مركز الاعتماد وضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER

Course Syllabus

1	**Course title**	Computer Skills for Scientific Faculties	
2	**Course number**	1931102	
3	**Credit hours**	3	
	Contact hours (theory, practical)	3	
4	**Prerequisites/corequisites**	Computer Skills 1-(1900100)	
5	**Program title**	B.Sc. in Computer Science	
6	**Program code**	01	
7	**Awarding institution**	The University of Jordan	
8	**School**	King Abdullah II School of Information Technology	
9	**Department**	Computer Science	
10	**Course level**	Any	
11	**Year of study and semester (s)**	2022/2023 – First semester	
12	**Other department (s) involved in teaching the course**	-	
13	**Main teaching language**	English	
14	**Delivery method**	☒ Face to face learning ☐Blended ☐Fully online	
15	**Online platforms(s)**	☒ Moodle ☐ Microsoft Teams ☐Skype ☐Zoom ☐Others……	
16	**Issuing/Revision Date**	10/2022	

17 Course Coordinator:

Name: Nabeel Alassaf
Office number: 119
Email: n.alassaf@ju.edu.jo
Contact hours: Sun, Tue 12.30-1.30, Mon 12-1
Phone number: 22638

18 Other instructors:

Name: Dr. Basima Elshqeirat

Office number:

Phone number:

Email: b.shoqurat@ju.edu.jo

Contact hours: Sun, Tue, Thu 10.30-11.30

Name: Dr. Mohammed Atoum

Office number:

Phone number:

Email: m.atoum@ju.edu.jo

Contact hours: Sun, Tue, Thu 10.30-11.30

Name: Mrs Lubna Naser Eddeen

Office number:

Phone number:

Email: lubna@ju.edu.jo

Contact hours: Sun, Tue 11.30-12.30 Wed 1-2

Name: Dr. Oraib AbuAlganam

Office number:

Phone number:

Email: o.abualganam@ju.edu.jo

Contact hours: Sun, Tue, Thu 11.30-12.30 Mon, Wed 9-10

Name: Dr. Ahmad Al Hwaitat

Office number:

Phone number:

Email: a.hwaitat@ju.edu.jo

Contact hours: Mon, Wed 1-2.30, 4-5

مركز الاعتماد وضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER

Name: Mrs.Tamara Hammori

Office number:

Phone number:

Email: tamara@ju.edu.jo

Contact hours: Mon, Wed 10-11

Name: Mrs fatima badwan

Office number:

Phone number:

Email: fbadwan@ju.edu.jo

Contact hours: Sun, Tue, Thu 11.30-12.30

Name: Mrs Aroba Bagaeen

Office number:

Phone number:

Email: a.Bagaeen@ju.edu.jo

Contact hours: Sun, Tue, Thu 12.30-1.30

19 Course Description:

This course presents the fundamental concepts of programming using C++. It covers the basic structures of the programming tools such as variable names; data types; control structures; arrays; functions; and enumeration data type.

20 Course aims and outcomes:

A- Aims:

The main goal of this course is to provide basic concepts of the C++ programming language, memory allocation concepts, operators and data types, I/O predefined functions, control structures, user defined functions and arrays.

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

SLOs / SLOs of the course	SLO (1)	SLO (2)	SLO (3)	SLO (4)
1	√	√	√	√
2	√	√	√	√
3	√	√		√
4		√		
5				
6				

21. Topic Outline and Schedule:

Week	Lecture	Topic	Intended Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Evaluation Methods	Resources
1	1.1	**Topic 2 Basic Elements of C++** 1.Basics of a C++ program 2.Data types and Variables	A1,A2,C1	Face To Face	in class questions	Chapter 2
	1.2				in class questions	
	1.3				in class questions	
2	2.1	3.Arithmetic operators, operator precedence, Expressions 4.Type Conversion (Casting) 5.String Type 6.Variables and Assignment statements 7.Increment and decrement operators	A1,A2,C1	Face To Face	in class questions	Chapter 2
	2.2				in class questions	
	2.3				in class questions	

	3	3.1	8.Basic input and output 9.Preprocessor directives **Topics 3** **Input/Output** **And files** 1.I/O streams and standard I/O devices 2.output formatting. 3.Predefined functions (get function only) 4.Input failure	A1	Face To Face	in class questions	Chapters 2+3	
		3.2				in class questions		
		3.3				in class questions		
	4	4.1	5.Sequencial Files I/O **Topic 4** **Control Structure (selection)** 1. Relational operators	A3,B1,C1,C2,D1,D2	Face To Face	in class questions	Chapters 3+4	
		4.2				in class questions		
		4.3				in class questions		
	5	5.1	2. Logical operators and logical expressions 3. Selection (if and if … else)	A3,B1,C1,C2,D1,D2	Face To Face	in class questions	Chapter 4	
		5.2				in class questions		
		5.3				in class questions		
	6	6.1	4.nested if		Face To Face	in class questions	Chapter 4	

