DEPARTMENT

OF

COMPUTER SCIENCE

B.Sc. C.S. SYLLABUS

(2015 - 2016 ONWARDS)

BHARATH UNIVERSITY

BACHELOR OF SCIENCE IN COMPUTER SCIENCE
CHOICE BASED CREDIT SYSTEM
REGULATIONS
(W.e.f. 2015 - 2016)

1. Aim of the Course

The course strives to inculcate job-oriented and value based quality education in Information Technology and Commercial Application Development. . At the end of the course, the students will be well-versed, particularly in core subjects with quality in inter-personal and professional skills.

2. Eligibility for Admission

Candidates for admission to the first year of the Under Graduate Degree courses shall be required to have passed the Higher Secondary Examinations (Academic or Vocational Stream) conducted by the Government of Tamil Nadu or an Examination accepted as equivalent with Mathematics or Business Mathematics.

3. Duration of the Course

The Course duration shall be for three years consisting of six semesters. In order to be eligible for the award of the degree the candidate shall successfully complete the course in a maximum period of five years from the date of enrolment for the first semester of the course.

4. Choice Based Credit System

The University follows the 'Choice Based Credit System (CBCS)' for all its programmes. This helps the student to understand the academic effort and to successfully complete a course. A candidate shall be eligible for the award of the degree only if he/she has undergone the prescribed course of study in the University for a period of three academic years and passed the examination of all the six semesters.

5. Structure of the Course and Evaluation Pattern

Internal Marks: 30		External Marks: 70

The duration of University examination for both theory and practical subjects shall be 3 hours. The maximum marks for each theory and practical course is 100. Continues Internal Assessment (CIA) for theory will be 30 and Practical will be 50. The university theory examination will be conducted for 100 marks, which will be then converted to 70 in ordered to add with continues internal assessment to make 100 marks for the course.

For the conduct of University examinations in practical, the question paper for the practical examination will be set by both internal and external examiners appointed by the University.

6**. Requirements for the completion of the semester**

The candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for the completion of the semester.

- He/ She secures not less than 75% of overall attendance in that semester taking into account the total no of periods in all courses put together attended by the candidate as against the total no of periods in all courses offered during that semester. Condo- notion of attendance up to 10% is permitted on medical grounds.

- His / Her conduct has been satisfactory throughout the semester. Candidates who do not complete the semester will not be permitted to write the end semester Examination and are not permitted to go the next semester. They are required to repeat the incomplete semester in the next academic year.

7. Examinations

- The end semester examinations will ordinarily be conducted during October to December in the odd semesters and during March to May in the even semesters. For all the theory courses question papers will be set by external examiners and valued by external and/or internal examiners.

- All practical examinations including the project work viva voce will be conducted by internal & External examiners appointed by the University

- The project work report/thesis will be evaluated by the External examiner and the thesis viva Board consists of HOD, Internal Examiner (Guide), and External Examiner.

8. **Passing Minimum**

- A candidate shall be declared to have passed in each paper / practical / Mini Project and Viva-voce, if he / she secures not less than 40% of marks (the continuous internal assessment (CIA) and the University examinations (External) put together.

- If a candidate fails to secure a pass in a particular course, it is mandatory that he/she shall register and reappear for the examination in that course during the next semester when examination is conducted in that course. However, the internal assessment marks obtained by the candidate in the first attempt shall be retained and considered valid for all subsequent attempts. If a candidate fails to secure 40% of the marks prescribed in Continuous Internal Assessment, he has to redo the academic activities prescribed for the same.

9. **Question Paper Pattern**

PART A   : 10 Questions of 2 Marks each (To answer all compulsorily)

PART B   : 5 Questions in either or pattern, each with 7 marks.

PART C   : To answer 3 out of 5 design types of Questions pooled from all the 5

Units each with 15 Marks.

