Academic Program Description Form

University Name: Al-Furat Al-Awsat Technical University
Faculty/Institute: Babylon Technical Institute
Scientific Department: Computer Systems Techniques
Academic or Professional Program Name: Diploma of Computer Systems
Final Certificate Name: Diploma
Academic System: Year Study
Description Preparation Date: 10/2/2024
File Completion Date: 28/2/2024

Signature:
Head of Department Name: Dr Ali Khalid Mohamed Ali
Date: 8/4/2024

Signature:
Scientific Associate Name: oras Khudhayer obayes
Date: 8/4/2024

The file is checked by:
Department of Quality Assurance and University Performance
Director of the Quality Assurance and University Performance Department:
Khansaa Azeez Obayes Al-Husseini.
Date:
Signature:

Approval

Approval of the Dean
Prof. Dr.
Eman Mohammed Abdullah
Dean of
Babylon Technical Institute

1. Program Vision

Building the department on a bright plateau of modern scientific concepts to be at the forefront of scientific departments in the institute to provide its educational and skills services to students, which is distinguished by the quality of teaching and scientific research using advanced technologies, which is reflected at the level of educational programs and curricula and the provision of training and development opportunities in order to provide the community with highly qualified scientific cadres. In acquiring knowledge for the community through holding specialized courses and providing scientific consultations.

2. Program Mission

Implementing the concept of ((from the department to the field of work)) based on modern curricula and advanced training techniques that prepare the student with distinguished academic preparation. Engaging positive and constructive interaction between computer sciences, software, mathematics, statistical sciences, and related sciences, leading to cognitive integration and raising the student to the level of ambition that serves society, the nation, and the nation to occupy a prominent position among nations.

3. Program Objectives

The department aims to prepare human cadres who possess technical qualifications that qualify them to enter the labor market efficiently, as well as to prepare qualified technical personnel in various sciences and specializations of computer technology and informatics that meet work requirements using modern technical methods.

4. Program Accreditation

No

5. Other external influences

There is a close relationship with the labor market that receives our graduates, as the opinion of the labor market is taken into account in the academic curricula.

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements				
Department Requirements	19	130	100%	
Summer Training	1	0		
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	Practical
First stage	CS100	Programming in C++ language	2	3
First stage	CS101	Algorithms and problem solving	1	2
First stage	CS102	Computer architecture	2	3
First stage	CS103	Computer Maintenance	2	3

First stage	CS104	Ready-made applications	2	3
First stage	CS105	Mathematics	2	2
First stage	CS106	Statistics	1	2
First stage	CS107	human rights	1	_
First stage	CS108	English	1	_
Second stage	CS200	Data structures	2	3
Second stage	CS201	Databases	2	3
Second stage	CS202	Operating Systems	2	2
Second stage	CS203	Systems analysis	1	2
Second stage	CS204	Programming in the V.Basic language	2	3
Second stage	CS205	Networks	1	2
Second stage	CS206	website design	1	2
Second stage	CS207	Project	1	2
Second stage	CS208	English	1	_
Second stage	CS209	The crimes of the Baath regime in Iraq	1	_

8. Expected learning outcomes of the program

Knowledge

1. Writing and maintaining programs in software languages.
2. Analysis and evaluation of database systems.
3. Website design and management.
4. Use ready-made applications.
5. Using applications in the fields of statistics and mathematics.

Skills

1. Assembling and maintaining the computer and its accessories.
2. The ability to use technological tools and modern techniques in completing software projects.
3. Using various Internet applications.
4. The ability to manage websites.

Ethics
1. The student must pay attention to respecting time and order in the classroom and educational laboratories.
2. That the student understands what cognitive excellence and excellence mean.
3. The student should listen carefully to the professor's explanation.
4. That what the student studies is consistent with his inclinations and thinking trends.

9. Teaching and Learning Strategies

1. The lecture
2. Laboratory
3. Summer training
4. Systematic training

10. Evaluation methods

1. Oral exams
2. Written tests
3. Practical exams
4. Semester exams
5. Final exams
6. Daily evaluation
7. Annual evaluation
8. Projects

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor	Electrical and electronic engineering	communications engineering			1	
Assistant Professor	Computer Science	Information Technology			1	
Lecturer	Computer Science	Artificial Intelligence			3	
Lecturer	Computer Science	Information Technology			1	
Lecturer	Computer Science	Computer and Information Science			1	
Lecturer	Computer Science	Data Security			1	
Lecturer	Computer science	informatics			1	
Lecturer	Electrical engineering	electrical power			1	
Assistant Lecturer	Computer technology engineering	Computer technology engineering			1	
Assistant Lecturer	Electrical engineering	information technology and communications systems			1	
Assistant Lecturer	Information technology	information networks			1	
Assistant Lecturer	Mathematical Sciences	Mathematical Sciences			1	
Assistant Lecturer	Political science	international relations			1	

Professional Development
Mentoring new faculty members
Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.
Professional development of faculty members
1- Teamwork: Working within the group effectively and actively. 2- Time management: Managing time effectively and setting priorities with the ability to work organized by appointments. 3- Leadership: The ability to direct and motivate others. 4- Independence at work.

12. **Acceptance Criterion**
The department accepts graduates of the scientific branch only.

13. **The most important sources of information about the program**
1- Internet sites 2- Educational bags 3-External sources 4 - Scientific methodological books in the field of specialization 5-The department's website 6- Lectures

14. Program Development Plan
Working to develop curricula and adding new materials to suit the requirements of the labor market and modern technological developments in the field of computer science, especially with regard to cybersecurity, artificial intelligence, and quantum computing.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
First stage	CS100	Programming in C++ language	Basic	x				X				x			
	CS101	Algorithms and problem solving	Basic	x				X				x			
	CS102	Computer architecture	Basic	x				X				x			
	CS103	Computer Maintenance	Basic	x				X				x			
	CS104	Ready-made applications	Basic	x				X				x			
	CS105	mathematics	Basic	x				X				x			
	CS106	Statistics	Basic	x				X				x			

	CS107	human rights	Basic		x				x				x		
	CS108	English	Basic		x				x				x		
Second stage	CS200	Data structures	Basic	x				X				x			
	CS201	Databases	Basic	x				X				x			
	CS202	Operating Systems	Basic	x				X				x			
	CS203	Systems analysis	Basic	x				X				x			
	CS204	Programming in the V.Basic language	Basic	x				x				x			
	CS205	networks	Basic	x				x				x			
	CS206	website design	Basic	x				x				x			
	CS207	project	Basic		x				x				x		
	CS208	English	Basic		x				x				x		
	CS209	The crimes of the Baath regime in Iraq	Basic		x				x				x		

Course Description

1. Course Name:
Programming in C++
2. Course Code:
CS100
3. Semester / Year:
Yearly
4. Description Preparation Date:
12/2/2024
5. Available Attendance Forms:
Attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
5 \ 10
7. Course administrator's name (mention all, if more than one name)
Name: Khamael Raqim Raheem Email: khmrakrah@atu.edu.iq
8. Course Objectives

Course Objectives	*Introducing the student to programming languag their types, and C++. *The general structure of the program, its sectio and data types used in this language. *Writing code for programs, functions, procedur and files Data and using the ability to draw on it.
9. Teaching and Learning Strategies	
Strategy	1- High thinking skill strategy. 2- Critical thinking strategy in learning. 3- A strategy according to the student's ability.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	5	An overview of programming languages:- • What is a programming language	Learn about programming languages	lecture Practical laboratory Oral discussion	Daily exam

		• History and development of programming languages • Levels of programming languages • C++ language: the origins of the language, its development, and its position within the levels of programming languages			
Second	5	Basic principles of the C++ language / C++ language concepts • What does a C++ program consist of? • What are vertical files? A simple explanation of the header files included in a C++ program	What are header files	lecture Practical laboratory Oral discussion	Daily exam
Third	5	C++ language components and tools / Basic element of C++ language • Language codes • Definitive names • Reserved words • Representing constants • Representing variables	C++language and its tools	lecture Practical laboratory Oral discussion	Daily exam
Forth	5	data types in C++ and ways to represent them in memory / Data types in C++ • Char type • The correct type is integer type • real type • Boolean (logical) type •Converting between different graphic types	Ways to represent them in memory	lecture Practical laboratory Oral discussion	Daily exam
Fifth	5	Types of expressions in C++ and how to formulate the expression:- • Arithmetic expression / various arithmetic operations and their priorities / method of converting a mathematical expression into an	Arithmetic expressions	lecture Practical laboratory Oral discussion	Daily exam

		arithmetic expression in C++ / various examples			
Sixth	**5**	**• Relational expression / relational processes and their priorities / formulation of relational expression • Logical expression / logical operations and their priorities / formulation of logical expression • Compound expression / general process priority table / various examples**	**Logical expressions**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Seventh	**5**	**- Giving initial values to variables and constants - Parentheses and spaces - Types of notes - Special tools**	**Notes and special tools**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Eighth	**5**	**Precision tools**	**Precision tools**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Ninth	**5**	**-The designation sentence and its types/with illustrative examples:- 1. Arithmetic expression (equation) 2. Counters and their types 3. Other forms of equations specific to the C++ language**	**Mathematical expressions and equations**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Tenth+ Eleventh	**10**	**Formulated input and output functions - Print texts - Print numerical values - Print arithmetic expressions - Unformulated input and output functions**	**Printing in all its forms**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Twelveth	**5**	**Control, condition, and repetition statements Control, cond. & loop statements 1. Cond conditional sentences. Stat • Cond tool. Tools**	**Conditional functions of all kinds**	**lecture Practical laboratory Oral discussion**	**Daily exam**

		• The conditional if statement • If…else sentence • Nested cond.			
Thirteen	5	2. The conditional distribution statement switch • Nested conditional distribution statement nested switch	Conditional functions of all kinds	lecture Practical laboratory Oral discussion	Daily exam
Fourteen	5	3. Repetition sentences • The for loop expression • Nested for	Repetition and nested repetition	lecture Practical laboratory Oral discussion	Daily exam
Fifteen	5	• The while expression	Repetition expression	lecture Practical laboratory Oral discussion	Daily exam
Sixteen	5	• The repetition expression do…while	Repetition expression	lecture Practical laboratory Oral discussion	Daily exam
Seventeen	5	4. Control statements and control iterators • The continuation sentence continue. • Exit function • The transition sentence Goto	Continue , exit, goto	lecture Practical laboratory Oral discussion	Daily exam
Eighteen	5	Variables tagged as arrays and matrices One dimensional array	One dimensional array	lecture Practical laboratory Oral discussion	Daily exam
Nineteen +twenty	10	Two-dimensional matrix, square matrix (as a special case of two-dimensional matrix)	Working with arrays	lecture Practical laboratory Oral discussion	Daily exam
Twenty one	5	Symbolic array and string representation (symbolic strings)	Working with arrays	lecture Practical laboratory Oral discussion	Daily exam
Twenty two	5	Functions • Local variables and global variables • Definition of the function • Call the function Function call methods	Defining and calling functions	lecture Practical laboratory Oral discussion	Daily exam
Twenty third	5	• The formula for returning values from the returning value function • Constants and dependent variables parameters arguments	Defining and calling functions	lecture Practical laboratory Oral discussion	Daily exam

		• Factors affecting the use of the factor effecting function			
Twenty fourth	5	• Functions of type void • User-defined functions (innovative)	Defining and calling functions	lecture Practical laboratory Oral discussion	Daily exam
Twenty fifth	5	Ready-made function library:- • Functions for symbolic threads • Mathematical functions • Time and date functions	Mathematical and special functions	lecture Practical laboratory Oral discussion	Daily exam
twenty-sixth + + twenty seventh	10	Drawing and screen graphics and screen • Color functions • Point plot functions • Line drawing functions • Functions for drawing rectangles • Circuit drawing functions • Functions for drawing shapes • Types of screens	Choose color and draw shapes	lecture Practical laboratory Oral discussion	Daily exam
Twenty-eighth - thirty	15	Building an integrated application system that addresses the above matrices and functions	Building an integrated program	lecture Practical laboratory Oral discussion	Daily exam

