

Suresh Gyan Vihar University

Program Project Report: Three Year Under Graduate Degree Course in Bachelor of Computer Application (B.C.A.)

Category: Both

a. Open and Distance Learning (ODL)

b. Online Learning

1. (a). **Program Mission and Objectives:** The mission is to facilitate Students who wish to pursue a career in the field of IT and secure top positions in Technology based MNCs and other Organizations such as E- commerce companies, Banks, Government agencies, Networking Companies, Stock Exchanges etc. apart from other corporate sectors.

- To provide a foundation extensive base as well as interdisciplinary educational foundation.
- To facilitate expansion of social investigative expertise along with contribution from people as well as communities from all walks of life.
- To accustom learners who are yearning to edify, engage and engineer social errands in private as well as public ventures.
- Provide knowledgeable and skilled human resources which are employable in IT and ITES.
- To provide skilled manpower to the professional, industrial and service sectors to meet global demands
- To recommend learners extensive acquaintance in the humanities and Social Sciences for improved opportunities of employment.
- To provide higher education to the working personnel.

The BCA Programme is designed with the following specific objectives.

- a) To attract young minds to the potentially rich & employable field of computer applications.
- b) To be a foundation graduate Programme which will act as a feeder course for higher studies in the area of Computer Science/Applications.

c) To develop skills in software development so as to enable the BCA graduates to take up self employment in Indian & Global software market.

d) To train and equip the students to meet the requirement of the Industrial standards

(b). Relevance of the programme with HEI's mission and goals: Suresh Gyan Vihar University is the logical outcome of a great dream, and meticulous research and development. The foundation stone of Gyan Vihar was laid down on 19th February 1994 by the great academician and thinker Acharya Shri Purushottam Uttam. The University offers diversified programs in various disciplines. Keeping in view our educational background, Bachelor of Computer Application (B.C.A.) to be offered through ODL mode and Online mode is very pertinent to the HEI's mission and goals as it endeavours to endow with excellence to the aspiring students who are destitute of higher education because of the inadequate quantity of seats in the conservative approach of education in various Universities.

(c). Nature and target group of learners:

The curriculum of B.C.A. is designed in such a way that it helps the students to become not only more employable but also encourage them to become better citizens for the society. Primarily the target group of learners will be:

- those deprived of admission in the regular mode due to limited intake capacity.
- those employed in various organizations who desire to pursue higher education as a passion or as a means for movement up the promotional ladder.
- drop outs primarily due to social , financial and economic compulsions as well as demographic reasons.
- population of any age and those living in remote areas where higher education institutes are not easily accessible.

(d). Appropriateness of the program to be conducted in the ODL mode along with Online Mode for acquiring specific skills and competence-

B.C.A. in ODL mode and Online mode shall help the Students in the following ways:

- To increase reach and penetration of education, particularly in the midst of the rural population.
- Aptitude construction amongst the rural habitants.
- To facilitate access of myriad possibilities interdisciplinary perceptions offer to prospective Students.
- To comprehend that fundamental approach should be oriented towards knowledge acquisition, dissemination and production.
- To apply skills and knowledge in a corporate house or while on job.
- To make prospective Students good citizens of the country.

(e). Instructional Delivery Mechanism:

- i. **Curriculum Design:** The curriculum is designed by a committee comprising experts from the parent department of the SGVU and Industry experts, keeping in view the needs of the diverse groups of learners. The same is developed as per the four quadrant approach of UGC.
- ii. **Detailed Syllabus:** As per the Under graduate course offered in the regular mode by Suresh Gyan Vihar University.
- iii. **Duration of the Program:** Minimum 3 years. Nevertheless, the students would have to complete the program as per UGC guidelines.
- iv. **Student Support Service:**
 - (a) Students would avail all the information through our website Website: www.sgvu.edu.in
 - (b) Learning Management System (L.M.S.): **SGVU** would have a dedicated LMS for students where they can get all access to its study material, programmes, up-coming events, examination results etc.

The learning resources for each course / subject is as per the four-quadrant approach of the UGC norms.

