



## Faculty of Computer Applications & Information Technology

Formerly known as GLS Institute of Computer Applications (NAAC Accredited)

Bachelor of Computer Application (BCA)
Six Semesters Degree Course

# Pioneer IN Computer

Computer Science Education



### About GLS University

GLS university is a statutory state private university established by an Act of Gujarat State Assembly. GLS University is set up with the vision to benchmark global standards of education and create path breaking programmes in the areas of strategic importance not only to the country but also across the world. The university has initiated various innovative programmes in diverse areas of Management, Information Technology, Design, Communications, Social Sciences, Commerce etc. It offers programmes like BCA, iMSc(IT), PGDCA, MCA, MSc(IT), B. Design, M. Design, BBA, MBA, iMBA, B.Com, M.Com and Ph.D. With the view to provide impetus to research, the university intends to have research focus in its undergraduate and post graduate programmes.

GLS University, with its rich legacy of Gujarat Law Society, is now poised to become Gujarat's first globally relevant university, delivering quality education at affordable costs.

#### The Course Of BCA

Bachelor of Computer Applications (BCA) Course is a three years (six semesters) Under Graduate Programme based on Choice Based Credit System (CBCS). The Programme offers flexible and modern syllabus by where students are exposed to various areas of computer applications including the latest developments in the industry. BCA is customized for students wishing to excel in the field of Computer Science and Applications. The curriculum prepares students for a career in the fast lane of software development and programming. This course enables the students to stay updated about the latest advancements in technology and equips them with the required skills and knowledge to enter into the industry and carve a niche for themselves.

## GLS Institute Of Computer Applications

GLSICA offers comprehensive Undergraduate Computer Science program which integrates the best in academic and technological realms. Since its inception in the year 1999, GLSICA has become synonymous with practical, industry-focused education and attracts the best students from across the State. An institute that gives each student personalized attention so that they don't remain just a face in the crowd. The institute also lays strong emphasis on social values, so that students emerge as successful and ethical professionals as well as responsible human beings. The institute adorns a hi-tech environment that constantly exposes the learners to the latest technology. The spectrum of interactions and activities like Seminars, Workshops, Guest Lectures, Alumni Meet, Sports Meet, Educational Tours, Extension Activities, Cultural Activities etc. are regular features aiming at bringing an overall development of the students. This has been aptly incorporated in the vision and mission statements of the institute.



#### Salient Features

- Educational and operational credibility of over 18 years
- NAAC Accredited Institute
- Best-in-League Faculty Members
- Unique pedagogical approaches through ICT tools and technologies
- State-of-art Infrastructural Resources
- Excellent Placement support and guidance
- Emphasis on Proactive Learning
- Hands-on Practical Sessions
- Expert Guest Lectures, Seminars, Workshops for aptitude development
- Familiarizing students with the real life IT challenges through Industrial tours
- Extensive collection of books, E-resources, journals, periodicals and E-learning materials.

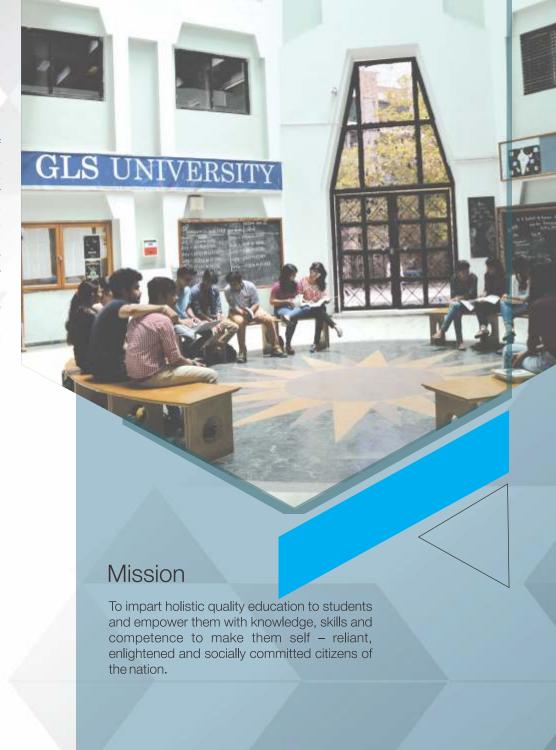
## **Future Opportunities**

Fast growing information & communication technology have become critical components of every company's strategic plans. This has opened up vast opportunities for professionals with technical expertise and insight of computer programming. BCA Course is structured to equip students to gain proficiency in various computer programming languages, develop problem solving aptitude and excel to solve practical problems arising from the industry – technology interface.

