

**TEACHERS' UNIVERSITY CENTRE FOR DISTANCE EDUCATION  
PROGRAMME PROJECT REPORT (PPR)**

**TRADITIONAL PROGRAMS AT CTU**

**Course:** Bachelor in Computer Applications

**Duration:** 3 Years

**A. Programme Mission and Objective:**

The aim of CTU in starting Bachelor in Computer Applications is to create computer professionals for delivering better in the education and professional sector.

**(a) Rationale : The main reason for offering this programme are :**

**Computer is an exciting and growing field-** The skills were defined as using a computer program to write instructions to a computer as opposed to using established applications. The researchers looked at programming languages including JavaScript and HTML for building websites, statistical programs R and SAS, AutoCAD programs for engineers, and other all purpose programming languages such as Java, Python, and C++.

**Computer is a diverse and dynamic field-** Computer field is open for students from varying educational backgrounds such as Arts, Science and Commerce.

**(b) Goals and objectives:**

To provide a career for students as computer professionals where they become capable of implementing new ideas suitable for the fast moving world.

To train students with required skills as human resource in Computer domain

**B. Relevance of the programme with HEI's Mission and Goals :**

The programme is entirely in line with the CTU strategic goals as well as its Mission to provide superior professional education, nurturing translational and transformational research in Computer sector for the benefit of the society. The programme is also consistent with Higher Education vision 2020 to transform society towards knowledge society and making education an improve tool to realize knowledge, economy and society.

**C. Nature of prospective target group of learners :**

A class XII Pass in any stream and from any statutory board in the country or abroad.

The Certificate should have been obtained from a recognized board, established by law in India and the medium of instruction for the degree should be English. A candidate who has scored a minimum passing marks in the qualifying examination will be eligible for admission to the Bachelor in Computer Applications Course.

**D. Appropriateness of programme to be conducted in open and distance learning mode to acquire specific skills and competence**

This course is intended for professional's practitioners, researchers and students from widerange of backgrounds who aim to develop their knowledge and insights pertaining to the computer discipline. The course is designed to provide critical and practical skills to analyse, evaluate, design and implement solution and strategies with regards to computer and its issues.

### **Instructional Delivery Mechanism**

CTU follows a modern ICT enabled approach for instruction. The methodology of instruction in CTU is different from that of the conventional /regular programs. Our system is learner-oriented and the learner is an active participant in the teaching-learning process. Most of the instructions are imparted through online and distance mode. Academic delivery systems of CTU are:

**Print Material:** CTU mainly focuses on Self Learning Material (SLM) and their up gradation by eminent teachers/academicians both from CTU and other reputed universities/institutions. As text information plays a vital role in distance education, print based instruction has a critical role in CTU distance learning initiatives.

**Audio-Visual Material Aids:** The learning package contains audio and video programmes which have been produced by the University for the Enhancement of understanding of the course material given to the student. The video lectures are uploaded in the University website for the student's access.

**Online/Virtual Classes:** Delivery of classroom-like lectures will also be available in the student portal for enhanced learning experience.

**Laboratory facilities:** CTU has advanced laboratory for practical training for younger minds to get hands on experience in cutting edge techniques.

#### **F) Identification of Media**

Print, Audio-Video and Online media will be utilized for the dissemination of knowledge relevant to the program enrolled.

#### **II) Student support system**

CTU provides an exclusive online portal for students to cater to all of their academic related matters such as notification of contact classes, assignment details, course material, and examination schedule. In addition, each student has provision to seek guidance, counseling and career guidance throughout the program.

### **F. Procedure for admissions, curriculum transaction and evaluation**

Admission to all the programs is through notification in newspaper and on University website. The admission procedure involves submission of filled application by the candidates after paying the prescribed fees. The admission scrutiny committee evaluates all the submitted applications and recommend the eligible candidates. The selected candidates are notified through admissions office and also on the University website. The selected candidates are expected to report within the stipulated timeframe for provisional admission to the program.

Curriculum transaction for the program is through the designated online student portal as detailed below.

