



**Faculty of
Computer
Applications
& Information
Technology**

BACHELOR OF COMPUTER APPLICATIONS
(NAAC Accredited)
(BCA)

SIX-SEMESTERS DEGREE COURSE

Pioneer in Computer Science Education

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, Communications, Social Sciences, Commerce. Besides the existing programmes of B.C.A., iMSc(IT), M.C.A, MSc(IT), B.B.A., M.B.A., B.Com., M.Com., etc. offered by the various institutes under the umbrella of GLS university. The university is geared up to introduce pioneering undergraduate and post graduate programmes in the various disciplines. With a view to provide impetus to research, the university intends to have research focus in its undergraduate and post graduate programmes. Moreover, exclusive research degrees like M.Phil. and Ph. D. have also been introduced in various disciplines.

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

FACULTY OF COMPUTER APPLICATIONS & INFORMATION TECHNOLOGY (FCAIT)

FCAIT offers various technology oriented undergraduate and postgraduate courses with a unique fusion of technology, innovation and creativity. The institute provides conducive environment for students with different aptitudes and different educational experiences to benefit intellectually, academically and vocationally.

The institute aims at integrating various cutting-edge Open Source technologies that provide a wide scope for students to learn, engage & transform. The institute trains students to cater to the need of time and to be upgraded with the current trends and technologies and demonstrate intelligence, ingenuity, inventiveness and independence in all areas of endeavors.

The institute strives to impart quality education through Students' Engagement Tools such as blended learning, fruitful faculty-student interaction, engaging institute-industry interface, balanced mix of conceptual learning and practical demonstration, continuous evaluation, project-based learning and many more. The institute believes in providing an ambiance where a student can grow academically, emotionally and socially. The institute always aspires that its students must turn out as inquisitive minds, engaged citizens, dynamic professionals and well-rounded individuals.

FROM THE PRESIDENT'S DESK

Dear Prospective Student,

Greetings from GLS University!

At GLS University, we believe that it is not a crisis, but our response to it that defines us.

The COVID-19 global pandemic represents the most serious public health challenge that our country and the world have faced in a century. GLS University has been working tirelessly not only to help mitigate the effects of this crisis on the university community, but also to alleviate the suffering of the most vulnerable members of society.

Our constant concern from the beginning of the crisis has been the health, welfare and safety of the entire GLS University community. To this end we have taken a number of significant operational decisions.

Whilst we all are adapting to new norms of maintaining social distancing; GLS University is investing heavily into world-class ONLINE platforms and Learning Technologies that will ensure that the education delivery continues uninterrupted. This initiative would put our university at par with the leading global universities that have adopted to high-tech educational innovations enabling us in doing all academic tasks ONLINE such as:

- 1) **Conduct and Record Online Virtual Video Lectures**
- 2) **Arranging Online Exams, Presentations, Quizzes and Assignments**
- 3) **Enabling Online Group or Collaborative work**
- 4) **Online Query resolution**
- 5) **Online Grading, Feedback and Announcement of Results**

GLS University and on behalf of my staff members, we ensure a smooth educational journey during your programme tenure at GLS University.

As one of the most respected and long-standing institutions in Gujarat, GLS University has taken its responsibility very seriously. From donating Rs. 51 lakhs to the CM's Relief Fund, a comprehensive student benefit scheme/ scholarship for all deserving and needy students to reduce their financial hardship, special scholarship for COVID-19 affected students for the



academic year 2020-21, GLS University is doing its bit in line with our motto of "Learn, Love, Serve".

While there is still a lot of uncertainty about the coming months, our plans for the next academic year are based on two principles that remain completely certain:

- 1) first and foremost, to protect the health of our students to the best extent possible
- 2) to provide all of our students with an excellent academic experience

I want to provide a strong assurance that we shall be doing everything possible to safeguard the health of our community through fulfillment of all norms & safeguards in a campus and to maintain our high standards of excellence in teaching and learning.

No matter what, we are committed to educating all of our students in the upcoming new academic year, in VIRTUAL classrooms, and beyond the classroom. We are committed to a safe and enriching educational experience. We are committed to you.

