Republic of Iraq
Ministry of Higher Education and Scientific Research
Scientific supervision and evaluation
Department of Quality Assurance and Academic Accreditation

Form of Programme Specification for colleges and institutes

University: University of Information Technology & Communications
College / Institute: Collage of Business Informatics
Department: Businesses Information Technology
Date of production:

Signature: Asst.Prof.Dr. mohamed Salih Mahdi
Head of Department:
Date:

Signature:
Deputy Dean for Scientific Affairs:
Date:

Revised by
Quality Assurance and University Performance
Head of Quality Assurance and University Performance at BIC College:
Date:
Signature:

The approval of the Dean

Programme Specification

The need for the BIT department has emerged as the need for government and private sector institutions to understand and manage information and keep updated of the evolution of information technology. This major is considered as one of the most important modern disciplines, which is increasingly essential by students, educational and institutions employment because there is almost no institution, whatever it's field, that doesn't have a need for this specialty. Students in the BIT Department receive a wide range of courses that focus on preparing highly qualified graduates in information technology, computer science, database management, electronic and information management, communications, software and financial applications.

1. Teaching Institution	**University of Information Technology & Communications**
2. Department / Center	**Businesses Information Technology**
3. Programme Title	**Bachelor of science**
4. Title of Final Award	**Bachelor of science in Businesses Information Technology**
5. Modes of Study: Yearly / Courses / Others	**Semester**
6. Accreditation	**ABET / CAC**
7. Other external influences	**NONE**
8. Date of production	**15/ 6/ 2022**
9. Aims of the Programme	
I. Offer innovative curricula and advanced infrastructure to our students to enhance their skills and abilities to solve problems that face them in the field of IT applications.	
II. Provide the market with the necessary administrative and strategic leaders which are able to improve the management and security of the IT for serving the society.	
III. Graduate leaders that are able to learn and keep up with the development in the field and to be competitive worldwide.	
IV. To qualify students for self-learning and teamwork.	
V. Prepare graduates able to face the general challenges in life by understanding ethical and social issues.	

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

A1. An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline.

A2. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.

A3. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.

A4. An ability to analyze the local and global impact of computing on individuals, organizations, and society.

A5. Recognition of the need for and an ability to engage in continuing professional development

A6. An ability to effectively integrate IT-based solutions into the user environment.

A7. An understanding of best practices and standards and their application.

A8. An ability to apply total quality management for it system and to develop the software.

A9. An ability to analyze quantitative models for business in a long term plan (strategy) in dynamic business.

Teaching and Learning Methods

1. Direct Learning
2. Self-Learning
3. E-Learning

Assessment Methods

1. Achievement Tests.
2. Standard Tests.
3. Individual Skills Assessment.
4. Selection of Intellectual Question in Achievement tests.

B. Subject-Specific Skills

B1. An ability to use current techniques, skills, and tools necessary for computing practice.

B2. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.

B3. An ability to apply design and development principles in the construction of software systems of varying complexity.

B4. An ability to apply E-process for organization.

Teaching and Learning Methods

1. E-Learning.
2. Self-Learning.
3. Learning by Experimentation.
4. Indirect Learning.

Assessment Methods

1. Collective Project.
2. Project consist of Random groups of Students.
3. Experience and Professionalism Assessment.
4. Students Performance Assessment.

C. Critical Thinking Skills

C1. An ability to function effectively on teams to accomplish a common goal.
C2. An understanding of professional, ethical, legal, security and social issues and responsibilities.
C3. An ability to communicate effectively with a range of audiences.
C4. An ability to assist in the creation of an effective project plan.

Teaching and Learning Methods

1. Cooperative Learning.
2. Indirect Learning.

Assessment Methods

1. Selection of Intellectual Question in Achievement tests.
2. Collective Project.
3. Student survey on labour market.
4. Student survey after graduations.

D. General and Transferable Skills

D1. Ability to adopt lifelong learning.
D2. Ability to communicate information with other specialization.
D3. Ability to solve problems.
D4. Ability to communicate effectively with colleagues in work environment.

Teaching and Learning Methods

1. Brainstorming.
2. E-Learning.
3. Self-Learning (Acquiring knowledge and skills depending on his own capabilities to obtain it from various educational sources).
4. Learning by Experimentation (Applied learning) - Field learning.
5. Indirect Learning(Applying all acquired knowledge to solve a specific issue Under the supervision of one of the professors).