Quadrant	Quadrant Type	Learning Resource Type	Type	Delivery Format
1	E – Tutorial	Tutorials: Recorded Videos	Chapter Level	MP4 (Audio Video Content)
		Animation / Gamified Module	Chapter Level	SCORM File
		Simulated Case Study	Subject Level	SCORM File
2	e-Content	E-book	Chapter Level	PDF/ Notes
		Study Guide	Chapter Level	PPT / Bullet Notes
		Web Resources	Chapter Level	Articles and Reference Videos from Swayam, NPTEL and other platforms
3	Discussion Forum	Discussion Forum	Chapter Level	Real Time Technology
		Synchronous Interactive Sessions – Live Sessions	Chapter Level	Real Time Technology
4	Assessment	FAQ	Chapter Level	Excel Based System Upload for Objective Assessment and Document Upload for Subjective questions in assessment in form of Assignments
		MisConception	Chapter Level	
		Practice Assignment	Chapter Level	

The students would get the following learning resources for every course /subject:

- Self-Learning Material
- E-Books
- Study Guide
- Practice Test through LMS – Gamified Module
- Audio / Video Component in Learning Management System - Tutorials
- Reference Material – Web Resources for research purpose
- Simulated Case Study
- FAQ and Misconceptions for each course/subject
- Self-Assessment Question (Essay Questions)
- Discussion Forums through LMS
- Live Interactive Synchronous Sessions would be conducted through the Learning Management System
- Assignments (MCQ based and Essay type submitted through Assignment Response Sheet with Plagiarism check provision)
- Virtual Lab provisions are made in LMS
- Project Guidelines
- Our State of art library, “The House of Wisdom” and additional obtainable amenities for education in distance mode shall be made available to distance learners also. Further, in order to successfully execute the programme, the provision for online access to various web based resources have been provided for research purpose for student in Online Mode.

Student Support:

Students would have the access to connect with university team for support services in case of any queries during the learning process. A ticketing system integrated on the university website would help the learner to connect with the university team for support services. A help desk for students would help the students to call / email and connect with our support team or communicate through ticketing system.

v. **Staff** : Apart from other staff members for the department, One Program Co-ordinator, Course Co-ordinator for each course and one mentor for every 250 students would be deployed for the said program.

vi. **Media**: Print, Audio/Video, Online & Student Support System.

vii. Program Structure and Credits Mapping :

Semester	Course Code	Paper	Credit	Contact Hours in ODL	Marks		
					Internal	External	Total
1	DCA - 101	Principle of Management	4	12	30	70	100
1	DCA - 102	Business Communication	4	12	30	70	100
1	DCA - 103	Discrete Mathematics	4	12	30	70	100
1	DCA - 104	C Programming	4	12	30	70	100
1	DCA - 105	Modern Operating Environment & M.S. Office	4	12	30	70	100
1	DCA - 106	E-Commerce Concepts	4	12	30	70	100
1	DCA - 107	Lab – C Programming	1	30	30	70	100
2	DCA - 108	Intro. To Database Management	4	12	30	70	100
2	DCA - 109	Introduction to Operating Systems	4	12	30	70	100
2	DCA - 110	Enterprise Resource Planning	4	12	30	70	100
2	DCA - 111	Computer Networks	4	12	30	70	100
2	DCA - 112	Data Structure Using C	4	12	30	70	100

2	DCA - 113	Lab - Data Structure Using C	1	30	30	70	100
2	DCA - 114	Environmental Science	4	12	30	70	100
3	DCA - 115	Object Oriented Programming using C++	4	12	30	70	100
3	DCA - 116	Software Engineering	4	12	30	70	100
3	DCA - 117	Advanced C Programming	4	12	30	70	100
3	DCA - 118	Java Programming	4	12	30	70	100
3	DCA - 119	RDBMS (Oracle)	4	12	30	70	100
3	DCA - 120	Software Deployment	4	12	30	70	100
3	DCA - 121	Lab – C++ and Java	1	30	30	70	100
4	DCA - 122	Introduction to Full Stack Development	4	12	30	70	100
4	DCA - 123	HTML, CSS and Javascript	4	12	30	70	100
4	DCA - 124	User Interface, Experience, Design	4	12	30	70	100
4	DCA - 125	Web Services, REST, API, Node JS Development	4	12	30	70	100
4	DCA - 126	Dot Net Programming in Visual Basics	4	12	30	70	100
4	DCA - 127	Advanced Java	4	12	30	70	100
4	DCA - 128	Lab- Dot Net and HTML	1	30	30	70	100
5	DCA - 129	Introduction to Artificial Intelligence	4	12	30	70	100
5	DCA - 130	Basic R Programming	4	12	30	70	100
5	DCA - 131	Math for Machine Learning	4	12	30	70	100
5	DCA - 132	Python Programming	4	12	30	70	100
5	DCA - 133	Data Analysis using SQL	4	12	30	70	100
5	DCA - 134	Machine Learning Algorithms	4	12	30	70	100

5	DCA - 135	Lab - Python Programming	1	30	30	70	100
6	DCA - 136	Business Application of Machine Learning	4	12	30	70	100
6	DCA - 137	Object Oriented Software Engineering	4	12	30	70	100
6	DCA - 138	Deep Learning	4	12	30	70	100
6	DCA - 139	Image Processing	4	12	30	70	100
6	DCA - 140	Data Visualisation in Python	4	12	30	70	100
6	DCA - 141	Lab – Data Visualization in Programming	1	30	30	70	100
6	DCA - 142	Project	6	24	30	70	100

* One Credit of Lab Course would have 30 hours of lab based practical. Similarly project work would need 30 hours of project based activities for project preparation.