11. Course Evaluation

Theoretical tests – short tests – laboratory work – practical test – presentation – correcting assignments – daily evaluation – quarterly exam.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Lectures according to the curriculum
Main references (sources)	C++ programming with 469 solved problems .
Recommended books and references (scientific journals, reports…)	A comprehensive reference to programming in C++
Electronic References, Websites	https://www.kutub.info/library/book/5396

Course Description

1. Course Name:
Algorithms and Problem-Solving
2. Course Code:
CS101
3. Semester / Year:
Yearly
4. Description Preparation Date:
13 / 2 / 2024
5. Available Attendance Forms:
Daily Attendance
6. Number of Credit Hours (Total) / Number of Units (Total):
3/6
7. Course administrator's name (mention all, if more than one name)
Name: Dhiyaa Salih Hammad Email: Dhiyaa_alshammari@atu.edu.iq
8. Course Objectives

Course Objectives	**• Developing the student's organized logical thinking.** **• The student's knowledge of how to build algorithms to solve a simple problem.** **• Training the student to convert algorithms into a program.** **• Training the student to solve problems using computer software.**

9. Teaching and Learning Strategies

Strategy	**1- Theoretical lecture** **2- Oral discussion** **3- Reports**

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	3	Basic principles of programming	- Basic principles of programming/program definition/programming languages/ (High-level programming languages).	Lecture Oral Discussion	Daily Exam

			And low-level programming languages)) - Definition of the user program. - Definition of application programs -Definition of operating system software.		
Second	3	Problem-Solving	Problem-Solving	Lecture Oral Discussion	Daily Exam
Third	3	Data Types	Types of data and variables used in programming languages and their definition in the program / Constants & Variables / String literals and Numeric	Lecture Oral Discussion	Daily Exam
Fourth + Fifth	6	Flow Charts	- Flow chart -Benefits of flow charts -Shapes used in drawing flow charts -Types of flow charts -Simple flow chart	Lecture Oral Discussion	Daily Exam
Sixth +Seventh	6	Branched Flow Charts	Branched Flow Charts Loop Flow Charts	Lecture Oral Discussion	Daily Exam
Eighth + Ninth	6	Algorithms	Algorithms/algorithm definition/algorithm design (Algorithm design), types of sequential algorithms (Sequential), Conditional, and Repetition	Lecture Oral Discussion	Daily Exam

Ten	3	Characteristics of Good Program	- Characteristics of a good program - Program development stages	Lecture Oral Discussion	Daily Exam
Elevent	3	Code Writing	Implementation & & debugging	Lecture Oral Discussion	Daily Exam
Twelve	3	Types of Errors	Syntax Errors Semantic Errors Run Time Errors	Lecture Oral Discussion	Daily Exam
Thirtee	3	Testing	Testing Documentation &maintenance	Lecture Oral Discussion	Daily Exam
Fourtee	3	Designing	Top-down design	Lecture Oral Discussion	Daily Exam
Fifteen	3	Designing	Bottom-up design	Lecture Oral Discussion	Daily Exam
Sixteen	3	Process Life Cycle	Process life cycle (program) Inside the computer (Process life cycle) First/Ready/Second / Waiting Third, implementation (Running). Fourth, completion	Lecture Oral Discussion	Daily Exam
Seventee	3	Subroutines	Subroutines	Lecture Oral Discussion	Daily Exam
Eightee	3	Subprograms	Subprograms	Lecture Oral Discussion	Daily Exam
Ninetee	3	Structured programming	Introduction to structured programming method Structures used in structured programming	Lecture Oral Discussion	Daily Exam
				Lecture	Daily

Twenty	3	Series Structure	Sequence Structure If-then-else	Oral Discussion	Exam
Twenty One	3	Iteration Structure	Do-While While For	Lecture Oral Discussion	Daily Exam
Twenty Two	3	Data processing operations	Data processing operations / sorting (Sort) / Benefits of the sorting process / External sort Internal sort	Lecture Oral Discussion	Daily Exam
Twenty Three	3	Sorting Algorithı	External Sort Internal Sort	Lecture Oral Discussion	Daily Exam
Twenty Four	3	Sorting Algorithı	Selection Sort	Lecture Oral Discussion	Daily Exam
Twenty Five	3	Sorting Algorithms	Bubble Sort	Lecture Oral Discussion	Daily Exam
Twenty Six	3	Searching Algorithm	Sequential Search	Lecture Oral Discussion	Daily Exam
Twenty Seven	3	Searching Algorithm	Binary Search	Lecture Oral Discussion	Daily Exam
Twenty Eight	3	Design of softwa modules	The method used in constructing a hierarchy of units (first / main stream method / and sub-path second / hierarchical method - layers)	Lecture Oral Discussion	Daily Exam
Twenty nine	3	The method is to build hierarchy of uni	The foundations of dividing the program into modules / the benefits resulting from using the modular design method / the size	Lecture Oral Discussion	Daily Exam

			of the software module		
Thirty	3	Object-oriented programming method	Concepts and basics of object-oriented programming style Definitions / Class / Object / Inheritance	Lecture Oral Discussion	Daily Exam

11. Course Evaluation

Theoretical tests - short tests - practical test - correcting assignments - daily evaluation - semester exam

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Programming Approach Book
Main references (sources)	Programming Approach Book
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	https://harmash.com/algorithms/algorithms-introduction

Course Description

1. Course Name:
Computer architecture
2. Course Code:
CS102
3. Semester / Year:
Yearly
4. Description Preparation Date:
14/2/2024
5. Available Attendance Forms:
Attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
5\10
7. Course administrator's name (mention all, if more than one name)
Name: Ali Salah Mahdi Email: ali.khafaja@atu.edu.iq
8. Course Objectives

ourse Objectives	**ntroducing the student to the types of computers, numerical systems, and time conversion, then addressing the representation of numbers in a digital calculator, Boolean algebra, the physical components of electronic computers, machine languages, and data representation.**

9. Teaching and Learning Strategies

trategy	• Practical laboratory • Theoretical lecture • Oral discussion • Reports

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	**5**	**Principles of information technologies**	**Introduction - Computer systems and software - Types of computers**	**lecture Practical laboratory Oral discussion**	**Daily exam**

Second	**5**	**Number systems**	**Number and arithmetic systems include: -Decimal system -The octal system - Converting from the decimal system to the binary system - The four arithmetic operations in this system - The importance of this system in the electronic computer**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Third	**5**	**Octal system**	**Octal system - Converting from the octal system to the decimal system - Converting from the decimal system to the octal system - Converting from the binary system to the octal system - Hexadecimal system Converting from binary to hexadecimal**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Fourth	**5**	**Representing numbers in computers**	**Representing numbers in electronic computers - BCD codes - 4bit BCD code - ASCCI code - Arabic code - Examination rank Representation of integers and representation of real numbers**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Fifth	**5**	**Logic gates**	**Gates : Gate or - gate and - non-gate - gate not with - non-gate or - gate or exceptional - external terminal diagram for integrated circuits for gates**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Sixth	**5**	**Boolean algebra**	**Boolean algebra: - Boolean algebra De Morgan's theorem - Using the laws of Boolean algebra to simplify logical expressions**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Seventh	**5**	**Karnaugh diagrams**	**Legal formulas and Karnaugh diagrams Legal formulas: - The sum of the product of terms - the factorial of the sum of terms Karnaugh diagrams for simplifying functions: - Two variables - Three variables**	**lecture Practical laboratory Oral discussion**	**Daily exam**

Eighth	**5**	**Digital circuits**	**Digital circuits: arithmetic circuits - addition/half-adder circuits - and full- adder circuit**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Ninth	**5**	**Subtraction circles**	**Subtraction circles/half subtraction - full subtraction - Digital comparator**	**lecture Practical laboratory Oral discussion**	**Daily exam**
The tenth	**5**	**Flipflop**	**Flipflop S-R Flipflop J-K Flipflop D Flipflop T**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Eleven	**5**	**Displacment registers and counters**		**lecture Practical laboratory Oral discussion**	**Daily exam**
Twelve	**5**	**Counters**	**Counters - Asynchronous counter ascending/descending - Seven-piece crossbar**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Thirteen	**5**	**Physical components**	**Hardware – the study of the physical parts of a computer The features and functions of the container and the power supply**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Fourteen	**5**	**Motherboard**	**Study the features, functions and components of the motherboard**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Fifteen	**5**	**Storage units**	**Study the functions and types of storage units: RAM and ROM**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Sixteen	**5**	**Study BIOS Setup**	**Study BIOS Setup and the possibility of modifying it**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Seventeen	**5**	**Secondary storage units**	**دراسة تقنيات وحدات الخزن الثانوية: F.D و H.D DVD و C. D و D**	**lecture Practical laboratory Oral discussion**	**Daily exam**
Eighteen	**5**	**Expansion cards in the computer**	**Studying the features and functions of expansion cards (VIDEO, SOUND, NETWORK).**	**lecture Practical labor lecture Practical laboratory**	**Daily exam**

				Oral discussion tory Oral discussion	
Nineteen + Twenty	5	Microprocessor 8085	8085 microprocessor - block diagram - components and functions of the processor	lecture Practical labor lecture Practical laboratory Oral discussion tory Oral discussion	Daily exam
Twenty-first + twenty-second	5	Microprocessor 8086	Microprocessor 8086: Programming in assembly language - the directive form	lecture Practical laboratory Oral discussion	Daily exam
Twenty-third+ twenty fourth	5	Data transfer instructions	Data transfer instructions and computational instructions Data Transfer and Arithmetic Instructions	lecture Practical laboratory Oral discussion	Daily exam
25th	5	Logical and subsidiary instructions	Logical and subsidiary instructions Logical & Branching Instructions	lecture Practical laboratory Oral discussion	Daily exam
26th	5	Machine control instructions	Machine control instructions Machine Control Instructions	lecture Practical laboratory Oral discussion	Daily exam
27th	5	Addressing formats	Addressing formats: Immediate, Register, Direct, indirect ADDRESSING	lecture Practical laboratory Oral discussion	Daily exam
28th	5	The instruction cycle and the machine cycle	The instruction cycle and the machine cycle Instruction cycle & Machine cycle	lecture Practical laboratory Oral discussion	Daily exam
29th	5	Pentium processor	Pentium processor - block diagram - components and functions of the processor	lecture Practical laboratory Oral discussion	Daily exam
Thirty	5	Comparing the development of processors	Comparing the development of processors	lecture Practical laboratory Oral discussion	Daily exam

11. Course Evaluation

Theoretical tests – short tests	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	*Computer System Architecture*
Main references (sources)	*Computer System Architecture*
Recommended books and references (scientific journals, reports…)	*Computer System Architecture* موريس مانو
Electronic References, Websites	http://files.books.elebda3.net/elebda3.net-6760.zip

Course Description

1. Course Name:
Computer Maintenance
2. Course Code:
CS103
3. Semester / Year:
Yearly
4. Description Preparation Date:
2024/2/14
5. Available Attendance Forms:
Attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
5\10
7. Course administrator's name (mention all, if more than one name)
Name: Ali Salah Mahdi Email: ali.khafaja@atu.edu.iq
8. Course Objectives

Course Objectives	**Introducing the student to the basics of maintenance workshops.** **Training the student on how to detect faults in the computer's hardware and accessories.** **Training the student on how to repair physical defects in computer components and accessories.** **Training the student on how to perform periodic preventive and remedial maintenance of the computer.**

9. Teaching and Learning Strategies

Strategy	1- Theoretical lecture 2- Practical laboratory 3- Oral discussion 4-Reports

