

# **Diploma in Internet and Information Technology**

# 2021-2021

Awarding Institution	A 'Sharqiyah University								
College / Centre	College of Business Adminis	tration							
Program Title	Internet and Information Technology								
Final Award	Diploma in Internet and Information Technology								
Credit hours	66								
Mode of Study	Full time								
Language of Study	English								
Benchmarks	<ol> <li>University of Nizwa, (O</li> <li>Abu Dhabi University, (</li> <li>Purdue University, (USA</li> <li>University of Portsmout</li> <li>Western Sydney University</li> <li>NUS, (Singapore)</li> </ol>	UAE) A) h, (UK)							
Entry requirements	<ul> <li>Certificate issued from the description of the equivalent to the Minist Sultanate).</li> <li>High school percentage 65 % or above in Pure Material Pure Material</li></ul>	of 65% or above and obtaining athematics and English. The general foundation program imputer, and learning skills) as all students before starting the d in other educational institutions is may be eligible to transfer if the verage of 2.0 or higher over a nead of the academic department ich the student has enrolled shall at the former institution in which							
Minimum period of registration	FULL-TIME: 2	PART-TIME: 4							



Maximum period of registration	FULL-TIME: 4	PART-TIME: 8
Date specification produced	May 4, 2021	
Date specification last reviewed	May 4, 2021	

### 1. THE COLLEGE OF BUSINESS ADMINSTRATION

The College of Business Administration (CoBA) at A'Sharqiyah University (ASU) is a member of the International Association to Advance Collegiate Schools of Business (AACSB) which provides the College with access to AACSB resources to support the advancement of management education and our efforts for continuous improvement. Areas of study at CoBA for undergraduates include Management Information Systems, Accounting, and Business Management.

The students also offered the opportunities to engage in research and development projects.

CoBA provides the intellectual foundation for students' life-long learning and success. The College enrolls students extensively from the regional Omani population that supports both the economic and social progress of the society. CoBA emphasizes on Oman and international diversity, by utilizing traditional and technology-based pedagogies to create a positive teaching and learning environment.

In addition to a sustaining emphasis on quality teaching and learning through classroom research, student professional organizations, and advisory activity, CoBA contributes to business, professional, and civic affairs through public service and intellectual pursuits. CoBA respects cultural diversity and promotes humanitarian interactions between people; however, highlighting the history and culture of the Sultanate of Oman is one of COBA's prime concerns.

The Program Specification presents program outline, program aims, learning outcomes, program structure, program reference points, teaching and learning methods (indicative), assessment methods, career and study opportunities, student support, program structure diagram, and mapping of assessment of learning outcomes to the taught courses. It is intended as source of information for students, institutions, teaching teams, internal and external reviewers and external examiners, and relevant regulatory and professional parties.

#### 2. PROGRAM OUTLINE

The program Diploma of Internet and Information Technology proposed by the College of Business Administration at A' Sharqiyah University is designed to equip the students with a comprehensive and well-proportioned technical, communicational, critical and creative skill in the fields of internet and Information Technologies. Graduates of this program are expected to significantly contribute to the development of digital infrastructure of both private and public sectors. Graduates will possess skills in programming, systems analysis sustainability, Networks, security, applications development and Database management.

### 3. PROGRAM AIM/S



- 1. Develop the next generation of Omani students who will be able to lead the implementation and the management of digital infrastructure of Oman public and private organisations.
- 2. Prepare graduates who can develop appropriate skills to investigate, analyses and apply the appropriate measures to develop business applications to solve businesses problems.
- 3. Apply appropriate skills to handle network configuration, administration and upgrades.
- 4. Equip graduates with appropriate skills to develop web and mobile applications to help companies who want to migrate to web-based business platform

### 4. LEARNING OUTCOMES (Definitive)

Upon successful completion of the program, students will be able to:

A. KNOWLEDGE AND UNDERSTANDING	Comprehensive understanding of Internet and Information technologies and digital infrastructure in general and apply appropriate skills to investigate, analyze and apply the appropriate measures to design and implement effective business need digital solutions
	<ol> <li>understanding of the provisional nature of knowledge and of the way in which new knowledge is developed and applied in the analysis and resolution of problems.</li> </ol>
	3. graduates will have knowledge of relevant Omani laws, regulations and conventions as it applies to digital technology.
	4. Understand in general the design and implementation similarities and differences between Omani requirements and those in effect in appropriate jurisdictions abroad
B. SUBJECT-SPECIFIC INTELLECTUAL SKILLS	Students will improve their cognitive skills involving their administration and entry level of applications development, programming and network principles
2. PROFESSIONAL / PRACTICAL SKILLS	<ol> <li>Demonstrate awareness of Internet as a service platform that could help businesses significantly.</li> <li>Demonstrate appropriate skills to investigate, design and implement digital infrastructure to meet business needs.</li> </ol>