Course delivery in case of Online Mode would be as per UGC norms.

(f). Procedure for Admissions, Curriculum transaction and Evaluation-:

The minimum eligibility for B.C.A. programme is 10+2 from any recognized Board with maths or statistics as one of the subject.

Students would need to complete the aadhar authentication process through web portal and submit the web application form along with all documents online; for verification and admission purpose.

Students would pay the fees through Online Payment Gateway through the web portal.

Post verification of documents the student would be provided with enrolment numbers. Admission Cycle and timelines as per UGC norms.

The curriculum is delivered through the Printed Self Learning Materials (SLMs) supported by various learning resources including audio-video aids through learning management system (as per four quadrant approach) along with the online contact hours with discussion forums

and synchronous live interactive sessions conducted through LMS as per the UGC norms for course delivery.

The evaluation and assessment of the admitted students to this program would be conducted based on their assignments and performance in the end semester examination.

Weightage for Continuous Evaluation – 30%

- Two assignments as part of continuous evaluation are required to be submitted by students. This is Aadhar based Authentication process wherein students need to validate before appearing for continuous evaluation. The subjective continuous assessments would have a plagiarism tool in LMS through which students need to submit their response sheet and only content with 10% similarity would be accepted for evaluation.

Weightage for Semester End Examination – 70%

- Semester end examinations are mix of subjective type and objective type of questions which students need to attempt.

Provision for Online Remote Proctored Assessments is done for Students opting for Online Programs along with all security features which includes image capturing of students during exams, navigation control for exam screen during exam apart from online proctor monitoring. Students from Rajasthan (under ODL mode) would give their exams from university campus.

Projects: Project in the Sixth Semester. Students shall be required to undergo one software development project by choosing a real-life problem from the Industry. The report will have an evaluation at the end of the semester.

Passing per subject:

For UG Program average of (Continuous and Semester End) would be 37% per subject

Grading system would be as per ongoing University practice as per the UGC norms.

Course Fee in ODL mode:

Fees in Lump Sum – Rs. 1,19,500/-

Fees in Instalment – Rs. 1,39,900/-

Course Fee in ODL mode:

Fees in Instalment - Rs. 1,39,900/-

(g). **Requirement of laboratory support and Library Resources:** The Students would have access to 4 well – equipped Computer Labs, each Lab housing top-of-the-line Computer systems.

The Central Library, christened as “House of Wisdom” has over 1.5 Lac. square feet plinth area stretched in four floors. It has escalator and elevator facilities for Library users. The Library has over 4 Million Print and E-Resources with subscription of DELNET, N-LIST and World eBook Library.

It’s the only Library with an Android Application of its own available on Google Play Store by the name “House of Wisdom”. It is completely digitized with KOHA. Approximately 500 users visit the Library per day

(h).. **Cost Estimate of the Program & the Provision:** The Estimated Cost & Budget is as follows (all figures on Annual basis) :

- i. Salaries : Rs. 30,00,000/- (Approx)
- ii. Travel : Rs. 30,000/- (Approx)
- iii. Seminars : Rs. 40,000/- (Approx)
- iv. SLM Preparation, Printing, Distribution : Rs. 3,00,000/- (Approx)
- v. Library : 1,25,000/- (Approx)
- vi. Courier/Transportation : Rs. 50,000/- (Approx)
- vii. Infrastructure : Rs. 1,50,000/- (Approx)
- viii. Computer Labs & Leased Line : Rs. 1,00,000/- (Approx)

(i). Quality Assurance Mechanism and expected program outcome:

The university has its established IQAC, which is responsible for assessing and monitoring the quality of the all the courses through monitoring, mentoring. The Quality Assurance Cell

includes the Deans of the different Faculty, Nominated Heads of the concerned departments. Student feedback mechanism through our support system and interaction with students would enable us to take corrective measures during the learning process. The program should equip the learners to effectively handle the corporate dynamism and professionally grow ahead in their career in technology space.