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
first	5	Maintenance and types	Introduction - Maintenance and its types - General maintenance rules Foundations of occupational	lecture Practical laboratory Oral discussion	Daily exam

			safety - devices and tools used in maintenance		
the second	5	Physical computer pa	Physical computer parts	lecture Practical laboratory Oral discussion	Daily exam
the third	5	Power supply unit	Power supply unit - its types, components and operation	lecture Practical laboratory Oral discussion	Daily exam
the fourth	5	Motherboard	Motherboard – its different types and components	lecture Practical laboratory Oral discussion	Daily exam
Fifth	5	Installation programs	Programs for installing and operating motherboard components	lecture Practical laboratory Oral discussion	Daily exam
Sixth	5	Processor	Processor - its types according to the way it is installed on the motherboard Processor cooling methods	lecture Practical laboratory Oral discussion	Daily exam
Seventh	5	Types of mem modules	Types of memory units (RAM, BIOS ROM)	lecture Practical laboratory Oral discussion	Daily exam
Eighth	5	Types of second storage units	Identify the types of secondary storage units, the mechanism for storing data on them, their storage capacity, their operation, and their formatting: Floppy disk drive - hard disk drive - and Flash memory	lecture Practical laboratory Oral discussion	Daily exam
Ninth	5	Laser disc drive	Laser disk drive - its types and how it works CD - DVD – WRITER	lecture Practical laboratory Oral discussion	Daily exam
The tenth	5	Computer assembly	Computer assembly - system case components - types of power cables - types of data cables	lecture Practical laboratory Oral discussion	Daily exam
eleventh	5	Expansion ports slots	Expansion ports slots Types of expansion cards and their installation programs (screen	lecture Practical laboratory Oral discussion	Daily exam

			- sound - network).		
twelveth	5	Configure and install computer	Configure and install the computer (Format and Windows Setup) Types of operating systems	lecture Practical laboratory Oral discussion	Daily exam
Thirteenth	5	Display screens	Display screens - their types, how they work, and the features of each type Defining it, installing its programs, and how to define it	lecture Practical laboratory Oral discussion	Daily exam
fourteenth	5	Printers	Printers - their types, how they work, and the features of each type Defining it, installing its programs, and how to define it	lecture Practical laboratory Oral discussion	Daily exam
Fifteenth	5	Digital cameras	Digital cameras, their types, how they work, and the features of each type Defining it, installing its programs, and how to define it	lecture Practical laboratory Oral discussion	Daily exam
Sixteen	5	Scanners	Types of scanners, how they work, and the features of each type Definition and installation of programs	lecture Practical laboratory Oral discussion	Daily exam
seventeenth	5	Multimedia	Multimedia - Identifying appropriate audio devices and sound cards. Defining it, installing its programs, and how to define it	lecture Practical laboratory Oral discussion	Daily exam
Twenty-third + twenty fourth		Fault diagn programs	Fault diagnosis programs:- Learn about some fault diagnosis programs Identify faults based on error messages	lecture Practical labor lecture Practical laboratory Oral discussion tory Oral discussion	Daily exam

			Identify malfunctions based on audio signals issued by the computer		
Twenty-fifth + twenty-sixth		Viruses	Viruses: - Introduction - Definition of the virus - Virus removal system - Types of programs - Their operation and updating. - Firewall	lecture Practical labor lecture Practical laboratory Oral discussion tory Oral discussion	Daily exam
Twenty-seventh+ Twenty-eighth		System logger	Registry Identifying the system recorder - system recorder repair programs - modifying system recorder components	lecture Practical laboratory Oral discussion	Daily exam
Twenty-nine+ Thirty		Laptop	Laptop Its types - types of processors used - comparison of its components with those of a desktop computer	lecture Practical laboratory Oral discussion	Daily exam

11. Course Evaluation

Theoretical tests − short tests

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Computer maintenance book
Main references (sources)	Computer maintenance book
Recommended books and references (scientific journals, reports…)	Computer maintenance learn book
Electronic References, Websites	https://download-internet-pdf-ebooks.com/600-redirect

Course Description

13. Course Name:	
Applications	
14. Course Code:	
CS104	
15. Semester / Year:	
year	
16. Description Preparation Date:	
12/2/2024	
17. Available Attendance Forms:	
Full attendance.	
18. Number of Credit Hours (Total) / Number of Units (Total)	
5/10	
19. Course administrator's name (mention all, if more than one name)	
Name: Zainab sahib dhahir Email: Zainab.dhahir@atu.edu.iq	
20. Course Objectives	
Course Objectives	The student's ability to know the electronic calculator and its parts and the use of office programs.
	General and transferable skills (other skills related to employability and personal development)
	1- Developing the student's mental abilities. 2- Developing skill capabilities
21. Teaching and Learning Strategies	
Strategy	1. Theoretical lecture 2. Practical Laboratory 3. Use of teaching aids (presentations and software applications)

1. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
The first	5	The concept of off-the-shelf	The concept of ready-made applications, their types and benefits	Lecture Practical Laboratory Oral discussion	Daily exam

		applications			
Second - fifth	20	Introduction to Windows	- Introduction to the Windows operating system and learn about its advantages. Functions of the Windows operating system Comparison of version types - Learn about the basic components of the screen, including the desktop Desk top , icons (Folder, shortcut, files) and their types, the taskbar and its contents, its menu, and how to turn off the calculator Shut down . - The concept of the window and its components and the procedure of maximizing operations and minimize and exit it Close and others - Dealing with major desktop icons such as My computer, documents, recycle bin and the importance of each. - Copy , cut, and paste past components of folders, files, and more. - Use Control panel properties - Mouse-Add printer-Regional Setting--Display and change wallpaper. screen saver ,display, Setting, appearance. - Add and delete programs to the Programs list.	Lecture Practical Laboratory Oral discussion	Daily exam

			- Dealing with the paint program in drawing, displaying and storing drawings and images.		
Sixth–Eighth	15	Word printing program	- Word printing program: its advantages, benefits and operation. - Toolbar and its contents, creating the document and how to deal with it, store and modify it. - Find, replace, page preparation, formatting and numbering, dictionary use The spelling checker will prepare and deal with tables and conduct the preview before Printing.	Lecture Practical Laboratory Oral discussion	Daily exam
Ninth – Thirteenth	25	Excel spreadsheet system	The Excel spreadsheet system is important, advantages, and operation. - Toolbar and its contents. - Preparing a sheet (table) and entering and saving data. - Dealing with table cells and performing operations of row or column drawers, deleting cells, row or column, modifying the width or length of the cell. - File menu - Edit menu - Format menu - Sort list - Fill and sort cells. - Writing important mathematical and statistical equations such	Lecture Practical Laboratory Oral discussion	Daily exam

			as: Sqrt , Stdev , Sum , Average , If , Count , Max , Sin Cos - Working with different graphs . - Drawing charts (lines, columns) with the deduction of the trend line and equation - Method of reading data from different worksheets - CLARIFYING THE METHOD OF ANALYZING A CASE ON ORGANIZING PAYROLL RECORDS - STUDENT ABSENCES BASED ON EXCEL APPLICATION - HOW TO RUN AND ADD XEXCEL FROM THE INTERNET TO EXCEL SERVICE LISTS		
Fourteenth – Twentieth	35	Access Database Management System	Access Database Management System - Design of tables - sub-tables - main tables Normalization process - types of relationships Relation. - Main form design – subform design - - Linking the main form with subforms in multiple pages - Queries, Selection Query – Delete Query - Table creation query – Append Macros query (design and operation)	Lecture Practical Laboratory Oral discussion	Daily exam

			- Performing some exercises and treatment - applying a specific system (examination committee) - Simple reports – professional reports.		
Twenty one – Twenty-second	10	Power Point slide setup software	Power Point slide setting: importance, advantages and operation Home screen and toolbar components and how to set up slide (slide) Conducting and saving presentations and dealing with various multimedia (images, sounds, movies)	Lecture Practical Laboratory Oral discussion	Daily exam
Twenty-third – Twenty-seventh	25	Photo Shop	Photo Shop program the concept of Pixel - Learn about image extensions, their respective characteristics, and uses - Familiarize yourself with the main interface of the program with the toolbar statement - How to open images within the program with all their extensions and identify the Layers window - Add effects to Filters - Create designs using more than one image	Lecture Practical Laboratory Oral discussion	Daily exam
Twenty-eighth-thirty	15	Internet	The Internet - the concept of the Internet - the idea of the emergence of the Internet - the method of obtaining an Internet	Lecture Practical Laboratory Oral discussion	Daily exam

			subscription (wired and wireless systems) Search Engine - Concept - Types of engines (Yahoo, Google,...) Method of obtaining information in specific locations using keywords – store data on CD-Flash Ram * E-mail service - method of accessing the service - functions provided by the e-mail service - method of sending or receiving an attachment (files) with the message. *Chat service: conversation concept - method of accessing the service - method of adding mailing addresses with mail - use of chat aids (camera - phone-.....)		

2. Course Evaluation
Oral discussion - Daily Assessment-Semester Exam- Final Exam

3. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Computer Applications Book
Main references (sources)	Computer Basics and Office Applications Book
Recommended books and references (scientific journals, reports…)	Office programs
Electronic References, Websites	http://www.mediafire.com/file/dnehyzlzz2c/%D8%AA%D8%B7%D8%A8%D9%8A%D9%82%D8%A7%D8%AA

Course Description

1. Course Name:
Mathematics and numerical analysis
2. Course Code:
CS105
3. Semester / Year:
Yearly
4. Description Preparation Date:
13/2/2024
5. Available Attendance Forms
Attendance (theoretical + practical)
6. Number of Credit Hours (Total) / Number of Units (Total)
4\8
7. Course administrator's name (mention all, if more than one name)
Name: israa essa abed Email: israa.abed@atu.edu.iq
8. Course Objectives

Course Objectives	• **The student must be able to understand mathematics problems a how to solve them** • **The student must be able to work in groups** • **The student must be able to communicate in the field of work…**
9. Teaching and Learning Strategies	
Strategy	1- By setting educational objectives 2- Through discussion and participation in solving mathematic problems 3- Intentional error 4- By summarizing the main ideas

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	4	matrices	matrices/Types of matrices / Properties of matrices and how to find their rank	lecture Practical laboratory Oral discussion	Daily exam

2+3	8	Operations on matrices	The equality of of matrices and the Operations(addition, subtraction and multiplication)	lecture Practical laboratory Oral discussion	Daily exam
4	4	Inverses of matrices/ determinant of matrices	The determinant of matrices and relation with rank to used method to find value of determinant	lecture Practical laboratory Oral discussion	Daily exam
5+6	8	Solve linear equations	Solve linear equations using matrix inverse and by using of determent	lecture Practical laboratory Oral discussion n	Daily exam
7+8	8	Linear and trigonometric functions	Linear and trigonometric functions and their derivatives	lecture Practical laboratory Oral discussion	Daily exam
9+10	8	Exponential and logarithmic functions	Exponential and logarithmic functions and their derivatives	lecture Practical laboratory Oral discussion	Daily exam
11	4	Partial differentiation	Partial differentiation/implicit differentiation	lecture Practical laboratory Oral discussion	Daily exam
12	4	Numerical differentiation	Numerical differentiation/trapezoid method	lecture Practical laboratory Oral discussion	Daily exam
13	4	differential equations	Ordinarydifferential equations of first order	lecture Practical laboratory Oral discussion	Daily exam

14	4	Types and methods of solving equations	Types and methods of solving differential equations (separation of variables, homogeneous ones)	lecture Practical laboratory Oral discussion	Daily exam
15	4	Complete differential equations	Complete and linear differential equations	lecture Practical laboratory Oral discussion	Daily exam
16	4	Integration/ Infinite Integration/ Finite Integration	Integration/Infinite Integration/Definite Integration of Linear, Exponential and Logarithmic Functions	lecture Practical laboratory Oral discussion	Daily exam
17	4	Integration methods	Integration methods (partial fractions/ partitions)	lecture Practical laboratory Oral discussion	Daily exam
18+19	8	Numerical integration	Numerical integration/Simpson method	lecture Practical laboratory Oral discussion	Daily exam
20	4	Find a polynomial	Finding a polynomial/Forward Newton's formula/Interpolation using polynomials	lecture Practical laboratory Oral discussion	Daily exam
21+22	8	Find the root of the equation	Finding the root of the equation/repetition method/secant method/Newton's method	lecture Practical laboratory Oral discussion	Daily exam
23+24	8	The real roots of the equation	Real roots of the equation/ finding the theoretical value of a real root/ drawing method	lecture Practical laboratory Oral discussion	Daily exam
25+26	8	Error method	Error method/interval halving method	lecture Practical laboratory Oral Discussion	Daily exam

27+28	8	Special recursive formulas	Special iterative formulas/ Newton-Raphson method	lecture Practical laboratory Oral discussion	Daily exam
29	4	Infinite series	Infinite series (convergent, divergent, and oscillatory)	lecture Practical laboratory Oral discussion	Daily exam
30	4	Convergence and divergence testing methods	Methods for testing convergence and divergence of infinite series (Test ratio, Test root)	lecture Practical laboratory Oral discussion	Daily exam

11. Course Evaluation	
Theoretical tests − short tests	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Lectures according to the curriculum
Main references (sources)	Shawm series,
Recommended books and references (scientific journals, reports…)	Calculus book The methodological book of applied mathematics, Mr. Abdul Razzaq Al-Hassan
Electronic References, Websites	Books website

Course Description

1. Course Name:
Advance Statistical
2. Course Code:
CS106
3. Semester / Year:
Yearly
4. Description Preparation Date:
18-2-2024
5. Available Attendance Forms:
in person
6. Number of Credit Hours (Total) / Number of Units (Total)
3/6
7. Course administrator's name (mention all, if more than one name)
Name: Wafaa Mohammed Ridha Shakir Email: inb.wfa@atu.edu.iq
8. Course Objectives

Course Objectives	**Introducing the student to the use of statistical measures, data processing methods, and the application of operations research methods in studying phenomena. As well as introducing the student to statistical methods and techniques in graphical presentation.**

9. Teaching and Learning Strategies

Strategy	1- High thinking skill strategy. 2- Critical thinking strategy in learning. 3- A strategy according to the student's ability.