Sudhir Nanavati

President, GLS University



ABOUT BCA



Bachelor of Computer Applications (BCA) Course is a three years (six semesters) Under Graduate Programme based on Choice Based Credit System (CBCS). The academic programme is intellectually designed to impart holistic education to broaden the technical, cultural and ethical dimensions of the students. BCA is customized for individuals wishing to excel in the field of Computer Science and Applications. This programme enables the students to stay updated about the latest advancements in the field of computer science and applications. BCA Programme 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.

The Programme offers syllabus fabricated to include latest advancements in technology and equips aspirants with the required skills and knowledge to enter into the industry and carve a niche. The curriculum exhibits intrinsic blend of contemporary subjects as Design Thinking, Python Programming, Introduction to Angular, Emerging Technologies, Embedded Systems, Drupal, Information Security as well as traditional subjects like Android / iOS Development, Website Frameworks, Cloud Computing, Digital Marketing, Publishing Tools and others.



FUTURE OPPORTUNITIES OF BCA

Rapidly progressing information & communication technologies have become crucial components in the strategic planning of every company. BCA programme at FCAIT opens up lanes to various opportunities to students who are always ready to learn and meet new challenges. The students will be availed with multiple options and opportunities to shape their careers in different roles:



Web Developer

Web Designer

Network Administrator

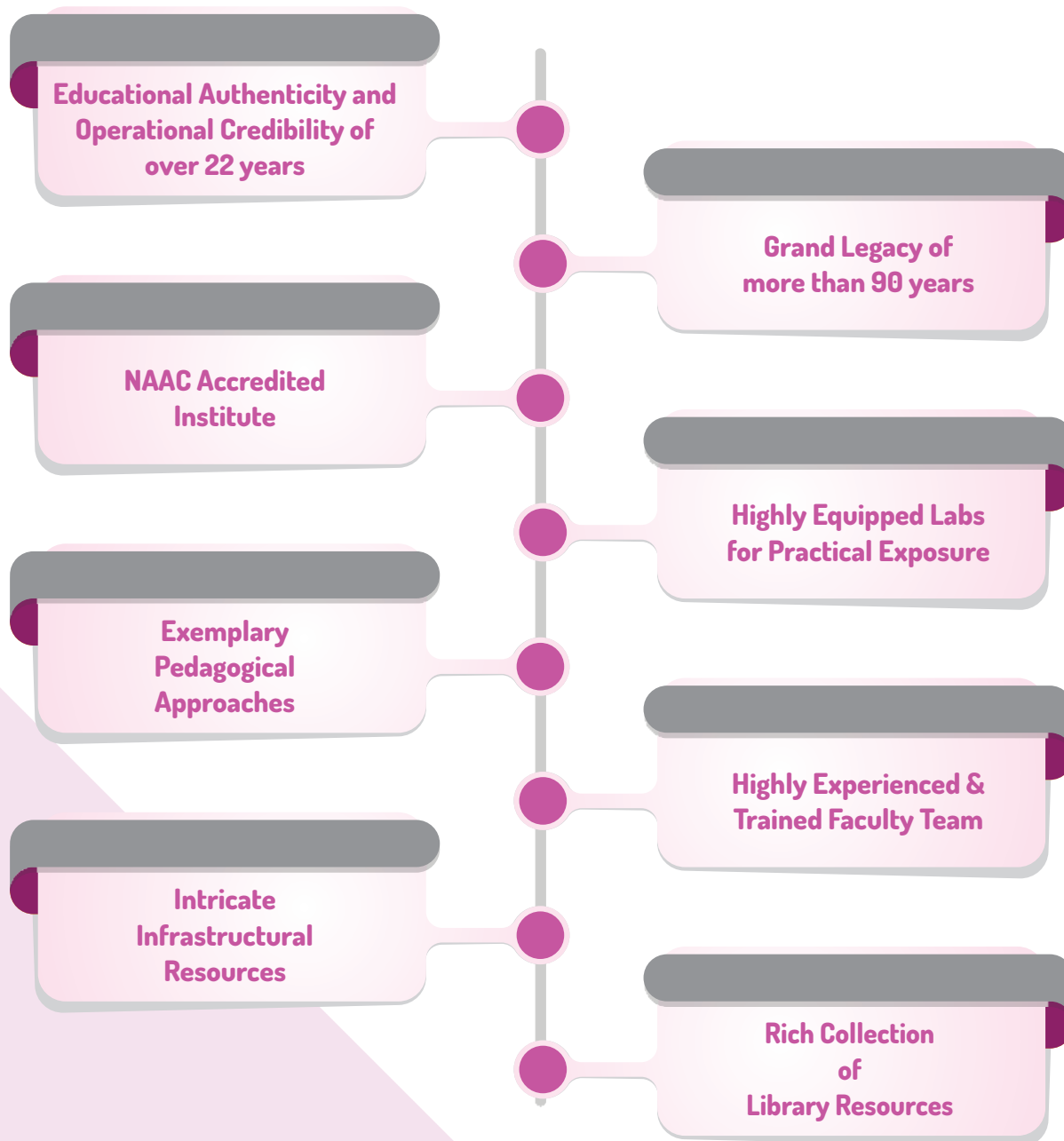
Computer Programmer

Software Developer

Software Tester

Data Analyst

DISTINCTIVE FEATURES OF FCAIT



ENRICHING TALENTS

1

Emphasis on Proactive Learning

2

Hands - on Practical Sessions for grounding the
Computer Science Fundamentals

3

