance and Security	3	0	3	IT 251	-
IT 352	Information Systems Analysis & Design	3	0	3	IT 251	-
	Free Hours I	3	0	3	-	-
IC 103	Economic System in Islam	2	0	2	IC 101	-
CS 214	Data Structures	2	1	3	CS 182	-
CS 222	Operating Systems	2	1	3	CS 182	-
Total		15	2	17		

Seventh Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 215	Human Computer Interaction (HCI)	2	0	2	IT 214	-
IT 332	Advance Database	3	1	4	IT 131	-
IT 361	System Administration and Maintenance	2	1	3	IT 251	-
CS 383	Software Engineering	3	0	3	CS 222	-
	Free Hours II	3	0	3	-	-
Total		13	2	15		

Eighth Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 315	Object Oriented Programming II	2	1	3	IT 214	-
IT 372	Data Mining and Warehousing	3	0	3	IT 332	-
COE 351	Computer Networks	3	0	3	CS 222	COE 352
COE 352	Computer Networks Lab	0	1	1		COE 351
IT 342	Mobile and Cloud Computing	2	1	3	IT 214	-
IT362	Communication Skills & Ethics issues	2	0	2	STAT 126	-
	CoC Elective I	3	0	3	-	-
Total		15	3	18		

Option (A): Study Plan for Information Technology Program with Summer Training.

Summer Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT497	Summer Training	0	1	1	120 C.H.	-
Total		0	1	1		

Ninth Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 473	Electronic Commerce Systems	3	0	3	IT 352	-
	IT Optional I	3	0	3	-	-
	IT Optional II	3	0	3	-	-
IT 498	Graduation Project I	2	0	2	120 C.H.	-
	CoC Elective II	3	0	3	-	-
Total		14	0	14		

Tenth Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IC 104	Political System in Islam	2	0	2	IC 103	-
IT 435	Decision Support Systems	3	0	3	IT 332	-
IT 499	Graduation Project II	3	0	3	IT 498	-
	IT Optional III	3	0	3	-	-
	IT Optional IV	3	0	3	-	-
Total		14	0	14		

Total Credits = **162** Credits.

Option (B): Study Plan for Information Technology Program with CO-OP

Summer Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 494	Cooperative Training I	0	1	1	120 C.H.	-
Total		0	1	1		

COE494 is a cooperative training I during summer semester has period at least 8th weeks

Ninth Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IT 495	Cooperative Training II	0	11	11	IT 494	-
Total		0	11	11		

COE491 is a cooperative training II during summer semester has period at least 16th weeks

Tenth Semester

Course Code	Course Name	Theory	Practical	Total Credits	Prerequisite	Corequisite
IC 104	Political System in Islam	2	0	2	IC 103	-
IT 473	Electronic Commerce Systems	3	0	3	IT 352	-
IT 496	CO-OP Graduation Project	3	0	3	IT 495	-
	CoC Elective II	3	0	3	-	-
IT 435	Decision Support Systems	3	0	3	IT 332	-
	IT Optional I	3	0	3	-	-
Total		17	0	17		

Total Credits = **162** Credits.

m.IT Department Study Plan (Pre-requisite/Corequisite are listed in the detailed plan)

1 st Level			
Code	No.	Title	Unit
ENG	0011	English I	8
STAT	100	Statistics	2
PHYS	110	Physics I	2
CS	105	Computer Skills	4
PSYCH	101	Thinking Skills & Learning Styles	2
Total			18

2 nd Level			
Code	No.	Title	Unit
ENG	0012	English II	5
ESP	102	English for Engineering and Computer Science	2
MATH	105	Calculus	3
PHYS	115	Physics II	3
CSC	111	Computer Programming	3
Total			16

3 rd Level			
Code	No.	Title	Unit
CS	181	Computer Programming II	3
PHYS	116	Physics III	4
MATH	115	Integral Calculus	3
ARAB	101	Linguistic Skills	2
IT	131	Database	3
Total			15

4 th Level			
Code	No.	Title	Unit
COE	121	Logic Design	3
COE	122	Logic Design Lab	1
CS	182	Computer Programming III	3
MATH	116	Linear Algebra and Multi-Variable Calculus	3
STAT	126	Statistics & Probability	3
ARAB	103	Arabic Writing	2
IC	101	Introduction to Islamic Culture	2
Total			17

5 th Level			
Code	No.	Title	Unit
IT	251	Information System Fundamentals	3
IT	214	Object Oriented Programming I	3
IT	271	Web Technologies	3
MATH	212	Discrete Mathematics	3
CS	211	Concepts of Algorithms	3
IC	102	Islam and Community Building	2
Total			16

6 th Level			
Code	No.	Title	Unit
IT	221	Information Assurance and Security	3
IT	352	Information Systems Analysis & Design	3
YYY		Free Hours I	3
IC	103	Economic System in Islam	2
CS	214	Data Structures	3
CS	222	Operating Systems	3
Total			17

7 th Level			
Code	No.	Title	Unit
IT	215	Human Computer Interaction (HCI)	2
IT	332	Advance Database	4
IT	361	System Administration and Maintenance	3
CS	383	Software Engineering	3
		Free Hours II	3
Total			15

8 th Level			
Code	No.	Title	Unit
IT	315	Object Oriented Programming II	3
IT	372	Data Mining and Warehousing	3
COE	351	Computer Networks	3
IT	342	Mobile and Cloud Computing	3
IT	362	Communication Skills & Ethics issues	2
		CoC Elective I	3
COE	352	Computer Networks Lab	1
Total			18

