VINAYAKA MISSION'S RESEARCH FOUNDATION

(DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF THE UGC ACT 1956)

(Declared under Section 3 of the UGC Act 1956)

SCHOOL OF ARTS AND SCIENCE

VISION • WISDOM • UNITY

B.C.A - BACHELOR OF COMPUTER APPLICATIONS

BOS-2021

SCIENCE BOARD - 2021

COURSE WITH CREDITS

Semester	Language Courses (Part - I & Part - II)	Compulsory Core Courses (CC)	Discipline SpecificElective (DSE/Inter Disciplinary/ Generic Electives)	Ability Enhancement Compulsory Courses (AECC)	Skill Enhancement Course (SEC)	Total Credits
Sem I	Tamil - I/Hindi - I (3 Credits) & English - I (3 Credits)	CC - I (1 x 6 credits = 6 credits)	DSE - I (1 x 6 credits = 6 credits)	AEC - I (Environmental Science) 4 Credits	---	22
Sem II	Tamil - II/Hindi - II (3 Credits) & English - II (3 Credits)	CC - II (1 x 6 credits = 6 credits)	DSE - II (1 x 6 credits = 6 credits)	---	SEC – I SEC - II (2 X 4 = 8Credits)	26
Sem III	Tamil - III/Hindi - III (3 Credits) & English - II (3 Credits)	CC - III & CC - IV (2 x 6 credits = 12 credits)	DSE - III (1 x 6 credits = 6 credits)	---	---	24
Sem IV	Tamil - IV/Hindi - IV (3 Credits)	CC - V & CC - VI (2 x 6 credits = 12 credits)	DSE - IV (1 x 6 credits = 6 credits)	AEC - II (English for Communication) - 4 Credits		25
Sem V	---	CC - VII, CC - VIII & CC - IX (3 x 6 credits = 18 credits)	---	---	SEC – III SEC - IV (2 X 4 = 8 Credits)	26
Sem VI	---	CC - X, CC - XI & CC - XII (3 x 6 credits = 18 credits)	DSE – V: Project Work (1 x 6 credits = 6 credits)	---		24
Total	21	72	30	8	16	147

Core course credit 12*6=72
PART-I: Tamil/Hindi course credit 4*3=12
PART-II: English as language core course credit 3*3=9
Discipline specific elective credit 5*6=30

Ability Enhancement compulsory course credit   2*4=8
Skill enhancement course credit   4*4=16
Total credits   = 147

BOARD OF STUDIES 2021/ BOARD OF SCIENCE
Bachelor of Computer Applications (BCA) - Regular

OVERALL CREDITS

S. No.	Nature of Course	No. of Courses	Credit / Each course	Total No. of Credits
I	**LANGAUGE COURSES**			
	PART-I: TAMIL/HINDI	4	3	12
	PART II: ENGLISH	3	3	9
II	**CORE COURSES**			
	Compulsory Core Courses	12	6	72
III	**ELECTIVE COURSES**			
	Discipline Specific Elective Courses (Interdisciplinary/ Generic Electives)	2	6	12
	Discipline Specific Elective Courses (Computer Science)	2	6	12
	Discipline Specific Elective Courses (Project Work / Dissertation)	1	6	6
IV	**ABILITY ENHANCEMENT COURSES**			
	AECC-1: Ability Enhancement Compulsory courses-1- Environmental Science	1	4	4
	AECC-2: Ability Enhancement Compulsory courses-2- English for Communication	1	4	4
V	**SKILL ENHANCEMENT COURSES**			
	SEC: Skill Enhancement courses	4	4	16
	Total Credits			**147**

Note: VAC (Value Added Courses) and SWAYAM courses of each 2 credit will be conducted and based on the certificate of the course, this credit will be mentioned in the Grade sheet (not including in CGPA)

I - LANGUAGE COURSES

S.NO	COMPONENT CODE	SUBJECT TITLE	CREDIT	TOTAL CREDIT
1.	PART-I	Tamil - I / Hindi – I	3	12+9=21
2.		Tamil - II / Hindi – II	3	
3.		Tamil - III / Hindi – III	3	
4.		Tamil - IV/ Hindi – IV	3	
5.	PART-II	English I	3	
6.		English II	3	
7.		English III	3	

II – COMPULSORY CORE COURSES

S.NO	COMPONENT CODE	SUBJECT TITLE	CREDIT
1.	CC – I	Fundamentals of Computer Applications	4
		Computer Fundamentals Lab	2
2.	CC – II	Programming in C	4
		Programming in C Lab	2
3.	CC – III	Object Oriented Programming using C++	4
		Object Oriented Programming using C++ Lab	2
4.	CC – IV	Data Structures	4
		Data Structures lab	2
5.	CC – V	Programming in Java	4
		Programming in Java Lab	2
6.	CC – VI	Database Management System and its Applications	4
		RDBMS Lab	2
7.	CC – VII	Scripting Languages	4
		Scripting Languages lab	2
8.	CC – VIII	Operating System	4
		Operating System lab	2
9.	CC –IX	Software Engineering	4
		Software Engineering Lab	2

10.	CC – X	Information Security	4
		Information Security Lab	2
11.	CC – XI	Cloud Computing	4
		Cloud Computing Lab	2
12.	CC – XII	Operations Research	6