Expert Guest Lectures, Seminars, Workshops for
Aptitude Development

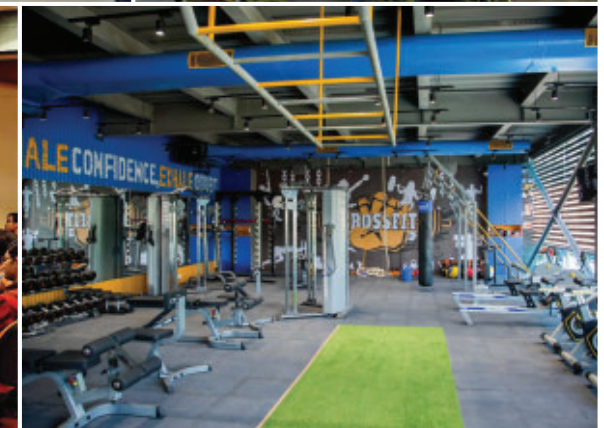
4

Acquaintance to the interdisciplinary challenges through
Industrial Visits & Educational Tours

5

Excellent Placement support & guidance

INFRASTRUCTURAL RESOURCES



HOLISTIC DEVELOPMENT



1st

Rank for Academic Excellence in Gujarat

Top
25

Amongst Top BCA Colleges in the All India Survey by India Today

1st

@35th West Zone Inter University Youth Festival,
Western Instrumental Solo

500+

Students Participating in Various Curricular and
Co-curricular Events

300+

Winners Shining @ Various Events

200+

Students Representing Institute @ Sports Events

CURRICULAR ACTIVITIES @ BCA



TECH TALKS

Stimulating Inquisitiveness through talks on Emerging Techs



CYBERSHADEZ

National Level Technical Festival for Stimulating Young Minds



EXPERT LECTURE SERIES

Guidance by Industry Experts on the Advancements in Technologies



INDUSTRIAL VISITS

Exploring Various Dimensions of Technology



EDUCATIONAL TOURS

Educational Tours to Gain Insight Beyond Textbooks



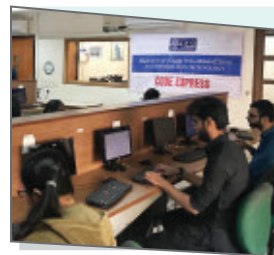
SEMINARS & WORKSHOPS

Seminars & Workshops covering different areas of Technology



LIVE PROJECTS

Develop Technological & Intellectual Abilities, Communication Skills and Teamwork Capabilities



CODE EXPRESS

Solving Code Challenges to enhance Programming Skills

CO-CURRICULAR ACTIVITIES @ BCA



YOUTH FESTIVAL

Celebrations of the Cultural Talent Pool



SHADEZ

Cultural Activities – Platform to Showcase Multifaceted Talent



ISR/ NSS

Awareness about Social Assets & Responsibility



CWDC

Awareness programmes for Women Development & Upliftment



SPORTS

Motivation for an All-Round Development



ALUMNI INTERACTION

Live Video Interaction With Alumni



DKOSMOS

Magazine to Showcase Literary Talents



ALUMNI MEET

Rekindling the Memories and Associating the Experiences

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.