After the successful completion of BCA, the students will be availed with multiple options and opportunities to shape their careers in different roles like business analyst, data analyst, software programmer, network and/or system administrator, database administrator, web designer, web/multimedia programmer, trainer, computer scientist, information officer, information systems manager and others.



To promote academic excellence by providing quality education in an intellectually stimulating environment and sustaining the ethical and social morals of the individuals to enhance their quality of life.



## Infrastructural Resources















## Course Structure

#### **SEMESTER 1**

#### **Core Courses**

- Computer Fundamentals & Information Technology
- Logic Development & Programming
- Introduction to Internet & HTML
- Basics of Mathematics
- Practicals Based on LDP
- Practicals Based on HTML
- Open Source Operating System & BASE

#### **Foundation Course**

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• Communication Skills

#### Elective Course (Any One)

- Learning from World Leaders
- Culture & Civilization
- Health Education

#### **SEMESTER 2**

#### **Core Courses**

- Introduction to Object Oriented Programming
- Dynamic HTML
- Database Management System-I
- Computer Organization & Advanced Microprocessors
- Practicals Based on OOCP
- Practicals Based on DHTML
- Software Tools (Multimedia / Desktop Publishing)

#### Foundation Course (Any One)

- Fundamentals of Accounting
- General English
- Discrete Mathematics

#### **Elective Course**

Environmental Studies

#### **SEMESTER 3**

#### Core Courses

- Advanced Object Oriented Programming
- Data Structures

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- Database Management System-II
- Fundamentals of Operating System
- Practicals Based on AOOCP
- Practicals Based on DS
- Practicals Based on DBMS II

#### Foundation Course (Any One)

- Statistical Computing
- Visual And Windows Programming

#### Elective Course (Any One)

- Principles Management
- Soft Skills Development
- Introduction Indian Constitution
- Green Computing

#### **SEMESTER 4**

### **Core Courses**

- Core Java
- Introduction to XML
- Structured & Object Oriented Analysis & Design
- Data Communication & Networks
- Practicals Based on Core Java
- Practicals Based on XML
- Linux Shell Scripting

#### Foundation Course (Any One)

- E-Governance
- Introduction to Embedded Systems

#### **Elective Course (Any One)**

- Digital Marketing
- Gandhian Movement
- History of Gujarat & its Culture
- Disaster Management

#### **SEMESTER 5**

#### Core Courses

- Website Development Using PHP& MySQL
- Advanced Java

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- Practicals Based On PHP
- Practicals Based On Advanced JAVA
- Software Development Project I

#### Foundation Course (Any One)

- E-Commerce
- Operation Research

#### Core Elective Course (Any One)

- Website Development
- Software Project Management
- Introduction To Cloud Computing

#### **SEMESTER 6**

#### Core Courses

- Introduction To Python
- Information Security
- Practicals Based On Python
- Software Development Project II

#### Core Course (Any One)

- Mobile Application Development Using Android
- Mobile Application Development Using IOS

#### Foundation Course (Any One)

- Enterprise Resource Planning
- Management Information System

#### Core Elective Course (Any One)

- Website Frameworks I (Joomla)
- Website Frameworks II (Ruby On Rails)
- Introduction To Drupal

#### The Curriculum

BCA Course runs on Choice Based Credit System (CBCS). It is an instructional package developed to suit the needs of students to keep pace with the developments in higher education and the quality assurance expected of it in the light of liberalization and globalization in higher education. The subjects are categorized as:

