وزارة التعليم العالي والبحث العلمي جهاز الإشراف والتقويم العلمي دائرة ضمان الجودة والاعتماد الأكاديمي

# استمارة وصف البرنامج الأكاديمي للكليات للعام الدراسي ٢٠٢١ – ٢٠٢٢

اسم الجامعة : الجامعة التقنية الجنوبية

اسم الكلية: المعهد التقني / القرنة

القسم العلمي : تقنيات انظمة الحاسوب

تاريخ ملء الملف:

اسم رئيس القسم: م.م ميثم عبد الكريم بجاي

التاريخ: ١٩/٥٦

التوقيع : ح

اسم معاون العميد للشؤون العلمية: أ.م.د حيدر احمد

التاريخ: ٦٠ / ٢٠ )

التوقيع

دقق الملف من قبل

قسم ضمان الجودة والأداء الجامعي

اسم مدير قسم ضمان الجودة والأداء الجامعي:

مصادقة السيد العميد

## TEMPLATE FOR PROGRAMME SPECIFICATION

#### HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

## PROGRAMME SPECIFICATION

This Program Specification provides a concise summary of the main features of the program and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the program.

1. Teaching Institution						
2. University Department/Centre	Qurna Technical Institute					
3. Program Title	Department of Computer Systems Techniques					
4. Title of Final Award	Diploma					
5. Modes of Attendance offered	yearly					
6. Accreditation	(AACSB) Association Collegiate School of Business					
7. Other external influences	Training Tournment ,scientific Visits,Vocational training					
8. Date of production/revision of this specification	\\2022					
9. Aims of the Program						
Preparing human cadres with technical qualificatio efficiently	ns that enable them to enter the labor market					
Preparing qualified technical staff in various compu	iter sciences and disciplines					
Meeting the requirements of the labor market with	modern technical methods					

# 10. Learning Outcomes, Teaching, Learning and Assessment Methods

## A. Knowledge and Understanding

- A- Cognitive goals
- A1- Introducing the student to programming languages and their types, such as C++, programming in the Basic language and others.
- A2- Introducing the student to the use of statistical measures, data processing methods, and the application of operations research methods.
- A3- Introducing the student to operating systems and ready-made programs such as Microsoft Office programs and others.
- A4- Introducing the student to the nature of the computer program and the rules that help in understanding and solving the problem, writing algorithms, and the stages of program development.
- A5 Introducing the student to the mathematical theories used in solving mathematical problems.
- A6 Introducing the student to the types of computers and their internal components, the types of operating systems, maintenance programs, and antivirus protection.
- A7- Introducing the student to numerical systems and the transformation between them, how to represent numbers in a digital calculator, Boolean algebra, the physical components of an electronic computer, machine languages, and data representation.
- A8 Introducing the student to the importance of human rights, democracy, openness and knowledge of the cultures of other countries.
- A 9- Introducing the student to the meaning of the graphic structure, the types of graphic structures, their importance, characteristics and available applications.
- A10- Introducing the student to the concepts and terminology of databases, and dealing with databases and models.
- A11- Introducing the student to systems software and general operating systems on electronic computers and how to manage them to obtain the best operating performance.
- ${f A12} ext{-}$  Introducing the student to the basic concepts of systems, their analysis, characteristics, levels and types.
- A13- Introducing the student to networks and their benefits, techniques and types, and familiarizing themselves with the Internet and the security of computers and networks.
- A14- Defining the student dealing with websites on the Internet and how to manage them.

# B. Subject-specific skills

- B 1 Writing the code for programs, functions, procedures, and data files, and using the ability to draw in them.
- B2 Linear programming applications in formulating and analyzing linear models according to scientific and practical methods using its applications in the electronic calculator through SPSS, XLSTAT<QSB applications
- B 3 Working on the Windows operating system and its ready and virtual programs, such as using Microsoft Office programs and design programs such as Photo Shop Adobe.

- B4- Installing and maintaining various computers, diagnosing common faults, configuring and installing drivers, maintenance and anti-virus programs.
- B 5- Dealing with databases and forms and programming them in VFP.
- **B6** Managing the general operating systems on electronic computers to obtain the best operating performance.
- B7 Training on systems analysis and design using a set of analysis and design tools.
- B8 Programming databases using MYSQL and V.B. using a set of tools and tools for tables and creation of reports.
- B 9- Programming and managing Internet pages, designing websites, downloading and dealing with different servers and languages used on Internet networks. Through programming languages such as HTML, JAVASCRIPT, PHP and others.
- B 10- Connecting local networks and different types of network connections.