	3. Develop appropriate computer programming skills.
4. GENERAL COMPETENCE	<ol> <li>Graduates will have general competency to serve the purpose of relating the entrepreneurship with knowledge, there by contributing to the overall development of the nation.</li> <li>Acquire the ability to systematically gather, analyze and interpret relevant business requirements, including gathering, analyzing, designing, implementing, securing, testing, delivery, support, and training.</li> <li>Communicate effectively and to develop persuasive arguments, using different modes of communication in the language of instruction.</li> <li>Graduates can apply software development measures and to use the most appropriate communications technology in gathering, interpreting and communicating information.</li> </ol>

### 5. PROGRAM STRUCTURE

Students must achieve the required credit hours for the program by completing University Required and Elective courses listed in sections 5.1 to 5.5 below:

## 5.1 University Requirements: Total Credit hours

12

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
ISLM101	Islamic Civilization		3
ENGL101	English Communication Skills I		3
ENGL102	English Communication Skills II		3
MNGT313	Entrepreneurship		3
TOTAL			12

## 5.2 University Electives: There Total Credit hours 00

is no course offered

Provide a list of all electives



# 5.3 College Requirements: Total Credit hours 03

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
MNGT201	Principle of Management		3

## 5.4 Program Requirements: Total Credit hours 51

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
INTE101	Information Technology Fundamentals		3
MATH101	Calculus		3
INTE105	Introduction to Computer Programming		3
INTE110	Web Application Development	INTE105	3
INTE120	Office Automation		3
MATH215	Linear Algebra	MATH101	3
INTE130	Object Oriented Programming	INTE105	3
INTE201	Fundamentals of Operating Systems	INTE101	3
INTE 205	Fundamentals of Databases	INTE101	3
INTE209	Business Requirements Modelling	INTE101	3
INTE207	Computer Networks I	INTE101	3
INTE210	Mobile Application Development I	INTE207	3
INTE220	Advanced Databases	INTE205	3
INTE230	Incident Réponses Management	INTE201	3
INTE240	Multimedia Design and Animation I	INTE101	3
INTE250	Project Management	INTE209	3
INTE301	Ethics for Information Technology	INTE101	3
			51

5.5



5	Program Electi	ves: Total	Credit hours		
	Choose from the	e following:			
	Course Code	Course Title		Pre-Requisites (P) Co-Requisites (C)	Credi hours
6.	PROGRAM RE	FERENCE POINTS			
	This Program h	as been designed with re	eference to:		
	<ul> <li>developed with</li> <li>The number of student's acade</li> <li>Oman Academ</li> <li>The Program</li> <li>Framework (C)</li> <li>The requirement</li> </ul>	nan Standard Classification the framework of the interpretation of credit hours and the semic load correspond to the nic Accreditation Author outputs correspond to OQF).  Sents for admission to the diffications Framework (Control of the Interpretation of the Inter	teaching load of the Oman Qualificatity (OAAA)  of the requirement program are in line	rds. the faculty member a ations Framework (OQ t of Omani Qualific	nd the PF) and cations
7.	TEACHING AN	ID LEARNING METHOD	OS (indicative)		
and □ A □ A	maximize the stud A series of lectures A number of tutoria A number of studer	ogram utilizes a mixture of dent's learning experience and seminars that promo als and practical sessions at based activities such as essions, research project	te through: tote student particip that enforce stude s presentations, pro	ation nt learning oblem solving,	eus on
8.	ASSESSMENT	METHODS (Indicative)	)		
Ass	essment methods:				



A mixture of both summative and formative assessment, spread throughout the academic year.

The program evaluation mechanism is based on four strategies:

- 1. The content of the course submitted at the end of each semester and the instructor's assessment portfolio.
- 2. Evaluation of instructor and decision by students, which is at the end of each semester and each academic year.
- 3. Report of the Committee of plans and curriculum which is the end of each semester.
- 4. Report of an external committee submitted at the end of each academic year.

#### Evaluation Mechanism:

Students' performance in the program will be assessed using the following tools:

First: Evaluating performance in the field of knowledge: using the following:

- Quizzes, Midterm and final tests.
- Individual practical tests, group practical projects, reports and applied research projects
- Homework & presentations
- Solving a real industry problems

Second: Evaluate the performance of students in the field of performance: using the following:

- Checklists
- Observation
- Practical reports and projects
- Role representation
- Portfolio Assessment

Third: Evaluation of students' performance in the clinical field: using the following:

- Questionnaires, interviews and oral tests
- Self-assessment
- Peer assessment

Evaluating students' achievement in the clinical diagnosis and treatment skills

### 9. CAREER and STUDY OPPORTUNITIES

IT consultant
IT specialist
Mobile application developer.
Web developer
Software engineer
Information technology manager
Instructional designer

### 10. STUDENT SUPPORT



Students attend an orientation program at the start of their studies. They are supported by a Course Coordinator and the Head of Department is also available to advise on program-related queries.