- Core Courses (CCs) subjects related to the programme
- Core Elective Courses (CECs) subjects offered for specialization related to the programme
- Elective Courses (ECs) subjects offering students the chance to explore a topic more deeply
- Foundation Courses (FCs) subjects focusing on developing analytical and communicative skills

## Eligibility Criteria

- The applicant must have passed the Gujarat Higher Secondary Education Board(GHSEB)/ Central Board of Secondary Examination (CBSE) / Indian Council of Secondary Examination (ICSE) or its equivalent under the 10 + 2 pattern in General or Science stream during the current year with the following subjects:
  - English and
  - Any one of the following subjects:
    - **Mathematics**
    - **Statistics**
    - **Physics**
    - **Business Mathematics**
    - Elements of Accountancy
    - Computer
    - Elements of Book Keeping
- The candidate must have obtained the following minimum percentage of aggregate marks (i.e., total marks obtained divided by the maximum total marks admissible, including marks of all subjects, theory and practical):

For open category candidates : 45% For Reserved category candidates : 40%

#### **Placements**

GLSICA strives to make students capable and excel in the real world. The Placement cell at GLSICA is in continuous efforts to provide the student with best possible opportunities and provide them a chance to be eligible for the jobs in most efficient and reputed companies and at most appropriate job designations. Few of our recruiters are:

















## Alumni Speaks



GLS, the name is nostalgia! Go and ask any "GLSian" and you will understand that GLS is not just a college, it's a feeling. It marked the beginning of the journey that we are upon right now. All of my colleagues are champion of their field and it might not be limited to IT. GLSICA taught us the value of friendship, integrity, honour and most importantly sustainability. We are still close to our professors and we still reminisce the days we spent here.

- Ekta Vashishth Asst. Vice President at Astro Batch: 2007-2010



A students' career is very similar to a new born baby. It has to be moulded and nurtured properly to have a constant growth. With the updation in technology on daily basis, it becomes very difficult to sustain in the IT industry. At GLS, the course curriculum is at par with the industry standards and gets updated with new and upcoming technologies so by the time the student completes his/her college education would be well versed with the current technologies.

- Vishwanathan lyer Senior Software Engineer, Gateway Technolabs Batch: 2007-2010



GLS institute emerged my true ability. They gave me perfect freedom for focusing on niche subject. Always helping and supportive faculties' sparkled great confidence in me. I remember how faculties solved my doubts on project for hours, revamped my presentation. They set an habit in me to think out of the box.

- Manthan Thakkar Senior DBA & PL/SQL Developer, Sterlite Technologies Batch: 2005-2008

#### International Student Immersion Programme

The modern business dynamics demand for professionals with global perspective. GLS University has tied up with Georgian College, Barrie, Ontario, Canada, and California Baptist University, USA for Integrated Academic Learning. The goal of this academic component is to provide the students an integrated learning experience. These kind of programs helps students to broaden their global views. It also gives an individual the opportunity for personal growth, gain self-confidence and life experience along with earning extra credits.







## Teaching Support

The backbone of the institute is its faculty support that profess in academic delivery. The institute has a full strength faculty members with rich experience in teaching and imparting knowledge in variety of subjects prescribed in the syllabi. The faculty fully supports the students in carrying out software development projects as part of their study. Students are guided, mentored, motivated and encouraged by faculties to involve in experimentation and research activities. The variety of experience, diversifying culture and research perspective of the faculties make the environment of the institute stimulating and enhance the teaching learning experience of the students.

## Science Beyond Computer Applications

The institute always takes initiative to provide its students platform as well as opportunities to satisfy their inquisitiveness in exploring various application areas of theories being taught. Hence they are encouraged to do experimentation, development and demonstration of various real - life live projects such as Home Automation System, Obstacle Avoidance Robotic Vehicle, Line Following Robot, Smart Dustbin, Smart Car Model based on Arduino and Raspberry Pi.









#### **Events & Activities**









#### **Events & Activities**











# Faculty of Computer Applications & Information Technology – BCA Programme

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