10.Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3	The importance of statistics in other sciences	Definition of science Statistics, the importance of statistics and its relationship to other ,sciences ,collecting	lecture Practical laboratory Oral discussion	Daily exam

			,classifying tabulating and presenting .data		
2+3	6	Measures of central tendenc	Measures of central ,tendency arithmetic ,mean ,median ,mode relationship between means (for unclassified .(data	lecture Practical laboratory Oral discussion	Daily exam
4	3	Measures of dispersion	Measures of ,dispersion ,range ,variance standard ,deviation coefficient of ,variation standard score (for unclassified .(data	lecture Practical laboratory Oral discussion	Daily exam
5	3	Simple link	Simple , correlation simple correlation calculation) methods Pearson .(method	lecture Practical laboratory Oral discussion	Daily exam
6	3	Rank correlatio coefficient	Rank correlation - coefficient coefficient of association and	lecture Practical laboratory Oral discussion	Daily exam

			coefficient of .agreement		
7	3	Time series	- Time series measuring the ,general trend and finding the equation of the general trend line using the least squares method and the moving average .method	lecture Practical laboratory Oral discussion	Daily exam
8	3	Simple regressi	Simple - Regression Finding the regression equation using the least squares .method	lecture Practical laboratory Oral discussion	Daily exam
9	3	Probabilistic theory	, theory random ,variable random ,experiment ,sample space .and events	lecture Practical laboratory Oral discussion	Daily exam
10	3	possibility	,Probability ,its concept methods of ,calculating it laws of probability .summation	lecture Practical laboratory Oral discussion	Daily exam
11+12	6	Conditional probability	Conditional ,probability , Bayes' law and its field of .application	lecture Practical laboratory Oral discussion	Daily exam
13	3	Discrete randor variable	Discrete random	lecture	Daily exam

			,variable probability distribution of the discrete ,variable expectation and variance of the ,distribution Poisson distribution and its .applications	Practical laboratory Oral discussion	
14	3	Continuous random variabl	Continuous random - variable probability distribution of discrete ,variables expectation ,and variance normal distribution and its applications	lecture Practical laboratory Oral discussion	Daily exam
15	3	Operations Research	Operations research methods and uses - the intersection between operations research and .computing	lecture Practical laboratory Oral discussion	Daily exam
16	3	Models in operations research	Models in operations research and .their types	lecture Practical laboratory Oral discussion	Daily exam
17	3	Linear programming	Linear programming linear - programming - models	lecture Practical laboratory Oral discussion	Daily exam

			standard .model		
18	3	Methods for solving the mod	Methods for solving the linear programming model, the graphical method, types of solutions using the graphical method	lecture Practical laboratory Oral discussion	Daily exam
19+20+21	9	Simplex metho	Simplex method	lecture Practical laboratory Oral discussion	Daily exam
22	3	Transfer form	model , its relationship to the linear programming - model formulation of the transportation model	lecture Practical laboratory Oral discussion	Daily exam
23	3	Types of transportation models	Types of transportation models balanced and) .(unbalanced	lecture Practical laboratory Oral discussion	Daily exam
24+25	6	Solve transportation models	Solving transportation models using - minimum co .Vogel) metho	lecture Practical laboratory Oral discussion	Daily exam
26+27+28	6	Ways to get the optimal solutio	Methods of examining the initial solution to obtain the optimal .solution	lecture Practical laboratory Oral discussion	Daily exam

29+30	6	The probability	Probability distribution	Practical laboratory Oral discussion	Daily exam
11. Course Evaluation					
Theory tests – short tests					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)			Introduction to statistics		
Main references (sources)			Introduction to statistics		
Recommended books and references (scientific journals, reports…)			Introduction to statistics		
Electronic References, Websites			Introduction to statistics		

Course Description Form

1. Course Name:
human rights
2. Course Code:
CS107
3. Semester / Year:
yearly
4. Description Preparation Date:
10 /2/2024
5. Available Attendance Forms:
Presence
6. Number of Credit Hours (Total) / Number of Units (Total)
1\2
7. Course administrator's name (mention all, if more than one name)
Name: mustafa abbas mohammed Email: mustafaalkhafagji815@gamil.com
8. Course Objectives

Course Objectives	**1.Educating students about human rights principles** **2. Explaining the articles of the Universal Declaration of Human Rights of 1948 and indicating the most prominent articles** **3. The student should be familiar with constitutional, judicial and political guarantees** **4. For the student to become familiar with the stages of development of the concept of human rights in the ancient, medieval, and modern eras**

9. Teaching and Learning Strategies

Strategy	Explaining the curriculum divided into two hours each week using multiple means of illustration, such as press reports, archival books, and illustrated materials.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	2	Developing knowledge	The histori development	Theoretical lecture	General questions
2	2	human rights	human rights ancient tim	And discussi	and discussion
3	2	Developing knowledge	(Mesopotamia other ancie	Theoretical lecture	General
4	2	human rights	civilizations)	And discussion	questions and
5	2	Developing knowledge	Explanation a discussion of t	Theoretical lecture	discussion
6	2	human rights	articles of t Universal	And discussion	General questions
7	2	Developing knowledge	Declaration Human Rights	Theoretical lecture	and discussion
8	2	human rights	1948	And discussion	General
9	2	Developing knowledge	Human rights international a	Theoretical lecture	questions and
10	2	human rights	regional conventions	And discussion	discussion
11	2	Developing knowledge	/European Convention	Theoretical lecture	General questions
12	2	human rights	Human Rights African Charter	And discussion	and discussion
13	2	Developing knowledge	Human Rights / Ar Charter on Hum	Theoretical lecture	General questions
14	2	human rights	Rights) -Rights in Islan	And discussion	and discussion
15	2	Developing knowledge	law	Exams	General
16	2	human rights	- Aspects of equality between	Theoretical	questions and
17	2	Developing knowledge	men and women in rights	lecture And	discussion
18	2	human rights	- Freedoms in Islamic law	discussion Theoretical	General questions
19	2	Developing knowledge	- Public freedoms	lecture And	and discussion
20	2	human rights	(fundamental and individual	discussion Theoretical	Exams
21	2	Developing knowledge	freedoms, intellectual and	lecture And	General questions
22	2	human rights	cultural freedom,	discussion	

23	2	Developing knowledge	freedom of opinion and freedom of	Theoretical lecture And	and discussion
24	2	human rights	education). Economic	discussion Theoretical	General questions
25	2	Developing knowledge	freedom to work - Human rights	lecture And	and discussion
26	2	human rights	guarantees and protection at the	discussion Theoretical	General
27	2	Developing knowledge	national level (constitutional	lecture And	questions and
28	2	human rights	guarantees, judicial and	discussion Theoretical	discussion
29	2	Developing knowledge	political guarantees)	lecture And	General questions
30	2	human rights	- Human rights in national legislation / the Iraqi constitution	discussion	and discussion

11. Course Evaluation

Theory tests – short tests

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Lectures according to the curriculum
Main references (sources)	Human Rights book written by Dr. Alaa Al-Enezi
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	Various press reports on YouTube

Course Description

1. Course Name:
English
2. Course Code:
CS108
3. Semester / Year:
Yearly
4. Description Preparation Date:
18-2-2024
5. Available Attendance Forms:
in person
6. Number of Credit Hours (Total) / Number of Units (Total)
1/2
7. Course administrator's name (mention all, if more than one name)
Name: Dhiyaa Salih Hammad Email: Dhiyaa_alshammari@atu.edu.iq
8. Course Objectives

Course Objectives	**- Supporting students in the country to learn and develop the English language by graduating a group of students who have the ability to speak the English language and write correctly.** **- Developing the student's language by practicing reading, writing, and speaking English, and keeping pace with developments taking place in the world.** **- Enabling the student to raise his level of thinking by acquainting him with the best literary and linguistic works.** **- General and transferable skills (other skills related to employability and personal development)** **- Developing the student's self-confidence through speaking and discussion conducted during the school year.** **- Enhancing the student's confidence in his ability to express.**

9. Teaching and Learning Strategies	
Strategy	**1. The lectures that are presented to students are in the form of a set of presentation slides, or via the smart board, data show, or are written directly by the lecturer.** **2. Lectures are printed and distributed in advance to students so that notes can be made and discussed during the lesson.**

	3. Scientific lectures are uploaded to the department's official website via the Internet. **4. Discussion through small and large groups.** **5. Discussion through questions and answers during official lecture times or during the teacher's office hours.**

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	am/are/is, my/your	Unit one Hello!	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
2	1	Plurals	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
3	1	am/are/is he/she/they- his/her/and question	Unit two Your World	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
4	1	Questions with question words	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam

5	1	Discussion	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
6	1	Jobs Am/are/is. Negative andquestion	Unit three All about you	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
7	1	personal information	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
8	1	Have/has. Our/their.	Unit four Family and friends	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
9	1	Possessive's . the family	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
10	1		Unit five It’s my life	explanation lectures	questions

		Present simpl tense		With examples on the board and Book	during Lecture And a quick exam
11	1	Positive, Negative, Qustion	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
12	1	Tenses	Unit six Every Day	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
13	1	Adverbs of present simple Tense	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
14	1	Object Pronouns	Unit seven Places I Like	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam

15	1	Questions and Answers	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
16	1	There is, are, any	Unit eight Where I Live	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
17	1	Prepositions	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
18	1	Saying years Was/were born	Unit nine Happy Birthday	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
19	1	Past Simple tense	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam

20	1	Regular and Irregular	Unit ten Wen had a good time	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
21	1	Question and negative, Short Answer	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
22	1	Can, Can't	Unit eleven We can do it	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
23	1	Request and offer	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
24	1	Want, like	Unit twelve thank you very much	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam

25	1	would like	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
26	1	Present Simple	Unit thirteen Here and Now	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
27	1	Present Continous, Positive , Negative, and Qustion	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
28	1	Qustion Words	Unit fourteen It's time to go	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
29	1	Present Continous for Future	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam

30	1	About the adverb	Writing	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam

11. Course Evaluation	
Theory tests – short tests	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	New headway plus beginner
Main references (sources)	New headway plus beginner
Recommended books and references (scientific journals, reports…)	English teaching book
Electronic References, Websites	www.busuu.com

