

UNIVERSITY OF KERALA
School of Distance Education

Bachelor of Computer Applications (BCA)
PROGRAMME PROJECT REPORT

(a) Programme's Mission & Objectives

Mission

Mission of distance education is to provide affordable, accessible, effective learning opportunities for those students who because of time, geographic or other constraints could not attend traditional on-site regular classes. Keeping that in view, School Of Distance Education offers BCA degree to prepare the learners for manpower requirement of the fast developing IT/Software Industry.

Objectives

- i. To expertise students in the fields of information technology and management, computer programming, internet operations, computer applications, business communication, logic design, data structure, systems analysis, computer architecture, data base management etc.
- ii. To prepare students with the necessary skills to build successful careers in the information sector.

(b) Relevance of the program with HEI's Mission and Goals:

Offered in the distance mode, BCA will be closely aligned with the vision and mission of the University of Kerala, in vowing to ensure knowledge based, student focussed, quality and cost conscious but socially responsible education.

BCA in the distance mode will be a feeder programme for the MCA programmes offered by the university, and it follows the same syllabus and curriculum of the programme offered in the regular mode through the affiliated colleges of the University of Kerala.

(c) Nature of prospective target group of learners:

A BCA programme has wide demand, and only a small percentage of the students are being accommodated in the regular mode through colleges. This will join the attempt to democratising higher education to large segments of the population, providing an innovative system of university level education that is flexible and open in terms of methods, pace of learning, eligibility for enrolment and age of entry.

Understanding the needs of the learners we have structured our learning material and induction programmes to lead the fresh learners through the threshold of higher education, and lead them through the course of the programme and the final evaluation.

(d) Appropriateness of programme to be conducted in Open and Distance Learning mode to acquire specific skills and competence

After getting a BCA degree, one can enter any of the following roles:

1. Joining IT firms, software and web developments

BCA has endless scopes in software. Those who have skills and knowledge in programming and languages like HTML, CSS, MySQL etc can choose an IT industry with web development background. Software development requires good skill and knowledge of the programming languages like .Net, C++, Java etc

2. System Analyst

A system analyst is an information technology professional who specializes in analyzing, designing and implementing information systems. System analysts assess the suitability of information systems in terms of their intended outcomes.

3. Network Manager

A network manager manages and maintains the network, as well as network performance monitoring, identifying, installing and maintaining upgrades to the network.

4. Digital Marketing

BCA can also make a career in digital marketing. This field is emerging day by day.

(e) Instructional Design:

SCHEME AND SYLLABUS AND DISTRIBUTION OF MARKS

Semester 1

Course code	Credits	Course Name	CE	ESE	Total
EN1111.4	2	Speaking and listening skills	20	80	100
MM1131.9	3	Mathematics I	20	80	100
CP1121	3	Introduction to IT	20	80	100
CP1131	3	Digital Electronics	20	80	100
CP1141	4	Introduction to Programming		80	100
CP1142	3	Programming Lab – I	20	80	100
CP1122	2	PC Software Lab	20	80	100
TOTAL	20		140	560	700

Semester 2

Course code	Credits	Course Name	CE	ESE	Total
EN1211.4	2	Writing And Presentation Skills	20	80	100
MM1231.9	3	Mathematics	20	80	100
CP1241	3	Environmental Studies	20	80	100
CP1242	3	Object oriented	20	80	100

		Programming			
CP1243	3	Data Structures	20	80	100
CP1244	3	Programming Lab – II	20	80	100
CP1245	3	Data Structure Lab	20	80	100
TOTAL	20		140	560	700

Semester 3

Course code	Credits	Course Name	CE	ESE	Total
CP1331	3	Computer Oriented Numerical Methods	20	80	100
CP1341	3	Computer Networks	20	80	100
CP1342	3	Operating Systems	20	80	100
CP1343	2	Computer Organization & Architecture	20	80	100
CP1344	3	Programming in JAVA	20	80	100
CP1345	3	Programming Lab – IV	20	80	100
CP1346	3	Numerical Methods Lab	20	80	100
TOTAL	20		140	560	700

Semester 4

Course Code	Credits	Course Name	CE	ESE	Total
CP1441	2	Introduction to Information Security	20	80	100
CP1442	3	Visual Tools	20	80	100
CP1443	3	Database Management Systems	20	80	100
CP1444	3	Design and Analysis of Algorithms	20	80	100
CP1445	3	System Software	20	80	100
CP1446	3	Visual Tools Lab	20	80	100
CP1447	3	Databases Lab	20	80	100
TOTAL	20		140	560	700

Semester 5

Course code	Credits	Course Name	CE	ESE	Total
CP1541	3	Free and Open Source Softwares (FOSS)	20	80	100
CP1542	3	Computer Graphics		80	100
CP1543	3	Internet Programming	20	80	100
CP1551.1 CP1551.2	2	Open Course Internet Technology LINUX Environment	20	80	100

CP1551.3		Business Informatics			
CP1544	3	System Analysis & Design	20	80	100
CP1545	3	Internet Programming Lab	20	80	100
CP1546	3	Computer Graphics Lab	20	80	100
TOTAL	20		140	560	700