Assessment Methods

1. Rubrics- peer faculty evaluation.
2. Collective Project.
3. Project consist of Random groups of Students.
4. Standard Tests.
5. Students Performance Assessment.
6. Experience and Professionalism Assessment.

11. Programme Structures

Level / Year	Course or Module Code	Course or Module Title	Credit Hours	
			Theory	Practical
First level/ semester 1	HUR113	Human Rights	1	0
First level / semester1	ARB115	Arabic	1	0
First level / semester1	BIC111	Computational Paradigms	2	0
First level / semester1	IBT101	Programming Fundamentals (I)	2	2
First level / semester1	IBT103	Principles of Accounting	2	1
First level / semester1	BIT111	Principles of Management	2	0
First level / semester1	IBT105	Discrete Mathematics	2	0
First level / semester1	WSM154	Web Search Methods	1	0
First level / semester2	FAD121	Freedom and Democracy	1	0
First level / semester2	ENG111	English (I)	2	0
First level / semester2	BIC123	Human Resources	2	0
First level / semester2	BIC122	Probability and Statistic	2	0
First level / semester2	IBT104	Programming Fundamentals (II)	2	2
First level / semester2	BIT122	Intermediate Accounting	2	2
First level / semester2	IBE101	Communication Skills	1	0
First level / semester2	THS151	Thinking skills	1	0
Second level/ semester 1	ENG212	English (II)	2	0
Second level / semester1	BIC212	Data Structures	2	2
Second level / semester1	IBT202	Object Oriented Programming (I)	2	2
Second level / semester1	IBT204	Web Pages Design	2	2
Second level / semester1	BIT210	Cost Accounting	2	2
Second level / semester1	ISM224	Management Information System	3	0
Second level / semester1	BIC250	Mathematics	2	0
Second level / semester2	SEI221	Social and Ethical Issues	2	0
Second level / semester2	BIC222	Algorithms and Complexity	2	2
Second level / semester2	BIC213	Marketing Management	1	0
Second level / semester2	IBT206	Object Oriented Programming (II)	2	2
Second level / semester2	IBT208	Web Applications Development	2	2
Second level / semester2	IBT200	Database Fundamentals	2	2
Second level / semester2	IBT205	Computer Networks	2	2
Second level / semester2	IBE202	Linear Algebra	3	0
Third level/ semester 1	ENG312	English (III)	2	0

Third level / semester 1	BIC310	Software Engineering (I)	2	2
Third level / semester 1	IBT300	Database Management Systems	2	2
Third level / semester 1	BIT311	Operation and Production Management	2	2
Third level / semester 1	IBE300	E-Government Concepts and Implementation	2	2
Third level / semester 1	BIC352	Internet of Things	2	2
Third level / semester 2	BIC320	Software Engineering (II)	2	2
Third level / semester 2	IBT302	Mobile Applications Development	2	2
Third level / semester 2	IBT304	Information Security	2	2
Third level / semester 2	BIT322	Artificial Intelligence	2	2
Third level / semester 2	BIT324	Project Management	2	2
Third level / semester 2	BIE302	Graphics and Visualization	2	2
Fourth level/ semester 1	BIT41710	Project (I)	1	4
Fourth level / semester1	BIT41181	Human Computer interaction	2	2
Fourth level / semester1	BIT41021	Information security	2	2
Fourth level / semester1	BIT41451	E-Banking	2	2
Fourth level / semester1	BIT41441	Systems Dynamic in Business	2	0
Fourth level / semester1	BIT41411	Quantitative Analysis of Business	2	2
Fourth level / semester2	BIT42711	Project (II)	1	4
Fourth level / semester2	BIT42271	Software development	2	2
Fourth level / semester2	BIT42471	Business Strategy	2	0
Fourth level / semester2	BIT42021	IT Security &Risk Management	2	2
Fourth level / semester2	BIT42441	Total Quality Management	2	2

12. Personal Development Planning

1. Work in one team
2. Teaching others
3. Lead a team
4. Negotiation
5. Uniting team members under cultural differences
6. Employment of decision-making skills
7. Employ problem-solving skills
8. Dealing with others
9. Neutralize arguments with timing, instructions and refinement, in concise language

13. Admission criteria
(state clearly any regulations concerning direct entry to College / Institute)

Central Admission

14. Key sources of information about the programme
www.uoitc.edu.iq

Learning outcomes for computing programs according to ABET \ CAC

a. An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and 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, process, component, or program to meet desired needs.
d. An ability to function effectively on 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.
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

Computer Science (CS)

j. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices

k. An ability to apply design and development principles in the construction of software systems of varying complexity.