Course Description

1. Course Name:	
Data structures	
2. Course Code:	
CS200	
3. Semester / Year:	
Year	
4. Description Preparation Date:	
10/2/2024	
5. Available Attendance Forms:	
Attendance (theoretical + practical)	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5\10	
7. Course administrator's name (mention all, if more than one name)	
Name: Ali khalid mohammed ali Email: ali.khalid@atu.edu.iq	
8. Course Objectives	
Course Objectives	Introducing the student to the meaning of graphical structure, types of graphical structures, their importance, characteristics, and available applications, while explaining the advantages of structured programming, its efficiency, and comparison with traditional programming.
9. Teaching and Learning Strategies	
Strategy	1. The ability to design various programs. 2. Participate in designing software information systems. 3. The ability to express and convey ideas clearly and accurately. 4. The ability to work in groups.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	5	**Basic principles of graphic structure**	• Definition of data structures • Basic principles of graphical	Lecture Practical laboratory Oral discussion	Daily exam

			structure.basic concept of data structures • * Types of data structures.data structure types * How to choose the appropriate graphic structure.data structures selecting		
2	5	**Representing graphic structures**	* Primitive data structures representation method. - Integers. - Real numbers. - Characters icons.	Lecture Practical laboratory Oral discussion	Daily exam
3	5	**Representing graphic structures**	- Symbolic Strings. - Pointers. Logical Data	Lecture Practical laboratory Oral discussion	Daily exam
4	5	**Composite-data structures**	* Compound Data Structures. - Arrays.	Lecture Practical laboratory Oral discussion	Daily exam
5	5	**Matrices**	Representing matrices. - Unary array representation in memory. - Binary matrix representation in memory. - Rows method. - Column method.	Lecture Practical laboratory Oral discussion	Daily exam
6	5	**Basics of indicators**	pointers • Definition of the indicator • Memory/Reserve memory for cursors and edit them • The benefits and advantages of indicators Pointers and Arrays / Arrays Pointers and pointers to arrays	Lecture Practical laboratory Oral discussion	Daily exam
7	5	**Indicators**	• Indicators as addresses • Compare indicators • Indicators indicators • Function pointers	Lecture Practical laboratory Oral discussion	Daily exam
8 + 9	10	**Linked lists**	• Indicators as addresses • Compare indicators • Indicators indicators	Lecture Practical laboratory Oral discussion	Daily exam

			• Function pointers • Linked lists • Define a linked list • Types of linked lists and ways to represent them • Simple list / reading items - printing the list - inserting an item into (front, specific location, back) of the list.		
10+11	10	**Lists**	• Binary List / Read Items – Print the list rcular List / Reading Items Print the list	Lecture Practical laboratory Oral discussion	Daily exam
12+13	10	**Stack**	* Stack - Representing the stack using an array. Array representation of stack - Linked stack - Stack operations algorithms. - Stack applications.	Lecture Practical laboratory Oral discussion	Daily exam
14+15	10	**Queue**	Queue epresenting the queue using matrix. - Linked queue - Queuing applications. - Circular queue.	Lecture Practical laboratory Oral discussion	Daily exam
16+17	10	**Nonlinear data**	Non-linear data structures -Graphs. Types of charts.graphs typ - Methods of graphs representation.	Lecture Practical laboratory Oral discussion	Daily exam
18	5	**the trees**	* the trees. - Tree types. - Methods of tree representation. Tree traversing methods.	Lecture Practical laboratory Oral discussion	Daily exam
19	5	**Tree applications**	* Convert generic trees to binary. - Trees applications	Lecture Practical laboratory Oral discussion	Daily exam
20+21 + 22+23	20	**Sort and search**	sorting and searching. - sorting algorithms. - Selection sort - Bubble sort sort bubble. - Quick sort.	Lecture Practical laboratory Oral discussion	Daily exam

24+25	10	**Search algorithms dialogues**	* Search algorithms. - Sequential search - Binary search	Lecture Practical laboratory Oral discussion	Daily exam
26	5	**files structures**	files structures	Lecture Practical laboratory Oral discussion	Daily exam
27+28 + 29+30	20	**Discussion study**	Case studies for discussion.	Lecture Practical laboratory Oral discussion	Daily exam

11. Course Evaluation

Theoretical tests – short tests – practical tests – presentation – educational videos – homework – daily assessment.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Data structures book by Issam Al-Saffar
Main references (sources)	Data structures book by Issam Al-Saffar
Recommended books and references (scientific journals, reports…)	Data structures book by Issam Al-Saffar
Electronic References, Websites	www.noor-book.com

Course Description

13. Course Name:	
Databases	
14. Course Code:	
CS201	
15. Semester / Year:	
Year	
16. Description Preparation Date:	
10/2/2024	
17.Available Attendance Forms:	
Attendance (theoretical + practical)	
18.Number of Credit Hours (Total) / Number of Units (Total)	
5\10	
19. Course administrator's name (mention all, if more than one name)	
Name: Yasser hassen jassem Email: yasser.jassem@atu.edu.iq	
20. Course Objectives	
Course Objectives	Introducing the student to database concepts and terminology, integration with databases, models and programming, and introducing the student to the characteristics of databases.
21. Teaching and Learning Strategies	
Strategy	1- High thinking skill strategy. 2- Critical thinking strategy in learning. 3- A strategy according to the student's ability.

22. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	5	Introduction to databases	Student definition of databases. Advantages of databases and their comparison with traditional file systems.	Lecture Practical laboratory Oral discussion	Daily exam

2 + 3	10	Primary key, secondary key	Key, primary key, secondary key Relations One to one relationship One to many relationship Many to many relationship	Lecture Practical laboratory Oral discussion	Daily exam
4 + 5	10	Data types	Data types Create tables Append Blank	Lecture Practical laboratory Oral discussion	Daily exam
6 + 7 + 8	15	View and modify data	Brows, Edit, Change Replace Delete Recall Pack, zap	Lecture Practical laboratory Oral discussion	Daily exam
9	5	Organizing and indexing data	Sorting, indexing Seek, set filter Locate, Goto,	Lecture Practical laboratory Oral discussion	Daily exam
10	5	Assembly instructions	Average, Sum, Count Calculate AVG (), CNT (), Sum () Min (), STD ()	Lecture Practical laboratory Oral discussion	Daily exam
11-13	15	Normative relationships	Normal form Un normalized form 1NF 2NF 3NF	Lecture Practical laboratory Oral discussion	Daily exam
14	5	Graphic models	Data Models Relational model	Lecture Practical laboratory Oral discussion	Daily exam
15	5	Create a database	Database Container using VFP	Lecture Practical laboratory Oral discussion	Daily exam
16+17	10	Virtual tables	Views Create views	Lecture Practical laboratory Oral discussion	Daily exam
18 - 20	15	Models	Forms Building forms with form Form properties Data Layout Main and sub forms	Lecture Practical laboratory Oral discussion	Daily exam
21 - 24	20	Reports	Group Reports Simple reports Printing Report	Lecture Practical laboratory Oral discussion	Daily exam
25	5	Programming using VFP	Memory Variable Array	Lecture Practical laboratory	Daily exam

			If.....ENDIF Do case	Oral discussion	
26	5	Repetition instructions	Do...While Scan...End scan For...End for	Lecture Practical laboratory Oral discussion	Daily exam
27+28	10	Local and global variables	Procedure and function	Lecture Practical laboratory Oral discussion	Daily exam
29+30	10	Build and modify the project	Build an application.exe	Lecture Practical laboratory Oral discussion	Daily exam

23. Course Evaluation

Theoretical tests − short tests − practical tests − presentation − educational videos − homework − daily assessment − competitive exam among students − semester exam.

24. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Special edition using visual foxprp6
Main references (sources)	Special edition using visual foxprp6
Recommended books and references (scientific journals, reports…)	Database Systems: The Complete Book
Electronic References, Websites	Database warehouse + internet websites

Course Description Form

1. Course Name:
Operating systems
2. Course Code:
CS202
3. Semester / Year:
Yearly
4. Description Preparation Date:
15-2-2024
5. Available Attendance Forms:
Attendance (theoretical + practical)
6. Number of Credit Hours (Total) / Number of Units (Total)
4\8
7. Course administrator's name (mention all, if more than one name)
Name: Nidaa Ghalib Ali Email: inb.nedaa10@atu.edu.iq
8. Course Objectives

Course Objectives	• **Introducing the student to systems software in general** • **Introducing the student to the types of systems and their general functions** • **Identify the types and specifications of some operating systems** • **Providing case studies on the use of these systems**
9. Teaching and Learning Strategies	
Strategy	- Theoretical lecture - Practical laboratory - Oral discussion

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
The first	4	Introductory introduction	An introductory introduction includes: • A simple historic overview of computer operatir systems	lecture Practical laboratory Oral discussic	Daily exam

			• Definition of operating system • Types of operati systems - Mainframe operating systems - Server computer operating systems - Multiprocessor operating systems - Personal comput operating systems - Portable comput operating systems - Operating system integrated with hardware - Real time operati systems - Smart card operating systems		
The Second	4	Services provided the operating systen	Services provided the operating syste	lecture Practical aboratory Oral discussio	Daily exam
The third	4	Computersystem architecture	Calculator system architecture	lecture Practical aboratory Oral discussio	Daily exam
The forth	4	Basic concepts operating systems	Basic terms and concepts in operat systems: • Program, proces (processing) • Address space • Resources and participation • The kernel and shell of the operati system • Proactive preparations of th system	lecture Practical aboratory Oral discussio	Daily exam
The fifth	4	Caching	• caching • Interruptions (intercepts), traps, exceptions Vector and interru routines • Vectors	lecture Practical aboratory Oral discussio	Daily exam
The Sixth	4	Loaded into the computer’s memory	Load the operating system into the computer's memo and start it	lecture Practical aboratory Oral discussio	Daily exam

			• How to locate an then load the operating system • Boot the comput - Basic I/O service - Adjust calculator settings - Removable and non-bootable disks - How does the computer boot program work?		
The Seventh	4	Hard disk partitioni	• Partition the har disk • Format the hard disk • How to install a new computer operating system?	lecture Practical aboratory Oral discussio	Daily exam
The eighth	4	File systems	File systems: • Files - File naming - File structure - File types - Ways to access fi - File specification - Operations that c be performed on fi • Directories and folders - Single-level evidence and evidence with progressive levels - Label the path leading to the directory - Operations that c be performed on directories	lecture Practical aboratory Oral discussio	Daily exam
The ninth	4	Implementation of file system	• Implementation the file system - FAT16-32 file reservation table - New technology system (NTFS) - Comparison between FAT and NTFS file systems - How to convert between FAT and NTFS file systems	lecture Practical aboratory Oral discussio	Daily exam
The tenth	4	Copying supporting copies	Copying and supporting copies files	lecture Practical aboratory	Daily exam

			• Supportive copyi • Types of support copies - The usual - Differential - Incremental - Daily • Recover support files	Oral discussio	
The eleventh	4	Storage structure	Storage structure: • A simple introduction to: 1- The physical components of the main memory 2- Types of electro circuits used in building main memory 3- Desired specifications in m memory 4- The gradual structure of storag devices	lecture Practical aboratory Oral discussio	Daily exam
The twelfth	4	Protection of hardw components	Hardware protection: • Input and output protection • Memory protecti • Protect the centr memory unit • The difference between the terms protection and security according the logic of electro computers	lecture Practical aboratory Oral discussio	Daily exam
The thirteenth	4	Operating system departments	Operating system departments: • A simple introduction to: - Process management (processors) - Main memory management - Files management	lecture Practical aboratory Oral discussio	Daily exam
The fourteenth	4	System calls(s).	system calls(s). • What is the meaning of system call? - System calls for managing operatic	lecture Practical aboratory Oral discussio	Daily exam