Academic advising is an essential element of the educational process. Students are assigned academic advisors who help them in selecting their course of study and in planning their schedules. Academic advisors also approve students' schedules each semester. The academic advisor assists students in obtaining a well-balanced education and in interpreting university policies and procedures, it is ultimately the students' individual responsible for selecting their courses, meeting course prerequisites, and adhering to university policies and procedures. Students may also consult faculty, department or program chairs, program coordinators, and deans.

Students have access to the University's library with a range of reading materials, online resources and study support.

The University's Student Affairs Office supports students in adjusting to university life and advises on issues such as finance, regulations, legal matters, accommodation, transportation, disabilities and career guidance. Opportunities are also provided for students to participate in various extra-curricular activities.

The Student Council is also an important source of support and guidance.

The University has a Student Fund which considers applications on a case by case basis.



# 11. PROGRAM STRUCTURE DIAGRAM (Indicative)

		•		
Fall-Year 01	Spring-Year 01	Fall-Year 02	Spring-Year 02	Fall-Year 03
INTE101 Information Technology Fundamentals MR	INTE110 Web Application Development (Req: INTE105) MR  (2 cr lectures ; 1 cr lab)	MNGT201 Principle of Management CR	INTE210 Mobile Application Development I (Req: INTE207) MR  (2 cr lectures ; 1 cr lab)	MNGT313 Entrepreneurship UR
ISLM101 Islamic Civilization UR	INTE120 Office Automation MR (2 cr lectures ; 1 cr lab)	INTE201 Fundamentals of Operating Systems (Req: INTE101) MR (2 cr lectures ; 1 cr lab)	INTE220 Advanced Databases ( Req: INTE205) MR  (2 cr lectures; 1 cr lab)	INTE301 Ethics for Information Technology (Req: INTE101) MR  End of Diploma
MATH101 Calculus MR	MATH215 Linear Algebra (Req: MATH101) MR	INTE 205 Fundamentals of Databases (Req: INTE101) MR  (2 cr lectures ; 1 cr lab)	INTE230 Incident Reponses Management (Req: INTE201) MR (2 CHrs + I CHrs LAB)	
ENGL101 English Communication Skills I UR	ENGL 102 English Communication Skills II (Req: ENGL101) UR	INTE209 Business Requirements Modelling ( Req: INTE101) MR (2 cr lectures ; 1 cr lab)	INTE240 Multimedia Design and Animation I (Req: INTE101) MR  (2 cr lectures ; 1 cr lab)	
INTE105 Introduction to Computer Programming MR	INTE130 Object Oriented Programming (Req: INTE105) MR  (2 cr lectures ; 1 cr lab)	INTE207 Computer Networks I (Req: INTE101) MR	INTE250 Project Management (Req: INTE209) MR  (2 cr lectures ; 1 cr lab)	



UR: University Required Courses MR: Major Required Courses CR: College Requirement Course ME: Major Elective Courses BE: Business Elective Courses



12. MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 1												
<b>KEY:</b> F = Formative assessment S = Summative assessment FS = Formative AND Summative assessment												
Upon completion of the program, students will be able to:  REQUIRED COURSES:	•	ISLM101	MATH101	ENGL101	INTE105	INTE110	INTE120	MATH215	ENGL 102	INTE130		
KNOWLEDGE AND UNDERSTANDING			FC	FC	FC	FC						
Comprehensive understanding of Internet and Information technologies and digital infrastructure in general and apply appropriate skills to investigate, analyze and apply the appropriate measures to design and implement effective business need digital solutions.	FS		FS	FS	FS	FS						
Understanding of the provisional nature of knowledge and of the way in which new knowledge is developed and applied in the analysis and resolution of problems.	FS				FS	FS	FS	FS	FS	FS	FS	FS
Graduates will have knowledge of relevant Omani laws, regulations and conventions as it applies to digital technology.	FS		FS	FS	FS	FS	FS	FS		FS	FS	FS
Understand in general the design and implementation similarities and differences between Omani requirements and those in effect in appropriate jurisdictions abroad	FS	FS	FS		FS	FS	FS	FS		FS	FS	FS
SUBJECT-SPECIFIC INTELLECTUAL SKILLS		-										
Students will improve their cognitive skills involving their administration and entry level of applications development, programming and network principles	FS		FS	FS	FS	FS						
PROFESSIONAL / PRACTICAL SKILLS												