## **Teaching and Learning Methods**

The method of delivering a lecture through the use of e-learning by presenting theoretical and practical lessons on display screens using PPt. According to the available capabilities, cooperative learning (acrobat), laboratory, summer training

#### **Assessment methods**

Quick Daily Quizzes, Daily Assessment, Quarterly Exams, Final Exams

## C. Thinking Skills

- C1- Run and use various ready-made applications.
- C2 Assembling and maintaining the computer and its accessories.
- C 3- Writing and maintaining programs.
- C4 Operating network operating systems and using various Internet network applications.
- C5 Design and management of websites.
- C6 Analysis and design of database systems

# **Teaching and Learning Methods**

The method of delivering a lecture through the use of e-learning by presenting theoretical and practical lessons on display screens using PPt. According to the available capabilities, cooperative learning (acrobats), laboratory, summer training, providing students with the basics and additional topics related to previous educational outcomes of skills to solve practical problems, applying the theoretically studied topics on a practical level in various computer technologies.

#### **Assessment methods**

Quick Daily Quizzes, Daily Assessment, Quarterly Exams, Final Exams

- D. General and Transferable Skills (other skills relevant to employability and personal development)
- D1- Designing programs that serve the labor market and its requirements, such as database programs.
- D2 Designing websites for institutions, state departments and the private sector.
  - D 3- Working on various office programs and other design programs
  - D4 Self-development and continuous for students after graduation.
- D5 Passing various tests organized by companies and institutions interested in computer technologies.

Teaching and Learning Methods

- Developing educational curricula in coordination with the Sectoral Committee for Curriculum Development in Iraq.
- Using curricula and programs available on the Internet for self-development.

Training students in various state institutions and the private sector.

Participation in training courses held by institutes of computer and software technologies, whether in the public or private sectors.

Self-learning by passing the exams of companies interested in office software and other software, such as Microsoft and others.

**Assessment Methods** 

Daily exams with home questions to solve by yourself.

Passing the tests available on the Internet, such as Microsoft and Oracle, and in various available software

<ol><li>Program Struct</li></ol>	ture									
ل	قسم أنظمة الحاسوب/السنة الأولى – الفصل الاول									
لغة التدريس	نوع المادة	31E	ت	د الساعا	<b>ع</b>	اسم المادة بالغة العربية	ت			
			۴	ع	ن					
الإنكليزية	تخصصية	£	ŧ	۲	۲	البرمجة بلغة ++	١			
	تخصصية	۲	۲	٠	۲	خوارزميات وحل المشكلة	۲			
الإنكليزية	تخصصية	٤	£	۲	۲	التصميم المنطقي	٣			
	تخصصية	۲	۲	۲	٠	اساسيات الحاسوب	ź			

	عامة	*	۲	٠	۲	حقوق الانسان والديمقراطية	٥			
الإنكليزية	مساعدة	ź	£	۲	۲	رياضيات وتحليل عددي	٦			
		١٨	۱۸	٨	١.	المجموع				
قسم أنظمة الحاسوب/السنة الأولى- الفصل الثاني										
لغة التدريس	نوع المادة	77E	من .	د الساعا	TE .	اسم المادة بالغة العربية	ت			
			م	ع	ن					
الإنكليزية	تخصصية	£	ŧ	۲	۲	البرمجة بلغة ++	١			
الانكليزية	تخصصية	£	٤	۲	۲	اساسيات تصميم المواقع	۲			
	تخصصية	ŧ	٤	۲	۲	صيانة الحاسوب	٣			
	مساعدة	ŧ	٤	۲	۲	الاحصاء المتقدم	ŧ			
الانكليزية	تخصصية	ŧ	ź	۲	۲	البرمجة بلغة بايتون	٥			
الإنكليزية	مساعدة	۲	۲	٠	۲	اللغة الانكليزية	7			
	المجموع ١٠ ٢٢ ٢٢									
قسم أنظمة الحاسوب/السنة الثانية										

لغة التدربس	نوع المادة	مجموع	عدد الساعات			المادة	ت
			م	ع	ن		
الإنكليزية	تخصصية	١.	٥	٣	۲	هياكل البيانات	١
الإنكليزية	تخصصية	١.	٥	٣	۲	قواعد البيانات	۲
	تخصصية	٨	£	۲	۲	أنظمة التشغيل	٣

	تخصصية	4	٣	۲	1	تحليل نظم	ŧ	
	تخصصية	1.	0	٣	۲	البرمجة بلغة V.Basic	٥	
الإنكليزية	تخصصية	¥	٣	۲	١	شبكات	٦	
	مساعدة	4	٣	۲	١	تصميم المواقع الالكترونية	٧	
	تخصصية	١	٣	۲	١	مشروع	٨	
	مساعدة	۲	۲	•	۲	اللغة الانكليزية	٩	
		٥٩	٣٨	19	1 £	المجموع		

Level/Year	Course or Module	Course or Module Title	Credit rating	
	Code			
First year/second		Python		Bachel
semester				or
				Degree
				Requir
				es (x)
				credits

# 13. Personal Development Planning

Develop students' abilities in research and investigation by finding and solving computer and software problems, urging them to keep abreast of modern technical developments and to view them closely through information sources such as books, magazines, websites, and others.