## Skill based ODL Programs at CTU

By now, open and distance learning (ODL) Institutions have established themselves as an alternative to provide education especially at tertiary level. But from past few years many ODL institution also diverted their attention towards improving skills of teachers and industrial workforce through in-service teaching programme and skill development programmes. Yet, despite the rapid expansion of ODL institutions, policy-makers have limited evidence regarding the actual outcomes and impact of such initiatives. Such ODL based model of improving skills of learners either in job or as their pre-jobs requirement has great importance and relevance in countries like India where there is an urgent need of providing, cost effective training to a large number of untrained work force and need of continuing education at different levels for improve overall their skills and enable them to be part of the productive force in fast growing Indian economy.

## Bachelor in Computer Applications (BCA)

### Semester-I

Code	Paper	Credit	Internal Assessment	External Assessment	Duration of Exam
BCA101	Digital Electronics	4	30	70	3Hour
BCA102	Business System and Application	4	30	70	3Hour
BCA103	Introduction to Programming	4	30	70	3 Hour
BCA104	Mathematics	4	30	70	3Hour
BCA105	PC Software	4	30	70	3Hour
BCA106 (P)	PC Software-LAB	4	30	70	3Hour
BCA107 (P)	Programming-LAB	4	30	70	3Hour
	<b>TOTAL</b>	<b>28</b>			

## Semester-II

Code	Paper	Credit	Internal assesment	External assesment	Duration of Exam
BCA108	Computer Architecture and System Software	4	30	70	3Hour
BCA109	Information System Analysis and Design	4	30	70	3Hour
BCA110	Computer Programming	4	30	70	3 Hour
BCA111	Mathematics	4	30	70	3Hour
BCA112	English Language and Communication	4	30	70	3Hour
BCA113 (P)	Programming Lab(visual basic)	4	30	70	3Hour
BCA114 (P)	Business Presentation and Programming Lab	4	30	70	3Hour
	<b>TOTAL</b>	<b>28</b>			

## Semester-III

Code	Paper	Credit	Internal assesment	External assesment	Duration of Exam
BCA115	Operating System	4	30	70	3Hour
BCA116	Data Structure with C	4	30	70	3Hour
BCA117	Graphics and Internet	4	30	70	3 Hour
BCA118	Mathematics for Computing	4	30	70	3Hour
BCA119	Management and Accounting	4	30	70	3Hour
BCA120 (P)	Internet and Computer Graphics lab	4	30	70	3Hour
BCA121 (P)	Programming Lab(Data Structure with c)	4	30	70	3Hour
	<b>TOTAL</b>	<b>28</b>			

### Semester-IV

Code	Paper	Credit	Internal assesment	External assesment	Duration of Exam
BCA122	Database Management System	4	30	70	3Hour
BCA123	Object Oriented Programming with C++	4	30	70	3Hour
BCA124	Software Project Management and Quality Assurance	4	30	70	3 Hour
BCA125	Statistics, Numerical Methods and Algorithms	4	30	70	3Hour
BCA126	Environment and Ecology	4	30	70	3Hour
BCA127 (P)	Database Lab	4	30	70	3Hour
BCA128 (P)	Programming Lab(C++)	4	30	70	3Hour
	<b>TOTAL</b>	<b>28</b>			

### Semester-V

Code	Paper	Credit	Internal assesment	External assesment	Duration of Exam
BCA129	Data Communication and Computer Network	4	30	70	3Hour
BCA130	UNIX and shell Programming	4	30	70	3Hour
BCA131	Windows Programming	4	30	70	3 Hour
BCA132	Elective I	4	30	70	3Hour
BCA133	Value and Ethics Profession	3	30	70	3Hour
BCA134 (P)	UNIX and Networking	4	30	70	3Hour
BCA135	Minor Project	6	30	70	3Hour
BCA136	Industrial Training	9			
	<b>TOTAL</b>	<b>32</b>			

## Semester-VI

Code	Paper	Credit	Internal assesment	External assesment	Duration of Exam
BCA137	Elective – II	4	30	70	3Hour
BCA138	Elective - III	4	30	70	3Hour
BCA139	Major Project	16			
BCA140	Seminar	2			
BCA141	Comprehensive Viva-voca	4			
	<b>TOTAL</b>	<b>30</b>			

### Electives:

- Advanced Unix and Shell Programming
- Advanced Networking and Communication
- Object Oriented Programming with Java
- Multimedia and E-commerce
- Intelligent Systems
- Image Processing
- Human-Computer Interaction
- Advanced Database Management