			- System calls for f management - System calls for managing director and folders		
The fifteenth	4	Operations Management	operations Management • Key concepts - Process, task, function, thread - The activation period of the CPU a I/O devices - Process model, closure, terminatic progression, and status of the proce • Control block for the process	lecture Practical aboratory Oral discussio	Daily exam
The Sixteenth	4	Threads	• Threads - Heavy and light operations - Why do we use threads? - Thread levels - Regular and irregular polythera - Synchronization of processes and threads	lecture Practical aboratory Oral discussio	Daily exam
The seventeenth	4	Scheduling	Scheduling • Introduction to scheduling, includi - Scheduling in payment systems - Scheduling in interactive system - Scheduling in rea time systems • Operations scheduling • Queue schedulin	lecture Practical aboratory Oral discussio	Daily exam
The eighteenth	4	CPU scheduling	CPU scheduling - Preventive and n preventive scheduling - Sender - Scheduling standards • Evaluation of scheduling algorithms	lecture Practical aboratory Oral discussio	Daily exam
The nineteenth	4	Processor scheduling algorithı	Processor schedul algorithms	lecture Practical aboratory	Daily exam

			- First-arrival serv scheduling algorith -Shortest job scheduling algorith first - Priority schedulir algorithm Round Robin algorithm for scheduling - Queuing schedulir	Oral discussion	
The twentieth	4	Practical examples	Practical examples scheduling algorithms	lecture Practical aboratory Oral discussion	Daily exam
twenty-first	4	Memory managemer	Memory management • Logical memory and real memory • Logical and real address space • Memory word siz • Linking addresse existing in memory • Participating libraries • Binding when running	lecture Practical aboratory Oral discussion	Daily exam
twenty-second	4	switch (barter)	Swap (barter) • Contiguous memory allocatio - Single-part customization - Multi-part customization • Decomposition (fragmentation or fragmentation), external and intern	lecture Practical aboratory Oral discussion	Daily exam
twenty-third	4	Virtual memory	Virtual memory • Browsing • The basic idea of browsing • Page table • Speed up browsi • Examples of usin the browsing meth	lecture Practical aboratory Oral discussion	Daily exam
twenty-fourth	4	Browse by page	Browsing by requested page – slow evaluation • Replace page • Page replacemer algorithms: - Page first in, first out algorithm	lecture Practical aboratory Oral discussion	Daily exam

			- Least Usage Page Algorithm		
twenty-fifth	4	Principles of hardware compone of input and out devices	Principles of hardware components of inp and output devices • Input/output devices • Device control circuits • Memory map input/output • Direct memory access	lecture Practical aboratory Oral discussio	Daily exam
twenty-sixth	4	Principles of softw components for in and output devices	Principles of software compone for input and outp devices • Programmed input/output • Interrupt-based • DMA-based I/O	lecture Practical aboratory Oral discussio	Daily exam
Twenty-seventh - thirtieth	4	Case studies	Case studies show the strengths and weaknesses of Windows and Linu operating systems	lecture Practical aboratory Oral discussio	Daily exam

11. Course Evaluation

Theoretical tests − short tests

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Lectures according to the curriculum
Main references (sources)	Introduction to operating systems book
Recommended books and references (scientific journals, reports…)	Introduction to operating systems book
Electronic References, Websites	www.kutub-download.com

Course Description

1. Course Name:
Systems Analysis
2. Course Code:
CS203
3. Semester / Year:
Yearly
4. Description Preparation Date:
18/2/2024
5. Available Attendance Forms:
Attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
3\6
7. Course administrator's name (mention all, if more than one name)
Name: Khansaa Azeez Obayes Al-Husseini Email: inb.khanssa@atu.edu.iq

8. Course Objectives	
Course Objectives	•Introducing the students to the basic concepts of systems and identifying the characteristics, levels and types of information systems. • Introducing the students to the stages of information systems analysis and design Approved. •Introducing the students to systems design using a set of analysis and design tools.

9. Teaching and Learning Strategies	
Strategy	• High thinking skill strategy. • Critical thinking strategy in learning. • A strategy according to the student's ability.

10. Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Daily exam	lecture And oral discussion	Basic concepts in the analysis and design of computer-based information systems: Systems theory, principles of systems theory, general	Basic concepts in systems analysis	9	First - Third

		characteristics of systems - goal - environment - boundaries, subsystems - feedback - control mechanism. Classification of systems includes the degree of complexity of the system - the nature of the system - making the system - the relationship with the environment - the nature of the outputs - the nature of the purpose. Data, data processing - basic processors - advanced processors. Information: Characteristics of good information, sources of information - paper sources - electronic sources - audio sources. The importance of information - forms of information General discussion.			
Daily exam	lecture And oral discussion	Computer information systems Computer: basic computer functions - computer features - components of computer information systems - components of the computer information system - the process of building and developing computer information, Stages of developing computer information systems - analysis stage - design stage - implementation stage Objectives of computer information systems - Types of computer information systems - Database-based management information systems - databases The most important computer information systems based on databases: data processing systems - transaction processing and information processing systems - management information systems - decision support systems - group decision support systems - executives information systems. Computer information systems based on knowledge bases: knowledge bases The most important computer information systems based on knowledge bases: intelligent systems (artificial intelligence) - expert systems - neural networks. Computer information systems environments: information systems that work to support the work of individuals - information systems that work to support the work of groups	Computer information systems	12	Fourth - Seventh

		Computer information systems analyst and designer Systems Analyst: Systems Analyst qualifications - Systems Analyst's personal qualities - The most important problems facing the Systems Analyst - The development of the Systems Analyst's relationship with the end user: The old method - Disadvantages of this method - The Modern Method. Systems analyst work areas - systems analysis company - information management in an organization. Systems Analysis Working Group: Reasons for the failure of developing computer information systems in some institutions Information systems development methods and methodologies: Types of information systems development methods - systems development life cycle method - stages of systems development life cycle method - gradual development method in stages - Stages of the incremental development method - the team-based development method - the initial modeling method - the progressive (evolutionary) method - the similar models method - modeling defects - uses of modeling - the urgent development method - the top-down analysis method - the bottom-up analysis method - Installation method. Factors for choosing the appropriate method - methodologies for developing information systems - classification of development methodologies - Types of development methodologies: Systems analysis and structural design methodologies - Information engineering methodology - Computer-aided software engineering tools - Types of tools - The most important functions of software engineering tools - Advantages of software engineering tools. Ready-made packages methodology: Advantages - Where to get ready-made packages General discussion			

Daily exam	lecture And oral discussion	Stages of analysis and design of computer-based information systems System analysis stage (preliminary study) - information gathering stage - sources of information required to analyze the existing system. Methods of collecting information within the organization and verifying its validity First: Methods of collecting information Second: Methods of verifying the accuracy of the information collected Methods of collecting information: personal interview - advantages of the personal interview method - disadvantages of the personal interview - obstacles to the interview. Questionnaire: Factors for choosing the questionnaire to collect information - Preparation before distributing the questionnaire - Rules for questions in the questionnaire - Preparation during the distribution of the questionnaire - The most important activities after the questionnaire - Advantages of the questionnaire - Disadvantages of the questionnaire - Examples of uses of the questionnaire. Monitoring – Document analysis -Methods of verifying the validity of information Lecture (presentation) - Preparation before the lecture - Preparation during the lecture - The most important activities after the lecture Team meetings Preparing before the work team meeting - the work team meeting - problems of team meetings, group development of applications, advantages of the JAD method Disadvantages of the JAD method, problem definition and feasibility study stage, problem definition, problem methods, steps to understand and solve the problem, feasibility study Solutions subject to feasibility study, possible decisions to be taken General discussion Continue: System analysis stage (detailed study)	Stages of systems analysis and design	24	Eighth - Fifteenth

		Detailed study stage: First: analysis of system operations, system function model, definition of system function model, objectives of the system function model. Characteristics of the system function model, the process of defining system functions, the data flow diagram, the importance of the data flow diagram, the elements of the data flow diagram, Levels of data flow diagram, characteristics of data flow diagram, steps for preparing a data flow diagram. Second: Analyze system data Data modeling, data modeling charts, relational databases Components of relational databases, entity-relationship model, relationships, The intermediate table in a many-to-many relationship, entity degree, relationship degree Relationship diagram, converting from the entity-relationship model to the relationship diagram Entity life history diagram, symbols used in the entity life history diagram Example: life history "submit request" Petri nets, symbols used in petri nets, description of operations Process description tools, structural language, description methods Decision tables Steps to create decision tables Data dictionary, importance of data dictionary, description of system components, Examples of data dictionary, data classification, data classification properties, Types of classification, data coding, characteristics of good coding, types of coding, Coding errors. Analysis of relationships, normative relationships, levels of normative relationships, Definition of the non-normative relationship, definition of the first normative rule, Justified repetition, unjustified repetition, definition of the second standard rule, Definition of the third normative rule Definition of the normative Codd-Boyce relationship			

		Definition of the fourth normative rule Definition of the fifth normative relationship Analyze document data in a way Normative relations (normalization) Normalization rules (normative rules/normalization) Apply the three normalization rules mentioned above Action steps for document data analysis comments Optimal model, system modeling, definition of modeling Modeling components, stages of system modeling (in the analysis stage), physical model of the existing system, logical model of the existing system, steps to design the logical model of the existing system, outputs of the analysis stage. General discussion			
Daily exam	lecture And oral discussion	Systems development life cycle - Design stage, general design stage, preparing the logical model for the new system, steps for designing the logical model for the new system. The "make adjustments" method, the "process redesign" method. Preparing the physical model of the new system, steps to design the physical model of the new system, detailed design phase, and other activities. Interface design Interfaces, types of user interfaces, design of outputs and inputs, design of outputs, design of inputs, characteristics of outputs and inputs, design of reports, types of reports, benefits of reports, characteristics of good reports, and possible errors in report design. Model design, model design goals, good model specifications, model design steps. Database design, points to consider when designing a database, database design tools, program design, characteristics of good programs. General discussion	Systems development life cycle	6	Sixteenth Seventeenth
Daily exam	lecture And oral discussion	Systems development life cycle Implementation phase Training phase Training during the system analysis and design phases	Systems development life cycle	6	Eighteenth Nineteenth

		Training during the pre-implementation phase Training plan Conversion stage (conversion strategy) Conversion strategy, direct conversion strategy, direct conversion Parallel conversion strategy, parallel conversion, gradual conversion strategy. Evaluation and maintenance phase, evaluation phase, maintenance phase, documentation, types of documentation, importance of documentation, documentation method. Summary of the activities of the final stages General discussion			
Daily exam	lecture And oral discussion	Computer information systems security introduction Security system for computer information systems Characteristics of a computer information system security system Elements of a computer information system security system Individuals, data security, software security, hardware and peripherals security, Security of communications systems and networks. Types of penetrations in the security system of the computer information system Computer viruses, virus damage, computer crimes Methods of confronting the risk of computer information system intrusion The cost of designing a security system for a computer information system General discussion	Information Systems Security	3	Twentieth
Daily exam	lecture And oral discussion	Analysis and design of information systems based on knowledge bases Knowledge-based systems, knowledge, expert, knowledge bases, types of knowledge Knowledge representation, knowledge-based systems, components of the knowledge system, basic components of expert systems, knowledge base, reasoning machine, Knowledge engineer, user interfaces, interpreting heuristics.	Designing systems based on knowledge bases	6	Twenty-First Twenty-Second

		Comparison between knowledge bases and databases, components of the knowledge base system, Knowledge base systems, analysis and design of knowledge base systems. Analysis stage, design stage, development and programming stage, Implementation and testing phase, maintenance phase, applications of knowledge base systems, artificial intelligence, areas of application of artificial intelligence, expert systems, applications of expert systems. Conclusion Leveraging data into knowledge and wisdom General discussion			
Daily exam	lecture And oral discussion	Object-oriented analysis and design, the most important concepts of object-oriented analysis and design, unified modeling language, object modeling, object structure, Stages of object-oriented modeling, identifying the objects that make up the system, determining the characteristics of each object, identifying events, defining the operations of each object, determining the characteristics of each process, determining the chronological order of operations, implementing the system, Methods of modeling the objects that make up the system, features of the Unified Modeling Language, layers of the Unified Modeling Language. The first layer: the user objects layer The second layer: the model layer The third layer: the layer beyond the model The fourth layer: the layer beyond the model Modeling using Unified Modeling Language, modeling diagrams, diagram of use cases, writing use cases, difficulties of writing use cases, Class diagrams (categories), components of class diagrams, disadvantages of class diagrams, interactive diagrams, cooperation diagrams, sequence diagrams, case diagrams, physical diagrams, component diagrams,	Modeling	12	Twenty-Third - Twenty-Sixth