OPTION (A) : 9 th Level			
Code	No.	Title	Unit
IT	497	Summer Training	1
IT	473	Electronic Commerce Systems	3
IT	4xx	IT Optional I	3
IT	4xx	IT Optional II	3
IT	498	Graduation Project I	2
		CoC Elective II	3
Total			15

10 th Level			
Code	No.	Title	Unit
IC	104	Political System in Islam	2
IT	435	Decision Support Systems	3
IT	499	Graduation Project II	3
		IT Optional III	3
		IT Optional IV	3
Total			14

OPTION (B) : 9 th Level			
Code	No.	Title	Unit
IT	494	Cooperative Training I	1
IT	495	Cooperative Training II	11
Total			12

10 th Level			
Code	No.	Title	Unit
IC	104	Political System in Islam	2
IT	473	Electronic Commerce Systems	3
IT	496	CO-OP Graduation Project	3
		CoC Elective II	3
IT	435	Decision Support Systems	3
		IT Optional I	3
Total			17

IT Program Study Plan

1st Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
ENG 0011	English I	8	-	-
STAT 100	Statistics	2	-	-
PHYS 110	Physics I	2	-	-
CSC 105	Computer Skills	4	-	-
PSYCH 101	Thinking Skills & Learning Styles	2	-	-
Total Credits		18		

2nd Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
ENG 0012	English II	5	ENG 0011	-
ESP 102	English for Eng. & Computer Science	2	ENG 0011	-
MATH 105	Differential Calculus	3	-	-
PHYS 115	Physics II	3	PHYS 110	-
CSC 111	Computer Programming	3	CSC 105	-
Total Credits		16		

3rd Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
CS 181	Computer Programming II	3	CSC 111	-
PHYS 116	Physics III	4	PHYS 115	-
MATH 115	Integral Calculus	3	MATH 105	-
ARAB 101	Linguistic Skills	2	-	-
IT 131	Database	3	CSC 111	-
Total Credits		15		

4th Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
COE 121	Logic Design	3	CSC 111	COE 122
COE 122	Logic Design Lab	1	-	COE 121
CS 182	Computer Programming III	3	CS 181	-
MATH 116	Linear Algebra and Multi-Variable Calculus	3	MATH 115	-
STAT 126	Statistics & Probability	3	STAT 100	-
ARAB 103	Arabic Writing	2	-	-
IC 101	Introduction to Islamic Culture	2	-	-
Total Credits		17		

5th Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
IT 251	Information System Fundamentals	3	-	-
IT 214	Object Oriented Programming I	3	CS 182	-
IT 271	Web Technologies	3	CS 182	-
MATH 212	Discrete Mathematics	3	MATH 116	-
CS 211	Concepts of Algorithms	3	CS 181	-
IC 102	Islam and Community Building	2	IC 101	-
Total Credits		17		

6th Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
IT 221	Information Assurance and Security	3	IT 251	-
IT 352	Information Systems Analysis & Design	3	IT 251	-
	Free Hours I	3	-	-
IC 103	Economic System in Islam	2	IC 101	-
CS 214	Data Structures	3	CS 182	-
CS 222	Operating Systems	3	CS 182	-
Total Credits		17		

7th Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
IT 215	Human Computer Interaction (HCI)	2	IT214	-
IT 332	Advance Database	4	IT131	-
IT 361	System Administration and Maintenance	3	IT251	-
CS 383	Software Engineering	3	CS222	-
	Free Hours II	3	-	-
Total Credits		15		

8th Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
IT 315	Object Oriented Programming II	3	IT 214	-
IT 372	Data Mining and Warehousing	3	IT 332	-
COE 351	Computer Networks	3	CS 222	COE 352
IT 342	Mobile and Cloud Computing	3	IT214	-
IT 362	Communication Skills & Ethics issues	2	-	-
	COC Elective I	3	-	-
COE 352	Computer Networks Lab	1	-	COE 351
Total Credits		18		

Option A - 9th Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
IT 497	Summer Training	1	120 C.H.	-
IT 473	Electronic Commerce Systems	3	IT 352	-
IT zzz	IT Elective I	3	-	-
IT zzz	IT Elective II	3	-	-
IT 498	Graduation Project I	2	120 C.H.	-
	COC Elective II	3	-	-
Total Credits		15		

Option A - 10th Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
IC 104	Political System in Islam	2	IC 101	-
IT 435	Decision Support Systems	3	IT 332	-
IT 499	Graduation Project II	3	IT 498	-
IT zzz	IT Elective III	3	-	-
IT zzz	IT Elective IV	3	-	-
Total Credits		14		

Option B - 9th Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
IT 494	Cooperative Training I	1	120 C.H.	-
IT 495	Cooperative Training II	11	IT 494	-
Total Credits		12		

Option B - 10th Level

Code No.	Course Name	Credit	Pre-Requisite	Co-Requisite
IC 104	Political System in Islam	2	IC 101	-
IT 473	Electronic Commerce Systems	3	IT 352	-
IT 496	CO-OP Graduation Project	3	IT 495	-
	COC Elective II	3	-	-
IT 435	Decision Support Systems	3	IT 332	-
IT zzz	IT Elective I	3	-	-
Total Credits		17		