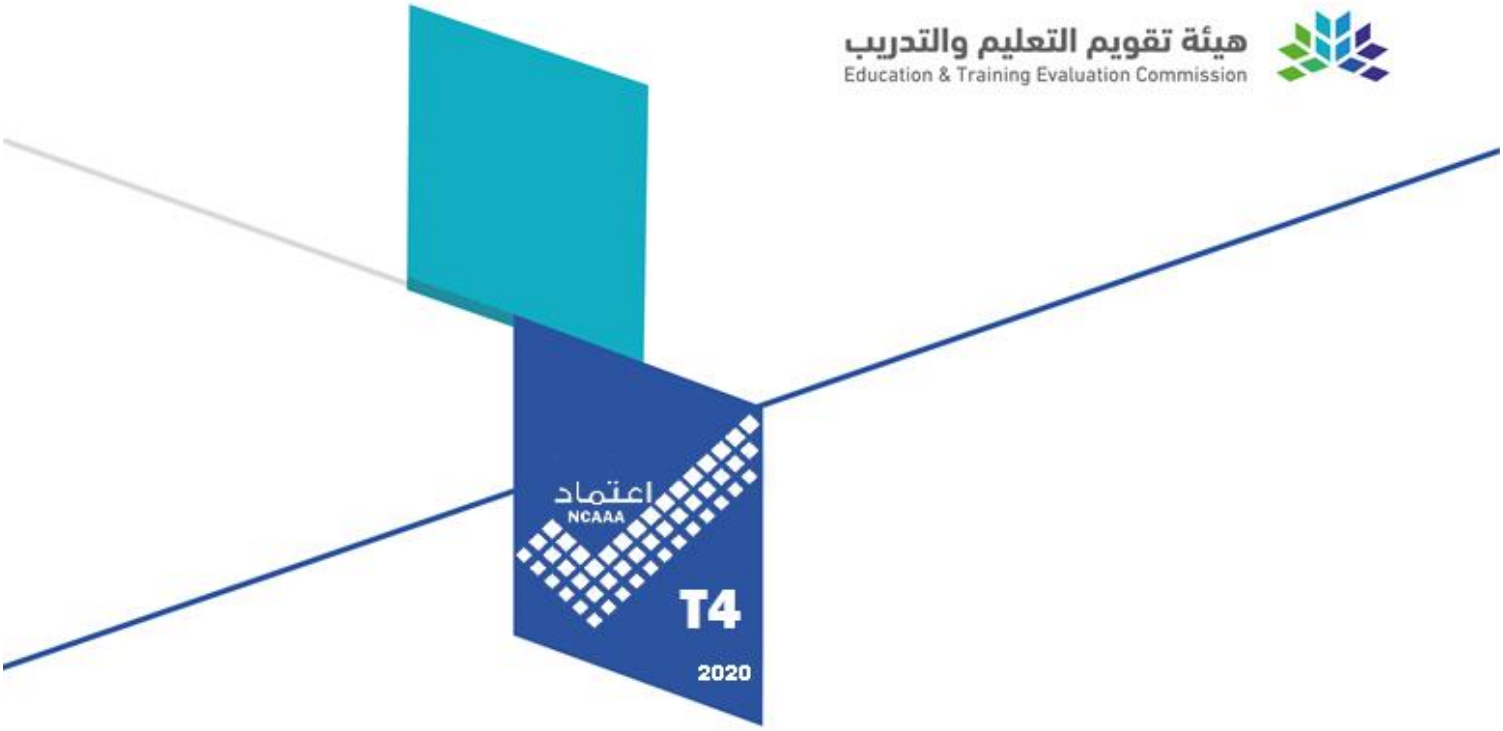
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Course Specifications

Course Title:	Computer Programming (2)
Course Code:	501222-3
Program:	Bachelor in Computer Engineering
Department:	Department of Computer Science
College:	College of Computers and Information Technology
Institution:	Taif University