		Equipment plans. UML models Waterfall model, advantages of the waterfall model, disadvantages of the waterfall model, the most important problems of the waterfall model, spiral model, disadvantages of the spiral model, incremental iterative model, consumption phase, detailing phase, construction phase, transition Iterations, time constraints, benefits of time constraints, typical project timings General discussion			
Daily exam	lecture And oral discussion	Graduation projects General instructions and general ideas Types of computerized systems, general directions and instructions before starting work on the project, the most important warnings, basic project provisions. Preparing for discussion Before starting the discussion, during the discussion, an important note. Examples of projects Computer administrative system project “university library” A computerized educational curriculum project “Geography curriculum for a specific grade” Website project “scientific website” Electronic journal project “general journal”	Projects	12	Twenty-Seventh - Thirtieth

11.Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc First semester exam (100%)/Grade 20% Second semester exam (100%)/Grade 20% Daily preparation, daily oral, monthly, or written exams, reports / Grade 10% Final exam (100%)/ Grade 50%	
12.Learning and Teaching Resources	
Required textbooks (curricu books, if any)	----------
Main references (sources)	Systems Analysis and Design

Recommended books and references (scientific journals, reports…)	Fundamentals of System Analysis & Design
Electronic References, Websites	https://www.noor-book.com/%D9%83%D8%AA%D8%A8-%D8%A7%D8%B1%D9%88%D9%8A-%D9%8A%D8%AD%D9%8A%D9%8A-%D8%B9%D8%A8%D8%AF-%D8%A7%D9%84%D8%B1%D8%AD%D9%85%D9%86-%D8%A7%D9%84%D8%A7%D8%B1%D9%8A%D8%A7%D9%86%D9%8A-pdf#google_vignettehttps://www.researchgate.net/publication/344162158_Information_Systems_analysis_and_design_Badraldeen_Hassan_ktab_thlyl_wtsmym_nzm_almlwmat_bdraldyn_hsn

Course Description

1. Course Name:
Programing in V.Basic language
2. Course Code:
CS204
3. Semester / Year:
Yearly
4. Description Preparation Date:
14-2-2024
5. Available Attendance Forms:
Attendance (Theoretical and Practical lectures)
6. Number of Credit Hours (Total) / Number of Units (Total):
5\10
7. Course administrator's name (mention all, if more than one name)
Name: Israa Ali Hussien Alshabeeb Email: Inb.esr@atu.edu.iq
8. Course Objectives

Course Objectives	**Introducing the student to advanced technologies and coherent programs in the VB language, through database programming, delving into the details of some tables tools and creating reports, then moving on to object programming oop.**

9. Teaching and Learning Strategies

Strategy	• Lecture • Practical lecture • Oral discussion • Reports

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	5	IDE	(Integrated Development Environment) -Integrated Windows Development Environment .-Integrated Menus Development Environment -Tool Bars * First Program Creating Project.	Lecture Practical lecture Oral discussion	Daily Quiz

			-Design Forms -Codes -Runs & Updating -Compiling		
Second	5	Forms & to	.Forms -Properties -Name. -Size & Location. -Font & Color. -Tab - Mouse. *Event – Mouse Event. -Keyboard Event. *Form Window. -Properties form. -Event Form – Menus	Lecture Practical lecture Oral discussion	Daily Quiz
Third	5	ToolBox	-Toolbox. -Label -Textbox. -Command button - Checkbox. -Option button -List box. -Combo box– Picture box. -Image box - Scrollbar. - Fileslistbox.	Lecture Practical lecture Oral discussion	Daily Quiz
Fourth	5	Programmin Language	Programming Language. -variables and Constants. -Variables. -Constants. -Expression - Operators. -Logical & relational Expression	Lecture Practical lecture Oral discussion	Daily Quiz
Fifth	5	Inputs & Outputs.	Inputs & Outputs. -Mesgbox & Inputbox. -Print. *.Control -.If-Then -(And, Or, Not). -Nested –If -Select-Case.	Lecture Practical lecture Oral discussion	Daily Quiz
Sixth	5	Loops	Loop. -For-Next. -Do-While-Loop. -Do-Until-Loop. -Do-Loop.	Lecture Practical lecture Oral discussion	Daily Quiz
Seventh	5	Arrays	.Arrays -One-Dimension Array. - Two-Dimension Array -.Collections	Lecture Practical lecture Oral discussion	Daily Quiz
Eighth+	10	Subroutines	Subroutines& Procedures. -Subroutines.	Lecture Practical lecture	Daily Quiz

Ninth			-.Procedures& Functions -Library Functions.	Oral discussion	
Tenth – Twelfth	15	Standard Modules	-Standard Module -Records *Files -Sequential Files. -Random Files.	Lecture Practical lecture Oral discussion	Daily Quiz
Thirteenth	5	Data Base Programming.	Data Base Programming. -Basic Database. -Access Database	Lecture Practical lecture Oral discussion	Daily Quiz
Fourteenth	5	Objects in database	(ADO). -Connection - Record set - Command.	Lecture Practical lecture Oral discussion	Daily Quiz
Fifteenth	5	Tools & Reports	-Data Grid-Flex Grid - Data Combo. -Data List - Crystar Reports	Lecture Practical lecture Oral discussion	Daily Quiz
Sixteenth+ Seventeenth	10	OOP	(OOP). (Object Oriented Programming). -introduction to OOP - Feature of OOP. -Classes.	Lecture Practical lecture Oral discussion	Daily Quiz
Eighteenth	5	Using Objects	Objects -Memory Image Object. -Binding. -Delete & Update Object	Lecture Practical lecture Oral discussion	Daily Quiz
Nineteenth	5	Polymorphism. & Inheritance.	Polymorphism. -Inheritance. -Relation between Classes. -Collection Classes	Lecture Practical lecture Oral discussion	Daily Quiz
Twentieth + twenty-first	10	Advanced Visual Basic applications	Application Programming Interface(API)	Lecture Practical lecture Oral discussion	Daily Quiz
Twenty-second+ Twenty-third	10	Com Programming	-Com- ActiveX EXE. -ActiveX DLL.	Lecture Practical lecture Oral discussion	Daily Quiz
Twenty-fourth + Twenty-fifth	10	Internet Programmi	Internet Programming. -DHTML VbScript -DHTML.	Lecture Practical lecture Oral discussion	Daily Quiz
Twenty-sixth + twenty-seventh	10	ASP	(ASP) - IIS	Lecture Practical lecture Oral discussion	Daily Quiz

Twenty-eighth + Twenty-ninth	10	Various Applicatio	Various Applications	Lecture Practical lecture Oral discussion	Daily Quiz
Thirtieth	5	Building an integrated application system	Building an integrated application system	Lecture Practical lecture Oral discussion	Daily Quiz

11. Course Evaluation

Theoretical tests – short tests

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Learn Visual Basic 6.0 كتاب الفجول بيسك: تايلف مصطفى خالد كتاب أكود الفيجوال بيسك أونلاين تأليف احمد صادق
Main references (sources)	http://lnr.irb.hr/ebooks/078971633X/index.htm
Recommended books and references (scientific journals, reports…)	http://lnr.irb.hr/ebooks/078971633X/index.htm
Electronic References, Websites	https://www.scribd.com/ https://www.scribd.com/doc/236620803/Visual-Basic-6-0-Practicals

Course Description

1. Course Name:
Computer Networks
2. Course Code:
CS205
3. Semester / Year:
Yearly
4. Description Preparation Date:
18/2/2024
5. Available Attendance Forms:
In person
6. Number of Credit Hours (Total) / Number of Units (Total)
3/6
7. Course administrator's name (mention all, if more than one name)
Name: Ameer Kamoona Email: amer@atu.edu.iq
8. Course Objectives

Course Objectives	• **Get general knowledge about C/N** • **Be Familiar with Protocols and Layers** • **Develop an ability to design C/N**

9. Teaching and Learning Strategies	
Strategy	Using different teaching facilities and focus on student with Various learning abilities.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
the first	3	Introduction to computer networks	Introduction to computer :networks An idea about the link :structure Server : and -types of servers - Customer - Getting to know peer - - topeer networks	lecture Practical laboratory Oral discussion	Daily exam

			- Identifying customer-) provider networks Client/Server Network (		
the second	3	The main components of networks	Identify the main components :of networks - - Physical: computers - cards - media peripheral devices Software: network operating - system programs - communication protocols network management systems	lecture Practical laboratory Oral discussion	Daily exam
The +third the fourth	6	Basic network designs	A general idea about basic :network designs Things that must be adopted - to design a network - Linear type networks Bus - Ring type complaints- - Star networks - Ethernet networks Ethernet - Token Ring networks Token with your password - Token passing	lecture Practical laboratory Oral discussion	Daily exam
Fifth	3	Types of connecting or connecting networks	A general idea about the types of connecting or connecting : networks - Depending on the network connection :method Single-point communication networks Multipoint communication networks - Depending on :geographical coverage •) Local area networks LAN (Local Area	lecture Practical laboratory Oral discussion	Daily exam

			Network local area , ,network devices local area networks •) Medium Networks MAN (Metropolitan Area Network , regional area network ,devices ,specifications measurements and technologies • Wide Area) Networks WAN Wide Area , (,Network devices ,specifications measurements and technologies • Advanced : wide area networks the InternetInternet Intranet , ExtranetExtranet		
VI	3	Network cards	) Identify network cards Network Interface Cards :(Definition of Network - Adapter Cards - Types of network interface cards - A general idea about installing and setting up the network card - A general idea about installing a network interface card	lecture Practical laboratory Oral discussion	Daily exam
Seventh	3	Wires	.Wires (cables)The cables :used in networks - Identify the types and characteristics of :network wires	lecture Practical laboratory Oral discussion	Daily exam

			-Twisted Pair double wires -Coaxial Cable Fiber -Optic		
VIII + Ninth	6	Communication media	A general idea about the communication media between :network elements - Wired communication media Wireless communication media	lecture Practical laboratory Oral discussion	Daily exam
The tenth elevent h	3	bandwidth	Bandwidth ,its importance , measurement, limitations, throughput , transfer rate calculation data transfer	lecture Practical laboratory Oral discussion	Daily exam
twelveth + Thirteenth	6	Communication devices used	General principles about communication devices used :in networks - Modems - NetworkInterface) CardNICs (- Signal repeaters - Distributors/ Hubs - Transformers / switches - Bridges - Routers Gateways	lecture Practical laboratory Oral discussion	Daily exam
fourteenth + Fifteenth + sixteen	9	Network protocols work	Principles of networkprotocols : - : What is the protocol the work of the protocol - the advantages of the protocol - the disadvantages of the protocol Protocol tasks on the - sending device and their tasks on the receiving device	lecture Practical laboratory Oral discussion	Daily exam

			- The concept of the pendunkBinding - Description of theTCP /IP protocol package and its most important features		
seventeenth + eighteen + nineteenth	9	Principles of the reference model	OSI : Reference Model - The basic principles behind theOSI reference - Description of the functions of the seven layersthat makeup theOSI Reference Model : Identify the functions of the lower three layers Identify the functions of the upper three layers Learn about middle class jobs - Protocols used for communications between symmetrical layers - Steps for data encapsulation and thende-encapsulation - A description of the services available in the layers of theOSI reference An idea about theIEEE standard specification model : A description of the idea of networking, ways to develop security methods for networking	lecture Practical laboratory Oral discussion	Daily exam
The twentieth + Twenty one-	9	IP addresses And network masks	- IP addresses And network masks - IP address categories - The physical address isthe MAC Address	lecture Practical laboratory Oral discussion	Daily exam