Semester 6

Course code	Credits	Course Name	CE	ESE	Total
CP1641	2	Business Informatics	20	80	100
CP1642	4	Object Oriented Analysis and Design	20	80	100
CP1643	4	Data Mining & Data Warehousing	20	80	100
CP1661.1 CP1661.2	4	Elective Bioinformatics Trends in Computing Software	20	80	100
CP1644	3	Free and Open Source Software (FOSS) Lab	20	80	100
CP1645	3	Major Project & VIVA	-	100	100
TOTAL	20		100	500	600
Grand Total	120				4100

(f) Duration of the programme

6 Semesters, three years.

(g) Faculty and support staff requirement

There are three full time faculty members available and one of them coordinates the BCA Programme. There is sufficient staff support from the SDE office for processing administrative work. The service of qualified guest teachers and experts from panels approved by the Vice Chancellor are used in the preparation of SLM, for taking contact classes and conducting internal evaluation.

(h) Instructional delivery mechanisms

In addition to providing Self Learning Material, students are offered 60 contact hours each semester, conducted over 10 days during the weekend. Classes are taken using audio visual aids, and students are encouraged to use web resources. A repertoire of audio/video lectures are being prepared, which will be made available to the learners on an experimental basis from this academic year onwards.

(i) Procedure for admissions, curriculum transaction and evaluation:

Application for admissions is received online. Eligibility for admission to BCA is a pass in

Higher Secondary Examination of the State or an Examination accepted by the University as equivalent thereto.

Academic Calendar

ADMISSION		
Admission Notification	First week of June	
Closing date of Admission	Last week of September	
Schedule of distribution of study materials		
Course	Date	By Post
III, IV, V and VI Semester	Last week of June	Last week of July
I & II Semester	Last week of October	Last week of November
Schedule of contact classes		
Course	Schedule	
III, IV, V and VI Semester	First week of July	
I & II Semester	First week of November	
Schedule of examinations		
Course	Schedule	
V and VI Semester	First week of April	
III and IV Semester	Second and Third week of April	
I and II Semester	Fourth week of April	

Tuition fee is waived for students belonging to eligible categories.

(j) Fee structure: Rs 18390/- for entire programme

Curriculum is transacted in the Distance Mode with the help of Self Learning Material and Personal Contact Classes.

The use of web-based tools is not in place yet, but steps are being initiated. Evaluation is continuous and end semester.

Continuous Evaluation requires the submission of one assignment and one Test Paper for each course carrying 20 marks each.

End Semester Examinations are conducted by the Controller of Examinations, University of Kerala. The written exams carry 80 marks per paper.

(k) Requirement of the laboratory support and Library Resources:

Laboratory hours are mandatory for BCA, but students can avail the computers in the Central Computer Lab of the School of Distance Education which has continuous internet connectivity. The SDE has a separate Library with more than 28,000 books. Library automation is done using LibSoft software which facilitates all in-house operations of the library. The library currently subscribes to more than 15 journals of various subject fields. An amount

of Rs. 525/- has to be remitted by the students to obtain membership in the Library, of which Rs. 420/- will be refunded on completion of the course. The non members can make use of the library resources and the reference services by producing their student's ID proof. They can use the library for reference purpose and they can avail photocopy facilities.

(l) Cost Estimate of the Programme and the Provisions (Base 2019-20)

Sl.No	Expenditure	Total for the SDE during 19-20 (25987 students) (Rs. in lakh)	Cost estimate for BCA programme (200 students)
01	Pay and Allowance	435.00	400000
02	Contact classes and evaluation	80.00	75000
03	Course materials	100.00	185000
04	Advertisement charges	25.00	19240
05	Postage and telephone	7.4	5695
06	Books and Periodicals	3.5	2694
07	Miscellaneous	9.95	7657
	Total	660.85	695286
	Provisions (6%)		41717
	Total		737003 Cost per student/ year=Rs.3685

(m) Quality assurance mechanism and expected programme outcomes

The University Board of Studies for Computer Science programmes approves and reviews the syllabus, course content, and the Self Learning Material of BCA offered in the distance mode also. The overall ensuring of quality will be closely monitored by the Centre for Internal Quality Assurance, School of Distance Education.

(n) Expected Outcomes

After acquiring this course the students will be able to:

- Develop programming skills that can lead them to jobs like software developer, software test engineer etc.
- Quite knowledgeable in various computer applications and the latest developments in IT and communication systems.
- Develop skills in software development so as to enable the BCA graduates to take up self employment in Indian and global markets.
- Recognize the need for professional development.
- Develop sensitivity and awareness which leads to commitment and courage.
- Develop critical ability to distinguish between essence and form.

Note: The programme structure is based on the present syllabus existing in the regular mode in the University of Kerala. The UG and PG syllabi in the regular mode in the University is currently being revised and is about to be finalized. SDE will adopt the revised syllabus as such when they are finalized for the 2020-21 admission. The SLMs will also be updated accordingly.



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