Table of Contents

A. Course Identification

1. Credit hours:3
2. Course type **a.** University ☐ College ☑ Department ☐ Others ☐ **b.** Required ☑ Elective ☐
3. Level/year at which this course is offered: 4/2
4. Pre-requisites for this course (if any)**:** Computer Programming (1) (501220-3)
5. Co-requisites for this course (if any)**: NON**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	3+1	100%
2	**Blended**	0	0
3	**E-learning**	0	0
4	**Distance learning**	0	0
5	**Other**	0	0

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	45
2	**Laboratory/Studio**	30
3	**Tutorial**	0
4	**Others** (specify)	0
	Total	80

B. Course Objectives and Learning Outcomes

1. Course Description

This course is a continuation of 501220-3 Computer Programming (I). It extends programming concepts to include functions, pointers, functions and arrays, string manipulation, file handling, and introducing object oriented programming.

2. Course Main Objective

Prepare students to write and use functions using references and arrays, introduce students to basics of object orientated programming and review basic programming concepts such as variable, constant, control statement and loops

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	**Knowledge and Understanding**	

CLOs		Aligned PLOs
2	**Skills :**	
2.1	Write functions and write programs that use functions.	S2
2.2	Write functions and programs using arrays and strings.	S2
2.3	Create basic object-oriented programs.	S2
3	**Values:**	

C. Course Content

No	List of Topics	Contact Hours
1	Review of basic programming concepts, control statements and loops	4
2	Predefined functions and user defined functions	4
3	Pointers, functions and parameter passing	7
4	Functions, local variable and global variable	7
5	Functions, static variables, function overloading	7
6	String class	7
7	File Input Output	7
8	Functions and arrays	8
9	Sorting and searching techniques using array	8
10	Intro. to object-oriented programming	8
11	Classes and objects	8
Total		75

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
2.0	**Skills**		
2.1	Write functions and write programs that use functions.	Lecture Discussion Problem Solving	Written Exams Quizzes Assignments
2.2	Write functions and programs using arrays and strings.	Lecture Discussion Problem Solving	Written Exams Quizzes Assignments
2.3	Create basic object-oriented programs.	Lecture Discussion Problem Solving	Written Exams Quizzes Assignments
3.0	**Values**		

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments	3,4,6,8,10	10%

#	Assessment task*	Week Due	Percentage of Total Assessment Score
2	Midterm Exam	8	20%
3	Labs	15	20%
4	Final Exam	16	50%

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

Academic advising and counseling of students is an important component of teaching; student academic advising is a mandatory requirement of College of Computers and Information Technology (CCIT). Appropriate student advising provides support needed for the student during times of difficulty. In addition, it helps the student to build a close relationship with his/her advisor and to provide student motivation and involvement with the institution.

In addition, since faculty are usually the first to recognize that a student is having difficulty, faculty members play a key role in developing solutions for the students or referring them to appropriate services. Faculty members also participate in the formal student-mentoring program.

Additional counseling is provided by course directors, who provide students with academic reinforcement and assistance and refer "at risk" students to the Vice Dean for Academic Affairs and the Vice Dean for female section.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	D S Malik, C++ Programming: From Problem Analysis to Program, Course Technology CEGAGE Learning, 2011
Essential References Materials	Harvey M. Deitel and Paul J. Deitel, C++ how to Program, 2008
Electronic Materials	NON
Other Learning Materials	NON

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• A Lecture room appropriate for maximum 25 students with a personal computer, a data show and a smart board.

Item	Resources
	• A Lab room appropriate for maximum 15 students with a personal computer, a data show and a smart board.
Technology Resources (AV, data show, Smart Board, software, etc.)	• Lab materials and required software
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of Teaching	Students	Students' surveys and Student's course evaluation
Improvement of Teaching	Course Coordinator	deficiencies based on the student Evaluation, faculty input, course file, and program assessment
Verifying Standards of Student Achievement	Curriculum Committee	• Review CAF (Course assessment file) • Alumni surveys. Periodic exchange and remarking of tests or a sample of assignments with staff at another

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	

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Computer Engineering Department
TU جامعة الطائف TAIF UNIVERSITY