+ XXII			- ARP Address Resolution Protocol Techniques for dividing a network into subnets		
+ XXIII twenty fourth	6	Virtual network	Idea about virtual private network) VPN :(- Features of virtual network - Components of virtual networks - Virtual network protocols The theoretical structure of the virtual network	lecture Practical laboratory Oral discussion	Daily exam
Twenty +fifth- twenty-sixth + 27th	9	Network security principles	: security principles - Network risks and vulnerabilities - Possible methods and means of protection from risks - Solve common network problems Components of computer and network security: - Human resources - Physical components - Software - Databases network vulnerabilities , types of breaches, and prevention methods Modern methods of spying on networks and computer centers An idea about computer and network crimes An idea about legal legislation	lecture Practical laboratory Oral discussion	Daily exam
Twenty - +eighth Twenty +nine- thirty	9	Principles of encryption	Principles of encryption, its methods and types Substitutional encryption methods Compensatory encryption methods	lecture Practical laboratory Oral discussion	Daily exam

11. Course Evaluation	
Theoretical test – short tests	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Not required
Main references (sources)	Computer Networking A Top-Down Approach 6th E
Recommended books and references (scientific journals, reports…)	Computer Networking A Top-Down Approach 6th E
Electronic References, Websites	Wide rang of videos and materials online

Course Description

1. Course Name:
Website Design
2. Course Code:
CS206
3. Semester / Year:
Yearly
4. Description Preparation Date:
2024/2/12
5. Available Attendance Forms:
Attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
3/6
7. Course administrator's name (mention all, if more than one name)
Name: Zainab Sahib Dhahir Email: Zainab. Dhahir@atu.edu.iq
8. Course Objectives

Course Objectives	The student's ability to interact with websites on the internet, manage them, and empower the student to design websites, upload and handle servers, and work with different languages used on the internet.
9. Teaching and Learning Strategies	
Strategy	Theoretical Lecture Practical Laboratory

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First + Second	6	Introduction to the Internet	Introduction to the Internet, websites, search engines and servers	Lecture Practical Laboratory Oral discussion	Daily exam

Third + Fourth + V + Sixth	12	ForkCast Markup Language	HyperText Markup Language (HTML)	Lecture Practical Laboratory Oral discussion	Daily exam
Seventh + Eighth + Ninth + X + Eleventh + Twelfth	15	CSS Introduction	Cascading Style Sheet is a descriptive language that gives the website its beautiful shape and unique design that will distinguish it from other sites . One of the requirements of Front End Developer interface designers and developers	Lecture Practical Laboratory Oral discussion	Daily exam
XIII + Fourteenth + Fifteenth + Sixteenth	21	Language (PHP)	Language (PHP), Introduction to PHP, Running Windows IIS 5.0, Adding PHP to IIS, Adding MySQL to IIS , PHP file structure, web protocols, comments, variables, numbers, arithmetic operations, system variables, constants, knowledge and transformation of data types, time	Lecture Practical Laboratory Oral discussion	Daily exam

			and date functions, forms (GET, POST), conditional commands (IF statement, operands) Boolean, multiplicity of conditions, nesting conditional statements, Switch statement, getting rid of html tags, iterations and arrays, array functions, sorting arrays, additional array functions, multidimensional arrays, code order (Function, Print) , variable range, stable variables, file inclusion), tracking, phishing and error prevention (error types, logical errors, error avoidance, Regular Expressions, character class industry), client handling, cookies, Session		
Seventeenth–Twenty-third	12	JavaScript	, Use JavaScript JavaScript	Lecture Practical Laboratory	Daily exam

			language, the general form that the JavaScript program will be, declaration of variables, arithmetic coefficients, logical coefficients, control statements, SWITCH , iteration, events , , Create a button to send email WHILE , functions, forms, arrays, objects, literal strings Applied Information	Oral discussion	
XXIV + Twenty-fifth + Twenty-sixth + Twenty-seventh	12	Types of database servers	Types of database providers MySQL, PostgreSQL , MS SQL, Oracle Database Management System (MY SQL))	Lecture Practical Laboratory Oral discussion	Daily exam
Twenty-eighth + Twenty-ninth + Xxx	12	Site Management	Administration of Apache web sites, Local server , Smart and Grammar Sites	Lecture Practical Laboratory Oral discussion	Daily exam
11. Course Evaluation					

Oral Discussion, Daily Assessment, Midterm Exam, Final Exam	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports…)	Web design programming and developing
Electronic References, Websites	www.php.com www.school.com www.javascript.com

Course Description

1. Course Name:
English
2. Course Code:
CS208
3. Semester / Year:
Yearly
4. Description Preparation Date:
16-2-2024
5. Available Attendance Forms:
in person
6. Number of Credit Hours (Total) / Number of Units (Total)
1/2
7. Course administrator's name (mention all, if more than one name)
Name: beman hussein hassan Email: inb.beman10@atu.edu.iq
8. Course Objectives

Course Objectives	**- Supporting students in the country to learn and develop the English language by graduating a group of students who have the ability to speak the English language and write correctly.** **- Developing the student's language by practicing reading, writing, and speaking English, and keeping pace with developments taking place in the world.** **- Enabling the student to raise his level of thinking by acquainting him with the best literary and linguistic works.** **- General and transferable skills (other skills related to employability and personal development)** **- Developing the student's self-confidence through speaking and discussion conducted during the school year.** **- Enhancing the student's confidence in his ability to express.**

9. Teaching and Learning Strategies	
Strategy	**1. The lectures that are presented to students are in the form of a set of presentation slides, or via the smart board, data show, or are written directly by the lecturer.** **2. Lectures are printed and distributed in advance to students so that notes can be made and discussed during the lesson.**

	3. Scientific lectures are uploaded to the department's official website via the Internet. **4. Discussion through small and large groups.** **5. Discussion through questions and answers during official lecture times or during the teacher's office hours.**

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	The student learns vocabulary, parts of speech/words that have multiple meanings	Unit one Getting to Know you	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
1	1	Social expressions reading	Unit one Getting to Know you	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
2	1	rules: Vocabulary	Unit two The way we Live	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
3	1	Everyday life	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
4	1	Read and speak living in America		explanation lectures	questions during

				With examples on the board and Book	Lecture And a quick exam
5	1	Past tense negation made time expressions prepositionر	Unit three It all went Wrong	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
6	1	Read and listen to thieves friends	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
7	1	Questions Definite articles Listening	Unit four Let’s go Shopping	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
8	1	Read and listen	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
9	1	Present continuous tense	Unit five What do You want To do	explanation lectures With examples on the board and	questions during Lecture And a quick exam

				Book	
10	1	Words and pronunciation, synonyms and antonyms	=	explanation lectures With examples on the board and Book	questions during Lecture And a quick exam
11	1	Tenses	Unit six Tell me What's it like	explanation lectures With examples on the board and Book	11
13	1	Words and pronunciation, synonyms and antonyms	=	explanation lectures With examples on the board and Book	12
13	1	Rules	Unit seven Famous couples	explanation lectures With examples on the board and Book	13
14	1	Read and listen	=	explanation lectures With examples on the board and Book	14

15	1	Rules	Unit eight Do & don't	explanation lectures With examples on the board and Book	15
16	1	Rules		explanation lectures With examples on the board and Book	16
17	1	Read and listen	Unit nine Going Places	explanation lectures With examples on the board and Book	17
18	1	Rules	=	explanation lectures With examples on the board and Book	18
19	1	Comparative adjectives	Unit ten Scared to Death	explanation lectures With examples on the board and Book	19
20	1	Read and listen	=	explanation lectures With examples	20

				on the board and Book	
21	1	Listening and vocabulary: talk to me	Unit eleven Things that Change the World	explanation lectures With examples on the board and Book	21
22	1	Reading vocabulary	=	explanation lectures With examples on the board and Book	22
23	1	Tenses	Unit twelve Dream & Reality	explanation lectures With examples on the board and Book	23
24	1	Words and pronunciation, synonyms and antonyms	=	explanation lectures With examples on the board and Book	24
25	1	Everyday English social expressions	Unit thirteen Earning a Living	explanation lectures With examples on the board and Book	25

26	1	Words and pronunciation, synonyms and antonyms	=	explanation lectures With examples on the board and Book	26
27	1	Read and listen	Unit fourteen Love you and Leave you	explanation lectures With examples on the board and Book	27
28	1	Listening and vocabulary: talk to me	=	explanation lectures With examples on the board and Book	28
29	1	About the adverb	Writing	explanation lectures With examples on the board and Book	29
30	1	About superlative adjectives	=	explanation lectures With examples on the board and Book	30
11. Course Evaluation					
Theory tests – short tests					
12. Learning and Teaching Resources					

Required textbooks (curricular books, if any)	headway beginner
Main references (sources)	headway beginner & per nintermediate
Recommended books and references (scientific journals, reports…)	glish file
Electronic References, Websites	english with Lucy

Course Description

1. Course Name:
The crimes of the Baath regime in Iraq
2. Course Code:
CS209
3. Semester / Year:
Yearly
4. Description Preparation Date:
2024/2/ 10
5. Available Attendance Forms:
Presence
6. Number of Credit Hours (Total) / Number of Units (Total)
2 hours
7. Course administrator's name (mention all, if more than one name)
Name: Mustafa abbas mohammed Email: mustafaalkhafagji815@gamil.com
8. Course Objectives

Course Objectives	**Exposing the criminal acts of the fallen Baathist regime to the new generations of students who did not see or touch these criminal acts.** **Educating students regarding human rights and the concept of crime and its types in general**

9. Teaching and Learning Strategies	
Strategy	Explaining the curriculum divided into two hours each week using multiple means of illustration, such as press reports, archival books, and illustrated materials.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Baath Party crim according to t Supreme Crimi Court Law of 200	The concept of crimes and their categories Definition of cri linguistically a terminologically	Giving lecture And Usi technological means to deli lectures	1. Oral exam 2. Daily evaluation lecture
2	2				lecture

3	2	Psychological crimes	-The concept crimes and th categories	-Giving lectures And Using	Oral discussion
4	2		Crime department	technological	Lecture
5	2	The Baathist regime's position on religion	-Decisions issued by the Supreme	means to deliver lectures	and Oral discussion
6	2	Violations of Ira laws	Criminal Court -Psychological		Lecture and Oral
7	2		crimes -Mechanisms of	-Giving lectures	discussion
8	2		psychological crimes	And Using technological	Lecture and Oral
9	2		Psychological crimes and the	means to deliver	discussion
10	2		effects of psychological	lectures	Lecture and Oral
11	2	Political And	crimes, social crimes		discussion
12	2	military violation	-Militarization of society	-Giving lectures	Lecture and Oral
13	2	Prison and detenti	The Baathist regime's	And Using technological	discussion
14	2	places	position on religion	means to deliver	Exams
15	2		-Violations of Iraqi laws	lectures	Lecture and Oral
16	2		Images of		discussion
17	2	Environmental crimes	human rights violations and	-Giving lectures	Lecture
18	2	Military pollution	crimes of power , some decisions	And Using technological	and Oral discussion
19	2		regarding political and	means to deliver	Lecture
20	2	scorched earth policy	military violations of the	lectures	and Oral discussion
21	2	Crimes committ against the marsh	Baath regime -Prison and	-Giving lectures	
22	2		detention places of the Baath	And Using	Lecture
23	2		regime -Environmental crimes of the	technological means to	and Oral discussion

24 25 26 27 28 29 30	2 2 2	Mass graves Genocide and mass graves	Baath regime in Iraq Military and radioactive contamination and mine explosions Destroying cities and villages -Drying the marshes - Razing palm groves, trees and crops -Mass grave crimes -The establishment of cemeteries for the genocide committed by the Baath regime in Iraq -Chronological classification of genocide graves in Iraq for the period 1963-2003 AD	deliver lectures -Giving lectures And Using technological means to deliver lectures -Giving lectures And Using technological means to deliver lectures	Lecture and Oral discussion Lecture and Oral discussion Lecture and Oral discussion Lecture and Oral discussion

11. Course Evaluation
Oral Discussion, Daily Assessment, Midterm Exam, Final Exam

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Official book
Main references (sources)	Visual Basic online code book Written by Ahmed Sadiq
Recommended books and references (scientific journals, reports…)	Al-Qabas Kuwaiti newspaper
Electronic References, Websites	Various press reports on YouTube