#### 14. Admission criteria.

The department accepts graduates of the scientific branch, and their acceptance is central by the ministry on the basis of competition and graduation rate.

# 15. Key sources of information about the program

- 1- The Internet.
- 3- The experiences of Arab and international universities.
- 4- The current curricula according to the vocabulary that was provided to the department by the esteemed ministry.
- 5. Curriculum books available in libraries and the Internet.

	Curriculum Skills Map																		
	please tick in the relevant boxes where individual Program Learning Outcomes are being assessed																		
	Program Learning Outcomes																		
Year / Level	Course Code	Course Title	Core (C) Title or Option (O)			edge an standing			Subject-s skil	pecific ls				ing Skill	.S	(or) Ot	al and Trar her skills i yability an pment	relevant to	0
				A2	A2	A3	A4	B1	B2	В3	B4	C1	C2	C3	C4	D1	D2	D3	D4
				A7				B1				ĺ		C3		D5			
								ļ	1							}			
						,													
												ì							

## TEMPLATE FOR COURSE SPECIFICATION COURSE SPECIFICATION

#### HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

#### **COURSE SPECIFICATION**

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Technical Institute / Qurna
2. University Department/Centre	Computer System Techniques
3. Course title/code	Python Programming
4. Program(s) to which it contributes	
5. Modes of Attendance offered	Weekly
6. Semester/Year	Semester
7. Number of hours tuition (total)	60
8. Date of production/revision of this specification	17/8/2022
9. Aims of the Course	
Understanding he fundamentals of data stora functions, sequences, and lists.	ge, input and output, control structures,
Designing the logic of programs and then im	plement those programs using Python.
Understanding programming concepts and programming experience.	roblem-solving skills, without assuming any

#### 10. Learning Outcomes, Teaching ,Learning and Assessment Method

#### A- Knowledge and Understanding

- A1. Learning to write simple programs that read input from the keyboard, perform mathematical operations, and produce screen output.
- A2. Learning about relational operators and Boolean expressions and is shown how to control the flow of a program with decision structures.
- A3. Understanding how to create repetition structures using the while loop and for loop.
- A4. Learning how to write and call void functions.
- A5. Understanding the benefits of using functions to modularize programs and discusses the top-down design approach.
- A6. Learning to define and call his or her own functions and how to use modules to organize functions.

#### B. Subject-specific skills

- B1. The fundamentals of data storage, input and output, control structures, functions, sequences, and lists.
- B2. Designing the logic of programs and then implement those programs using Python.
- B3. Programming concepts and problem-solving skills, without assuming any previous programming experience.

# Teaching and Learning Methods

The method of delivering a lecture through the use of e-learning by presenting theoretical and practical lessons on display screens using PPt. According to the available capabilities, cooperative learning (acrobats), laboratory, summer training, providing students with the basics and additional topics related to previous educational outcomes of skills to solve practical problems, applying the theoretically studied topics on a practical level in various computer technologies.

#### Assessment methods

Quick Daily Quizzes, Daily Assessment, Quarterly Exams, Final Exams

# C. Thinking Skills

- C1. The fundamentals of data storage, input and output, control structures, functions, sequences, and lists.
- C2. Designing the logic of programs and then implement those programs using Python.

C3. Programming concepts and problem-solving skills, without assuming any previous programming experience.

Teaching and Learning Methods

The method of delivering a lecture through the use of e-learning by presenting theoretical and practical lessons on display screens using PPt. According to the available capabilities, cooperative learning (acrobats), laboratory, summer training, providing students with the basics and additional topics related to previous educational outcomes of skills to solve practical problems, applying the theoretically studied topics on a practical level in various computer technologies.

Assessment methods

Quick Daily Quizzes, Daily Assessment, Quarterly Exams, Final Exams

- D. General and Transferable Skills (other skills relevant to employability and personal development)
  - D1. The fundamentals of data storage, input and output, control structures, functions, sequences, and lists.
  - D2. Designing the logic of programs and then implement those programs using Python.
  - D3. Programming concepts and problem-solving skills, without assuming any previous programming experience.

11. C	11. Course Structure								
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method				

12. Infrastructure	
Required reading:	Starting Out with Python, Fourth Edition,
· CORE TEXTS	Global Edition By "Tony Gaddis"
· COURSE MATERIALS	
·OTHER	
Special requirements (include for	
example workshops, periodicals,	
IT software, websites)	
Community-based facilities	
(include for example, guest	
Lectures, internship, field	
studies)	

13. Admissions						
Pre-requisites						
Minimum number of students						
Maximum number of students						