Information Systems (IS)

j. An understanding of processes that support the delivery and management of information systems within a specific application environment

Information Technology (IT)

j- An ability to use and apply current technical concepts and practices in the core information 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.

I- 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.

Specific learning outcomes for College of Business Informatics (BI)

o - An ability to apply total quality management for it system and to develop the software.

p - An ability to analyze quantitative models for business in a long term plan (strategy) in dynamic business.

q -An ability to apply E-process for organization.

Curriculum Skills Map

Please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

				Program Learning Outcomes																			
Year / Level	Course Code	Course Title	Core (C) or Option (O)	Knowledge and Understanding									Subject- Specific Skills				Critical-Thinking Skills				General and Transferable Skills			
				A.1(a)	A.2(b)	A.3(c)	A.4(g)	A.5(h)	A.6(IT/1)	A.7(IT/m)	A.8(BI/o)	A.9(BI/p)	B.1(i)	B.2(CS/j)	B.3(CS/k)	B.4(BI/q)	C.1(d)	C.2(e)	C.3(f)	C.4(IT/n)	D.1	D.2	D.3	D.4
First Level (First semester)	HUR113	Human Rights	Basic				✓	✓									✓	✓	✓	✓	✓	✓	✓	✓
	ARB115	Arabic	Basic				✓	✓									✓	✓	✓	✓	✓	✓	✓	✓
First Level (First semester)	BIC111	Computational Paradigms	Basic	✓	✓	✓	✓			✓	✓		✓	✓		✓	✓	✓			✓	✓	✓	✓
	IBT101	Programming Fundamentals (I)	Basic	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓			✓				✓	✓	✓	
First Level (First semester)	IBT103	Principles of Accounting	Basic	✓	✓	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	BIT111	Principles of Management	Basic	✓	✓	✓	✓	✓	✓				✓	✓	✓		✓	✓			✓	✓	✓	
First Level (First semester)	IBT105	Discrete Mathematics	Basic	✓	✓	✓	✓						✓	✓			✓	✓			✓	✓	✓	✓
	WSM154	Web Search Methods	Basic		✓		✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Curriculum Skills Map

Please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

				Program Learning Outcomes																			
Year / Level	Course Code	Course Title	Core (C) or Option (O)	Knowledge and Understanding									Subject- Specific Skills				Critical-Thinking Skills				General and Transferable Skills			
				A.1(a)	A.2(b)	A.3(c)	A.4(g)	A.5(h)	A.6(IT/l)	A.7(IT/m)	A.8(BI/o)	A.9(BI/p)	B.1(i)	B.2(CS/j)	B.3(CS/k)	B.4(BI/q)	C.1(d)	C.2(e)	C.3(f)	C.4(IT/n)	D.1	D.2	D.3	D.4
First Level (Second semester)	FAD121	Freedom and Democracy	Basic				✓	✓									✓	✓	✓	✓	✓	✓	✓	✓
	ENG111	English (I)	Basic	✓	✓	✓	✓						✓				✓	✓	✓				✓	✓
First Level (Second semester)	BIC123	Human Resources	Basic	✓		✓	✓						✓	✓			✓		✓	✓	✓	✓	✓	
	BIC122	Probability and Statistic	Basic	✓	✓						✓		✓				✓		✓		✓	✓	✓	✓
First Level (Second semester)	IBT104	Programming Fundamentals (II)	Basic	✓	✓	✓	✓						✓	✓			✓	✓			✓	✓	✓	✓
	BIT122	Intermediate Accounting	Basic	✓	✓				✓	✓		✓			✓	✓	✓		✓	✓	✓	✓		
First Level (Second semester)	IBE101	Communication Skills	Basic	✓	✓	✓	✓	✓									✓	✓	✓				✓	✓
	THS151	Thinking skills	Basic	✓	✓	✓	✓	✓									✓	✓	✓				✓	✓