All the foundational subjects are well covered with theoretical and practical exposure for skill development. Special emphasis is laid on implementations through Open Source Platforms as a vehicle for learning the Computer Science subjects.

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 interdisciplinary exposure

Foundation Courses (FCs)

subjects focusing on developing analytical and communicative skills



COURSE STRUCTURE

Semester I

Core Courses

- Computer Fundamentals & Information Technology
- Logic Development & Programming
- Introduction to HTML5
- Basics of Mathematics
- Practical on LDP
- Practical on HTML
- OSOS & Publishing Tools (Practical)

Foundation Course

Elective Course

Semester II

Core Courses

- Introduction to Object Oriented Programming
- Dynamic HTML
- Database Management System - I
- Computer Organization & Advanced Microprocessors
- Practical on IOOP
- Practical on DHTML
- Multimedia Tools (Practical)

Foundation Course

Elective Course

Semester III

Core Courses

- Advanced Object Oriented Programming
- Data Structures
- Database Management System - II
- Fundamentals of Operating System
- Practical on AOOD
- Practical on DS
- Practical on DBMS-II

Foundation Course

Elective Course

Semester IV

Core Courses

- Core Java
- Introduction To XML
- Structured & Object Oriented Analysis & Design
- Data Communication & Networks
- Practical on Core Java
- Practical on XML
- Linux Shell Scripting (Practical)

Foundation Course

Elective Course

Semester V

Core Courses

- Website Development Using PHP & MySQL
- Advanced Java
- Practical on PHP
- Practical on Advanced Java
- Software Development Project – I

Foundation Course

Core Elective Course

Semester VI

Core Courses

- Introduction to Python
- Information Security
- Practical on Python
- Software Development Project – II
- Mobile Application Development Using Android

or

Mobile Application Development using iOS

Foundation Course

Core Elective Course

Core Elective Courses

- Software Project Management
- Introduction to Cloud Computing
- Website Frameworks - I (Joomla)
- Website Frameworks - II (Ruby on Rails)
- Introduction to Drupal

Foundation Courses

- Communication Skills
- Fundamentals of Accounting
- Professional Communication in English
- Discrete Mathematics
- Statistics for Data Analysis
- Introduction to Angular
- E-Governance
- Introduction to Embedded Systems
- E-Commerce
- Operations Research
- Introduction to Web Services
- Enterprise Resource Planning
- Management Information System
- Emerging Technologies

Elective Courses

- Learning from World Leaders
- Culture & Civilization
- Health Education
- Gandhian Movement
- Environmental Studies
- Principles of Management
- Soft Skills Development
- Introduction to Indian Constitution
- Green Computing
- Digital Marketing
- History of Gujarat & Its Culture
- Disaster Management
- Design Thinking
- Stories from English Literature

ELIGIBILITY CRITERIA FOR ADMISSION

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:

(1) English and

(2) Any one of the following subjects:

- **Mathematics**
- **Physics**
- **Accountancy**
- **Accounting and Bookkeeping**
- **Statistics**
- **Business Mathematics**
- **Computer**

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%



PEDAGOGY



**Stimulating
Critical
Thinking**

**Application
Oriented
Pedagogies**

**Futuristic
Syllabi**

**Igniting
Innovations &
Creativity**

**Interdisciplinary
Skills
Development**

**Concrete
Industry -
Academia
Relationship**

**Counselling &
Career
Guidance**

HARDWARE EXPLORATION & EXPERIMENTATION

From personal wearables to city-controlled amenities, nearly everything seems to join the network of “Smart” devices. There is a constellation of objects and devices that can connect to the internet and to each other through IoT. With a profound goal to provoke deeper comprehension in various microcontroller units and single board computers that enable to construct IoT Projects, students are encouraged to explore Arduino & Raspberry Pi throughout the year.