III – DISCIPLINE SPECIFIC ELECTIVE

DSE – INTER DISCIPLINARY / GENERIC ELECTIVES (Each Any One)				
S.NO	COMPONENT CODE	SUBJECT TITLE	CREDIT	TOTAL CREDIT
1.	DSE –I	Numerical and Statistical Methods	6	6
		Discrete Mathematics	6	
		Differential and Integral Calculus	6	
2.	DSE –II	Financial Accounting	6	6
		Management Information System	6	
		Corporate Accounting	6	
DSE – COMPUTER SCIENCE (Each Any One) (Including Compulsory Project)				
S.NO	COMPONENT CODE	SUBJECT TITLE	CREDIT	TOTAL CREDIT
1	DSE – III	Entrepreneurship	6	6
		Computer Graphics	6	
		Enterprise Resource Planning	6	
2	DSE – IV	Artificial Intelligence	6	6
		E commerce	6	
		Image processing	6	
3	DSE – V	Project Work - Dissertation – **Compulsory**	6	6

IV - ABILITY ENHANCEMENT COMPULSORY COURSES

S No	COMPONENT CODE	Ability Enhancement Compulsory Course	Credits	Total
1	AECC-I	Environmental Science	4	**4 x 2= 8**
2	AECC-II	English for Communication	4	

V – SKILL ENHANCEMENT COURSES

S No	COMPONENT CODE	Skill Enhancement Course (Each Any One)	Credits	Total
1.	SEC – I	Office Automation Tool	4	
		Programming in SCILAB	4	
		HTML Programming	4	
2.	SEC – II	Desktop Publishing (DTP)	4	
		Multimedia	4	
		Web Programming	4	
3.	SEC – III	R Programming	4	**4 x 4 = 16**
		MAT Lab	4	
		Visualization Tool	4	
4.	SEC – IV	XML Programming	4	
		Mobile Application Development	4	
		PHP Programming	4	

VALUE ADDED COURSE (ANY TWO)

No	COMPONENT CODE	IV - Value Added Course (Any One)	Credits	Total
1		Women Studies	2	
2		Indian Constitution – Configurable Structure	2	
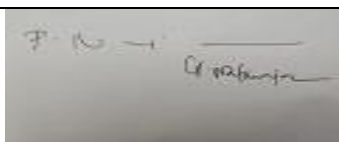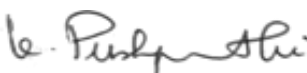
3	VAC	Basic Life Support and First Aid (Demonstration)	2	2x2=4
4		Fire Safety (Demonstration)	2	
5		Industrial Health and Safety	2	
6		Yoga and Meditation	2	
7		Computer Networking and Interface	2	
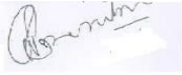
BOS - SCIENCE BOARD-2021

BCA

Sl. No.	Courses	Credits	Total Credits
SEMESTER – I			
1	PART-I: TAMIL-I/HINDI-I	3	22
2	PART-II : ENGLISH-I	3	
3	CC – I : Fundamentals of Computer Applications	4	
4	CC – I : Computer Fundamentals Lab	2	
5	Discipline Specific Elective (DSE) - I	6	
6	AECC-II - Environmental Science	4	
SEMESTER – II			
7	PART-I: TAMIL-II/HINDI-II	3	26
8	PART-II: ENGLISH-II	3	
9	CC – II : Programming in C	4	
10	CC – II : Programming in C Lab	2	
11	Discipline Specific Elective (DSE) - II	6	
12	Skill Enhancement Course (SEC) – I	4	
13	Skill Enhancement Course (SEC) – II		
SEMESTER – III			
14	PART-I: TAMIL-III/HINDI-III	3	24
15	PART-II: ENGLISH-III	3	
16	CC – III : Object Oriented Programming using C++	4	
17	CC – III : Object Oriented Programming using C++ Lab	2	
18	CC – IV: Data Structures	4	
19	CC – IV: Data Structures Lab	2	
20	Discipline Specific Elective (DSE) - III	6	
SEMESTER – IV			
21	PART-I: TAMIL-IV/HINDI-IV	3	

22	AECC-II - English for Communication	4	25
23	CC – V : Programming in Java	4	
24	CC – V : Programming in Java Lab	2	
25	CC – VI : Database Management System and its Applications	4	
26	CC – VI : RDBMS Lab	2	
27	Discipline Specific Elective (DSE) - IV	6	

SEMESTER – V

28	CC – VII : Scripting Languages	4	
29	CC – VII : Scripting Languages Lab	2	
30	CC – VIII : Operating System	4	
31	CC – VIII : Operating System Lab	2	26
32	CC – IX : Software Engineering	4	
33	CC – IX : Software Engineering Lab	2	
34	Skill Enhancement Course (SEC) – III	4	
35	Skill Enhancement Course (SEC) – IV		

SEMESTER – VI

36	CC – X: Information Security	4	
37	CC – X: Information Security Lab	2	
38	CC – XI: Cloud Computing	4	
39	CC – XI: Cloud Computing Lab	2	24
40	CC – XII : Operations Research	6	
41	Discipline Specific Elective (DSE) -V - (Compulsory): Project Work/Dissertation	6	
Total Credits			**147**

S.No	BOS MEMBER	SIGN
1.	**Mr.P.Natarajan**, HoD, Visual.communication SRM Arts and Science,Chennai	
2.	**Dr. S.Kavitha** HOD & Associate Professor, Computer Science Department School of Arts &Science, VMRF, Chennai-603104	
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5.	**Dr. M. Prakash** HOD & Professor, Department of Computer Science, Vinayaka Mission's Kirupananda Variyar Arts & Science College, Salem – 636 308	
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