Upon completion of the program, students will be able to:  REQUIRED COURSES:	INTE101	SISLM101	MATH101	ENGL101	INTE105	S INTE110	S INTE120	MATH215	ENGL 102	INTE130	
Demonstrate awareness of Internet as a service platform that could help businesses significantly.	FS	FS			FS	FS	FS	FS		FS	
Demonstrate appropriate skills to investigate, design and implement digital infrastructure to meet business needs.	FS	FS			FS	FS	FS	FS		FS	
Develop appropriate computer programming skills.	FS				FS	FS	FS	FS		FS	
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)											
Graduates will have general competency to serve the purpose of relating the entrepreneurship with knowledge, there by contributing to the overall development of the nation.	FS	FS			FS	FS	FS	FS		FS	
Acquire the ability to systematically gather, analyze and interpret relevant business requirements, including gathering, analyzing, designing, implementing, securing, testing, delivery, support, and training	FS				FS	FS	FS	FS		FS	
Communicate effectively and to develop persuasive arguments, using different modes of communication in the language of instruction	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	
Graduates can apply software development measures and to use the most appropriate communications technology in gathering, interpreting and communicating information.	FS		FS	FS	FS	FS	FS	FS	FS	FS	



12. MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 2												
<b>KEY:</b> F = Formative assessment S = Summative assessment FS = Formative AND Summative assessment												
Upon completion of the program, students will be able to:  REQUIRED COURSES:	MNGT201	INTE201	INTE 205	INTE209	INTE207	INTE210	INTE220	INTE230	INTE240	INTE250	MNGT313	INTE301
KNOWLEDGE AND UNDERSTANDING												
Comprehensive understanding of Internet and Information technologies and digital infrastructure in general and apply appropriate skills to investigate, analyze and apply the appropriate measures to design and implement effective business need digital solutions.	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Understanding of the provisional nature of knowledge and of the way in which new knowledge is developed and applied in the analysis and resolution of problems.	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS		FS
Graduates will have knowledge of relevant Omani laws, regulations and conventions as it applies to digital technology.		FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Understand in general the design and implementation similarities and differences between Omani requirements and those in effect in appropriate jurisdictions abroad		FS	FS	FS	FS	FS	FS	FS	FS	FS		FS
SUBJECT-SPECIFIC INTELLECTUAL SKILLS						_		_				
Students will improve their cognitive skills involving their administration and entry level of applications development, programming and network principles	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
PROFESSIONAL / PRACTICAL SKILLS												



Upon completion of the program, students will be able to:  REQUIRED COURSES:	MNGT201	INTE201	INTE 205	INTE209	INTE207	INTE210	INTE220	INTE230	INTE240	INTE250	MNGT313	INTE301
Demonstrate awareness of Internet as a service platform that could help businesses significantly.		FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Demonstrate appropriate skills to investigate, design and implement digital infrastructure to meet business needs.	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Develop appropriate computer programming skills.	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)												
Graduates will have general competency to serve the purpose of relating the entrepreneurship with knowledge, there by contributing to the overall development of the nation.	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Acquire the ability to systematically gather, analyze and interpret relevant business requirements, including gathering, analyzing, designing, implementing, securing, testing, delivery, support, and training	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Communicate effectively and to develop persuasive arguments, using different modes of communication in the language of instruction	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Graduates can apply software development measures and to use the most appropriate communications technology in gathering, interpreting and communicating information.	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS





Upon completion of the program, students will be able to:	REQUIRED COURSES:	MNGT201	INTE201	INTE 205	INTE209	INTE207	INTE210	INTE220	INTE230	INTE240	INTE250	MNGT313	INTE301	

## 13. GRADUATE ATTRIBUTE YEAR 1

KEY:	$\checkmark$	X
	V	

Upon completion of the program, students will be able to: COURSES:	INTE101	ISLM101	MATH101	ENGL101	INTE105	INTE110	INTE120	MATH215	ENGL 102	INTE130	
Knowledge Of A Discipline	>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	✓	
Commitment To National Development And Omani Ethical Values	<b>√</b>	✓	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>	✓	✓	✓	
Innovative Spirit	<b>√</b>	<b>√</b>	<b>V</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
Global Insight	<b>√</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>	<b>√</b>	
Adaptability To Changing Environments	<b>✓</b>	<b>✓</b>	<b>\</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>\</b>	<b>√</b>	

YEAR 2

KEY: ✓ 🗶

Upon completion of the program, students will be able to: courses:	MNGT20	INTE201	INTE 205	INTE209	INTE207	INTE210	INTE220	INTE230	INTE240	INTE250	MNGT31 3	INTE301
Knowledge Of A Discipline	<b>√</b>	<u> </u>	<b>√</b>	<b>√</b>								
Commitment To National Development And Omani Ethical Values	✓	<b>√</b>	✓									
Innovative Spirit	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>
Global Insight	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
Adaptability To Changing Environments	<b>√</b>	<b>√</b>	<b>\</b>	<b>√</b>	<b>✓</b>							



