



# Course Specification

— (Bachelor)

**Course Title:** Computer Programming-2

**Course Code:** 501222-3

**Program:** Bachelor of Computer Science

**Department:** Department of Computer Science

**College:** College of Computers and Information Technology

**Institution:** Taif University

**Version:** 1

**Last Revision Date:** 01-02-2024



## Table of Contents

<b>A. General information about the course:</b>	<b>3</b>
<b>B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods</b>	<b>4</b>
<b>C. Course Content</b>	<b>5</b>
<b>D. Students Assessment Activities</b>	<b>6</b>
<b>E. Learning Resources and Facilities</b>	<b>6</b>
<b>F. Assessment of Course Quality</b>	<b>6</b>
<b>G. Specification Approval</b>	<b>7</b>



## A. General information about the course:

### 1. Course Identification

<b>1. Credit hours: ( 4-/22)</b>					
<b>2. Course type</b>					
A.	<input type="checkbox"/> University	<input checked="" type="checkbox"/> College	<input type="checkbox"/> Department	<input type="checkbox"/> Track	<input type="checkbox"/> Others
B.	<input checked="" type="checkbox"/> Required		<input type="checkbox"/> Elective		
<b>3. Level/year at which this course is offered: ( 4<sup>th</sup> level/2 year )</b>					
<b>4. Course general Description:</b>					
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					
<b>5. Pre-requirements for this course (if any):</b>					
501220-3					
<b>6. Co-requirements for this course (if any):</b>					
None					
<b>7. Course Main Objective(s):</b>					
Students at the end of this course are able :					
<ul style="list-style-type: none"> <li>● Review basic programming concepts such as variable, constant, control statement and loops</li> <li>● Prepare students to write and use functions using references and arrays</li> <li>● Introduce students to basics of object orientated programming</li> </ul>					

### 2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3	60%
2	Blended		
3	E-learning		
4	Correspondence		
5	Other (Lab)	2	40%



### 3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	<b>Lecture</b>	45
2.	<b>Laboratory/Studio</b>	30
3.	<b>Tutorial</b>	
4.	<b>Others (specify)</b>	
<b>Total</b>		<b>75</b>

### B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge and understanding</b>			
--	--	--	--	--
<b>2.0</b>	<b>Skills</b>			
2.1	Ability to write functions and write programs that use functions	S2	Lectures Labs Project	<b>Direct Assessment Tool</b> Quizzes / Homework/Project/ Exams <b>Indirect Assessment Tool</b> Course Exit Survey
2.2	Ability to write functions and programs using arrays and strings	S2	Lectures Labs Project	<b>Direct Assessment Tool</b> Quizzes / Homework/Project/ Exams <b>Indirect Assessment Tool</b> Course Exit Survey
2.3	Ability to create basic object-oriented programs	S1	Lectures Labs Project	<b>Direct Assessment Tool</b> Quizzes / Homework/Project/ Exams <b>Indirect Assessment Tool</b> Course Exit Survey
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
--	--	--	---	--



## C. Course Content

No	List of Topics	Contact Hours
1.	Review of basic programming concepts, control statements and loops	5
2.	Predefined functions and user defined functions	10
3.	Pointers, functions and parameter passing	10
4.	Functions: Scope, local variable and global variable	10
5.	Functions:, static variables, function overloading	5
6.	String class	5
7.	File Input Output	5
8.	Functions and arrays	10
9.	Classes and objects	15
<b>Total</b>		<b>75</b>

## D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	HomeWorks/StudentParticipation-Attendance	Every Week	10%
2.	Quizzes	Week 4 & 12	10%
3.	Mid-Term	Week 7	20%
4.	Final Labs Exam	Week 15	10%
5.	Final Examination	Week 16	50%

\*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

## E. Learning Resources and Facilities

### 1. References and Learning Resources

<b>Essential References</b>	<ul style="list-style-type: none"> <li>C++ Programming: From Problem Analysis to Program, D S Malik, CEGAGE Learning, 2011</li> </ul>
<b>Supportive References</b>	<ul style="list-style-type: none"> <li>C++ how to Program, Harvey M. Deitel and Paul J. Deitel, Prentice Hall, 2008</li> </ul>
<b>Electronic Materials</b>	<ul style="list-style-type: none"> <li>TBA during the course</li> </ul>
<b>Other Learning Materials</b>	<ul style="list-style-type: none"> <li>TBA during the course</li> </ul>



## 2. Required Facilities and equipment

Items	Resources
<b>Accommodation</b> (Classrooms, laboratories, demonstration rooms/labs, etc.)	<ul style="list-style-type: none"> <li>Classroom with 20-30 chairs</li> <li>Lab with 15 PCs and required software tools installed (Eclipse or NetBeans)</li> </ul>
<b>Technology Resources</b> (AV, data show, Smart Board, software, etc.)	<ul style="list-style-type: none"> <li>Video projector / data show</li> <li>White board</li> </ul>
<b>Other Resources</b> (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	<ul style="list-style-type: none"> <li>Students</li> <li>Faculty members</li> <li>Coordinator</li> <li>Council</li> <li>Curriculum Committees</li> </ul>	<ul style="list-style-type: none"> <li>Course exit survey</li> <li>Feedback from Faculty members</li> <li>Feedback from Course Coordinator</li> <li>Feedback from council</li> <li>Feedback from Curriculum Committees</li> </ul>
Effectiveness of assessment	<ul style="list-style-type: none"> <li>Students</li> <li>Faculty members</li> <li>Coordinator</li> <li>Council</li> <li>Curriculum Committees</li> </ul>	<ul style="list-style-type: none"> <li>Course exit survey</li> <li>Feedback from Faculty members</li> <li>Feedback from Course Coordinator</li> <li>Feedback from council</li> <li>Feedback from Curriculum Committees</li> </ul>
Extent of course achievement	<ul style="list-style-type: none"> <li>Students</li> <li>Faculty members</li> <li>Coordinator</li> <li>Council</li> <li>Curriculum Committees</li> </ul>	<ul style="list-style-type: none"> <li>Course exit survey</li> <li>Feedback from Faculty members</li> <li>Feedback from Course Coordinator</li> <li>Feedback from council</li> <li>Feedback from Curriculum Committees</li> </ul>
Extent of course learning outcomes	<ul style="list-style-type: none"> <li>Students</li> <li>Faculty members</li> </ul>	<ul style="list-style-type: none"> <li>Course exit survey</li> </ul>



Assessment Areas/Issues	Assessor	Assessment Methods
	<ul style="list-style-type: none"> <li>Coordinator</li> <li>Council</li> <li>Curriculum Committees</li> </ul>	<ul style="list-style-type: none"> <li>Feedback from Faculty members</li> <li>Feedback from Course Coordinator</li> <li>Feedback from council</li> <li>Feedback from Curriculum Committees</li> </ul>
Quality of learning resources	<ul style="list-style-type: none"> <li>Students</li> <li>Faculty members</li> <li>Coordinator</li> <li>Council</li> <li>Curriculum Committees</li> </ul>	<ul style="list-style-type: none"> <li>Course exit survey</li> <li>Feedback from Faculty members</li> <li>Feedback from Course Coordinator</li> <li>Feedback from council</li> <li>Feedback from Curriculum Committees</li> </ul>

**Assessors** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

### G. Specification Approval

<b>COUNCIL /COMMITTEE</b>	CS council
<b>REFERENCE NO.</b>	Meeting #11
<b>DATE</b>	07/03/2024