I SEMESTER

S.No.	SUBJECT	SUBJECTCODE	L	T	P	C
1.	LANGUAGE – I (TAMIL/HINDI/FRENCH)	BCS101	4	0	0	3
2.	ENGLISH – I	BCS102	4	0	0	3
3.	MATHEMATICS – I	BCS103	3	1	0	3
4.	DIGITAL LOGIC AND FUNDAMENTALS	BCS104	4	0	0	3
5.	PROBLEM SOLVING TECHNIQUES	BCS105	4	0	0	3
6.	LAB – I MS-OFFICE LAB	BCS1P1	0	0	6	2
7.	LAB – II PROGRAMMING LAB	BCS1P2	0	0	6	2
TOTAL CREDITS						**19**

II SEMESTER

S.No.	SUBJECT	SUBJECTCODE	L	T	P	C
1.	LANGUAGE – II (TAMIL/HINDI/FRENCH)	BCS201	4	0	0	3
2.	ENGLISH – II	BCS202	4	0	0	3
3.	MATHEMATICS – II	BCS203	3	1	0	3
4.	VISUAL PROGRAMMING	BCS204	4	0	0	3
5.	PROGRAMMING IN C++	BCS205	4	0	0	3
6.	LAB – III PROGRAMMING IN C++ LAB	BCS2P1	0	0	6	2
7.	LAB – IV VISUAL PROGRAMMING LAB	BCS2P2	0	0	6	2
TOTAL CREDITS						**19**

III SEMESTER

S.No.	SUBJECT	SUBJECTCODE	L	T	P	C
1.	SOFTWARE ENGINEERING	BCS301	4	0	0	3
2.	DATA STRUCTURES	BCS302	4	0	0	3
3.	STATISTICAL METHODS	BCS303	3	1	0	3
4.	COMPUTER ARCHITECTURE	BCS304	4	0	0	3
5.	MICROPROCESSORS AND ITS APPLICATIONS	BCS305	4	0	0	3
6.	**ENVIRONMENTAL SCIENCE (Internal Assessment Only)**	BCS306	2	0	0	2
7.	LAB – V DATA STRUCTURES LAB	BCS3P1	0	0	6	2
8.	LAB – VI MICROPROCESSORS LAB	BCS3P2	0	0	6	2
	TOTAL CREDITS					**21**

IV SEMESTER

S.No.	SUBJECT	SUBJECTCODE	L	T	P	C
1.	OPERATING SYSTEMS	BCS401	4	0	0	3
2.	PROGRAMMING IN JAVA	BCS402	4	0	0	3
3.	PROGRAMMING IN UNIX	BCS403	4	0	0	3
4.	MULTIMEDIA SYSTEMS	BCS404	4	0	0	3
5.	COMPUTER GRAPHICS	BCS405	4	0	0	3
6.	**PERSONALITY DEVELOPMENT (Internal Assessment Only)**	BCS406	2	0	0	2
7.	LAB – VII UNIX LAB	BCS4P1	0	0	6	2
8.	LAB – VIII JAVA LAB	BCS4P2	0	0	6	2
	TOTAL CREDITS					**21**

V SEMESTER

S.No.	SUBJECT	SUBJECTCODE	L	T	P	C
1.	SOFTWARE PROJECT MANAGEMENT	BCS501	4	0	0	3
2.	PROGRAMMING IN ASP.NET	BCS502	4	0	0	3
3.	COMPUTER NETWORKS	BCS503	4	0	0	3
4.	WEB TECHNOLOGY	BCS504	4	0	0	3
5.	CLOUD COMPUTING	BCS505	4	0	0	3
6.	LAB – IX WEB TECHNOLOGY LAB	BCS5P1	0	0	6	2
7.	LAB – X ASP .NET LAB	BCS5P2	0	0	6	2
TOTAL CREDITS						**19**

VI SEMESTER

S.No.	SUBJECT	SUBJECTCODE	L	T	P	C
1.	INTERNET PROGRAMMING	BCS601	4	0	0	3
2.	DATABASE TECHNOLOGY	BCS602	4	0	0	3
3.	SOFTWARE TESTING	BCS603	4	0	0	3
4.	**ELECTIVE-I** - DATA MINING AND DATA WAREHOUSING - OBJECT ORIENTED ANALYSIS AND DESIGN - COMPILER DESIGN	14ECS6A 14ECS6B 14ECS6C	4	0	0	3
5.	**ELECTIVE II** - NETWORK PROGRAMMING - C# - OPEN SOURCE SOFTWARE	14ECS6D 14ECS6E 14ECS6F	4	0	0	3
6.	LAB – XI : ELECTIVE LAB	BCS6P1	0	0	6	2
7.	LAB – XII : PROJECT	BCS6P2	0	0	6	4
TOTAL CREDITS						**21**

TOTAL CREDITS FOR THE PROGRAMME - 120