Curriculum Skills Map

Please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

				Program Learning Outcomes																			
Year / Level	Course Code	Course Title	Core (C) or Option (O)	Knowledge and Understanding									Subject- Specific Skills				Critical-Thinking Skills				General and Transferable Skills			
				A.1(a)	A.2(b)	A.3(c)	A.4(g)	A.5(h)	A.6(IT/1)	A.7(IT/m)	A.8(BI/o)	A.9(BI/p)	B.1(i)	B.2(CS/j)	B.3(CS/k)	B.4(BI/q)	C.1(d)	C.2(e)	C.3(f)	C.4(IT/n)	D.1	D.2	D.3	D.4
Second level (First semester)	ENG212	English (II)	Basic	✓	✓	✓	✓						✓				✓	✓	✓				✓	✓
	BIC212	Data Structures	Basic	✓	✓	✓				✓	✓	✓	✓				✓	✓			✓	✓		
Second level (First semester)	IBT202	Object Oriented Programming (I)	Basic	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
	IBT204	Web Pages Design	Basic	✓	✓	✓	✓	✓					✓	✓			✓	✓			✓	✓	✓	✓
Second level (First semester)	BIT210	Cost Accounting	Basic	✓	✓	✓	✓				✓	✓	✓	✓			✓	✓	✓		✓	✓	✓	✓
	ISM224	Management Information System	Basic	✓	✓			✓	✓				✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
Second level (First semester)	BIC250	Mathematics	Basic	✓	✓	✓	✓						✓	✓			✓	✓			✓	✓	✓	

Curriculum Skills Map

Please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed																								
				Program Learning Outcomes																				
Year / Level	Course Code	Course Title	Core (C) or Option (O)	Knowledge and Understanding									Subject- Specific Skills				Critical-Thinking Skills				General and Transferable Skills			
				A.1(a)	A.2(b)	A.3(c)	A.4(g)	A.5(h)	A.6(IT/1)	A.7(IT/m)	A.8(BI/o)	A.9(BI/p)	B.1(i)	B.2(CS/j)	B.3(CS/k)	B.4(BI/q)	C.1(d)	C.2(e)	C.3(f)	C.4(IT/n)	D.1	D.2	D.3	D.4
Second level (Second semester)	SEI221	Social and Ethical Issues	Basic	✓	✓	✓	✓						✓		✓	✓	✓	✓	✓			✓	✓
	BIC222	Algorithms and Complexity	Basic	✓	✓	✓	✓				✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Second level (Second semester)	BIC213	Marketing Management	Basic	✓	✓	✓							✓	✓			✓	✓	✓		✓	✓	✓	✓
	IBT206	Object Oriented Programming (II)	Basic	✓	✓	✓	✓	✓	✓				✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
Second level (Second semester)	IBT208	Web Applications Development	Basic	✓	✓	✓	✓			✓	✓		✓	✓			✓	✓			✓	✓	✓	✓
	IBT200	Database Fundamentals	Basic	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓		✓			
Second level (Second semester)	IBT205	Computer Networks	Basic	✓	✓	✓							✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
	IBE202	Linear Algebra	Basic	✓	✓								✓	✓			✓	✓	✓		✓	✓	✓	

Curriculum Skills Map

Please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

				Program Learning Outcomes																			
Year / Level	Course Code	Course Title	Core (C) or Option (O)	Knowledge and Understanding									Subject- Specific Skills				Critical-Thinking Skills				General and Transferable Skills			
				A.1(a)	A.2(b)	A.3(c)	A.4(g)	A.5(h)	A.6(IT/1)	A.7(IT/m)	A.8(BI/o)	A.9(BI/p)	B.1(i)	B.2(CS/j)	B.3(CS/k)	B.4(BI/q)	C.1(d)	C.2(e)	C.3(f)	C.4(IT/n)	D.1	D.2	D.3	D.4
Third level (First semester)	ENG312	English (III)	Basic	✓	✓	✓	✓						✓				✓	✓	✓				✓	✓
	BIC310	Software Engineering (I)	Basic	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓				✓	✓	✓
Third level (First semester)	IBT300	Database Management Systems	Basic	✓	✓	✓	✓	✓		✓	✓		✓	✓			✓	✓	✓		✓	✓		
	BIT311	Operation and Production Management	Basic	✓	✓	✓							✓	✓			✓	✓	✓		✓	✓		
Third level (First semester)	IBE300	E-Government Concepts and Implementation	Basic	✓	✓	✓	✓						✓	✓	✓	✓	✓	✓			✓	✓	✓	
	BIC352	Internet of Things	Basic	✓	✓	✓								✓	✓		✓			✓	✓	✓	✓	✓