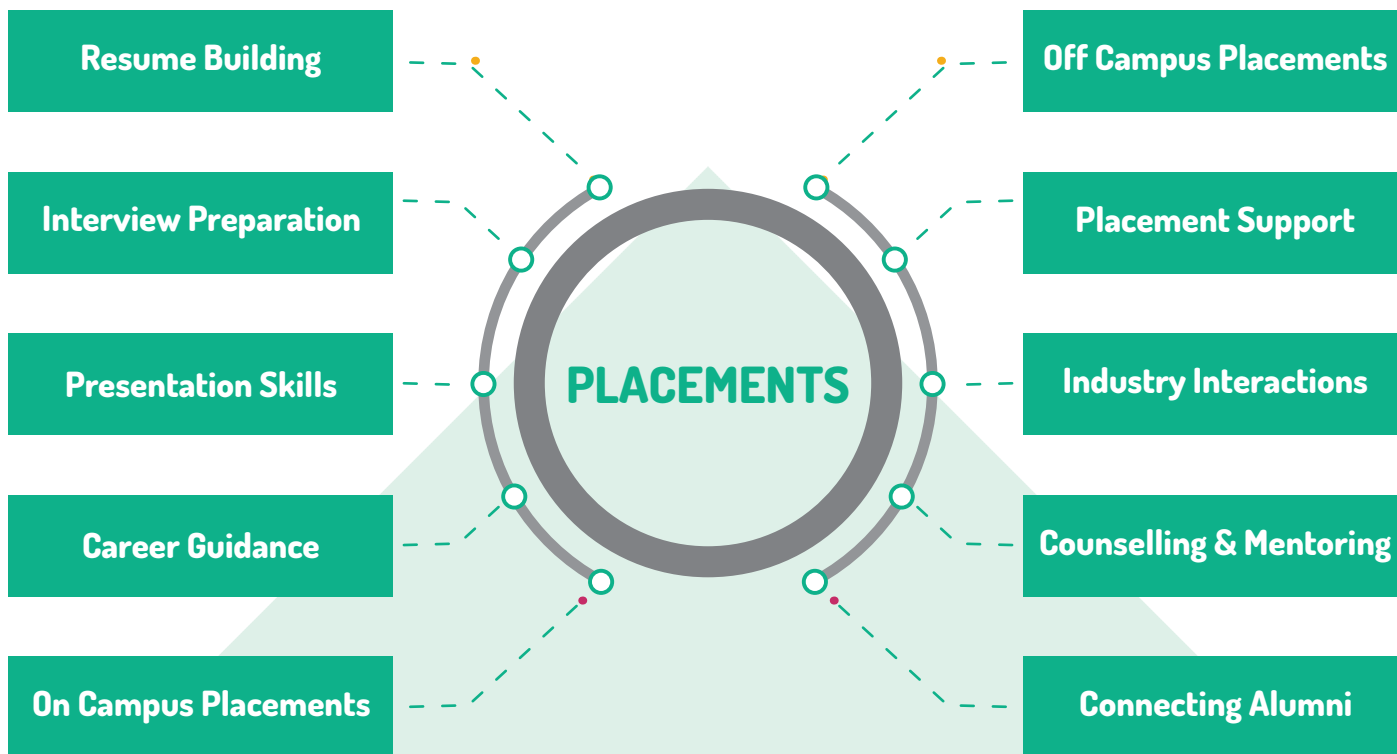


HACKATHON

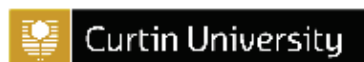
“Student Startup Innovation Policy (SSIP)” is pioneering series of interventions initiated by the Government of India. Gujarat Hackathon is an annual flagship program where young students can leverage their technical skills to solve real life challenges posed by various stakeholders. The institute motivates the budding talents on national platforms through government initiatives.



OUR RECRUITERS



INTERNATIONAL COLLABORATION





Promoted By: Gujarat Law Society, Since 1927

CONTACT DETAILS

Faculty of Computer Applications & Information Technology BCA Programme

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



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<http://fb.me/GLSUNIVERSITYBCA>

