Criterion 1 – Curricular Aspects

Key Indicator	1.2	**Academic Flexibility**
Metric	1.2.2	Percentage of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented (Data for the latest completed academic year)

DEPARTMENT OF COMPUTER SCIENCE AND APPLICATIONS
STRUCTURE OF THE PROGRAM CLEARLY INDICATING COURSES, CREDITS/ELECTIVES

Programmes

1. BCA – Bachelor of Computer Applications
2. MCA – Master of Computer Applications
3. M.Phil

1. Curriculum Structure of the BCA Programme

SEMESTER – I

Category	Course Code	Course Title	Credits				Hours				
			L	T	P	Total	L	T	P	SS	Total
AECC 1	XGL101	Communication Skills in English	2	0	0	2	2	0	0	2*	4
LANG	XGL102A / XGL102B	Ariviyal Tamil / Comprehensive English	3	0	0	3	3	0	0	0	3
CC- 1	XCA103	C Programming	4	0	1	5	4	0	2	0	6
CC- 2 (DSC - 1)	XCA104	Algebra, Calculus and Analytical Geometry	4	1	0	5	4	1	0	0	5
CC- 3	XCA105	Computer Organization and Architecture	3	2	0	5	3	2	0	0	5
UMAN 1	XUM106	Human Ethics, Values , Rights and Gender Equality	3	0	0	0	3	0	0	0	3
		Total	**19**	**03**	**01**	**20**	**19**	**03**	**02**	**2***	**26**

SEMESTER – II

Category	Course Code	Course Title	Credits				Hours				
			L	T	P	Total	L	T	P	SS	Total
AECC 2	XGL201	English for Effective Communication	2	0	0	2	2	0	0	2*	4
AECC 3	XES202	Environmental Studies	2	0	0	2	2	0	0	1*	3
CC- 4	XCA203	Object Oriented Programming with C++	4	0	1	5	4	0	2	0	6
CC- 5 (DSC - 2)	XCA204	Discrete Mathematics	4	1	0	5	4	1	0	0	5
CC- 6	XCA205	Computer Networks	3	1	0	4	3	1	0	0	4
CC- 7	XCA206	Data Structures and Algorithms	4	0	1	5	4	0	2	0	6
		Total	**19**	**02**	**02**	**23**	**19**	**02**	**04**	**3***	**28**

SEMESTER – III

Category	Course Code	Course Title	Credits				Hours				
			L	T	P	Total	L	T	P	SS	Total

Category	Course Code	Course Title	L	T	P	Total	L	T	P	SS	Total
SEC 1	XCA301	HTML and DHTML	1	0	1	2	1	0	2	0	3
CC- 8	XCA302	Database Management Systems	4	0	1	5	4	0	2	0	6
CC- 9	XCA303	Visual Programming	4	0	1	5	4	0	2	0	6
CC- 10 (DSC - 3)	XCA304	Statistical and Numerical Methods	3	2	0	5	3	2	0	0	5
GE1		XASOE1 Elements of Aeronautics XECOE2 Entertainment Electronics and Management XMEOE1-Product Design and Development	3	0	0	3	3	0	0	0	3
UMAN 2	XUM306	Disaster Management	3	0	0	0	3	0	0	3*	3
Minor Course	XCA307	Web Technology	0	0	0	1*	0	0	0	0	15
		Total	**18**	**02**	**03**	**20+1***	**18**	**02**	**06**	**03***	**26**

SEMESTER – IV

Category	Course Code	Course Title	Credits				Hours				
			L	**T**	**P**	**Total**	**L**	**T**	**P**	**SS**	**Total**
SEC 2	XCA401	Data Analytics	1	0	1	2	1	0	2	0	3
CC-11	XCA402	Java Programming	4	0	1	5	4	0	2	0	6
CC-12 (DSC - 4)	XCA403	Resource Management Techniques	3	2	0	5	3	2	0	0	5
CC-13	XCA404	Operating Systems	4	0	1	5	4	0	2	0	6
GE2		XBAOE3 / Human Resource Management XCOOE1 / Practical Accounting XMAOE1 / Mathematics for Competitive Examinations I XPTOE2 / Periyar Thoughts & Services on Education and Women's Empowerment	3	0	0	3	3	0	0	0	3
Minor Course		Software Testing Tools and Practices	0	0	0	1*	0	0	0	0	15
		Total	**15**	**02**	**03**	**20+1***	**15**	**02**	**06**	**00**	**23**

SEMESTER – V

Course Code	Course Title	L	T	P	H	C
XCA5SE	Skill Enhancement Course – III XML and Web services	2	0	2	4	3
XCA51B	Elective I Unix and Shell Programming.	3	2	2	7	5
XCA52A	Elective II – Software Engineering	4	2	0	6	5
XCA53A	Elective III - Enterprise Resource Planning	3	2	0	5	4
XCAOE*	XCO OE2 Salesmanship XMAOE1 Mathematics for Competitive Exams I XEN OE1 English Through Drama	3	0	0	3	3
	Total	**15**	**6**	**4**	**25**	**20**
XCA502	In Plant Training	0	0	0	0	2
XCA507	Minor Course- Software Testing Tools and Practices	0	0	0	16	1