Curriculum Skills Map

Please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

Year / Level	Course Code	Course Title	Core (C) or Option (O)	Program Learning Outcomes																			
				Knowledge and Understanding									Subject- Specific Skills				Critical-Thinking Skills				General and Transferable Skills			
				A.1(a)	A.2(b)	A.3(c)	A.4(g)	A.5(h)	A.6(IT/1)	A.7(IT/m)	A.8(BI/o)	A.9(BI/p)	B.1(i)	B.2(CS/j)	B.3(CS/k)	B.4(BI/q)	C.1(d)	C.2(e)	C.3(f)	C.4(IT/n)	D.1	D.2	D.3	D.4
Third level (Second semester)	BIC320	Software Engineering (II)	Basic	✓	✓	✓		✓			✓	✓	✓	✓	✓	✓			✓	✓			✓	✓
	IBT302	Mobile Applications Development	Basic	✓	✓	✓	✓			✓	✓		✓	✓	✓		✓	✓	✓		✓	✓		
Third level (Second semester)	IBT304	Information Security	Basic	✓	✓	✓	✓	✓					✓				✓	✓			✓	✓	✓	
	BIT322	Artificial Intelligence	Basic	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Third level (Second semester)	BIT324	Project Management	Basic	✓	✓	✓	✓	✓					✓	✓	✓	✓			✓	✓	✓		✓	✓
	BIE302	Graphics and Visualization	Basic	✓	✓	✓	✓		✓	✓		✓	✓		✓	✓			✓	✓	✓		✓	✓

Curriculum Skills Map

Please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

Year / Level	Course Code	Course Title	Core (C) or Option (O)	Program Learning Outcomes																			
				Knowledge and Understanding									Subject- Specific Skills				Critical-Thinking Skills				General and Transferable Skills			
				A.1(a)	A.2(b)	A.3(c)	A.4(g)	A.5(h)	A.6(IT/1)	A.7(IT/m)	A.8(BI/o)	A.9(BI/p)	B.1(i)	B.2(CS/j)	B.3(CS/k)	B.4(BI/q)	C.1(d)	C.2(e)	C.3(f)	C.4(IT/n)	D.1	D.2	D.3	D.4
Fourth level (First semester)	BIT41710	Project (I)	Basic	✓	✓		✓		✓		✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	BIT41181	Human Computer interaction	Basic		✓	✓	✓	✓			✓			✓	✓		✓					✓		✓
Fourth level (First semester)	BIT41021	Information security	Basic	✓	✓			✓	✓	✓			✓		✓			✓	✓			✓	✓	
	BIT41451	E-Banking	Basic	✓	✓					✓		✓				✓	✓		✓	✓		✓	✓	
Fourth level (First semester)	BIT41441	Systems Dynamic in Business	Basic	✓	✓	✓	✓	✓					✓				✓	✓			✓	✓	✓	
	BIT41411	Quantitative Analysis of Business	Basic	✓	✓				✓	✓			✓	✓						✓		✓	✓	

Curriculum Skills Map

Please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

				Program Learning Outcomes																			
Year / Level	Course Code	Course Title	Core (C) or Option (O)	Knowledge and Understanding									Subject- Specific Skills				Critical-Thinking Skills				General and Transferable Skills			
				A.1(a)	A.2(b)	A.3(c)	A.4(g)	A.5(h)	A.6(IT/1)	A.7(IT/m)	A.8(BI/o)	A.9(BI/p)	B.1(i)	B.2(CS/j)	B.3(CS/k)	B.4(BI/q)	C.1(d)	C.2(e)	C.3(f)	C.4(IT/n)	D.1	D.2	D.3	D.4
Fourth level (second semester)	BIT42711	Project (II)	Basic	✓	✓		✓		✓		✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	BIT42271	Software development	Basic	✓	✓			✓	✓			✓	✓	✓		✓	✓	✓	✓				✓	
Fourth level (second semester)	BIT42471	Business Strategy	Basic	✓	✓	✓		✓	✓		✓		✓		✓		✓	✓		✓		✓	✓	✓
	BIT42021	IT Security &Risk Management	Basic	✓	✓	✓	✓	✓	✓				✓		✓		✓	✓	✓		✓	✓	✓	
Fourth level (second semester)	BIT42441	Total Quality Management	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	