



# UOWD

University of Wollongong in Dubai

## **Bachelor of Computer Science (BCS)**

The Bachelor of Computer Science (BCS) degree provides a general education in many aspects of Computer Science and Software Development. Computers have revolutionized the way we live today. Most facets of our lives depend, to a greater or lesser degree, on computers. From telephone systems to security systems, accounting to marketing, baby monitors to auto-pilot options, every industry, every household and every office is looking to 'up grade' itself by means of new technology and new software. This has invariably given rise to a high demand for software developers around the globe. The BCS degree prepares graduates to become a part of this growing industry, through rigorous and intensive practical programming courses, backed by sound concept models.

### **Course Requirements**

Students are required to complete thirty three (33) subjects or at least 204 credit points (cp) by satisfactory completion of:

1. No more than 60 cp will count towards General Education (GED).
2. In addition, at least 144 cp chosen from the approved academic degree planner
3. At least 36 cp CSCI at 300-level chosen from the approved subject list in the degree planner including CSCI321.
4. At least 24 cp of CSCI 300-level subjects, including CSCI321, must be at 'Pass' grade or better.
5. No more than a total of 24 credit points of subjects at 100 level or higher (i.e. 200 level and 300 level) should be at 'PC' grade.

## Degree Planner for Bachelor of Computer Science

YEAR/ Semester	Subject Code	CP	Subject	Pre-Requisite	Requirement
Year 1 Semester 1 Autumn	ARTS015	6	Introduction to University Life	NA	General Education
	ARTS017	6	Islamic Culture	NA	General Education
	MATH015	6	Foundation Mathematics A	NA	General Education
	CSCI015	6	Computer Applications	NA	General Education
	STAT015	6	Introduction to Statistics	NA	General Education

YEAR/ Semester	Subject Code	CP	Subject	Pre-Requisite	Requirement
Year 1 Semester 2 Spring	CSCI114	6	Procedural Programming	CSCI015	BCS Core
	CSCI103	6	Algorithms and Problem Solving	CSCI015	BCS Core
	ENVI030	6	Environmental Studies	ARTS1015	General Education
	GEC *	6			General Education
	GEC	6			General Education

YEAR/ Semester	Subject Code	CP	Subject	Pre-Requisite	Requirement
Year 2 Semester 1 Autumn	CSCI124	6	Applied Programming	CSCI103 & CSCI114	BCS Core
	CSCI102 /ISIT102	6	Systems	CSCI015	BCS Core
	MATH121	6	Discrete Mathematics	MATH015	BCS Core
	GEC	6			General Education

YEAR/ Semester	Subject Code	CP	Subject	Pre-Requisite	Requirement
Year 2 Semester 2 Spring	GEC	6			General Education
	CSCI131	6	Introduction to Computer Systems	CSCI103 & CSCI114	BCS Core
	CSCI235	6	Databases	CSCI124	BCS Core
	STAT131	6	Understanding Variation and Uncertainty	STAT015	BCS Core

YEAR/ Semester	Subject Code	CP	Subject	Pre-Requisite	Requirement
Year 3 Semester 1 Autumn	CSCI204	6	Object Programming & Frameworks	CSCI124	BSC Core
	CSCI212	6	Interacting Systems	CSCI124	BSC Core
	CSCI 205	6	Development methods and Tools	CSCI 124	BSC Core
	Elective	6	(See options below)		Elective

YEAR/ Semester	Subject Code	CP	Subject	Pre-Requisite	Requirement
Year 3 Semester 2 Spring	CSCI203	6	Algorithms & Data Structures	CSCI124	BCS Core
	CSCI222	6	Systems Development	CSCI204	BCS Core
	Elective	6	(See options below)		Elective
	Elective	6	(See options below)		Elective

YEAR/ Semester	Subject Code	CP	Subject	Pre-Requisite	Requirement
Year 4 Semester 1 Autumn	CSCI321*	12	Project (2 Semesters – 1 <sup>st</sup> Semester)	CSCI222 & CSCI204 & 12CP of 200 level subjects	BCS Core
	CSCI 311	6	Software Process Management	CSCI 205	BCS Core
	Elective	6	(See options below)		Elective
	Elective	6	(See options below)		Elective

YEAR/ Semester	Subject Code	CP	Subject	Pre-Requisite	Requirement
Year 4 Semester 2 Spring	CSCI321*	12	Project (2 <sup>nd</sup> Semester)	CSCI222 & CSCI204 & 12CP of 200 level subjects	BCS Core
	CSCI 325	6	Software Engineering Formal Methods	CSCI 204	BCS Core
	Elective	6	(See options below)		Elective
	Elective	6	(See options below)		Elective

## GEC \*- General Education

It is advised not to take 5 subjects in the second semester. You may take only one of the GEC subjects in this session and the other one in a summer session.

### GEC elective subjects (choose any 4)

Code	Title	Pre-requisites
ARTS 035	Introduction to Philosophy	None
MATH020	Foundation Mathematics B	MATH015
PSYC 015	Introduction to Psychology	ARTS 015
LAW 101	Law, Business and Society	None
MGMT 102	Business Communication	ARTS 015
IACT201	Information Technology and Citizens Rights	24 credit points at 100 level

### DEGREE ELECTIVES (choose any 7)

Choose **seven** electives from the following list strictly of which

- o Maximum of 3 subjects at 100 level
- o Minimum of 2 subjects at 300 level

Code	Title	Pre-requisites
<b>100 LEVEL</b>		
ACCY 100	Accounting 1A	ARTS 015
ACCY 102	Accounting 1B	ACCY 100
ECON 101	Macro economical Essentials for Business	ARTS 015
ECON 111	Introductory Microeconomics	ARTS 015
ECTE 182	Internet Technology 1	None
MARK 101	Marketing Principles	ARTS 015
MGMT 110	Introduction to Management	ARTS 015
<b>200 LEVEL</b>		
BUSS 211	Requirements determination and system analysis	6 CP @ 100 level
CSCI 213	Java programming and object oriented design	CSCI 124
IACT 201	Information Technology & Citizen's Rights	24CP @ 100-level
IACT 202	The structure and organisation of Telecommunications	CSCI 102 or CSCI 114
MGMT 201	Organisational Behaviour	MGMT 110
MGMT 206	Human Resource Management	MGMT 110
<b>300 LEVEL</b>		
COMM 351	Business ethics and governance	72 CP
CSCI 315	Database Design and Implementation	CSCI235
CSCI 323	Artificial Intelligence	CSCI 204 & 6CP of 200 level CSCI subjects
CSCI 324	Human Computer Interaction	CSCI 204 & 6CP of 200 level CSCI subjects
CSCI 336	Computer graphics	CSCI 204 & 6CP of 200 level CSCI subjects
CSCI399	Server Technology	CSCI213
IACT 301	Information and communication security issues	IACT 201
IACT 303	World Wide Networking	CSCI 102 or CSCI 213
IACT 304	Principles of e-Business	12 CP of IACT or CSCI subjects
IACT 305	eBusiness technologies	6 CP 200 level IACT or CSCI
MARK 301	Internet Applications for Marketing	MARK 101
MARK 343	International Marketing	MARK 101