		6.2	5. The conditional operator (? :) 6. The switch statement	A3,B1,C1,C2,D1,D2		in class questions		
		6.3				in class questions		
	7	7.1	**Topic 5 Control Structure (repetition)** 1.The while loop 2.The **for** loop 3.The do…while loop	A3,B2,B3,C1,C2,D1,D2,D3	Face To Face	in class questions	Chapter 5	
		7.2				in class questions		
		7.3				in class questions		
	8	8.1	4.Nested control structures 5.break and continue statements	A3,B2,B3,C1,C2,D1,D2,D3	Face To Face	in class questions	Chapter 5	
		8.2				in class questions		
		8.3				in class questions		
	9	9.1	**Topic 6** **User-defined functions** 1. predefined functions 2. user-defined functions 3. value-returning and void functions	A3,B2,B3,C1,C2,D1,D2,D3	Face To Face	in class questions	Chapter 6	
		9.2				in class questions		
		9.3				in class questions		
	10	10.1	4. value and	A3,B2,B3,C1,C2,	Face To Face	in class questions	Chapter 6	

		10.2	reference parameters, memory allocation 5. function overloading 6.default arguments	D1,D2,D3		in class questions		
		10.3				in class questions		
	11	11.1	7. Scope of an identifier 8. Scope resolution operator 9. Global variables, and side effects	A3,B2,B3,C1,C2,D1,D2,D3	Face To Face	in class questions	Chapter 6	
		11.2				in class questions		
		11.3				in class questions		
	12	12.1	**Topic 7** **Strings and Enumeration** 1. String Type	A3,C2,D1,D2,D3	Face To Face	in class questions	Chapter 7+8	
		12.2				in class questions		
		12.3	2. String operations: (length; size; find, substr , swap functions only) 3.Enumeration Data type **Topic 8** **Arrays** 1.Accessing arrays components			in class questions		

			2. processing one-dimensional arrays					
	13	13.1	3. Array index and bounds 4.Array initialization during declaration 5.Restrictions on arrays processing	A3,B4,C 1,C2,D1, D2,D3	Face To Face	in class questions	Chapter 8	
		13.2				in class questions		
		13.3				in class questions		
	14	14.1	6.Arrays as function parameters 7.2D arrays processing 8.Square Arrays.	A3,B4,C 1,C2,D1, D2,D3	Face To Face	in class questions	Chapter 8	
		14.2						
		14.3						
	15	15.1	Revision	A3,B4,C 1,C2,D1, D2,D3	Face To Face	in class questions		
		15.2				in class questions		

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Quizzes	20				
Mid Exam	30	Topics 2-6			
Final Exam	50	Topics 1-8			

23 Course Requirements

(e.g: students should have a computer, internet connection, webcam, account on a specific software/platform…etc):

- Computer
- Internet connection
- Account on MS Teams, Moodle
- MS Visual Studio 2010 (C++)

24 Course Policies:

A- Attendance policies:

Maximum allowable absence 15% of number of lectures per semester.

B- Absences from exams and submitting assignments on time:

Students are expected are expected to completely adhere to the assignment's strict deadlines, absolutely no exceptions are given.

It's student's responsibility to inform his instructor about his absence from any exam during period not exceeding 3 days.

C- Health and safety procedures:

Full safety of the computer labs.

D- Honesty policy regarding cheating, plagiarism, misbehavior:

Students' cheating, plagiarism and misbehavior will be transformed to special committee.

E- Grading policy:

Intended grading scale

0 - 40	**F**
41-49	**D-**
50-53	**D**
54-57	**D+**
58-61	**C-**
62-66	**C**
67-70	**C+**
71-75	**B-**
76-79	**B**
80-84	**B+**
85-89	**A-**
90-100	**A**

F- Available university services that support achievement in the course:

Equipped Computer labs.

مركز الاعتماد وضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER

25 References:

A- Required book(s), assigned reading and audio-visuals:

Textbook

C++ Programming from problem analysis to program design, by D.S. Malik,8th edition, Thomson.

B- Recommended books, materials, and media:

C++ Plus Data Structures, 2nd Edition, by Nell Dale, Jones & Bartlett Learning.

Learning C++, by Nil Graham, latest edition, Mc. Graw Hill.

C++ How to program, by Deitel and Deitel, latest edition, Prentice Hall.

26 Additional information:

ملاحظة1: في حالة التغيب عن امتحان الـ Mid Term فقط لن يكون هناك امتحان تعويضي إلا في حالة وجود عذر مختوم من عيادة الطلبة في الجامعة أو حالة طارئة من مستشفى الجامعة. وعلى الطالب إبراز العذر لمدرس المادة في فتره لا تتجاوز الثلاثة أيام فقط من تاريخ الامتحان, وللمدرس الحق في قبول أو رفض العذر , وحسب التعليمات.

ملاحظة2: لا يوجد امتحان تعويضي نهائيا للامتحانات القصيرة (الكويزات) التي تعقد للمادة.

ملاحظة3: لتفادي المشاكل والأخطاء التي تنتج, لا يجوز إجراء النقل الداخلي نهائيا بأي حال من الأحوال.

For more details on University regulations please visit:
http://units.ju.edu.jo/ar/LegalAffairs/Regulations.aspx

Name of Course Coordinator: Nabeel Alassaf	Signature: Nabeel Alassaf Date: 9/10/2022
Head of Curriculum Committee/Department: ----------	Signature: ----------
Head of Department: ----------	Signature: ----------
Head of Curriculum Committee/Faculty: ----------	Signature: ----------
Dean: ----------	Signature: ----------