SEMESTER – VI

Course Code	Course Title	L	T	P	H	C
XCA6SD	Skill Enhancement Course – IV Testing and Documentation Tool	2	0	2	4	3
XCA64C	Elective IV : .NET Technologies	3	2	2	7	5
XCA65B	Elective V : Mobile Computing	4	2	0	6	5
XCA602	Project Work	0	0	10	10	5
	Total	**9**	**4**	**14**	**27**	**18**
	NCC/NSS/SPORTS/RRC//YRC	0	0	0	0	1
	Minor Course- Android App Development - Mobile Technology	0	0	0	16	1

2.Curriculum Structure of the MCA Programme

2019 – 2020

SEMESTER-I

Course Code	Course Title	L	T	P	H	C
YCA101	Information Technology	3	0	0	3	3
YCA102	Computer Organization and Architecture	3	2	0	5	4
YCA103	Data Structures and Algorithms	3	2	0	5	4
YCA104	Mathematical Foundations	3	2	0	5	4
YCA105	Accounting and Management Control	3	0	0	3	3
YCA106	Information Technology lab	0	0	4	4	2
YCA107	Programming Lab (C and Data Structures)	0	0	4	4	2
	Total	15	06	08	29	22

SEMESTER II

Course Code	Course Title	L	T	P	H	C
YCA201	Introduction to Management Functions	3	0	0	3	3
YCA202	Operating Systems	3	2	0	5	4
YCA203	Technical English	3	2	0	5	4
YCA204	Probability and Combinatories	3	2	0	5	4
YCA205	Information System Analysis, Design and Implementation	3	0	0	3	3
YCA206	Business Programming Lab	0	0	4	4	2
YCA207	Operating systems Lab	0	0	4	4	2
	Total	15	6	08	29	22

SEMESTER- III

Course Code	Course Title	L	T	P	H	C
YCA301	Database Management Systems	4	0	0	4	4

Course Code	Course Title	L	T	P	H	C
YCA302	Computer Communication Networks	4	0	0	4	4
YCA303	Object Oriented Programming, Analysis and Design	4	0	0	4	4
YCA304	Management Support Systems	4	0	0	4	4
YCA305	Statistical Computing	4	0	0	4	4
YCA306	Database Management Systems and Java Lab	0	0	4	4	2
YCA307	Statistical Computing Laboratory	0	0	4	4	2
	Total	**20**	**0**	**08**	**28**	**24**

SEMESTER- IV

Course Code	Course Title	L	T	P	H	C
YCA401	Network Programming	4	0	0	4	4
YCA402	Software Engineering	4	0	0	4	4
YCAEE9	Machine Learning	4	0	0	4	4
YCA403	Organizational Behaviour	3	0	0	3	3
YCABM4	Investment Technology	4	0	0	4	3
YCA405	Networks Lab	0	0	4	4	2
YCA406	Case Tools Lab	0	0	4	4	2
	Total	**19**	**0**	**08**	**27**	**22**

SEMESTER- V

Course Code	Course Name	L	T	P	H	C
YCA501	Mobile Application Development	4	0	4	8	6
YCA502	Software Project Management	4	0	4	8	6
YCA503	Entrepreneurship Development	3	0	0	3	3
YCAE54	Elective III Bigdata Analytics	3	0	0	3	3
YCAE57	Elective IV Social Network Analysis	3	0	0	3	3
YCAS51	Skill Based Elective – II Quantitative Aptitude	1	0	2	3	2
YCA510	In Plant Training	-	-	-	-	3

| YCA507 | Minor Course- Advanced Database Technology | 0 | 0 | 0 | 16 | 1 |
| | **Total** | **18** | **0** | **10** | **28** | **26** |

SEMESTER-VI

Course Code	Course Name	L	T	P	H	C
	Project					
YCA601	Project Work	0	0	24	24	12

M.Phil - COMPUTER SCIENCE (Full Time) CURRICULUM 2019

SEMESTER-I

Sub-Code	Sub-Name	L	T	P	C
ZCS101	Research Methodology	4	4	0	6
ZCS102	Advanced Computing – I	4	4	0	6
ZCS103	Advanced Computing - II	4	4	0	6

Total Credits -18

SEMESTER -II

Sub-Code	Sub-Name	L	T	P	C
ZCS201	Guide Paper	4	0	0	4
ZCS202	Teaching Learning Skills	1	2	0	2
ZCS203	Thesis / Dissertation / Project work	0	0	0	16

Total Credits -22

Total Credits: 40